Rapport modèles linéaires généralisés et Choix de modèles

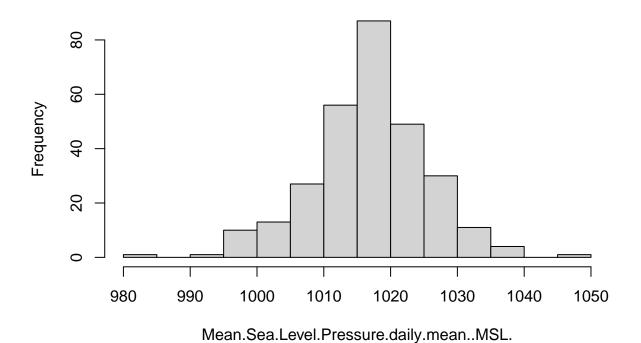
MAHAMAT HASSAN ISSA

2023-07-02

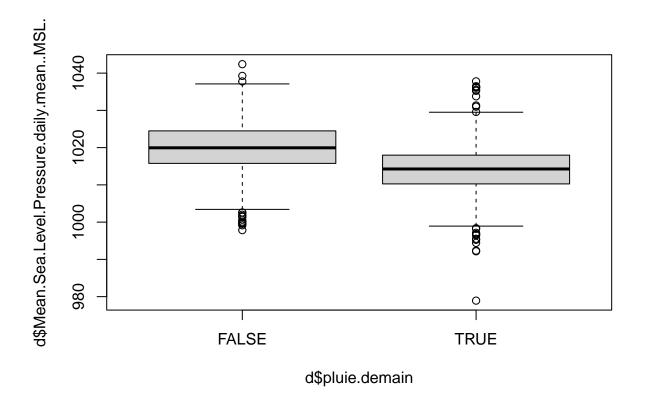
analyses descriptives

hist(Mean.Sea.Level.Pressure.daily.mean..MSL.)

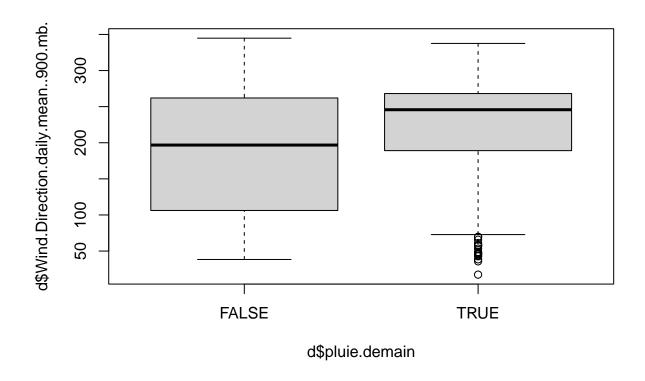
Histogram of Mean.Sea.Level.Pressure.daily.mean..MSL.



boxplot(d\$Mean.Sea.Level.Pressure.daily.mean..MSL. ~ d\$pluie.demain)



boxplot(d\$Wind.Direction.daily.mean..900.mb. ~ d\$pluie.demain)



On estime les paramètres beta, en utilisant uniquement la base d'entrainement:d

```
## Warning in predict.lm(object, newdata, se.fit, scale = 1, type = if (type == :
## les prédictions venant d'un modèle de rang faible peuvent être trompeuses
##
##
           FALSE TRUE
##
     FALSE
             421
                  158
     TRUE
                  464
##
             137
## [1] 0.25
matrice de confusion est de 25%
# choix automatique de modèle
m2=step(m1)
## Start: AIC=1322.4
## pluie.demain ~ X + Year + Month + Day + Hour + Minute + Temperature.daily.mean..2.m.above.gnd. +
##
       Relative. Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
```

```
Total.Cloud.Cover.daily.mean..sfc. + High.Cloud.Cover.daily.mean..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Low.Cloud.Cover.daily.mean..low.cld.lay. +
##
       Sunshine.Duration.daily.sum..sfc. + Shortwave.Radiation.daily.sum..sfc. +
##
##
       Wind.Speed.daily.mean..10.m.above.gnd. + Wind.Direction.daily.mean..10.m.above.gnd. +
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
       Wind.Gust.daily.mean..sfc. + Temperature.daily.max..2.m.above.gnd. +
       Temperature.daily.min..2.m.above.gnd. + Relative.Humidity.daily.max..2.m.above.gnd. +
##
       Relative.Humidity.daily.min..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.max..MSL. +
##
##
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
       High.Cloud.Cover.daily.min..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
##
       Medium.Cloud.Cover.daily.min..mid.cld.lay. + Low.Cloud.Cover.daily.max..low.cld.lay. +
##
       Low.Cloud.Cover.daily.min..low.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Speed.daily.max..80.m.above.gnd. +
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
##
##
       Wind.Speed.daily.min..900.mb. + Wind.Gust.daily.max..sfc. +
       Wind.Gust.daily.min..sfc.
##
##
##
## Step: AIC=1322.4
  pluie.demain ~ X + Year + Month + Day + Hour + Temperature.daily.mean..2.m.above.gnd. +
       Relative. Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
##
       Total.Cloud.Cover.daily.mean..sfc. + High.Cloud.Cover.daily.mean..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Low.Cloud.Cover.daily.mean..low.cld.lay. +
##
       Sunshine.Duration.daily.sum..sfc. + Shortwave.Radiation.daily.sum..sfc. +
       Wind.Speed.daily.mean..10.m.above.gnd. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
       Wind.Gust.daily.mean..sfc. + Temperature.daily.max..2.m.above.gnd. +
##
       Temperature.daily.min..2.m.above.gnd. + Relative.Humidity.daily.max..2.m.above.gnd. +
##
       Relative. Humidity.daily.min..2.m.above.gnd. + Mean. Sea. Level. Pressure.daily.max..MSL. +
##
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
##
       High.Cloud.Cover.daily.min..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
##
##
       Medium.Cloud.Cover.daily.min..mid.cld.lay. + Low.Cloud.Cover.daily.max..low.cld.lay. +
##
       Low.Cloud.Cover.daily.min..low.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Speed.daily.max..80.m.above.gnd. +
##
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
##
##
       Wind.Speed.daily.min..900.mb. + Wind.Gust.daily.max..sfc. +
##
       Wind.Gust.daily.min..sfc.
##
##
## Step: AIC=1322.4
  pluie.demain ~ X + Year + Month + Day + Temperature.daily.mean..2.m.above.gnd. +
       Relative. Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
##
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
       Total.Cloud.Cover.daily.mean..sfc. + High.Cloud.Cover.daily.mean..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Low.Cloud.Cover.daily.mean..low.cld.lay. +
##
       Sunshine.Duration.daily.sum..sfc. + Shortwave.Radiation.daily.sum..sfc. +
##
       Wind.Speed.daily.mean..10.m.above.gnd. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
```

```
##
       Wind.Gust.daily.mean..sfc. + Temperature.daily.max..2.m.above.gnd. +
##
       Temperature.daily.min..2.m.above.gnd. + Relative.Humidity.daily.max..2.m.above.gnd. +
       Relative.Humidity.daily.min..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.max..MSL. +
##
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
##
       High.Cloud.Cover.daily.min..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
##
       Medium.Cloud.Cover.daily.min..mid.cld.lay. + Low.Cloud.Cover.daily.max..low.cld.lay. +
##
       Low.Cloud.Cover.daily.min..low.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Speed.daily.max..80.m.above.gnd. +
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
##
##
       Wind.Speed.daily.min..900.mb. + Wind.Gust.daily.max..sfc. +
##
       Wind.Gust.daily.min..sfc.
##
                                                   Df Deviance
##
                                                                   AIC
## - Relative. Humidity.daily.max..2.m. above.gnd.
                                                        1232.4 1320.4
## - Low.Cloud.Cover.daily.min..low.cld.lay.
                                                    1
                                                        1232.4 1320.4
## - Temperature.daily.max..2.m.above.gnd.
                                                    1
                                                        1232.4 1320.4
## - Wind.Speed.daily.max..80.m.above.gnd.
                                                        1232.4 1320.4
                                                    1
## - Wind.Gust.daily.min..sfc.
                                                    1
                                                        1232.4 1320.4
## - Wind.Speed.daily.min..900.mb.
                                                        1232.5 1320.5
## - High.Cloud.Cover.daily.min..high.cld.lay.
                                                    1
                                                        1232.5 1320.5
## - Relative. Humidity.daily.min..2.m. above.gnd.
                                                        1232.5 1320.5
                                                    1
## - Shortwave.Radiation.daily.sum..sfc.
                                                        1232.6 1320.6
                                                    1
                                                        1232.6 1320.6
## - Day
                                                    1
## - Low.Cloud.Cover.daily.mean..low.cld.lay.
                                                    1
                                                        1232.6 1320.6
## - High.Cloud.Cover.daily.mean..high.cld.lay.
                                                    1
                                                        1232.6 1320.6
## - Sunshine.Duration.daily.sum..sfc.
                                                        1232.7 1320.7
                                                    1
## - Wind.Speed.daily.mean..10.m.above.gnd.
                                                    1
                                                        1232.7 1320.7
## - Wind.Gust.daily.mean..sfc.
                                                        1232.7 1320.7
                                                    1
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                        1232.7 1320.7
                                                    1
## - Year
                                                    1
                                                        1232.7 1320.7
## - X
                                                    1
                                                        1232.7 1320.7
## - Month
                                                        1232.7 1320.7
## - Relative.Humidity.daily.mean..2.m.above.gnd.
                                                        1232.8 1320.8
                                                    1
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1232.9 1320.9
                                                        1232.9 1320.9
## - Wind.Speed.daily.mean..900.mb.
                                                    1
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1233.1 1321.1
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                    1
                                                        1233.2 1321.2
## - Total.Precipitation.daily.sum..sfc.
                                                    1
                                                        1233.3 1321.3
## - Total.Cloud.Cover.daily.mean..sfc.
                                                    1
                                                        1233.4 1321.4
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                        1233.4 1321.4
                                                    1
## - Wind.Speed.daily.max..900.mb.
                                                    1
                                                        1233.6 1321.6
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1233.7 1321.7
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                        1233.8 1321.8
                                                    1
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                        1234.0 1322.0
## - Total.Cloud.Cover.daily.min..sfc.
                                                        1234.0 1322.0
                                                    1
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1234.0 1322.0
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1234.2 1322.2
## - Snowfall.amount.raw.daily.sum..sfc.
                                                        1234.3 1322.3
                                                        1232.4 1322.4
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1234.8 1322.8
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1235.0 1323.0
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1235.0 1323.0
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1236.2 1324.2
```

```
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                        1239.5 1327.5
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1244.7 1332.7
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1246.7 1334.7
                                                        1247.0 1335.0
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1252.9 1340.9
##
## Step: AIC=1320.4
## pluie.demain ~ X + Year + Month + Day + Temperature.daily.mean..2.m.above.gnd. +
##
       Relative. Humidity. daily. mean.. 2.m. above.gnd. + Mean. Sea. Level. Pressure. daily. mean.. MSL. +
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
##
       Total.Cloud.Cover.daily.mean..sfc. + High.Cloud.Cover.daily.mean..high.cld.lay. +
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Low.Cloud.Cover.daily.mean..low.cld.lay. +
##
       Sunshine.Duration.daily.sum..sfc. + Shortwave.Radiation.daily.sum..sfc. +
##
##
       Wind.Speed.daily.mean..10.m.above.gnd. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
       Wind.Gust.daily.mean..sfc. + Temperature.daily.max..2.m.above.gnd. +
       Temperature.daily.min..2.m.above.gnd. + Relative.Humidity.daily.min..2.m.above.gnd. +
##
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
##
##
       High.Cloud.Cover.daily.max..high.cld.lay. + High.Cloud.Cover.daily.min..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Medium.Cloud.Cover.daily.min..mid.cld.lay. +
       Low.Cloud.Cover.daily.max..low.cld.lay. + Low.Cloud.Cover.daily.min..low.cld.lay. +
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
##
       Wind.Speed.daily.max..80.m.above.gnd. + Wind.Speed.daily.min..80.m.above.gnd. +
##
##
       Wind.Speed.daily.max..900.mb. + Wind.Speed.daily.min..900.mb. +
##
       Wind.Gust.daily.max..sfc. + Wind.Gust.daily.min..sfc.
##
##
                                                   Df Deviance
                                                                   AIC
## - Low.Cloud.Cover.daily.min..low.cld.lay.
                                                        1232.4 1318.4
                                                    1
## - Temperature.daily.max..2.m.above.gnd.
                                                    1
                                                        1232.4 1318.4
## - Wind.Speed.daily.max..80.m.above.gnd.
                                                    1
                                                        1232.4 1318.4
## - Wind.Gust.daily.min..sfc.
                                                        1232.4 1318.4
## - Wind.Speed.daily.min..900.mb.
                                                    1
                                                        1232.5 1318.5
## - High.Cloud.Cover.daily.min..high.cld.lay.
                                                    1
                                                        1232.5 1318.5
                                                        1232.6 1318.6
## - Shortwave.Radiation.daily.sum..sfc.
                                                    1
## - Relative. Humidity.daily.min..2.m. above.gnd.
                                                        1232.6 1318.6
                                                    1
                                                        1232.6 1318.6
## - Low.Cloud.Cover.daily.mean..low.cld.lay.
                                                    1
                                                        1232.6 1318.6
## - High.Cloud.Cover.daily.mean..high.cld.lay.
                                                        1232.6 1318.6
                                                    1
## - Sunshine.Duration.daily.sum..sfc.
                                                        1232.7 1318.7
                                                    1
## - Wind.Speed.daily.mean..10.m.above.gnd.
                                                    1
                                                        1232.7 1318.7
## - Wind.Gust.daily.mean..sfc.
                                                    1
                                                        1232.7 1318.7
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                        1232.7 1318.7
                                                    1
## - Year
                                                    1
                                                        1232.7 1318.7
## - X
                                                        1232.7 1318.7
                                                    1
## - Month
                                                    1
                                                        1232.7 1318.7
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1232.9 1318.9
## - Wind.Speed.daily.mean..900.mb.
                                                    1
                                                        1232.9 1318.9
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                    1
                                                        1233.1 1319.1
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                    1
                                                        1233.2 1319.2
## - Total.Precipitation.daily.sum..sfc.
                                                    1
                                                        1233.3 1319.3
                                                        1233.4 1319.4
## - Total.Cloud.Cover.daily.mean..sfc.
                                                    1
## - Relative. Humidity.daily.mean.. 2.m. above.gnd.
                                                        1233.4 1319.4
```

```
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                        1233.4 1319.4
## - Wind.Speed.daily.max..900.mb.
                                                    1
                                                        1233.6 1319.6
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1233.7 1319.7
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                    1
                                                        1233.8 1319.8
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                        1234.0 1320.0
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1234.0 1320.0
## - Wind.Gust.daily.max..sfc.
                                                        1234.0 1320.0
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                        1234.2 1320.2
                                                    1
## - Snowfall.amount.raw.daily.sum..sfc.
                                                        1234.3 1320.3
## <none>
                                                        1232.4 1320.4
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1235.0 1321.0
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                    1
                                                        1235.0 1321.0
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1235.0 1321.0
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1236.2 1322.2
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                        1239.5 1325.5
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1244.7 1330.7
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1246.7 1332.7
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1247.0 1333.0
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1252.9 1338.9
## Step: AIC=1318.4
## pluie.demain ~ X + Year + Month + Day + Temperature.daily.mean..2.m.above.gnd. +
       Relative. Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
##
       Total.Cloud.Cover.daily.mean..sfc. + High.Cloud.Cover.daily.mean..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Low.Cloud.Cover.daily.mean..low.cld.lay. +
##
       Sunshine.Duration.daily.sum..sfc. + Shortwave.Radiation.daily.sum..sfc. +
       Wind.Speed.daily.mean..10.m.above.gnd. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
##
       Wind.Gust.daily.mean..sfc. + Temperature.daily.max..2.m.above.gnd. +
##
       Temperature.daily.min..2.m.above.gnd. + Relative.Humidity.daily.min..2.m.above.gnd. +
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
##
       High.Cloud.Cover.daily.max..high.cld.lay. + High.Cloud.Cover.daily.min..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Medium.Cloud.Cover.daily.min..mid.cld.lay. +
##
##
       Low.Cloud.Cover.daily.max..low.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Speed.daily.max..80.m.above.gnd. +
##
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
       Wind.Speed.daily.min..900.mb. + Wind.Gust.daily.max..sfc. +
##
##
       Wind.Gust.daily.min..sfc.
##
                                                   Df Deviance
                                                                  AIC
## - Temperature.daily.max..2.m.above.gnd.
                                                        1232.4 1316.4
                                                    1
## - Wind.Speed.daily.max..80.m.above.gnd.
                                                    1
                                                        1232.4 1316.4
## - Wind.Gust.daily.min..sfc.
                                                        1232.4 1316.4
                                                    1
## - Wind.Speed.daily.min..900.mb.
                                                    1
                                                        1232.5 1316.5
## - High.Cloud.Cover.daily.min..high.cld.lay.
                                                        1232.5 1316.5
## - Shortwave.Radiation.daily.sum..sfc.
                                                    1
                                                        1232.6 1316.6
## - Relative. Humidity.daily.min..2.m. above.gnd.
                                                    1
                                                        1232.6 1316.6
## - Day
                                                        1232.6 1316.6
                                                    1
## - Low.Cloud.Cover.daily.mean..low.cld.lay.
                                                    1
                                                        1232.6 1316.6
## - High.Cloud.Cover.daily.mean..high.cld.lay.
                                                    1
                                                        1232.6 1316.6
## - Sunshine.Duration.daily.sum..sfc.
                                                        1232.7 1316.7
```

```
## - Wind.Speed.daily.mean..10.m.above.gnd.
                                                        1232.7 1316.7
## - Wind.Gust.daily.mean..sfc.
                                                    1
                                                        1232.7 1316.7
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                        1232.7 1316.7
## - Year
                                                        1232.7 1316.7
## - X
                                                        1232.7 1316.7
## - Month
                                                    1
                                                        1232.7 1316.7
## - Total.Cloud.Cover.daily.max..sfc.
                                                        1232.9 1316.9
                                                    1
## - Wind.Speed.daily.mean..900.mb.
                                                    1
                                                        1232.9 1316.9
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                    1
                                                        1233.2 1317.2
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                    1
                                                        1233.2 1317.2
## - Total.Precipitation.daily.sum..sfc.
                                                    1
                                                        1233.4 1317.4
## - Total.Cloud.Cover.daily.mean..sfc.
                                                        1233.4 1317.4
                                                    1
## - Relative. Humidity.daily.mean.. 2.m. above.gnd.
                                                    1
                                                        1233.4 1317.4
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                        1233.4 1317.4
## - Wind.Speed.daily.max..900.mb.
                                                        1233.6 1317.6
                                                    1
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1233.7 1317.7
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                    1
                                                        1233.8 1317.8
## - Wind.Gust.daily.max..sfc.
                                                        1234.0 1318.0
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                        1234.0 1318.0
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1234.2 1318.2
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1234.3 1318.3
                                                        1232.4 1318.4
## - Temperature.daily.min..2.m.above.gnd.
                                                        1235.0 1319.0
                                                    1
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1235.0 1319.0
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1235.0 1319.0
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1235.4 1319.4
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1236.3 1320.3
                                                    1
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                        1239.5 1323.5
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1244.7 1328.7
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1246.7 1330.7
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1247.0 1331.0
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                    1
                                                        1253.0 1337.0
##
## Step: AIC=1316.41
   pluie.demain ~ X + Year + Month + Day + Temperature.daily.mean..2.m.above.gnd. +
##
       Relative. Humidity. daily. mean.. 2.m. above.gnd. + Mean. Sea. Level. Pressure. daily. mean.. MSL. +
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
##
       Total.Cloud.Cover.daily.mean..sfc. + High.Cloud.Cover.daily.mean..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Low.Cloud.Cover.daily.mean..low.cld.lay. +
       Sunshine.Duration.daily.sum..sfc. + Shortwave.Radiation.daily.sum..sfc. +
##
       Wind.Speed.daily.mean..10.m.above.gnd. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
##
       Wind.Gust.daily.mean..sfc. + Temperature.daily.min..2.m.above.gnd. +
       Relative. Humidity.daily.min..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.max..MSL. +
##
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
##
##
       High.Cloud.Cover.daily.min..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
       Medium.Cloud.Cover.daily.min..mid.cld.lay. + Low.Cloud.Cover.daily.max..low.cld.lay. +
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
##
       Wind.Speed.daily.max..80.m.above.gnd. + Wind.Speed.daily.min..80.m.above.gnd. +
##
       Wind.Speed.daily.max..900.mb. + Wind.Speed.daily.min..900.mb. +
##
##
       Wind.Gust.daily.max..sfc. + Wind.Gust.daily.min..sfc.
##
```

```
Df Deviance
                                                                   AIC
## - Wind.Speed.daily.max..80.m.above.gnd.
                                                        1232.4 1314.4
                                                    1
## - Wind.Gust.daily.min..sfc.
                                                        1232.5 1314.5
## - Wind.Speed.daily.min..900.mb.
                                                        1232.5 1314.5
                                                    1
## - High.Cloud.Cover.daily.min..high.cld.lay.
                                                    1
                                                        1232.5 1314.5
## - Relative. Humidity.daily.min..2.m.above.gnd.
                                                    1
                                                        1232.6 1314.6
## - Shortwave.Radiation.daily.sum..sfc.
                                                    1
                                                        1232.6 1314.6
## - Day
                                                    1
                                                        1232.6 1314.6
## - Low.Cloud.Cover.daily.mean..low.cld.lay.
                                                    1
                                                        1232.6 1314.6
## - High.Cloud.Cover.daily.mean..high.cld.lay.
                                                    1
                                                        1232.6 1314.6
## - Wind.Speed.daily.mean..10.m.above.gnd.
                                                    1
                                                        1232.7 1314.7
## - Sunshine.Duration.daily.sum..sfc.
                                                    1
                                                        1232.7 1314.7
## - Wind.Gust.daily.mean..sfc.
                                                    1
                                                        1232.7 1314.7
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                        1232.7 1314.7
## - Year
                                                        1232.7 1314.7
                                                    1
## - X
                                                    1
                                                        1232.7 1314.7
## - Month
                                                    1
                                                        1232.7 1314.7
## - Total.Cloud.Cover.daily.max..sfc.
                                                        1232.9 1314.9
## - Wind.Speed.daily.mean..900.mb.
                                                        1232.9 1314.9
                                                    1
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1233.2 1315.2
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                    1
                                                        1233.2 1315.2
## - Total.Precipitation.daily.sum..sfc.
                                                        1233.4 1315.4
## - Total.Cloud.Cover.daily.mean..sfc.
                                                        1233.4 1315.4
                                                    1
## - Relative. Humidity.daily.mean.. 2.m. above.gnd.
                                                        1233.4 1315.4
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                        1233.4 1315.4
## - Wind.Speed.daily.max..900.mb.
                                                    1
                                                        1233.6 1315.6
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                    1
                                                        1233.8 1315.8
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1234.0 1316.0
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                        1234.0 1316.0
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                        1234.2 1316.2
                                                    1
## - Snowfall.amount.raw.daily.sum..sfc.
                                                        1234.3 1316.3
## <none>
                                                        1232.4 1316.4
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1235.0 1317.0
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                        1235.1 1317.1
                                                    1
## - Total.Cloud.Cover.daily.min..sfc.
                                                        1235.4 1317.4
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1235.9 1317.9
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1236.3 1318.3
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1238.0 1320.0
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                        1239.5 1321.5
                                                    1
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1244.9 1326.9
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1247.0 1329.0
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1247.4 1329.4
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1253.4 1335.4
##
## Step: AIC=1314.43
## pluie.demain ~ X + Year + Month + Day + Temperature.daily.mean..2.m.above.gnd. +
##
       Relative.Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
       Total.Cloud.Cover.daily.mean..sfc. + High.Cloud.Cover.daily.mean..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Low.Cloud.Cover.daily.mean..low.cld.lay. +
##
       Sunshine.Duration.daily.sum..sfc. + Shortwave.Radiation.daily.sum..sfc. +
##
       Wind.Speed.daily.mean..10.m.above.gnd. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
```

```
##
       Wind.Gust.daily.mean..sfc. + Temperature.daily.min..2.m.above.gnd. +
##
       Relative. Humidity.daily.min..2.m.above.gnd. + Mean. Sea. Level. Pressure.daily.max..MSL. +
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
##
##
       High.Cloud.Cover.daily.min..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
       Medium.Cloud.Cover.daily.min..mid.cld.lay. + Low.Cloud.Cover.daily.max..low.cld.lay. +
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
##
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
##
##
       Wind.Speed.daily.min..900.mb. + Wind.Gust.daily.max..sfc. +
##
       Wind.Gust.daily.min..sfc.
##
##
                                                   Df Deviance
                                                                   AIC
## - Wind.Gust.daily.min..sfc.
                                                         1232.5 1312.5
                                                    1
## - Wind.Speed.daily.min..900.mb.
                                                         1232.5 1312.5
## - High.Cloud.Cover.daily.min..high.cld.lay.
                                                         1232.5 1312.5
                                                    1
## - Relative. Humidity.daily.min..2.m. above.gnd.
                                                         1232.6 1312.6
## - Shortwave.Radiation.daily.sum..sfc.
                                                    1
                                                         1232.6 1312.6
## - Day
                                                    1
                                                         1232.6 1312.6
## - Low.Cloud.Cover.daily.mean..low.cld.lay.
                                                         1232.7 1312.7
                                                    1
## - High.Cloud.Cover.daily.mean..high.cld.lay.
                                                         1232.7 1312.7
## - Sunshine.Duration.daily.sum..sfc.
                                                    1
                                                         1232.7 1312.7
## - Wind.Gust.daily.mean..sfc.
                                                         1232.7 1312.7
                                                    1
                                                         1232.7 1312.7
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                    1
## - Wind.Speed.daily.mean..10.m.above.gnd.
                                                         1232.7 1312.7
                                                    1
## - Year
                                                    1
                                                         1232.7 1312.7
## - X
                                                    1
                                                         1232.7 1312.7
## - Month
                                                         1232.7 1312.7
                                                    1
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                         1232.9 1312.9
## - Wind.Speed.daily.mean..900.mb.
                                                         1232.9 1312.9
                                                    1
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                         1233.2 1313.2
                                                    1
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                    1
                                                         1233.2 1313.2
## - Total.Precipitation.daily.sum..sfc.
                                                    1
                                                        1233.4 1313.4
## - Total.Cloud.Cover.daily.mean..sfc.
                                                         1233.4 1313.4
## - Relative.Humidity.daily.mean..2.m.above.gnd.
                                                         1233.5 1313.5
                                                    1
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                         1233.5 1313.5
                                                        1233.6 1313.6
## - Wind.Speed.daily.max..900.mb.
                                                    1
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                         1233.9 1313.9
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                         1234.2 1314.2
## - Snowfall.amount.raw.daily.sum..sfc.
                                                         1234.3 1314.3
                                                    1
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                         1234.4 1314.4
## <none>
                                                         1232.4 1314.4
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                         1234.6 1314.6
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                    1
                                                         1235.1 1315.1
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                         1235.4 1315.4
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                         1235.9 1315.9
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                         1236.4 1316.4
                                                    1
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                         1236.8 1316.8
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                         1238.1 1318.1
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                         1239.7 1319.7
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                         1244.9 1324.9
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                         1247.0 1327.0
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                         1247.4 1327.4
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                    1
                                                         1253.5 1333.5
```

##

```
## Step: AIC=1312.47
## pluie.demain ~ X + Year + Month + Day + Temperature.daily.mean..2.m.above.gnd. +
       Relative.Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
##
       Total.Cloud.Cover.daily.mean..sfc. + High.Cloud.Cover.daily.mean..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Low.Cloud.Cover.daily.mean..low.cld.lay. +
       Sunshine.Duration.daily.sum..sfc. + Shortwave.Radiation.daily.sum..sfc. +
##
       Wind.Speed.daily.mean..10.m.above.gnd. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
       Wind.Gust.daily.mean..sfc. + Temperature.daily.min..2.m.above.gnd. +
##
       Relative. Humidity.daily.min..2.m.above.gnd. + Mean. Sea. Level. Pressure.daily.max..MSL. +
##
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
##
##
       High.Cloud.Cover.daily.min..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
##
       Medium.Cloud.Cover.daily.min..mid.cld.lay. + Low.Cloud.Cover.daily.max..low.cld.lay. +
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
##
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
##
       Wind.Speed.daily.min..900.mb. + Wind.Gust.daily.max..sfc.
##
##
                                                   Df Deviance
                                                                   AIC
## - Wind.Speed.daily.min..900.mb.
                                                        1232.5 1310.5
## - High.Cloud.Cover.daily.min..high.cld.lay.
                                                    1
                                                        1232.6 1310.6
## - Relative. Humidity.daily.min..2.m.above.gnd.
                                                        1232.6 1310.6
## - Shortwave.Radiation.daily.sum..sfc.
                                                    1
                                                        1232.7 1310.7
                                                    1
                                                        1232.7 1310.7
## - Low.Cloud.Cover.daily.mean..low.cld.lay.
                                                        1232.7 1310.7
                                                    1
## - High.Cloud.Cover.daily.mean..high.cld.lay.
                                                    1
                                                        1232.7 1310.7
## - Sunshine.Duration.daily.sum..sfc.
                                                        1232.7 1310.7
                                                    1
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                        1232.8 1310.8
                                                    1
## - Year
                                                    1
                                                        1232.8 1310.8
## - X
                                                    1
                                                        1232.8 1310.8
## - Month
                                                    1
                                                        1232.8 1310.8
## - Wind.Speed.daily.mean..10.m.above.gnd.
                                                    1
                                                        1232.8 1310.8
## - Wind.Gust.daily.mean..sfc.
                                                        1232.9 1310.9
## - Wind.Speed.daily.mean..900.mb.
                                                    1
                                                        1233.0 1311.0
## - Total.Cloud.Cover.daily.max..sfc.
                                                        1233.0 1311.0
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1233.2 1311.2
                                                    1
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                    1
                                                        1233.2 1311.2
## - Total.Precipitation.daily.sum..sfc.
                                                    1
                                                        1233.4 1311.4
## - Total.Cloud.Cover.daily.mean..sfc.
                                                        1233.5 1311.5
## - Relative. Humidity.daily.mean.. 2.m. above.gnd.
                                                        1233.5 1311.5
                                                    1
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                    1
                                                        1233.5 1311.5
## - Wind.Speed.daily.max..900.mb.
                                                        1233.6 1311.6
                                                    1
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                    1
                                                        1234.0 1312.0
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                        1234.2 1312.2
                                                    1
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1234.4 1312.4
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1234.4 1312.4
## <none>
                                                        1232.5 1312.5
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                        1234.7 1312.7
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                    1
                                                        1235.1 1313.1
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1235.5 1313.5
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1236.0 1314.0
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1236.4 1314.4
```

```
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                        1236.9 1314.9
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1238.2 1316.2
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                        1240.8 1318.8
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1244.9 1322.9
## - Wind.Direction.daily.mean..900.mb.
                                                        1247.0 1325.0
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1247.4 1325.4
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1253.5 1331.5
##
## Step: AIC=1310.51
  pluie.demain ~ X + Year + Month + Day + Temperature.daily.mean..2.m.above.gnd. +
       Relative. Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
##
       Total.Cloud.Cover.daily.mean..sfc. + High.Cloud.Cover.daily.mean..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Low.Cloud.Cover.daily.mean..low.cld.lay. +
##
       Sunshine.Duration.daily.sum..sfc. + Shortwave.Radiation.daily.sum..sfc. +
##
       Wind.Speed.daily.mean..10.m.above.gnd. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
       Wind.Gust.daily.mean..sfc. + Temperature.daily.min..2.m.above.gnd. +
##
       Relative. Humidity.daily.min..2.m.above.gnd. + Mean. Sea. Level. Pressure.daily.max.. MSL. +
##
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
       High.Cloud.Cover.daily.min..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
##
       Medium.Cloud.Cover.daily.min..mid.cld.lay. + Low.Cloud.Cover.daily.max..low.cld.lay. +
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
##
##
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
##
       Wind.Gust.daily.max..sfc.
##
##
                                                   Df Deviance
                                                                   AIC
## - High.Cloud.Cover.daily.min..high.cld.lay.
                                                        1232.6 1308.6
                                                    1
## - Relative. Humidity.daily.min..2.m.above.gnd.
                                                        1232.7 1308.7
## - Shortwave.Radiation.daily.sum..sfc.
                                                    1
                                                        1232.7 1308.7
                                                        1232.7 1308.7
## - Low.Cloud.Cover.daily.mean..low.cld.lay.
                                                        1232.7 1308.7
                                                    1
## - High.Cloud.Cover.daily.mean..high.cld.lay.
                                                        1232.7 1308.7
                                                        1232.8 1308.8
## - Sunshine.Duration.daily.sum..sfc.
                                                    1
## - Year
                                                        1232.8 1308.8
## - X
                                                    1
                                                        1232.8 1308.8
## - Month
                                                        1232.8 1308.8
                                                    1
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                        1232.8 1308.8
                                                    1
## - Wind.Speed.daily.mean..10.m.above.gnd.
                                                        1232.8 1308.8
## - Wind.Gust.daily.mean..sfc.
                                                    1
                                                        1232.9 1308.9
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1233.0 1309.0
## - Wind.Speed.daily.mean..900.mb.
                                                        1233.2 1309.2
                                                    1
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                    1
                                                        1233.3 1309.3
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1233.3 1309.3
                                                    1
## - Total.Precipitation.daily.sum..sfc.
                                                    1
                                                        1233.5 1309.5
## - Total.Cloud.Cover.daily.mean..sfc.
                                                    1
                                                        1233.5 1309.5
## - Relative.Humidity.daily.mean..2.m.above.gnd.
                                                    1
                                                        1233.5 1309.5
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                    1
                                                        1233.6 1309.6
## - Wind.Speed.daily.max..900.mb.
                                                    1
                                                        1233.8 1309.8
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                    1
                                                        1234.0 1310.0
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                        1234.3 1310.3
## - Snowfall.amount.raw.daily.sum..sfc.
                                                        1234.4 1310.4
```

```
## - Wind.Gust.daily.max..sfc.
                                                        1234.5 1310.5
## <none>
                                                        1232.5 1310.5
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                        1234.7 1310.7
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1235.2 1311.2
## - Total.Cloud.Cover.daily.min..sfc.
                                                        1235.6 1311.6
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1236.1 1312.1
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                    1
                                                        1236.4 1312.4
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1237.0 1313.0
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1238.2 1314.2
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                        1240.8 1316.8
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1245.1 1321.1
## - Wind.Direction.daily.mean..900.mb.
                                                        1247.1 1323.1
                                                    1
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1247.5 1323.5
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1253.6 1329.6
                                                    1
##
## Step: AIC=1308.6
   pluie.demain ~ X + Year + Month + Day + Temperature.daily.mean..2.m.above.gnd. +
       Relative. Humidity.daily.mean..2.m.above.gnd. + Mean. Sea. Level. Pressure.daily.mean..MSL. +
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
       Total.Cloud.Cover.daily.mean..sfc. + High.Cloud.Cover.daily.mean..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Low.Cloud.Cover.daily.mean..low.cld.lay. +
##
       Sunshine.Duration.daily.sum..sfc. + Shortwave.Radiation.daily.sum..sfc. +
##
       Wind.Speed.daily.mean..10.m.above.gnd. + Wind.Direction.daily.mean..10.m.above.gnd. +
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
       Wind.Gust.daily.mean..sfc. + Temperature.daily.min..2.m.above.gnd. +
##
       Relative. Humidity.daily.min..2.m.above.gnd. + Mean. Sea. Level. Pressure.daily.max.. MSL. +
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Medium.Cloud.Cover.daily.min..mid.cld.lay. +
##
       Low.Cloud.Cover.daily.max..low.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Speed.daily.min..80.m.above.gnd. +
##
       Wind.Speed.daily.max..900.mb. + Wind.Gust.daily.max..sfc.
##
                                                   Df Deviance
                                                                   AIC
## - High.Cloud.Cover.daily.mean..high.cld.lay.
                                                        1232.8 1306.8
                                                    1
## - Shortwave.Radiation.daily.sum..sfc.
                                                        1232.8 1306.8
## - Relative. Humidity.daily.min..2.m.above.gnd.
                                                        1232.8 1306.8
                                                    1
## - Day
                                                        1232.8 1306.8
                                                    1
## - Low.Cloud.Cover.daily.mean..low.cld.lay.
                                                        1232.8 1306.8
                                                    1
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                        1232.8 1306.8
                                                    1
## - Sunshine.Duration.daily.sum..sfc.
                                                        1232.9 1306.9
                                                    1
## - Year
                                                    1
                                                        1232.9 1306.9
## - X
                                                    1
                                                        1232.9 1306.9
## - Month
                                                    1
                                                        1232.9 1306.9
## - Wind.Speed.daily.mean..10.m.above.gnd.
                                                        1232.9 1306.9
                                                    1
## - Wind.Gust.daily.mean..sfc.
                                                    1
                                                        1233.0 1307.0
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1233.1 1307.1
## - Wind.Speed.daily.mean..900.mb.
                                                    1
                                                        1233.3 1307.3
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                    1
                                                        1233.3 1307.3
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                    1
                                                        1233.3 1307.3
## - Total.Precipitation.daily.sum..sfc.
                                                    1
                                                        1233.5 1307.5
## - Total.Cloud.Cover.daily.mean..sfc.
                                                    1
                                                        1233.6 1307.6
## - Relative. Humidity.daily.mean.. 2.m. above.gnd.
                                                        1233.6 1307.6
```

```
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                        1233.7 1307.7
## - Wind.Speed.daily.max..900.mb.
                                                    1
                                                        1233.8 1307.8
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                    1
                                                        1234.0 1308.0
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                        1234.4 1308.4
## - Snowfall.amount.raw.daily.sum..sfc.
                                                        1234.5 1308.5
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1234.6 1308.6
                                                        1232.6 1308.6
## <none>
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1234.8 1308.8
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                    1
                                                        1235.3 1309.3
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1235.7 1309.7
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1236.1 1310.1
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1236.6 1310.6
                                                    1
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1237.1 1311.1
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1238.3 1312.3
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                        1241.0 1315.0
                                                    1
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1245.2 1319.2
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1247.3 1321.3
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                        1247.6 1321.6
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1253.7 1327.7
## Step: AIC=1306.75
## pluie.demain ~ X + Year + Month + Day + Temperature.daily.mean..2.m.above.gnd. +
       Relative.Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
       Total.Cloud.Cover.daily.mean..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
##
##
       Low.Cloud.Cover.daily.mean..low.cld.lay. + Sunshine.Duration.daily.sum..sfc. +
##
       Shortwave.Radiation.daily.sum..sfc. + Wind.Speed.daily.mean..10.m.above.gnd. +
       Wind.Direction.daily.mean..10.m.above.gnd. + Wind.Speed.daily.mean..80.m.above.gnd. +
##
##
       Wind.Direction.daily.mean..80.m.above.gnd. + Wind.Speed.daily.mean..900.mb. +
       Wind.Direction.daily.mean..900.mb. + Wind.Gust.daily.mean..sfc. +
##
##
       Temperature.daily.min..2.m.above.gnd. + Relative.Humidity.daily.min..2.m.above.gnd. +
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
##
##
       High.Cloud.Cover.daily.max..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
       Medium.Cloud.Cover.daily.min..mid.cld.lay. + Low.Cloud.Cover.daily.max..low.cld.lay. +
##
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
##
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
##
       Wind.Gust.daily.max..sfc.
##
                                                   Df Deviance
                                                                  AIC
## - Low.Cloud.Cover.daily.mean..low.cld.lay.
                                                        1232.9 1304.9
                                                        1232.9 1304.9
## - Relative. Humidity.daily.min..2.m. above.gnd.
## - Dav
                                                        1232.9 1304.9
## - Shortwave.Radiation.daily.sum..sfc.
                                                        1233.0 1305.0
                                                    1
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                    1
                                                        1233.0 1305.0
## - Year
                                                        1233.0 1305.0
                                                    1
## - X
                                                    1
                                                        1233.0 1305.0
## - Sunshine.Duration.daily.sum..sfc.
                                                    1
                                                        1233.0 1305.0
## - Month
                                                    1
                                                        1233.0 1305.0
## - Wind.Speed.daily.mean..10.m.above.gnd.
                                                    1
                                                        1233.1 1305.1
## - Wind.Gust.daily.mean..sfc.
                                                    1
                                                        1233.2 1305.2
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1233.2 1305.2
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                    1
                                                        1233.4 1305.4
## - Wind.Speed.daily.mean..900.mb.
                                                        1233.4 1305.4
```

```
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                        1233.5 1305.5
## - Total.Cloud.Cover.daily.mean..sfc.
                                                    1
                                                        1233.6 1305.6
## - Total.Precipitation.daily.sum..sfc.
                                                        1233.7 1305.7
## - Relative. Humidity.daily.mean.. 2.m. above.gnd.
                                                        1233.7 1305.7
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                        1233.8 1305.8
## - Wind.Speed.daily.max..900.mb.
                                                    1
                                                        1234.0 1306.0
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                        1234.1 1306.1
                                                    1
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                        1234.6 1306.6
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1234.6 1306.6
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1234.7 1306.7
## <none>
                                                        1232.8 1306.8
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1234.9 1306.9
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1235.4 1307.4
                                                    1
## - Total.Cloud.Cover.daily.min..sfc.
                                                        1235.8 1307.8
                                                    1
## - Temperature.daily.min..2.m.above.gnd.
                                                        1236.2 1308.2
                                                    1
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1237.3 1309.3
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                    1
                                                        1237.3 1309.3
## - Temperature.daily.mean..2.m.above.gnd.
                                                        1238.3 1310.3
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                        1241.2 1313.2
                                                    1
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1245.4 1317.4
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1247.4 1319.4
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                        1247.8 1319.8
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1253.8 1325.8
                                                    1
##
## Step: AIC=1304.89
  pluie.demain ~ X + Year + Month + Day + Temperature.daily.mean..2.m.above.gnd. +
##
       Relative. Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
##
       Total.Cloud.Cover.daily.mean..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
##
       Sunshine.Duration.daily.sum..sfc. + Shortwave.Radiation.daily.sum..sfc. +
##
       Wind.Speed.daily.mean..10.m.above.gnd. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
       Wind.Gust.daily.mean..sfc. + Temperature.daily.min..2.m.above.gnd. +
       Relative. Humidity.daily.min..2.m.above.gnd. + Mean. Sea. Level. Pressure.daily.max..MSL. +
##
##
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Medium.Cloud.Cover.daily.min..mid.cld.lay. +
##
       Low.Cloud.Cover.daily.max..low.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Speed.daily.min..80.m.above.gnd. +
       Wind.Speed.daily.max..900.mb. + Wind.Gust.daily.max..sfc.
##
##
                                                   Df Deviance
                                                                   AIC
## - Relative. Humidity.daily.min..2.m. above.gnd.
                                                        1233.0 1303.0
                                                    1
## - Sunshine.Duration.daily.sum..sfc.
                                                    1
                                                        1233.1 1303.1
## - Day
                                                        1233.1 1303.1
                                                    1
## - Shortwave.Radiation.daily.sum..sfc.
                                                    1
                                                        1233.2 1303.2
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                    1
                                                        1233.2 1303.2
## - Year
                                                    1
                                                        1233.2 1303.2
## - X
                                                    1
                                                        1233.2 1303.2
## - Month
                                                        1233.2 1303.2
                                                    1
## - Wind.Speed.daily.mean..10.m.above.gnd.
                                                    1
                                                        1233.2 1303.2
## - Wind.Gust.daily.mean..sfc.
                                                    1
                                                        1233.3 1303.3
## - Total.Cloud.Cover.daily.max..sfc.
                                                        1233.5 1303.5
```

```
## - Wind.Speed.daily.mean..900.mb.
                                                        1233.5 1303.5
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                    1
                                                        1233.5 1303.5
                                                        1233.7 1303.7
## - Total.Precipitation.daily.sum..sfc.
## - Relative. Humidity.daily.mean..2.m.above.gnd.
                                                        1233.8 1303.8
                                                    1
## - Total.Cloud.Cover.daily.mean..sfc.
                                                        1233.9 1303.9
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                        1233.9 1303.9
                                                    1
## - Wind.Speed.daily.max..900.mb.
                                                        1234.1 1304.1
                                                    1
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                    1
                                                        1234.1 1304.1
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                    1
                                                        1234.5 1304.5
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                        1234.7 1304.7
## - Wind.Gust.daily.max..sfc.
                                                        1234.8 1304.8
## - Snowfall.amount.raw.daily.sum..sfc.
                                                        1234.8 1304.8
## <none>
                                                        1232.9 1304.9
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                        1235.0 1305.0
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1235.5 1305.5
                                                    1
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1235.8 1305.8
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1236.3 1306.3
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1237.4 1307.4
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                    1
                                                        1237.5 1307.5
## - Temperature.daily.mean..2.m.above.gnd.
                                                        1238.4 1308.4
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                        1241.2 1311.2
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                        1245.6 1315.6
## - Wind.Direction.daily.mean..900.mb.
                                                        1247.5 1317.5
                                                    1
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                        1248.2 1318.2
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                    1
                                                        1254.5 1324.5
## Step: AIC=1303.04
   pluie.demain ~ X + Year + Month + Day + Temperature.daily.mean..2.m.above.gnd. +
       Relative. Humidity.daily.mean..2.m.above.gnd. + Mean. Sea. Level. Pressure.daily.mean..MSL. +
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
       Total.Cloud.Cover.daily.mean..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
##
       Sunshine.Duration.daily.sum..sfc. + Shortwave.Radiation.daily.sum..sfc. +
##
       Wind.Speed.daily.mean..10.m.above.gnd. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
       Wind.Gust.daily.mean..sfc. + Temperature.daily.min..2.m.above.gnd. +
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
##
       High.Cloud.Cover.daily.max..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
       Medium.Cloud.Cover.daily.min..mid.cld.lay. + Low.Cloud.Cover.daily.max..low.cld.lay. +
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
##
##
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
##
       Wind.Gust.daily.max..sfc.
##
                                                   Df Deviance
                                                                  AIC
## - Day
                                                        1233.3 1301.3
                                                    1
## - Sunshine.Duration.daily.sum..sfc.
                                                    1
                                                        1233.3 1301.3
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                        1233.3 1301.3
## - Shortwave.Radiation.daily.sum..sfc.
                                                    1
                                                        1233.3 1301.3
## - Year
                                                    1
                                                        1233.4 1301.4
## - X
                                                    1
                                                        1233.4 1301.4
## - Month
                                                    1
                                                        1233.4 1301.4
## - Wind.Speed.daily.mean..10.m.above.gnd.
                                                    1
                                                        1233.4 1301.4
## - Wind.Gust.daily.mean..sfc.
                                                        1233.5 1301.5
```

```
## - Wind.Speed.daily.mean..900.mb.
                                                        1233.7 1301.7
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1233.7 1301.7
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                        1233.7 1301.7
## - Total.Precipitation.daily.sum..sfc.
                                                        1233.8 1301.8
                                                    1
## - Total.Cloud.Cover.daily.mean..sfc.
                                                        1234.0 1302.0
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                    1
                                                        1234.1 1302.1
## - Relative. Humidity.daily.mean.. 2.m. above.gnd.
                                                        1234.2 1302.2
## - Wind.Speed.daily.max..900.mb.
                                                        1234.2 1302.2
                                                    1
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                    1
                                                        1234.2 1302.2
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                    1
                                                        1234.7 1302.7
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1234.9 1302.9
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                        1234.9 1302.9
## - Snowfall.amount.raw.daily.sum..sfc.
                                                        1234.9 1302.9
                                                        1233.0 1303.0
## <none>
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                        1235.1 1303.1
                                                    1
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1235.8 1303.8
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1235.9 1303.9
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1236.9 1304.9
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                    1
                                                        1237.5 1305.5
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                        1237.8 1305.8
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1239.0 1307.0
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                        1241.6 1309.6
                                                        1245.9 1313.9
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1247.6 1315.6
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1248.7 1316.7
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1255.0 1323.0
##
## Step: AIC=1301.27
   pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
##
       Relative.Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
       Total.Cloud.Cover.daily.mean..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
##
       Sunshine.Duration.daily.sum..sfc. + Shortwave.Radiation.daily.sum..sfc. +
##
       Wind.Speed.daily.mean..10.m.above.gnd. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
       Wind.Gust.daily.mean..sfc. + Temperature.daily.min..2.m.above.gnd. +
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
##
       High.Cloud.Cover.daily.max..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
       Medium.Cloud.Cover.daily.min..mid.cld.lay. + Low.Cloud.Cover.daily.max..low.cld.lay. +
##
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
##
##
       Wind.Gust.daily.max..sfc.
##
##
                                                   Df Deviance
                                                                  AIC
## - Shortwave.Radiation.daily.sum..sfc.
                                                    1
                                                        1233.5 1299.5
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                        1233.6 1299.6
## - Sunshine.Duration.daily.sum..sfc.
                                                    1
                                                        1233.6 1299.6
## - Wind.Speed.daily.mean..10.m.above.gnd.
                                                    1
                                                        1233.6 1299.6
## - Wind.Gust.daily.mean..sfc.
                                                    1
                                                        1233.7 1299.7
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1233.9 1299.9
## - Wind.Speed.daily.mean..900.mb.
                                                    1
                                                        1233.9 1299.9
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                        1233.9 1299.9
```

```
## - Total.Precipitation.daily.sum..sfc.
                                                        1234.0 1300.0
## - Total.Cloud.Cover.daily.mean..sfc.
                                                        1234.3 1300.3
                                                    1
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                        1234.3 1300.3
## - Relative. Humidity.daily.mean.. 2.m. above.gnd.
                                                        1234.5 1300.5
## - Wind.Speed.daily.max..900.mb.
                                                        1234.5 1300.5
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                    1
                                                        1234.5 1300.5
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                        1234.9 1300.9
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1235.1 1301.1
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                        1235.1 1301.1
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1235.2 1301.2
## <none>
                                                        1233.3 1301.3
                                                    1
                                                        1235.4 1301.4
## - Year
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1235.4 1301.4
## - X
                                                        1235.5 1301.5
## - Month
                                                        1235.7 1301.7
                                                    1
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1236.0 1302.0
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1236.0 1302.0
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1237.0 1303.0
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1237.7 1303.7
                                                    1
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1238.0 1304.0
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1239.0 1305.0
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                        1241.7 1307.7
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                        1246.4 1312.4
                                                    1
## - Wind.Direction.daily.mean..900.mb.
                                                        1247.8 1313.8
                                                    1
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1249.1 1315.1
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1255.4 1321.4
##
## Step: AIC=1299.45
   pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
##
       Relative.Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
       Total.Cloud.Cover.daily.mean..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
       Sunshine.Duration.daily.sum..sfc. + Wind.Speed.daily.mean..10.m.above.gnd. +
##
##
       Wind.Direction.daily.mean..10.m.above.gnd. + Wind.Speed.daily.mean..80.m.above.gnd. +
       Wind.Direction.daily.mean..80.m.above.gnd. + Wind.Speed.daily.mean..900.mb. +
##
##
       Wind.Direction.daily.mean..900.mb. + Wind.Gust.daily.mean..sfc. +
##
       Temperature.daily.min..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.max..MSL. +
##
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Medium.Cloud.Cover.daily.min..mid.cld.lay. +
##
       Low.Cloud.Cover.daily.max..low.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Speed.daily.min..80.m.above.gnd. +
       Wind.Speed.daily.max..900.mb. + Wind.Gust.daily.max..sfc.
##
##
                                                   Df Deviance
## - Wind.Speed.daily.mean..10.m.above.gnd.
                                                        1233.7 1297.7
                                                    1
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                    1
                                                        1233.8 1297.8
## - Wind.Gust.daily.mean..sfc.
                                                        1233.8 1297.8
                                                        1234.0 1298.0
## - Wind.Speed.daily.mean..900.mb.
                                                    1
## - Total.Precipitation.daily.sum..sfc.
                                                    1
                                                        1234.1 1298.1
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                    1
                                                        1234.1 1298.1
## - Total.Cloud.Cover.daily.max..sfc.
                                                        1234.2 1298.2
## - Sunshine.Duration.daily.sum..sfc.
                                                    1
                                                        1234.2 1298.2
## - Relative.Humidity.daily.mean..2.m.above.gnd.
                                                        1234.5 1298.5
```

```
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                        1234.6 1298.6
## - Wind.Speed.daily.max..900.mb.
                                                        1234.7 1298.7
                                                    1
## - Total.Cloud.Cover.daily.mean..sfc.
                                                        1234.7 1298.7
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1234.7 1298.7
                                                    1
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                        1235.0 1299.0
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                        1235.2 1299.2
                                                    1
## - Snowfall.amount.raw.daily.sum..sfc.
                                                        1235.3 1299.3
## <none>
                                                        1233.5 1299.5
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1235.5 1299.5
## - Year
                                                    1
                                                        1235.5 1299.5
## - X
                                                    1
                                                        1235.6 1299.6
## - Month
                                                        1235.8 1299.8
                                                    1
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1236.1 1300.1
## - Total.Cloud.Cover.daily.min..sfc.
                                                        1236.1 1300.1
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1236.2 1300.2
                                                    1
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                    1
                                                        1237.8 1301.8
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1238.2 1302.2
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1238.7 1302.7
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                        1241.7 1305.7
                                                    1
## - Temperature.daily.mean..2.m.above.gnd.
                                                        1243.1 1307.1
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1246.8 1310.8
## - Wind.Direction.daily.mean..900.mb.
                                                        1247.9 1311.9
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                        1249.4 1313.4
                                                    1
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1255.7 1319.7
##
## Step: AIC=1297.71
  pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
       Relative. Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
##
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
       Total.Cloud.Cover.daily.mean..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
##
       Sunshine.Duration.daily.sum..sfc. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
       Wind.Gust.daily.mean..sfc. + Temperature.daily.min..2.m.above.gnd. +
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
       High.Cloud.Cover.daily.max..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
##
##
       Medium.Cloud.Cover.daily.min..mid.cld.lay. + Low.Cloud.Cover.daily.max..low.cld.lay. +
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
##
       Wind.Gust.daily.max..sfc.
##
##
                                                   Df Deviance
                                                                  AIC
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                        1234.0 1296.0
                                                    1
## - Wind.Gust.daily.mean..sfc.
                                                    1
                                                        1234.0 1296.0
## - Wind.Speed.daily.mean..900.mb.
                                                        1234.3 1296.3
                                                    1
## - Total.Precipitation.daily.sum..sfc.
                                                    1
                                                        1234.3 1296.3
## - Sunshine.Duration.daily.sum..sfc.
                                                    1
                                                        1234.3 1296.3
                                                        1234.4 1296.4
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                    1
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1234.5 1296.5
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                    1
                                                        1234.8 1296.8
## - Total.Cloud.Cover.daily.mean..sfc.
                                                    1
                                                        1234.8 1296.8
## - Wind.Speed.daily.max..900.mb.
                                                    1
                                                        1234.9 1296.9
## - Relative.Humidity.daily.mean..2.m.above.gnd.
                                                        1234.9 1296.9
```

```
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1234.9 1296.9
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                        1235.2 1297.2
                                                        1235.4 1297.4
## - High.Cloud.Cover.daily.max..high.cld.lay.
## <none>
                                                        1233.7 1297.7
## - Year
                                                    1
                                                        1235.8 1297.8
## - X
                                                        1235.9 1297.9
                                                    1
## - Snowfall.amount.raw.daily.sum..sfc.
                                                        1236.0 1298.0
                                                    1
                                                        1236.1 1298.1
## - Wind.Gust.daily.max..sfc.
                                                    1
## - Month
                                                    1
                                                        1236.2 1298.2
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1236.3 1298.3
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                    1
                                                        1236.4 1298.4
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1238.1 1300.1
                                                    1
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1238.7 1300.7
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1239.0 1301.0
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                        1242.2 1304.2
                                                    1
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1243.5 1305.5
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1243.6 1305.6
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                        1246.8 1308.8
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1248.1 1310.1
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                        1249.5 1311.5
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1255.7 1317.7
## Step: AIC=1295.97
  pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
       Relative. Humidity. daily. mean.. 2.m. above.gnd. + Mean. Sea. Level. Pressure. daily. mean.. MSL. +
##
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
       Total.Cloud.Cover.daily.mean..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
       Sunshine.Duration.daily.sum..sfc. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
       Wind.Gust.daily.mean..sfc. + Temperature.daily.min..2.m.above.gnd. +
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
##
##
       High.Cloud.Cover.daily.max..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
##
       Low.Cloud.Cover.daily.max..low.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Speed.daily.min..80.m.above.gnd. +
##
       Wind.Speed.daily.max..900.mb. + Wind.Gust.daily.max..sfc.
##
                                                   Df Deviance
                                                                   AIC
##
## - Wind.Gust.daily.mean..sfc.
                                                        1234.2 1294.2
                                                    1
## - Wind.Speed.daily.mean..900.mb.
                                                    1
                                                        1234.5 1294.5
## - Total.Precipitation.daily.sum..sfc.
                                                        1234.6 1294.6
                                                    1
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                    1
                                                        1234.6 1294.6
## - Sunshine.Duration.daily.sum..sfc.
                                                        1234.6 1294.6
                                                    1
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1234.7 1294.7
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1235.0 1295.0
                                                    1
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                    1
                                                        1235.0 1295.0
## - Wind.Speed.daily.max..900.mb.
                                                        1235.2 1295.2
## - Relative.Humidity.daily.mean..2.m.above.gnd.
                                                    1
                                                        1235.2 1295.2
## - Total.Cloud.Cover.daily.mean..sfc.
                                                    1
                                                        1235.2 1295.2
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                        1235.5 1295.5
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                        1235.7 1295.7
## <none>
                                                        1234.0 1296.0
## - Year
                                                        1236.1 1296.1
```

```
## - X
                                                        1236.2 1296.2
## - Total.Cloud.Cover.daily.min..sfc.
                                                        1236.3 1296.3
                                                    1
## - Wind.Gust.daily.max..sfc.
                                                        1236.4 1296.4
## - Month
                                                    1
                                                        1236.4 1296.4
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1236.6 1296.6
## - Snowfall.amount.raw.daily.sum..sfc.
                                                        1236.7 1296.7
                                                    1
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1238.6 1298.6
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                        1239.1 1299.1
                                                    1
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1239.3 1299.3
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                        1242.5 1302.5
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1243.8 1303.8
## - Temperature.daily.mean..2.m.above.gnd.
                                                        1243.9 1303.9
                                                    1
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1247.0 1307.0
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1248.4 1308.4
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                        1249.5 1309.5
                                                    1
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1255.8 1315.8
##
## Step: AIC=1294.2
  pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
       Relative.Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
       Total.Cloud.Cover.daily.mean..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
##
       Sunshine.Duration.daily.sum..sfc. + Wind.Direction.daily.mean..10.m.above.gnd. +
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
##
       Temperature.daily.min..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.max..MSL. +
##
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Low.Cloud.Cover.daily.max..low.cld.lay. +
##
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
##
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
##
       Wind.Gust.daily.max..sfc.
##
##
                                                   Df Deviance
                                                                  AIC
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                        1234.8 1292.8
                                                        1234.9 1292.9
## - Sunshine.Duration.daily.sum..sfc.
                                                    1
## - Total.Precipitation.daily.sum..sfc.
                                                        1234.9 1292.9
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1234.9 1292.9
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1235.2 1293.2
## - Relative. Humidity.daily.mean..2.m.above.gnd.
                                                        1235.3 1293.3
                                                    1
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                        1235.3 1293.3
## - Total.Cloud.Cover.daily.mean..sfc.
                                                        1235.5 1293.5
                                                    1
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                        1235.6 1293.6
## - Wind.Speed.daily.mean..900.mb.
                                                    1
                                                        1235.7 1293.7
## - Wind.Speed.daily.max..900.mb.
                                                        1235.8 1293.8
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                        1235.9 1293.9
## <none>
                                                        1234.2 1294.2
## - Year
                                                    1
                                                        1236.3 1294.3
## - X
                                                    1
                                                        1236.4 1294.4
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1236.5 1294.5
## - Month
                                                    1
                                                        1236.6 1294.6
## - Snowfall.amount.raw.daily.sum..sfc.
                                                        1236.8 1294.8
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                    1
                                                        1236.8 1294.8
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1238.8 1296.8
```

```
## - Wind.Gust.daily.max..sfc.
                                                        1239.0 1297.0
                                                        1239.2 1297.2
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
## - Temperature.daily.min..2.m.above.gnd.
                                                        1239.5 1297.5
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                        1242.7 1300.7
## - Temperature.daily.mean..2.m.above.gnd.
                                                        1244.1 1302.1
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1244.4 1302.4
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                        1247.2 1305.2
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1248.6 1306.6
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1249.7 1307.7
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                    1
                                                        1256.0 1314.0
## Step: AIC=1292.84
   pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
##
       Relative.Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
       Total.Cloud.Cover.daily.mean..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
##
       Sunshine.Duration.daily.sum..sfc. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
       Temperature.daily.min..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.max..MSL. +
##
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Speed.daily.min..80.m.above.gnd. +
##
##
       Wind.Speed.daily.max..900.mb. + Wind.Gust.daily.max..sfc.
##
##
                                                   Df Deviance
                                                                   AIC
## - Total.Precipitation.daily.sum..sfc.
                                                    1
                                                        1235.5 1291.5
## - Sunshine.Duration.daily.sum..sfc.
                                                    1
                                                        1235.7 1291.7
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                        1235.9 1291.9
                                                    1
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                    1
                                                        1236.0 1292.0
## - Relative.Humidity.daily.mean..2.m.above.gnd.
                                                    1
                                                        1236.0 1292.0
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                        1236.2 1292.2
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                        1236.3 1292.3
                                                    1
## - Wind.Speed.daily.mean..900.mb.
                                                        1236.4 1292.4
                                                        1236.4 1292.4
## - Wind.Speed.daily.max..900.mb.
                                                    1
## - Total.Cloud.Cover.daily.min..sfc.
                                                        1236.8 1292.8
## <none>
                                                        1234.8 1292.8
## - Year
                                                        1236.9 1292.9
                                                    1
## - Total.Cloud.Cover.daily.mean..sfc.
                                                        1236.9 1292.9
                                                    1
                                                        1236.9 1292.9
                                                    1
## - Month
                                                        1237.2 1293.2
                                                    1
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                    1
                                                        1237.4 1293.4
## - Total.Cloud.Cover.daily.max..sfc.
                                                        1237.4 1293.4
                                                    1
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1237.5 1293.5
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1238.9 1294.9
                                                    1
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1239.6 1295.6
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1239.8 1295.8
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1240.3 1296.3
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                        1243.3 1299.3
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1244.3 1300.3
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                        1245.6 1301.6
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1247.7 1303.7
## - Wind.Direction.daily.mean..900.mb.
                                                        1249.2 1305.2
```

```
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                        1250.2 1306.2
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                    1
                                                        1256.4 1312.4
## Step: AIC=1291.48
##
  pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
       Relative. Humidity. daily. mean.. 2.m. above.gnd. + Mean. Sea. Level. Pressure. daily. mean.. MSL. +
##
       Snowfall.amount.raw.daily.sum..sfc. + Total.Cloud.Cover.daily.mean..sfc. +
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Sunshine.Duration.daily.sum..sfc. +
##
##
       Wind.Direction.daily.mean..10.m.above.gnd. + Wind.Speed.daily.mean..80.m.above.gnd. +
##
       Wind.Direction.daily.mean..80.m.above.gnd. + Wind.Speed.daily.mean..900.mb. +
##
       Wind.Direction.daily.mean..900.mb. + Temperature.daily.min..2.m.above.gnd. +
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
       High.Cloud.Cover.daily.max..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
##
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
##
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
##
       Wind.Gust.daily.max..sfc.
##
##
                                                   Df Deviance
                                                                   AIC
## - Sunshine.Duration.daily.sum..sfc.
                                                        1236.4 1290.4
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                    1
                                                        1236.7 1290.7
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                        1236.8 1290.8
## - Wind.Speed.daily.mean..900.mb.
                                                        1236.9 1290.9
                                                    1
## - Wind.Speed.daily.max..900.mb.
                                                    1
                                                        1236.9 1290.9
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                        1236.9 1290.9
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1237.0 1291.0
## - Relative.Humidity.daily.mean..2.m.above.gnd.
                                                        1237.3 1291.3
## <none>
                                                        1235.5 1291.5
## - Year
                                                    1
                                                        1237.5 1291.5
## - X
                                                    1
                                                        1237.6 1291.6
## - Total.Cloud.Cover.daily.mean..sfc.
                                                    1
                                                        1237.6 1291.6
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1237.7 1291.7
## - Month
                                                        1237.8 1291.8
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1237.9 1291.9
## - Total.Cloud.Cover.daily.max..sfc.
                                                        1237.9 1291.9
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                    1
                                                        1238.1 1292.1
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1239.4 1293.4
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1240.2 1294.2
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1240.6 1294.6
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1240.8 1294.8
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                        1243.9 1297.9
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1244.9 1298.9
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1246.1 1300.1
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1247.8 1301.8
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1250.3 1304.3
## - Wind.Direction.daily.mean..900.mb.
                                                        1250.5 1304.5
                                                    1
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1256.6 1310.6
##
## Step: AIC=1290.41
  pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
##
       Relative. Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
##
       Snowfall.amount.raw.daily.sum..sfc. + Total.Cloud.Cover.daily.mean..sfc. +
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
```

```
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
       Temperature.daily.min..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.max..MSL. +
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Speed.daily.min..80.m.above.gnd. +
##
       Wind.Speed.daily.max..900.mb. + Wind.Gust.daily.max..sfc.
##
##
                                                   Df Deviance
                                                                  AIC
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                        1237.6 1289.6
## - Total.Cloud.Cover.daily.mean..sfc.
                                                        1237.6 1289.6
## - Wind.Speed.daily.mean..900.mb.
                                                        1237.7 1289.7
                                                    1
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                    1
                                                        1237.7 1289.7
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1237.7 1289.7
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                        1237.8 1289.8
                                                    1
## - Wind.Speed.daily.max..900.mb.
                                                        1237.8 1289.8
## - Relative. Humidity.daily.mean.. 2.m. above.gnd.
                                                        1237.9 1289.9
                                                        1236.4 1290.4
## - Year
                                                        1238.5 1290.5
                                                    1
## - X
                                                    1
                                                        1238.5 1290.5
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1238.7 1290.7
                                                        1238.8 1290.8
## - Total.Cloud.Cover.daily.min..sfc.
                                                        1238.9 1290.9
                                                    1
## - Total.Cloud.Cover.daily.max..sfc.
                                                        1238.9 1290.9
                                                    1
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1238.9 1290.9
                                                    1
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                    1
                                                        1240.3 1292.3
## - Temperature.daily.min..2.m.above.gnd.
                                                        1241.3 1293.3
                                                    1
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1241.5 1293.5
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1241.9 1293.9
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                        1244.9 1296.9
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1246.8 1298.8
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1246.9 1298.9
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                        1249.0 1301.0
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1250.9 1302.9
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1251.7 1303.7
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1258.2 1310.2
##
## Step: AIC=1289.57
## pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
       Relative. Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
##
##
       Snowfall.amount.raw.daily.sum..sfc. + Total.Cloud.Cover.daily.mean..sfc. +
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Wind.Speed.daily.mean..80.m.above.gnd. +
       Wind.Direction.daily.mean..80.m.above.gnd. + Wind.Speed.daily.mean..900.mb. +
##
       Wind.Direction.daily.mean..900.mb. + Temperature.daily.min..2.m.above.gnd. +
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
##
       High.Cloud.Cover.daily.max..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
##
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
##
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
##
       Wind.Gust.daily.max..sfc.
##
##
                                                   Df Deviance
                                                                  AIC
## - Wind.Speed.daily.mean..900.mb.
                                                        1238.6 1288.6
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1238.7 1288.7
```

```
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                        1238.8 1288.8
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                        1238.8 1288.8
## - Total.Cloud.Cover.daily.mean..sfc.
                                                        1239.0 1289.0
## - Wind.Speed.daily.max..900.mb.
                                                        1239.0 1289.0
                                                    1
## - Relative. Humidity.daily.mean..2.m.above.gnd.
                                                        1239.3 1289.3
## - Year
                                                        1239.6 1289.6
## <none>
                                                        1237.6 1289.6
## - X
                                                    1
                                                        1239.6 1289.6
## - Month
                                                    1
                                                        1239.9 1289.9
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1240.0 1290.0
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1240.0 1290.0
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1240.1 1290.1
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1241.6 1291.6
                                                    1
                                                        1241.7 1291.7
## - Wind.Direction.daily.mean..80.m.above.gnd.
## - Temperature.daily.min..2.m.above.gnd.
                                                        1242.2 1292.2
                                                    1
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1242.8 1292.8
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1243.3 1293.3
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                        1245.8 1295.8
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1247.7 1297.7
## - Temperature.daily.mean..2.m.above.gnd.
                                                        1247.7 1297.7
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1250.3 1300.3
## - Wind.Direction.daily.mean..900.mb.
                                                        1251.0 1301.0
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                        1253.2 1303.2
                                                    1
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1259.8 1309.8
##
## Step: AIC=1288.63
  pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
##
       Relative.Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
##
       Snowfall.amount.raw.daily.sum..sfc. + Total.Cloud.Cover.daily.mean..sfc. +
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Wind.Speed.daily.mean..80.m.above.gnd. +
       Wind.Direction.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..900.mb. +
##
##
       Temperature.daily.min..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.max..MSL. +
##
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Speed.daily.min..80.m.above.gnd. +
##
       Wind.Speed.daily.max..900.mb. + Wind.Gust.daily.max..sfc.
##
                                                   Df Deviance
                                                                   AIC
## - Wind.Speed.daily.max..900.mb.
                                                    1
                                                        1239.0 1287.0
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                        1239.7 1287.7
## - Total.Cloud.Cover.daily.mean..sfc.
                                                        1239.8 1287.8
                                                    1
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                    1
                                                        1239.8 1287.8
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1239.9 1287.9
                                                    1
## - Relative.Humidity.daily.mean..2.m.above.gnd.
                                                    1
                                                        1240.2 1288.2
## - Year
                                                        1240.5 1288.5
                                                    1
## - X
                                                    1
                                                        1240.6 1288.6
## <none>
                                                        1238.6 1288.6
## - Month
                                                    1
                                                        1240.8 1288.8
## - Total.Cloud.Cover.daily.min..sfc.
                                                        1241.0 1289.0
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1241.2 1289.2
## - Snowfall.amount.raw.daily.sum..sfc.
                                                        1241.6 1289.6
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                    1
                                                        1242.4 1290.4
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1242.5 1290.5
```

```
## - Temperature.daily.min..2.m.above.gnd.
                                                        1243.0 1291.0
                                                        1243.7 1291.7
## - Wind.Gust.daily.max..sfc.
                                                    1
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1244.1 1292.1
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                        1246.7 1294.7
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                        1247.7 1295.7
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1248.3 1296.3
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                        1250.7 1298.7
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1251.9 1299.9
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1253.3 1301.3
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                    1
                                                        1259.8 1307.8
## Step: AIC=1287.03
   pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
##
       Relative.Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
##
       Snowfall.amount.raw.daily.sum..sfc. + Total.Cloud.Cover.daily.mean..sfc. +
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Wind.Speed.daily.mean..80.m.above.gnd. +
##
       Wind.Direction.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..900.mb. +
##
       Temperature.daily.min..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.max..MSL. +
##
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Speed.daily.min..80.m.above.gnd. +
##
       Wind.Gust.daily.max..sfc.
##
##
                                                   Df Deviance
                                                                   ATC
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                        1240.0 1286.0
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                        1240.1 1286.1
                                                    1
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                    1
                                                        1240.2 1286.2
## - Total.Cloud.Cover.daily.mean..sfc.
                                                    1
                                                        1240.2 1286.2
## - Relative.Humidity.daily.mean..2.m.above.gnd.
                                                        1240.5 1286.5
## - Year
                                                    1
                                                        1240.9 1286.9
## - X
                                                    1
                                                        1240.9 1286.9
## <none>
                                                        1239.0 1287.0
                                                        1241.2 1287.2
## - Month
                                                    1
## - Total.Cloud.Cover.daily.min..sfc.
                                                        1241.5 1287.5
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1241.6 1287.6
## - Snowfall.amount.raw.daily.sum..sfc.
                                                        1241.8 1287.8
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                    1
                                                        1242.7 1288.7
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                    1
                                                        1243.0 1289.0
                                                        1243.4 1289.4
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1244.1 1290.1
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1244.3 1290.3
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                        1247.0 1293.0
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                        1248.2 1294.2
                                                    1
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1248.8 1294.8
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1251.2 1297.2
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1251.9 1297.9
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                        1253.6 1299.6
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1260.0 1306.0
## Step: AIC=1286.05
## pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
##
       Relative. Humidity. daily. mean.. 2.m. above.gnd. + Mean. Sea. Level. Pressure. daily. mean.. MSL. +
##
       Snowfall.amount.raw.daily.sum..sfc. + Total.Cloud.Cover.daily.mean..sfc. +
```

```
Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Wind.Speed.daily.mean..80.m.above.gnd. +
##
##
       Wind.Direction.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..900.mb. +
       Temperature.daily.min..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.max..MSL. +
##
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Gust.daily.max..sfc.
##
##
##
                                                   Df Deviance
                                                                   AIC
## - Total.Cloud.Cover.daily.mean..sfc.
                                                        1241.0 1285.0
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                        1241.2 1285.2
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1241.3 1285.3
## - Relative. Humidity.daily.mean.. 2.m. above.gnd.
                                                    1
                                                        1241.6 1285.6
## - Year
                                                    1
                                                        1241.9 1285.9
## - X
                                                        1241.9 1285.9
                                                    1
## <none>
                                                        1240.0 1286.0
                                                        1242.2 1286.2
## - Month
                                                    1
## - Total.Cloud.Cover.daily.min..sfc.
                                                        1242.5 1286.5
## - Snowfall.amount.raw.daily.sum..sfc.
                                                        1242.5 1286.5
                                                    1
## - Total.Cloud.Cover.daily.max..sfc.
                                                        1242.7 1286.7
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                    1
                                                        1244.0 1288.0
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1244.3 1288.3
## - Temperature.daily.min..2.m.above.gnd.
                                                        1244.5 1288.5
                                                    1
## - Wind.Gust.daily.max..sfc.
                                                        1245.2 1289.2
                                                    1
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                        1246.9 1290.9
                                                    1
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                        1249.7 1293.7
## - Temperature.daily.mean..2.m.above.gnd.
                                                        1249.9 1293.9
                                                    1
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1252.4 1296.4
## - Wind.Direction.daily.mean..900.mb.
                                                        1253.3 1297.3
                                                    1
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1254.4 1298.4
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1254.8 1298.8
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                    1
                                                        1261.2 1305.2
##
## Step: AIC=1285.05
   pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
       Relative. Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
##
       Snowfall.amount.raw.daily.sum..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Direction.daily.mean..900.mb. + Temperature.daily.min..2.m.above.gnd. +
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
##
##
       High.Cloud.Cover.daily.max..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
##
##
       Wind.Gust.daily.max..sfc.
##
                                                   Df Deviance
                                                                   AIC
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                        1242.1 1284.1
## - Year
                                                        1242.8 1284.8
## - X
                                                    1
                                                        1242.9 1284.9
## <none>
                                                        1241.0 1285.0
                                                        1243.2 1285.2
## - Month
                                                    1
## - Relative. Humidity.daily.mean.. 2.m. above.gnd.
                                                        1243.3 1285.3
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1243.7 1285.7
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1244.7 1286.7
```

```
## - Total.Cloud.Cover.daily.min..sfc.
                                                        1244.7 1286.7
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1244.8 1286.8
## - Temperature.daily.min..2.m.above.gnd.
                                                        1244.9 1286.9
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1245.2 1287.2
                                                    1
## - Total.Cloud.Cover.daily.max..sfc.
                                                        1245.9 1287.9
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1246.4 1288.4
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                        1248.0 1290.0
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1250.0 1292.0
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                        1251.4 1293.4
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1253.3 1295.3
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1254.4 1296.4
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                        1255.7 1297.7
                                                    1
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1256.0 1298.0
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1262.1 1304.1
## Step: AIC=1284.06
   pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
       Relative. Humidity. daily.mean... 2.m. above.gnd. + Mean. Sea. Level. Pressure. daily.mean... MSL. +
##
       Snowfall.amount.raw.daily.sum..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Direction.daily.mean..900.mb. + Temperature.daily.min..2.m.above.gnd. +
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Gust.daily.max..sfc.
##
##
##
                                                   Df Deviance
                                                        1243.8 1283.8
## - Year
                                                    1
## - X
                                                        1243.9 1283.9
## <none>
                                                        1242.1 1284.1
## - Month
                                                        1244.2 1284.2
## - Relative.Humidity.daily.mean..2.m.above.gnd.
                                                        1244.4 1284.4
## - Snowfall.amount.raw.daily.sum..sfc.
                                                        1244.9 1284.9
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1245.6 1285.6
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                    1
                                                        1245.9 1285.9
                                                        1246.3 1286.3
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
## - Total.Cloud.Cover.daily.max..sfc.
                                                        1247.1 1287.1
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1247.7 1287.7
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1247.9 1287.9
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1248.2 1288.2
                                                    1
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                        1248.8 1288.8
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1252.0 1292.0
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                        1252.1 1292.1
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                        1254.4 1294.4
                                                    1
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1255.6 1295.6
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                        1256.9 1296.9
                                                    1
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1257.1 1297.1
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1263.5 1303.5
##
## Step: AIC=1283.83
  pluie.demain ~ X + Month + Temperature.daily.mean..2.m.above.gnd. +
       Relative.Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
##
       Snowfall.amount.raw.daily.sum..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
```

```
##
       Wind.Direction.daily.mean..900.mb. + Temperature.daily.min..2.m.above.gnd. +
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Gust.daily.max..sfc.
##
##
                                                   Df Deviance
                                                                   AIC
## - Month
                                                        1245.8 1283.8
## <none>
                                                        1243.8 1283.8
## - Relative.Humidity.daily.mean..2.m.above.gnd.
                                                        1245.9 1283.9
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1246.5 1284.5
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1247.6 1285.6
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                    1
                                                        1247.8 1285.8
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1248.0 1286.0
## - X
                                                        1248.8 1286.8
                                                    1
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1249.0 1287.0
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1249.1 1287.1
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1249.7 1287.7
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                    1
                                                        1250.0 1288.0
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                        1250.6 1288.6
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1253.6 1291.6
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                        1253.9 1291.9
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1255.9 1293.9
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1257.7 1295.7
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1258.5 1296.5
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1258.7 1296.7
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1264.9 1302.9
                                                    1
##
## Step: AIC=1283.77
## pluie.demain ~ X + Temperature.daily.mean..2.m.above.gnd. + Relative.Humidity.daily.mean..2.m.above.
##
       Mean.Sea.Level.Pressure.daily.mean..MSL. + Snowfall.amount.raw.daily.sum..sfc. +
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Wind.Speed.daily.mean..80.m.above.gnd. +
       Wind.Direction.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..900.mb. +
##
##
       Temperature.daily.min..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.max..MSL. +
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
##
       Total.Cloud.Cover.daily.min..sfc. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
##
       Wind.Gust.daily.max..sfc.
##
##
                                                   Df Deviance
                                                                   ATC
## - Relative. Humidity.daily.mean..2.m.above.gnd.
                                                        1247.3 1283.3
                                                        1245.8 1283.8
## <none>
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1248.8 1284.8
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1249.0 1285.0
                                                    1
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1249.6 1285.6
## - Wind.Gust.daily.max..sfc.
                                                        1250.7 1286.7
                                                    1
                                                    1
                                                        1250.9 1286.9
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1251.0 1287.0
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1251.1 1287.1
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                    1
                                                        1251.6 1287.6
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                    1
                                                        1252.1 1288.1
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1253.3 1289.3
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                        1256.3 1292.3
## - Temperature.daily.mean..2.m.above.gnd.
                                                        1256.3 1292.3
```

```
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                        1258.0 1294.0
## - Wind.Direction.daily.mean..900.mb.
                                                        1259.0 1295.0
                                                    1
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                        1260.4 1296.4
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1261.5 1297.5
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1266.8 1302.8
##
## Step: AIC=1283.29
  pluie.demain ~ X + Temperature.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL.
##
       Snowfall.amount.raw.daily.sum..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Direction.daily.mean..900.mb. + Temperature.daily.min..2.m.above.gnd. +
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Gust.daily.max..sfc.
##
##
                                                  Df Deviance
## <none>
                                                       1247.3 1283.3
                                                       1250.1 1284.1
## - Snowfall.amount.raw.daily.sum..sfc.
                                                   1
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                       1250.3 1284.3
## - Temperature.daily.min..2.m.above.gnd.
                                                   1
                                                       1251.2 1285.2
                                                       1251.4 1285.4
## - Total.Cloud.Cover.daily.min..sfc.
                                                       1251.5 1285.5
                                                   1
## - Wind.Gust.daily.max..sfc.
                                                   1
                                                       1252.0 1286.0
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                   1
                                                       1252.8 1286.8
## - Total.Cloud.Cover.daily.max..sfc.
                                                   1
                                                       1253.1 1287.1
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                       1254.5 1288.5
                                                   1
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                   1
                                                       1254.6 1288.6
## - Temperature.daily.mean..2.m.above.gnd.
                                                   1
                                                       1256.4 1290.4
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                   1
                                                       1257.1 1291.1
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                   1
                                                       1259.5 1293.5
## - Wind.Direction.daily.mean..900.mb.
                                                   1
                                                       1260.1 1294.1
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                   1
                                                       1262.1 1296.1
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                   1
                                                       1262.5 1296.5
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                       1268.6 1302.6
# summary(m2)
coef(m2)# permet d"extraire les coefficients beta liés aux variables explicatives du modéle m2.
##
                                    (Intercept)
##
                                  63.8155622661
##
                                              X
                                  0.0001736397
##
##
        Temperature.daily.mean..2.m.above.gnd.
##
                                  0.1489073799
##
      Mean.Sea.Level.Pressure.daily.mean..MSL.
##
                                  0.4821610186
##
           Snowfall.amount.raw.daily.sum..sfc.
                                  -0.3220511620
##
  Medium.Cloud.Cover.daily.mean..mid.cld.lay.
##
                                  0.0108555566
```

-0.1149959770

Wind.Speed.daily.mean..80.m.above.gnd.

Wind.Direction.daily.mean..80.m.above.gnd.

##

##

```
##
                                  -0.0026282753
##
            Wind.Direction.daily.mean..900.mb.
##
                                   0.0045648104
##
         Temperature.daily.min..2.m.above.gnd.
##
                                  -0.1058673456
##
       Mean.Sea.Level.Pressure.daily.max..MSL.
##
                                  -0.2423436209
##
       Mean.Sea.Level.Pressure.daily.min..MSL.
##
                                  -0.3064344427
##
             Total.Cloud.Cover.daily.max..sfc.
##
                                   0.0083351887
##
             Total.Cloud.Cover.daily.min..sfc.
##
                                   0.0078120777
    Medium.Cloud.Cover.daily.max..mid.cld.lay.
##
##
                                   0.0062149605
##
         Wind.Speed.daily.max..10.m.above.gnd.
##
                                   0.0605053805
##
         Wind.Speed.daily.min..10.m.above.gnd.
##
                                   0.1118626865
##
                      Wind.Gust.daily.max..sfc.
##
                                   0.0233117362
# prédiction sur les données d'entrainement d
pred_m2=predict(m2, d , type = "response")
tab_m2=table(d$pluie.demain, pred_m2 >=.5)
tab_m2
##
##
           FALSE TRUE
##
     FALSE
             418
                  161
##
     TRUE
             132
                  469
matrixconfusion_m2=1-sum(diag(tab_m2)/sum(tab_m2))
matrixconfusion m2
```

[1] 0.2483051

Comme d'habitude, les étoiles et p-valeurs permettent de repérer les coefficients significativement différents de 0. D'après le summary de modèle m2 on observe le coefficient pour la variable (Mean.Sea.Level.Pressure.daily.mean..MSL.) est significativement diffèrent de 0. L'interprétation de ce coefficient 0.4821 est la suivante : quand on considère la probabilité de pleuvoir demain , le logarithme du rapport des cotes vaut 0.4821. Autrement dit, quand cette variable en question augmente d'une unité, la cote anglaise de l'événement est multipliée par $\exp(0.4821)$.

Dans le tableau des coefficients, un coefficient positif indique que la covariable tend à faire augmenter la probabilité de l'événement à expliquer ; un coefficient négatif indique que la covariable tend à faire diminuer la probabilité de l'événement à expliquer.

D'après le modèle ci dessus, on note que la matrice de confusion donne une valeur de 24.83% .

```
m3=glm(pluie.demain~Mean.Sea.Level.Pressure.daily.mean..MSL. + Wind.Direction.daily.mean..900.mb. +Mean Mean.Sea.Level.Pressure.daily.min..MSL.+Wind.Speed.daily.min..10.m.above.gnd., data=d, family=binomial)
```

```
# summary(m3)
# prédiction sur la base d'entrainement:d
pred_m3=predict(m3, d , type = "response")
tab_m3=table(d$pluie.demain, pred_m3 >=.5)
tab_m3
##
           FALSE TRUE
##
##
     FALSE
             385 194
##
     TRUE
             156 445
# matrce de confusion
matrixconfusion_m3=1-sum(diag(tab_m3)/sum(tab_m3))
matrixconfusion_m3
## [1] 0.2966102
La matrice de confusion donne une valeur de 29,6\% .
m4=glm(pluie.demain~Mean.Sea.Level.Pressure.daily.mean..MSL. +Wind.Direction.daily.mean..900.mb.+Mean.S
# summary(m4)
# prédiction sur la base d'entrainement:d
pred_m4=predict(m4, d , type = "response")
tab_m4=table(d$pluie.demain, pred_m4 >=.5)
tab_m4
##
##
           FALSE TRUE
##
     FALSE
             400 179
##
     TRUE
             135 466
#matrice de confusion
matrixconfusion_m4=1-sum(diag(tab_m4)/sum(tab_m4))
matrixconfusion_m4
## [1] 0.2661017
m5=glm(pluie.demain~Mean.Sea.Level.Pressure.daily.mean..MSL. + Wind.Direction.daily.mean..900.mb. +Mean
         Mean.Sea.Level.Pressure.daily.min..MSL.+Sunshine.Duration.daily.sum..sfc.+
         Total.Cloud.Cover.daily.max..sfc.+Temperature.daily.max..2.m.above.gnd.+Wind.Gust.daily.max..s
# summary(m5)
# prédiction sur la base d'entrainement:d
pred_m5=predict(m5, d , type = "response")
tab_m5=table(d$pluie.demain, pred_m5 >=.5)
tab_m5
##
##
           FALSE TRUE
            402 177
##
    FALSE
```

TRUE

144 457

##

```
matrixconfusion_m5=1-sum(diag(tab_m5)/sum(tab_m5))
matrixconfusion_m5
```

[1] 0.2720339

On voit la proportion de faux positive et faux négative.

```
library(MASS)
m6=stepAIC(m1, data=d, direction = "backward", k=log(nrow(d)))
```

```
## Start: AIC=1550.7
## pluie.demain ~ X + Year + Month + Day + Hour + Minute + Temperature.daily.mean..2.m.above.gnd. +
       Relative. Humidity. daily. mean.. 2.m. above.gnd. + Mean. Sea. Level. Pressure. daily. mean.. MSL. +
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
       Total.Cloud.Cover.daily.mean..sfc. + High.Cloud.Cover.daily.mean..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Low.Cloud.Cover.daily.mean..low.cld.lay. +
##
       Sunshine.Duration.daily.sum..sfc. + Shortwave.Radiation.daily.sum..sfc. +
##
       Wind.Speed.daily.mean..10.m.above.gnd. + Wind.Direction.daily.mean..10.m.above.gnd. +
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
       Wind.Gust.daily.mean..sfc. + Temperature.daily.max..2.m.above.gnd. +
##
       Temperature.daily.min..2.m.above.gnd. + Relative.Humidity.daily.max..2.m.above.gnd. +
##
       Relative. Humidity.daily.min..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.max..MSL. +
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
       High.Cloud.Cover.daily.min..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
##
##
       Medium.Cloud.Cover.daily.min..mid.cld.lay. + Low.Cloud.Cover.daily.max..low.cld.lay. +
##
       Low.Cloud.Cover.daily.min..low.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Speed.daily.max..80.m.above.gnd. +
##
##
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
##
       Wind.Speed.daily.min..900.mb. + Wind.Gust.daily.max..sfc. +
##
       Wind.Gust.daily.min..sfc.
##
##
## Step: AIC=1550.7
   pluie.demain ~ X + Year + Month + Day + Hour + Temperature.daily.mean..2.m.above.gnd. +
##
##
       Relative. Humidity.daily.mean..2.m.above.gnd. + Mean. Sea. Level. Pressure.daily.mean..MSL. +
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
       Total.Cloud.Cover.daily.mean..sfc. + High.Cloud.Cover.daily.mean..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Low.Cloud.Cover.daily.mean..low.cld.lay. +
       Sunshine.Duration.daily.sum..sfc. + Shortwave.Radiation.daily.sum..sfc. +
##
##
       Wind.Speed.daily.mean..10.m.above.gnd. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
       Wind.Gust.daily.mean..sfc. + Temperature.daily.max..2.m.above.gnd. +
##
       Temperature.daily.min..2.m.above.gnd. + Relative.Humidity.daily.max..2.m.above.gnd. +
##
       Relative. Humidity.daily.min..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.max..MSL. +
##
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
##
       High.Cloud.Cover.daily.min..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
##
       Medium.Cloud.Cover.daily.min..mid.cld.lay. + Low.Cloud.Cover.daily.max..low.cld.lay. +
       Low.Cloud.Cover.daily.min..low.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
```

```
Wind.Speed.daily.min..10.m.above.gnd. + Wind.Speed.daily.max..80.m.above.gnd. +
##
##
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
       Wind.Speed.daily.min..900.mb. + Wind.Gust.daily.max..sfc. +
##
       Wind.Gust.daily.min..sfc.
##
##
##
## Step: AIC=1550.7
  pluie.demain ~ X + Year + Month + Day + Temperature.daily.mean..2.m.above.gnd. +
##
       Relative. Humidity. daily. mean.. 2.m. above.gnd. + Mean. Sea. Level. Pressure. daily. mean.. MSL. +
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
       Total.Cloud.Cover.daily.mean..sfc. + High.Cloud.Cover.daily.mean..high.cld.lay. +
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Low.Cloud.Cover.daily.mean..low.cld.lay. +
##
       Sunshine.Duration.daily.sum..sfc. + Shortwave.Radiation.daily.sum..sfc. +
##
##
       Wind.Speed.daily.mean..10.m.above.gnd. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
       Wind.Gust.daily.mean..sfc. + Temperature.daily.max..2.m.above.gnd. +
       Temperature.daily.min..2.m.above.gnd. + Relative.Humidity.daily.max..2.m.above.gnd. +
##
##
       Relative. Humidity.daily.min..2.m.above.gnd. + Mean. Sea. Level. Pressure.daily.max..MSL. +
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
##
       High.Cloud.Cover.daily.min..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
       Medium.Cloud.Cover.daily.min..mid.cld.lay. + Low.Cloud.Cover.daily.max..low.cld.lay. +
##
       Low.Cloud.Cover.daily.min..low.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Speed.daily.max..80.m.above.gnd. +
##
##
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
##
       Wind.Speed.daily.min..900.mb. + Wind.Gust.daily.max..sfc. +
       Wind.Gust.daily.min..sfc.
##
##
##
                                                   Df Deviance
                                                                   AIC
## - Relative. Humidity.daily.max..2.m.above.gnd.
                                                        1232.4 1543.6
## - Low.Cloud.Cover.daily.min..low.cld.lay.
                                                    1
                                                        1232.4 1543.6
## - Temperature.daily.max..2.m.above.gnd.
                                                        1232.4 1543.6
## - Wind.Speed.daily.max..80.m.above.gnd.
                                                    1
                                                        1232.4 1543.6
## - Wind.Gust.daily.min..sfc.
                                                        1232.4 1543.7
                                                        1232.5 1543.7
## - Wind.Speed.daily.min..900.mb.
                                                    1
## - High.Cloud.Cover.daily.min..high.cld.lay.
                                                        1232.5 1543.7
## - Relative. Humidity.daily.min..2.m. above.gnd.
                                                    1
                                                        1232.5 1543.8
## - Shortwave.Radiation.daily.sum..sfc.
                                                    1
                                                        1232.6 1543.8
## - Day
                                                        1232.6 1543.8
                                                    1
## - Low.Cloud.Cover.daily.mean..low.cld.lay.
                                                        1232.6 1543.8
                                                    1
## - High.Cloud.Cover.daily.mean..high.cld.lay.
                                                    1
                                                        1232.6 1543.8
## - Sunshine.Duration.daily.sum..sfc.
                                                    1
                                                        1232.7 1543.9
## - Wind.Speed.daily.mean..10.m.above.gnd.
                                                    1
                                                        1232.7 1543.9
## - Wind.Gust.daily.mean..sfc.
                                                    1
                                                        1232.7 1543.9
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                        1232.7 1543.9
                                                    1
## - Year
                                                    1
                                                        1232.7 1543.9
## - X
                                                    1
                                                        1232.7 1543.9
                                                    1
                                                        1232.7 1543.9
## - Relative.Humidity.daily.mean..2.m.above.gnd.
                                                        1232.8 1544.0
## - Total.Cloud.Cover.daily.max..sfc.
                                                        1232.9 1544.1
                                                    1
## - Wind.Speed.daily.mean..900.mb.
                                                    1
                                                        1232.9 1544.2
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                    1
                                                        1233.1 1544.4
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                        1233.2 1544.4
```

```
## - Total.Precipitation.daily.sum..sfc.
                                                        1233.3 1544.5
## - Total.Cloud.Cover.daily.mean..sfc.
                                                    1
                                                        1233.4 1544.6
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                        1233.4 1544.6
## - Wind.Speed.daily.max..900.mb.
                                                    1
                                                        1233.6 1544.8
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1233.7 1544.9
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                    1
                                                        1233.8 1545.1
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                        1234.0 1545.2
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1234.0 1545.2
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1234.0 1545.2
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1234.2 1545.4
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1234.3 1545.5
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1234.8 1546.0
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                    1
                                                        1235.0 1546.2
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                        1235.0 1546.3
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1236.2 1547.4
## <none>
                                                        1232.4 1550.7
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                        1239.5 1550.7
                                                    1
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                        1244.7 1555.9
                                                    1
## - Wind.Direction.daily.mean..900.mb.
                                                        1246.7 1557.9
                                                    1
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1247.0 1558.2
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1252.9 1564.2
## Step: AIC=1543.62
  pluie.demain ~ X + Year + Month + Day + Temperature.daily.mean..2.m.above.gnd. +
       Relative. Humidity. daily. mean.. 2.m. above.gnd. + Mean. Sea. Level. Pressure. daily. mean.. MSL. +
##
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
       Total.Cloud.Cover.daily.mean..sfc. + High.Cloud.Cover.daily.mean..high.cld.lay. +
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Low.Cloud.Cover.daily.mean..low.cld.lay. +
##
##
       Sunshine.Duration.daily.sum..sfc. + Shortwave.Radiation.daily.sum..sfc. +
##
       Wind.Speed.daily.mean..10.m.above.gnd. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
       Wind.Gust.daily.mean..sfc. + Temperature.daily.max..2.m.above.gnd. +
##
       Temperature.daily.min..2.m.above.gnd. + Relative.Humidity.daily.min..2.m.above.gnd. +
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
##
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
       High.Cloud.Cover.daily.max..high.cld.lay. + High.Cloud.Cover.daily.min..high.cld.lay. +
##
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Medium.Cloud.Cover.daily.min..mid.cld.lay. +
##
       Low.Cloud.Cover.daily.max..low.cld.lay. + Low.Cloud.Cover.daily.min..low.cld.lay. +
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
       Wind.Speed.daily.max..80.m.above.gnd. + Wind.Speed.daily.min..80.m.above.gnd. +
##
##
       Wind.Speed.daily.max..900.mb. + Wind.Speed.daily.min..900.mb. +
##
       Wind.Gust.daily.max..sfc. + Wind.Gust.daily.min..sfc.
##
                                                   Df Deviance
                                                                  AIC
## - Low.Cloud.Cover.daily.min..low.cld.lay.
                                                        1232.4 1536.5
                                                    1
## - Temperature.daily.max..2.m.above.gnd.
                                                    1
                                                        1232.4 1536.6
## - Wind.Speed.daily.max..80.m.above.gnd.
                                                        1232.4 1536.6
## - Wind.Gust.daily.min..sfc.
                                                    1
                                                        1232.4 1536.6
## - Wind.Speed.daily.min..900.mb.
                                                    1
                                                        1232.5 1536.6
## - High.Cloud.Cover.daily.min..high.cld.lay.
                                                    1
                                                        1232.5 1536.6
## - Shortwave.Radiation.daily.sum..sfc.
                                                    1
                                                        1232.6 1536.7
## - Relative. Humidity.daily.min..2.m. above.gnd.
                                                    1
                                                        1232.6 1536.7
## - Day
                                                        1232.6 1536.8
```

```
## - Low.Cloud.Cover.daily.mean..low.cld.lay.
                                                        1232.6 1536.8
## - High.Cloud.Cover.daily.mean..high.cld.lay.
                                                    1
                                                        1232.6 1536.8
## - Sunshine.Duration.daily.sum..sfc.
                                                        1232.7 1536.8
                                                        1232.7 1536.8
## - Wind.Speed.daily.mean..10.m.above.gnd.
                                                    1
## - Wind.Gust.daily.mean..sfc.
                                                        1232.7 1536.8
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                    1
                                                        1232.7 1536.8
## - Year
                                                    1
                                                        1232.7 1536.8
## - X
                                                        1232.7 1536.8
                                                    1
## - Month
                                                    1
                                                        1232.7 1536.8
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1232.9 1537.1
## - Wind.Speed.daily.mean..900.mb.
                                                    1
                                                        1232.9 1537.1
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1233.1 1537.3
                                                    1
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                    1
                                                        1233.2 1537.3
## - Total.Precipitation.daily.sum..sfc.
                                                    1
                                                        1233.3 1537.5
## - Total.Cloud.Cover.daily.mean..sfc.
                                                        1233.4 1537.5
                                                    1
## - Relative. Humidity.daily.mean.. 2.m. above.gnd.
                                                        1233.4 1537.5
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                    1
                                                        1233.4 1537.6
## - Wind.Speed.daily.max..900.mb.
                                                        1233.6 1537.8
## - Temperature.daily.mean..2.m.above.gnd.
                                                        1233.7 1537.9
                                                    1
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                    1
                                                        1233.8 1538.0
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                        1234.0 1538.2
## - Total.Cloud.Cover.daily.min..sfc.
                                                        1234.0 1538.2
## - Wind.Gust.daily.max..sfc.
                                                        1234.0 1538.2
                                                    1
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1234.2 1538.3
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1234.3 1538.4
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1235.0 1539.1
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1235.0 1539.2
                                                    1
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1235.0 1539.2
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1236.2 1540.4
                                                    1
## <none>
                                                        1232.4 1543.6
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                        1239.5 1543.6
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1244.7 1548.8
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1246.7 1550.8
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1247.0 1551.2
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1252.9 1557.1
##
## Step: AIC=1536.55
## pluie.demain ~ X + Year + Month + Day + Temperature.daily.mean..2.m.above.gnd. +
##
       Relative. Humidity. daily. mean.. 2.m. above.gnd. + Mean. Sea. Level. Pressure. daily. mean.. MSL. +
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
       Total.Cloud.Cover.daily.mean..sfc. + High.Cloud.Cover.daily.mean..high.cld.lay. +
##
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Low.Cloud.Cover.daily.mean..low.cld.lay. +
       Sunshine.Duration.daily.sum..sfc. + Shortwave.Radiation.daily.sum..sfc. +
##
       Wind.Speed.daily.mean..10.m.above.gnd. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
       Wind.Gust.daily.mean..sfc. + Temperature.daily.max..2.m.above.gnd. +
       Temperature.daily.min..2.m.above.gnd. + Relative.Humidity.daily.min..2.m.above.gnd. +
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
##
##
       High.Cloud.Cover.daily.max..high.cld.lay. + High.Cloud.Cover.daily.min..high.cld.lay. +
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Medium.Cloud.Cover.daily.min..mid.cld.lay. +
##
##
       Low.Cloud.Cover.daily.max..low.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Speed.daily.max..80.m.above.gnd. +
```

```
##
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
##
       Wind.Speed.daily.min..900.mb. + Wind.Gust.daily.max..sfc. +
##
       Wind.Gust.daily.min..sfc.
##
                                                    Df Deviance
                                                                   AIC
## - Temperature.daily.max..2.m.above.gnd.
                                                         1232.4 1529.5
                                                     1
## - Wind.Speed.daily.max..80.m.above.gnd.
                                                         1232.4 1529.5
## - Wind.Gust.daily.min..sfc.
                                                     1
                                                         1232.4 1529.5
## - Wind.Speed.daily.min..900.mb.
                                                     1
                                                         1232.5 1529.5
## - High.Cloud.Cover.daily.min..high.cld.lay.
                                                     1
                                                         1232.5 1529.6
## - Shortwave.Radiation.daily.sum..sfc.
                                                     1
                                                         1232.6 1529.7
## - Relative. Humidity.daily.min..2.m.above.gnd.
                                                     1
                                                         1232.6 1529.7
## - Day
                                                     1
                                                         1232.6 1529.7
## - Low.Cloud.Cover.daily.mean..low.cld.lay.
                                                         1232.6 1529.7
## - High.Cloud.Cover.daily.mean..high.cld.lay.
                                                         1232.6 1529.7
                                                     1
## - Sunshine.Duration.daily.sum..sfc.
                                                     1
                                                         1232.7 1529.7
## - Wind.Speed.daily.mean..10.m.above.gnd.
                                                     1
                                                         1232.7 1529.7
## - Wind.Gust.daily.mean..sfc.
                                                         1232.7 1529.7
                                                     1
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                         1232.7 1529.8
                                                     1
                                                         1232.7 1529.8
## - X
                                                     1
                                                         1232.7 1529.8
## - Month
                                                         1232.7 1529.8
                                                     1
                                                         1232.9 1530.0
## - Total.Cloud.Cover.daily.max..sfc.
                                                     1
## - Wind.Speed.daily.mean..900.mb.
                                                     1
                                                         1232.9 1530.0
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                     1
                                                         1233.2 1530.2
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                     1
                                                         1233.2 1530.2
## - Total.Precipitation.daily.sum..sfc.
                                                     1
                                                         1233.4 1530.4
## - Total.Cloud.Cover.daily.mean..sfc.
                                                     1
                                                         1233.4 1530.5
## - Relative. Humidity.daily.mean.. 2.m. above.gnd.
                                                         1233.4 1530.5
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                         1233.4 1530.5
                                                     1
## - Wind.Speed.daily.max..900.mb.
                                                     1
                                                         1233.6 1530.7
## - Temperature.daily.mean..2.m.above.gnd.
                                                     1
                                                         1233.7 1530.8
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                         1233.8 1530.9
## - Wind.Gust.daily.max..sfc.
                                                         1234.0 1531.1
                                                     1
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                     1
                                                         1234.0 1531.1
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                     1
                                                         1234.2 1531.3
## - Snowfall.amount.raw.daily.sum..sfc.
                                                         1234.3 1531.3
## - Temperature.daily.min..2.m.above.gnd.
                                                         1235.0 1532.1
                                                     1
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                         1235.0 1532.1
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                     1
                                                         1235.0 1532.1
## - Total.Cloud.Cover.daily.min..sfc.
                                                         1235.4 1532.5
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                         1236.3 1533.3
## <none>
                                                         1232.4 1536.5
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                         1239.5 1536.6
                                                     1
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                     1
                                                         1244.7 1541.8
## - Wind.Direction.daily.mean..900.mb.
                                                         1246.7 1543.8
                                                     1
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                     1
                                                         1247.0 1544.1
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                     1
                                                         1253.0 1550.0
##
## Step: AIC=1529.49
  pluie.demain ~ X + Year + Month + Day + Temperature.daily.mean..2.m.above.gnd. +
       Relative. Humidity. daily. mean.. 2.m. above.gnd. + Mean. Sea. Level. Pressure. daily. mean.. MSL. +
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
       Total.Cloud.Cover.daily.mean..sfc. + High.Cloud.Cover.daily.mean..high.cld.lay. +
##
```

```
Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Low.Cloud.Cover.daily.mean..low.cld.lay. +
##
##
       Sunshine.Duration.daily.sum..sfc. + Shortwave.Radiation.daily.sum..sfc. +
       Wind.Speed.daily.mean..10.m.above.gnd. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
       Wind.Gust.daily.mean..sfc. + Temperature.daily.min..2.m.above.gnd. +
##
       Relative. Humidity.daily.min..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.max..MSL. +
##
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
       High.Cloud.Cover.daily.min..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
##
##
       Medium.Cloud.Cover.daily.min..mid.cld.lay. + Low.Cloud.Cover.daily.max..low.cld.lay. +
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
##
       Wind.Speed.daily.max..80.m.above.gnd. + Wind.Speed.daily.min..80.m.above.gnd. +
##
       Wind.Speed.daily.max..900.mb. + Wind.Speed.daily.min..900.mb. +
##
##
       Wind.Gust.daily.max..sfc. + Wind.Gust.daily.min..sfc.
##
##
                                                   Df Deviance
                                                                   AIC
## - Wind.Speed.daily.max..80.m.above.gnd.
                                                        1232.4 1522.4
## - Wind.Gust.daily.min..sfc.
                                                        1232.5 1522.5
                                                    1
## - Wind.Speed.daily.min..900.mb.
                                                        1232.5 1522.5
## - High.Cloud.Cover.daily.min..high.cld.lay.
                                                    1
                                                        1232.5 1522.5
## - Relative. Humidity.daily.min..2.m. above.gnd.
                                                        1232.6 1522.6
                                                    1
## - Shortwave.Radiation.daily.sum..sfc.
                                                        1232.6 1522.6
                                                    1
                                                        1232.6 1522.6
## - Day
                                                    1
## - Low.Cloud.Cover.daily.mean..low.cld.lay.
                                                    1
                                                        1232.6 1522.6
## - High.Cloud.Cover.daily.mean..high.cld.lay.
                                                    1
                                                        1232.6 1522.6
## - Wind.Speed.daily.mean..10.m.above.gnd.
                                                        1232.7 1522.7
                                                    1
## - Sunshine.Duration.daily.sum..sfc.
                                                    1
                                                        1232.7 1522.7
## - Wind.Gust.daily.mean..sfc.
                                                        1232.7 1522.7
                                                    1
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                        1232.7 1522.7
                                                    1
## - Year
                                                    1
                                                        1232.7 1522.7
## - X
                                                    1
                                                        1232.7 1522.7
## - Month
                                                        1232.7 1522.7
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1232.9 1522.9
## - Wind.Speed.daily.mean..900.mb.
                                                    1
                                                        1232.9 1522.9
                                                        1233.2 1523.2
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                    1
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                        1233.2 1523.2
## - Total.Precipitation.daily.sum..sfc.
                                                    1
                                                        1233.4 1523.4
## - Total.Cloud.Cover.daily.mean..sfc.
                                                        1233.4 1523.4
                                                    1
## - Relative. Humidity.daily.mean..2.m.above.gnd.
                                                        1233.4 1523.4
                                                    1
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                        1233.4 1523.4
## - Wind.Speed.daily.max..900.mb.
                                                        1233.6 1523.6
                                                    1
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                    1
                                                        1233.8 1523.8
## - Wind.Gust.daily.max..sfc.
                                                        1234.0 1524.0
                                                    1
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                        1234.0 1524.0
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1234.2 1524.2
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1234.3 1524.3
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1235.0 1525.0
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1235.1 1525.1
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1235.4 1525.4
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1235.9 1525.9
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1236.3 1526.3
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1238.0 1528.0
## <none>
                                                        1232.4 1529.5
```

```
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                        1239.5 1529.5
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1244.9 1534.9
                                                        1247.0 1537.0
## - Wind.Direction.daily.mean..900.mb.
                                                    1
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1247.4 1537.4
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1253.4 1543.4
##
## Step: AIC=1522.43
## pluie.demain ~ X + Year + Month + Day + Temperature.daily.mean..2.m.above.gnd. +
##
       Relative. Humidity. daily. mean.. 2.m. above.gnd. + Mean. Sea. Level. Pressure. daily. mean.. MSL. +
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
       Total.Cloud.Cover.daily.mean..sfc. + High.Cloud.Cover.daily.mean..high.cld.lay. +
##
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Low.Cloud.Cover.daily.mean..low.cld.lay. +
##
       Sunshine.Duration.daily.sum..sfc. + Shortwave.Radiation.daily.sum..sfc. +
       Wind.Speed.daily.mean..10.m.above.gnd. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
       Wind.Gust.daily.mean..sfc. + Temperature.daily.min..2.m.above.gnd. +
##
       Relative. Humidity.daily.min..2.m.above.gnd. + Mean. Sea. Level. Pressure.daily.max..MSL. +
##
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
##
       High.Cloud.Cover.daily.min..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
##
       Medium.Cloud.Cover.daily.min..mid.cld.lay. + Low.Cloud.Cover.daily.max..low.cld.lay. +
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
##
##
       Wind.Speed.daily.min..900.mb. + Wind.Gust.daily.max..sfc. +
##
       Wind.Gust.daily.min..sfc.
##
                                                   Df Deviance
                                                                   AIC
## - Wind.Gust.daily.min..sfc.
                                                        1232.5 1515.4
                                                    1
## - Wind.Speed.daily.min..900.mb.
                                                        1232.5 1515.4
                                                    1
## - High.Cloud.Cover.daily.min..high.cld.lay.
                                                    1
                                                        1232.5 1515.5
## - Relative. Humidity.daily.min..2.m. above.gnd.
                                                    1
                                                        1232.6 1515.5
## - Shortwave.Radiation.daily.sum..sfc.
                                                    1
                                                        1232.6 1515.5
## - Day
                                                    1
                                                        1232.6 1515.6
## - Low.Cloud.Cover.daily.mean..low.cld.lay.
                                                    1
                                                        1232.7 1515.6
## - High.Cloud.Cover.daily.mean..high.cld.lay.
                                                    1
                                                        1232.7 1515.6
## - Sunshine.Duration.daily.sum..sfc.
                                                        1232.7 1515.6
## - Wind.Gust.daily.mean..sfc.
                                                        1232.7 1515.6
                                                    1
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                        1232.7 1515.6
                                                    1
## - Wind.Speed.daily.mean..10.m.above.gnd.
                                                    1
                                                        1232.7 1515.7
## - Year
                                                    1
                                                        1232.7 1515.7
## - X
                                                    1
                                                        1232.7 1515.7
## - Month
                                                    1
                                                        1232.7 1515.7
## - Total.Cloud.Cover.daily.max..sfc.
                                                        1232.9 1515.9
                                                    1
## - Wind.Speed.daily.mean..900.mb.
                                                    1
                                                        1232.9 1515.9
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                    1
                                                        1233.2 1516.1
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                    1
                                                        1233.2 1516.1
## - Total.Precipitation.daily.sum..sfc.
                                                    1
                                                        1233.4 1516.3
## - Total.Cloud.Cover.daily.mean..sfc.
                                                    1
                                                        1233.4 1516.3
## - Relative. Humidity.daily.mean.. 2.m. above.gnd.
                                                        1233.5 1516.4
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                    1
                                                        1233.5 1516.4
## - Wind.Speed.daily.max..900.mb.
                                                    1
                                                        1233.6 1516.6
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                    1
                                                        1233.9 1516.8
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                        1234.2 1517.1
```

```
## - Snowfall.amount.raw.daily.sum..sfc.
                                                        1234.3 1517.2
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1234.4 1517.3
                                                        1234.6 1517.5
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1235.1 1518.0
## - Total.Cloud.Cover.daily.min..sfc.
                                                        1235.4 1518.4
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1235.9 1518.9
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1236.4 1519.3
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1236.8 1519.7
## - Temperature.daily.mean..2.m.above.gnd.
                                                        1238.1 1521.0
## <none>
                                                        1232.4 1522.4
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                        1239.7 1522.6
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1244.9 1527.8
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1247.0 1529.9
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                        1247.4 1530.3
                                                    1
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1253.5 1536.4
                                                    1
##
## Step: AIC=1515.4
  pluie.demain ~ X + Year + Month + Day + Temperature.daily.mean..2.m.above.gnd. +
##
       Relative. Humidity. daily. mean.. 2.m. above.gnd. + Mean. Sea. Level. Pressure. daily. mean.. MSL. +
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
       Total.Cloud.Cover.daily.mean..sfc. + High.Cloud.Cover.daily.mean..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Low.Cloud.Cover.daily.mean..low.cld.lay. +
##
       Sunshine.Duration.daily.sum..sfc. + Shortwave.Radiation.daily.sum..sfc. +
       Wind.Speed.daily.mean..10.m.above.gnd. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
       Wind.Gust.daily.mean..sfc. + Temperature.daily.min..2.m.above.gnd. +
##
       Relative. Humidity.daily.min..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.max..MSL. +
##
##
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
##
##
       High.Cloud.Cover.daily.min..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
##
       Medium.Cloud.Cover.daily.min..mid.cld.lay. + Low.Cloud.Cover.daily.max..low.cld.lay. +
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
##
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
##
       Wind.Speed.daily.min..900.mb. + Wind.Gust.daily.max..sfc.
##
##
                                                   Df Deviance
                                                                   AIC
## - Wind.Speed.daily.min..900.mb.
                                                        1232.5 1508.4
                                                    1
## - High.Cloud.Cover.daily.min..high.cld.lay.
                                                        1232.6 1508.4
## - Relative. Humidity.daily.min..2.m. above.gnd.
                                                    1
                                                        1232.6 1508.5
## - Shortwave.Radiation.daily.sum..sfc.
                                                    1
                                                        1232.7 1508.5
## - Day
                                                    1
                                                        1232.7 1508.5
## - Low.Cloud.Cover.daily.mean..low.cld.lay.
                                                    1
                                                        1232.7 1508.5
## - High.Cloud.Cover.daily.mean..high.cld.lay.
                                                        1232.7 1508.6
                                                    1
## - Sunshine.Duration.daily.sum..sfc.
                                                    1
                                                        1232.7 1508.6
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                        1232.8 1508.6
                                                    1
## - Year
                                                    1
                                                        1232.8 1508.6
## - X
                                                    1
                                                        1232.8 1508.6
                                                    1
                                                        1232.8 1508.6
## - Wind.Speed.daily.mean..10.m.above.gnd.
                                                    1
                                                        1232.8 1508.6
## - Wind.Gust.daily.mean..sfc.
                                                    1
                                                        1232.9 1508.7
## - Wind.Speed.daily.mean..900.mb.
                                                    1
                                                        1233.0 1508.8
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1233.0 1508.8
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1233.2 1509.1
```

```
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                        1233.2 1509.1
                                                        1233.4 1509.3
## - Total.Precipitation.daily.sum..sfc.
                                                    1
## - Total.Cloud.Cover.daily.mean..sfc.
                                                        1233.5 1509.3
## - Relative.Humidity.daily.mean..2.m.above.gnd.
                                                        1233.5 1509.3
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                        1233.5 1509.4
## - Wind.Speed.daily.max..900.mb.
                                                    1
                                                        1233.6 1509.5
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                    1
                                                        1234.0 1509.8
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                        1234.2 1510.1
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1234.4 1510.2
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1234.4 1510.3
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1234.7 1510.5
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1235.1 1511.0
                                                    1
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1235.5 1511.3
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1236.0 1511.8
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1236.4 1512.3
                                                    1
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1236.9 1512.8
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1238.2 1514.0
## <none>
                                                        1232.5 1515.4
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                        1240.8 1516.7
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1244.9 1520.8
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1247.0 1522.9
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                        1247.4 1523.3
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1253.5 1529.4
                                                    1
##
## Step: AIC=1508.37
  pluie.demain ~ X + Year + Month + Day + Temperature.daily.mean..2.m.above.gnd. +
##
       Relative. Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
##
       Total.Cloud.Cover.daily.mean..sfc. + High.Cloud.Cover.daily.mean..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Low.Cloud.Cover.daily.mean..low.cld.lay. +
##
       Sunshine.Duration.daily.sum..sfc. + Shortwave.Radiation.daily.sum..sfc. +
##
       Wind.Speed.daily.mean..10.m.above.gnd. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
       Wind.Gust.daily.mean..sfc. + Temperature.daily.min..2.m.above.gnd. +
##
       Relative. Humidity.daily.min..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.max..MSL. +
##
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
##
       High.Cloud.Cover.daily.min..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
       Medium.Cloud.Cover.daily.min..mid.cld.lay. + Low.Cloud.Cover.daily.max..low.cld.lay. +
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
##
##
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
##
       Wind.Gust.daily.max..sfc.
##
                                                   Df Deviance
                                                                  AIC
## - High.Cloud.Cover.daily.min..high.cld.lay.
                                                    1
                                                        1232.6 1501.4
## - Relative. Humidity.daily.min..2.m.above.gnd.
                                                    1
                                                        1232.7 1501.5
## - Shortwave.Radiation.daily.sum..sfc.
                                                        1232.7 1501.5
## - Day
                                                    1
                                                        1232.7 1501.5
## - Low.Cloud.Cover.daily.mean..low.cld.lay.
                                                    1
                                                        1232.7 1501.5
## - High.Cloud.Cover.daily.mean..high.cld.lay.
                                                    1
                                                        1232.7 1501.5
## - Sunshine.Duration.daily.sum..sfc.
                                                    1
                                                        1232.8 1501.5
## - Year
                                                    1
                                                        1232.8 1501.6
## - X
                                                        1232.8 1501.6
```

```
## - Month
                                                        1232.8 1501.6
                                                    1
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                        1232.8 1501.6
                                                    1
                                                        1232.8 1501.6
## - Wind.Speed.daily.mean..10.m.above.gnd.
## - Wind.Gust.daily.mean..sfc.
                                                    1
                                                        1232.9 1501.7
## - Total.Cloud.Cover.daily.max..sfc.
                                                        1233.0 1501.8
## - Wind.Speed.daily.mean..900.mb.
                                                    1
                                                        1233.2 1501.9
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                    1
                                                        1233.3 1502.0
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                    1
                                                        1233.3 1502.0
## - Total.Precipitation.daily.sum..sfc.
                                                    1
                                                        1233.5 1502.2
## - Total.Cloud.Cover.daily.mean..sfc.
                                                    1
                                                        1233.5 1502.3
## - Relative.Humidity.daily.mean..2.m.above.gnd.
                                                    1
                                                        1233.5 1502.3
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                    1
                                                        1233.6 1502.4
## - Wind.Speed.daily.max..900.mb.
                                                    1
                                                        1233.8 1502.5
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                        1234.0 1502.8
                                                        1234.3 1503.1
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1234.4 1503.2
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1234.5 1503.3
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                        1234.7 1503.5
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1235.2 1504.0
                                                    1
## - Total.Cloud.Cover.daily.min..sfc.
                                                        1235.6 1504.4
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1236.1 1504.9
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1236.4 1505.2
                                                        1237.0 1505.8
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
## - Temperature.daily.mean..2.m.above.gnd.
                                                        1238.2 1507.0
## <none>
                                                        1232.5 1508.4
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                        1240.8 1509.6
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                        1245.1 1513.8
                                                    1
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1247.1 1515.9
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1247.5 1516.3
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                    1
                                                        1253.6 1522.4
##
## Step: AIC=1501.38
   pluie.demain ~ X + Year + Month + Day + Temperature.daily.mean..2.m.above.gnd. +
       Relative. Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
##
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
       Total.Cloud.Cover.daily.mean..sfc. + High.Cloud.Cover.daily.mean..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Low.Cloud.Cover.daily.mean..low.cld.lay. +
##
       Sunshine.Duration.daily.sum..sfc. + Shortwave.Radiation.daily.sum..sfc. +
##
       Wind.Speed.daily.mean..10.m.above.gnd. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
##
       Wind.Gust.daily.mean..sfc. + Temperature.daily.min..2.m.above.gnd. +
       Relative. Humidity.daily.min..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.max..MSL. +
##
##
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
##
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Medium.Cloud.Cover.daily.min..mid.cld.lay. +
##
       Low.Cloud.Cover.daily.max..low.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Speed.daily.min..80.m.above.gnd. +
##
##
       Wind.Speed.daily.max..900.mb. + Wind.Gust.daily.max..sfc.
##
                                                                  AIC
##
                                                   Df Deviance
## - High.Cloud.Cover.daily.mean..high.cld.lay.
                                                        1232.8 1494.5
## - Shortwave.Radiation.daily.sum..sfc.
                                                    1
                                                        1232.8 1494.5
## - Relative. Humidity.daily.min..2.m. above.gnd.
                                                        1232.8 1494.5
```

```
## - Day
                                                        1232.8 1494.5
                                                        1232.8 1494.5
## - Low.Cloud.Cover.daily.mean..low.cld.lay.
                                                    1
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                        1232.8 1494.5
## - Sunshine.Duration.daily.sum..sfc.
                                                        1232.9 1494.6
## - Year
                                                        1232.9 1494.6
## - X
                                                    1
                                                        1232.9 1494.6
## - Month
                                                        1232.9 1494.6
                                                    1
## - Wind.Speed.daily.mean..10.m.above.gnd.
                                                    1
                                                        1232.9 1494.6
## - Wind.Gust.daily.mean..sfc.
                                                    1
                                                        1233.0 1494.7
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1233.1 1494.8
## - Wind.Speed.daily.mean..900.mb.
                                                    1
                                                        1233.3 1495.0
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                        1233.3 1495.0
                                                    1
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                    1
                                                        1233.3 1495.0
## - Total.Precipitation.daily.sum..sfc.
                                                    1
                                                        1233.5 1495.2
                                                        1233.6 1495.3
## - Total.Cloud.Cover.daily.mean..sfc.
                                                    1
## - Relative. Humidity.daily.mean.. 2.m. above.gnd.
                                                        1233.6 1495.3
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                    1
                                                        1233.7 1495.4
## - Wind.Speed.daily.max..900.mb.
                                                        1233.8 1495.6
                                                    1
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                        1234.0 1495.7
                                                    1
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                        1234.4 1496.1
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1234.5 1496.2
## - Wind.Gust.daily.max..sfc.
                                                        1234.6 1496.3
                                                        1234.8 1496.5
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1235.3 1497.0
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1235.7 1497.4
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1236.1 1497.8
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1236.6 1498.3
                                                    1
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1237.1 1498.8
## - Temperature.daily.mean..2.m.above.gnd.
                                                        1238.3 1500.0
                                                    1
## <none>
                                                        1232.6 1501.4
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                        1241.0 1502.7
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1245.2 1506.9
## - Wind.Direction.daily.mean..900.mb.
                                                        1247.3 1509.0
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1247.6 1509.3
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1253.7 1515.4
## Step: AIC=1494.46
## pluie.demain ~ X + Year + Month + Day + Temperature.daily.mean..2.m.above.gnd. +
##
       Relative. Humidity. daily. mean.. 2.m. above.gnd. + Mean. Sea. Level. Pressure. daily. mean.. MSL. +
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
       Total.Cloud.Cover.daily.mean..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
##
       Low.Cloud.Cover.daily.mean..low.cld.lay. + Sunshine.Duration.daily.sum..sfc. +
       Shortwave.Radiation.daily.sum..sfc. + Wind.Speed.daily.mean..10.m.above.gnd. +
##
       Wind.Direction.daily.mean..10.m.above.gnd. + Wind.Speed.daily.mean..80.m.above.gnd. +
##
       Wind.Direction.daily.mean..80.m.above.gnd. + Wind.Speed.daily.mean..900.mb. +
##
##
       Wind.Direction.daily.mean..900.mb. + Wind.Gust.daily.mean..sfc. +
##
       Temperature.daily.min..2.m.above.gnd. + Relative.Humidity.daily.min..2.m.above.gnd. +
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
##
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
       High.Cloud.Cover.daily.max..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
##
##
       Medium.Cloud.Cover.daily.min..mid.cld.lay. + Low.Cloud.Cover.daily.max..low.cld.lay. +
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
##
##
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
##
       Wind.Gust.daily.max..sfc.
```

```
##
##
                                                   Df Deviance
                                                                   ATC
## - Low.Cloud.Cover.daily.mean..low.cld.lay.
                                                        1232.9 1487.5
## - Relative. Humidity.daily.min..2.m. above.gnd.
                                                        1232.9 1487.5
## - Day
                                                        1232.9 1487.6
## - Shortwave.Radiation.daily.sum..sfc.
                                                    1
                                                        1233.0 1487.6
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                    1
                                                        1233.0 1487.6
## - Year
                                                    1
                                                        1233.0 1487.7
## - X
                                                    1
                                                        1233.0 1487.7
## - Sunshine.Duration.daily.sum..sfc.
                                                    1
                                                        1233.0 1487.7
                                                    1
                                                        1233.0 1487.7
## - Wind.Speed.daily.mean..10.m.above.gnd.
                                                    1
                                                        1233.1 1487.7
## - Wind.Gust.daily.mean..sfc.
                                                    1
                                                        1233.2 1487.8
## - Total.Cloud.Cover.daily.max..sfc.
                                                        1233.2 1487.9
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1233.4 1488.0
                                                    1
## - Wind.Speed.daily.mean..900.mb.
                                                    1
                                                        1233.4 1488.0
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                    1
                                                        1233.5 1488.1
## - Total.Cloud.Cover.daily.mean..sfc.
                                                        1233.6 1488.3
                                                    1
## - Total.Precipitation.daily.sum..sfc.
                                                    1
                                                        1233.7 1488.3
## - Relative. Humidity.daily.mean.. 2.m. above.gnd.
                                                        1233.7 1488.4
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                    1
                                                        1233.8 1488.5
## - Wind.Speed.daily.max..900.mb.
                                                        1234.0 1488.6
                                                        1234.1 1488.8
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                    1
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                        1234.6 1489.2
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1234.6 1489.2
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1234.7 1489.3
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                        1234.9 1489.6
                                                    1
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                    1
                                                        1235.4 1490.0
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1235.8 1490.4
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1236.2 1490.8
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1237.3 1492.0
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                    1
                                                        1237.3 1492.0
## - Temperature.daily.mean..2.m.above.gnd.
                                                        1238.3 1492.9
## <none>
                                                        1232.8 1494.5
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                        1241.2 1495.8
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1245.4 1500.0
## - Wind.Direction.daily.mean..900.mb.
                                                        1247.4 1502.1
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1247.8 1502.5
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1253.8 1508.5
##
## Step: AIC=1487.53
  pluie.demain ~ X + Year + Month + Day + Temperature.daily.mean..2.m.above.gnd. +
##
       Relative.Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
       Total.Cloud.Cover.daily.mean..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
##
       Sunshine.Duration.daily.sum..sfc. + Shortwave.Radiation.daily.sum..sfc. +
##
       Wind.Speed.daily.mean..10.m.above.gnd. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
       Wind.Gust.daily.mean..sfc. + Temperature.daily.min..2.m.above.gnd. +
##
       Relative. Humidity.daily.min..2.m.above.gnd. + Mean. Sea. Level. Pressure.daily.max.. MSL. +
##
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Medium.Cloud.Cover.daily.min..mid.cld.lay. +
```

```
##
       Low.Cloud.Cover.daily.max..low.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Speed.daily.min..80.m.above.gnd. +
       Wind.Speed.daily.max..900.mb. + Wind.Gust.daily.max..sfc.
##
##
                                                   Df Deviance
                                                                   AIC
## - Relative. Humidity.daily.min..2.m. above.gnd.
                                                        1233.0 1480.6
                                                    1
## - Sunshine.Duration.daily.sum..sfc.
                                                    1
                                                        1233.1 1480.7
## - Day
                                                    1
                                                        1233.1 1480.7
## - Shortwave.Radiation.daily.sum..sfc.
                                                    1
                                                        1233.2 1480.7
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                    1
                                                        1233.2 1480.7
                                                    1
                                                        1233.2 1480.8
## - X
                                                    1
                                                        1233.2 1480.8
## - Month
                                                    1
                                                        1233.2 1480.8
## - Wind.Speed.daily.mean..10.m.above.gnd.
                                                        1233.2 1480.8
## - Wind.Gust.daily.mean..sfc.
                                                        1233.3 1480.9
                                                    1
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1233.5 1481.1
## - Wind.Speed.daily.mean..900.mb.
                                                    1
                                                        1233.5 1481.1
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                        1233.5 1481.1
## - Total.Precipitation.daily.sum..sfc.
                                                        1233.7 1481.2
                                                    1
## - Relative. Humidity.daily.mean.. 2.m. above.gnd.
                                                        1233.8 1481.4
## - Total.Cloud.Cover.daily.mean..sfc.
                                                    1
                                                        1233.9 1481.5
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                        1233.9 1481.5
                                                        1234.1 1481.6
## - Wind.Speed.daily.max..900.mb.
                                                    1
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1234.1 1481.6
                                                    1
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                    1
                                                        1234.5 1482.0
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                        1234.7 1482.3
## - Wind.Gust.daily.max..sfc.
                                                        1234.8 1482.3
                                                    1
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1234.8 1482.3
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1235.0 1482.5
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1235.5 1483.1
                                                    1
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1235.8 1483.3
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1236.3 1483.9
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                        1237.4 1485.0
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1237.5 1485.0
                                                    1
## - Temperature.daily.mean..2.m.above.gnd.
                                                        1238.4 1486.0
                                                        1232.9 1487.5
## <none>
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                        1241.2 1488.8
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1245.6 1493.2
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1247.5 1495.1
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1248.2 1495.8
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1254.5 1502.0
##
## Step: AIC=1480.6
  pluie.demain ~ X + Year + Month + Day + Temperature.daily.mean..2.m.above.gnd. +
       Relative.Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
       Total.Cloud.Cover.daily.mean..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
##
       Sunshine.Duration.daily.sum..sfc. + Shortwave.Radiation.daily.sum..sfc. +
##
##
       Wind.Speed.daily.mean..10.m.above.gnd. + Wind.Direction.daily.mean..10.m.above.gnd. +
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
       Wind.Gust.daily.mean..sfc. + Temperature.daily.min..2.m.above.gnd. +
##
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
```

```
##
       High.Cloud.Cover.daily.max..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
       Medium.Cloud.Cover.daily.min..mid.cld.lay. + Low.Cloud.Cover.daily.max..low.cld.lay. +
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
##
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
##
##
       Wind.Gust.daily.max..sfc.
##
                                                   Df Deviance
##
                                                                   ATC
## - Day
                                                    1
                                                        1233.3 1473.8
## - Sunshine.Duration.daily.sum..sfc.
                                                    1
                                                        1233.3 1473.8
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                    1
                                                        1233.3 1473.8
## - Shortwave.Radiation.daily.sum..sfc.
                                                    1
                                                        1233.3 1473.8
## - Year
                                                    1
                                                        1233.4 1473.9
## - X
                                                    1
                                                        1233.4 1473.9
## - Month
                                                        1233.4 1473.9
                                                        1233.4 1473.9
## - Wind.Speed.daily.mean..10.m.above.gnd.
                                                    1
## - Wind.Gust.daily.mean..sfc.
                                                    1
                                                        1233.5 1474.0
## - Wind.Speed.daily.mean..900.mb.
                                                    1
                                                        1233.7 1474.1
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1233.7 1474.2
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                        1233.7 1474.2
                                                    1
## - Total.Precipitation.daily.sum..sfc.
                                                        1233.8 1474.3
## - Total.Cloud.Cover.daily.mean..sfc.
                                                    1
                                                        1234.0 1474.5
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                        1234.1 1474.6
## - Relative.Humidity.daily.mean..2.m.above.gnd.
                                                        1234.2 1474.7
                                                    1
## - Wind.Speed.daily.max..900.mb.
                                                        1234.2 1474.7
                                                    1
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                    1
                                                        1234.2 1474.7
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                    1
                                                        1234.7 1475.2
## - Wind.Gust.daily.max..sfc.
                                                        1234.9 1475.4
                                                    1
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                        1234.9 1475.4
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1234.9 1475.4
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                        1235.1 1475.6
                                                    1
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                    1
                                                        1235.8 1476.2
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1235.9 1476.4
## - Temperature.daily.min..2.m.above.gnd.
                                                        1236.9 1477.4
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1237.5 1478.0
                                                    1
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                        1237.8 1478.3
## - Temperature.daily.mean..2.m.above.gnd.
                                                        1239.0 1479.5
## <none>
                                                        1233.0 1480.6
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                        1241.6 1482.0
                                                    1
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                        1245.9 1486.4
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1247.6 1488.1
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                        1248.7 1489.2
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1255.0 1495.5
## Step: AIC=1473.76
  pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
       Relative. Humidity.daily.mean..2.m.above.gnd. + Mean. Sea. Level. Pressure.daily.mean..MSL. +
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
       Total.Cloud.Cover.daily.mean..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
##
##
       Sunshine.Duration.daily.sum..sfc. + Shortwave.Radiation.daily.sum..sfc. +
       Wind.Speed.daily.mean..10.m.above.gnd. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
##
       Wind.Gust.daily.mean..sfc. + Temperature.daily.min..2.m.above.gnd. +
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
```

```
Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
##
##
       High.Cloud.Cover.daily.max..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
       Medium.Cloud.Cover.daily.min..mid.cld.lay. + Low.Cloud.Cover.daily.max..low.cld.lay. +
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
##
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
##
##
       Wind.Gust.daily.max..sfc.
##
##
                                                   Df Deviance
                                                                  ATC
## - Shortwave.Radiation.daily.sum..sfc.
                                                    1
                                                        1233.5 1466.9
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                        1233.6 1467.0
## - Sunshine.Duration.daily.sum..sfc.
                                                        1233.6 1467.0
## - Wind.Speed.daily.mean..10.m.above.gnd.
                                                        1233.6 1467.0
                                                    1
## - Wind.Gust.daily.mean..sfc.
                                                    1
                                                        1233.7 1467.1
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1233.9 1467.3
## - Wind.Speed.daily.mean..900.mb.
                                                        1233.9 1467.3
                                                    1
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                    1
                                                        1233.9 1467.3
## - Total.Precipitation.daily.sum..sfc.
                                                    1
                                                        1234.0 1467.4
## - Total.Cloud.Cover.daily.mean..sfc.
                                                        1234.3 1467.7
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                        1234.3 1467.7
                                                    1
## - Relative. Humidity.daily.mean..2.m.above.gnd.
                                                        1234.5 1467.9
## - Wind.Speed.daily.max..900.mb.
                                                    1
                                                        1234.5 1467.9
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1234.5 1467.9
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                        1234.9 1468.3
                                                    1
## - Snowfall.amount.raw.daily.sum..sfc.
                                                        1235.1 1468.5
                                                    1
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                        1235.1 1468.5
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1235.2 1468.7
## - Year
                                                    1
                                                        1235.4 1468.8
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1235.4 1468.8
## - X
                                                        1235.5 1468.9
                                                    1
## - Month
                                                        1235.7 1469.1
                                                    1
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                    1
                                                        1236.0 1469.4
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1236.0 1469.4
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1237.0 1470.4
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1237.7 1471.2
                                                    1
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                        1238.0 1471.5
                                                        1239.0 1472.5
## - Temperature.daily.mean..2.m.above.gnd.
## <none>
                                                        1233.3 1473.8
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                        1241.7 1475.1
                                                    1
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                        1246.4 1479.8
## - Wind.Direction.daily.mean..900.mb.
                                                        1247.8 1481.2
                                                    1
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                        1249.1 1482.5
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1255.4 1488.8
## Step: AIC=1466.87
  pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
       Relative. Humidity.daily.mean..2.m.above.gnd. + Mean. Sea. Level. Pressure.daily.mean..MSL. +
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
##
       Total.Cloud.Cover.daily.mean..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
       Sunshine.Duration.daily.sum..sfc. + Wind.Speed.daily.mean..10.m.above.gnd. +
##
       Wind.Direction.daily.mean..10.m.above.gnd. + Wind.Speed.daily.mean..80.m.above.gnd. +
##
       Wind.Direction.daily.mean..80.m.above.gnd. + Wind.Speed.daily.mean..900.mb. +
##
       Wind.Direction.daily.mean..900.mb. + Wind.Gust.daily.mean..sfc. +
##
##
       Temperature.daily.min..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.max..MSL. +
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
```

```
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Medium.Cloud.Cover.daily.min..mid.cld.lay. +
       Low.Cloud.Cover.daily.max..low.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Speed.daily.min..80.m.above.gnd. +
##
##
       Wind.Speed.daily.max..900.mb. + Wind.Gust.daily.max..sfc.
##
                                                   Df Deviance
                                                                  AIC
## - Wind.Speed.daily.mean..10.m.above.gnd.
                                                    1
                                                        1233.7 1460.0
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                        1233.8 1460.1
## - Wind.Gust.daily.mean..sfc.
                                                    1
                                                        1233.8 1460.2
## - Wind.Speed.daily.mean..900.mb.
                                                    1
                                                        1234.0 1460.4
## - Total.Precipitation.daily.sum..sfc.
                                                        1234.1 1460.4
                                                    1
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                    1
                                                        1234.1 1460.5
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1234.2 1460.5
## - Sunshine.Duration.daily.sum..sfc.
                                                        1234.2 1460.5
                                                    1
## - Relative. Humidity.daily.mean.. 2.m. above.gnd.
                                                    1
                                                        1234.5 1460.8
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                    1
                                                        1234.6 1461.0
## - Wind.Speed.daily.max..900.mb.
                                                        1234.7 1461.0
## - Total.Cloud.Cover.daily.mean..sfc.
                                                        1234.7 1461.0
                                                    1
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                    1
                                                        1234.7 1461.0
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                    1
                                                        1235.0 1461.4
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                        1235.2 1461.5
## - Snowfall.amount.raw.daily.sum..sfc.
                                                        1235.3 1461.6
                                                    1
## - Wind.Gust.daily.max..sfc.
                                                        1235.5 1461.8
                                                    1
## - Year
                                                    1
                                                        1235.5 1461.9
## - X
                                                    1
                                                        1235.6 1461.9
## - Month
                                                    1
                                                        1235.8 1462.2
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1236.1 1462.4
## - Total.Cloud.Cover.daily.min..sfc.
                                                        1236.1 1462.4
                                                    1
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                    1
                                                        1236.2 1462.5
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                    1
                                                        1237.8 1464.2
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1238.2 1464.5
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1238.7 1465.0
## <none>
                                                        1233.5 1466.9
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                        1241.7 1468.1
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1243.1 1469.5
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                        1246.8 1473.1
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1247.9 1474.2
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                        1249.4 1475.8
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1255.7 1482.0
## Step: AIC=1460.05
  pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
       Relative. Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
       Total.Cloud.Cover.daily.mean..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
##
       Sunshine.Duration.daily.sum..sfc. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
       Wind.Gust.daily.mean..sfc. + Temperature.daily.min..2.m.above.gnd. +
##
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
##
##
       High.Cloud.Cover.daily.max..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
       Medium.Cloud.Cover.daily.min..mid.cld.lay. + Low.Cloud.Cover.daily.max..low.cld.lay. +
##
```

```
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
##
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
##
       Wind.Gust.daily.max..sfc.
##
                                                                  AIC
                                                   Df Deviance
## - Medium.Cloud.Cover.daily.min..mid.cld.lay.
                                                        1234.0 1453.2
## - Wind.Gust.daily.mean..sfc.
                                                        1234.0 1453.2
## - Wind.Speed.daily.mean..900.mb.
                                                    1
                                                        1234.3 1453.5
## - Total.Precipitation.daily.sum..sfc.
                                                    1
                                                        1234.3 1453.6
## - Sunshine.Duration.daily.sum..sfc.
                                                    1
                                                        1234.3 1453.6
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                    1
                                                        1234.4 1453.6
## - Total.Cloud.Cover.daily.max..sfc.
                                                        1234.5 1453.7
                                                    1
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                    1
                                                        1234.8 1454.1
## - Total.Cloud.Cover.daily.mean..sfc.
                                                    1
                                                        1234.8 1454.1
## - Wind.Speed.daily.max..900.mb.
                                                        1234.9 1454.1
                                                    1
## - Relative. Humidity.daily.mean.. 2.m. above.gnd.
                                                        1234.9 1454.1
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                    1
                                                        1234.9 1454.2
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                        1235.2 1454.5
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                        1235.4 1454.7
                                                    1
## - Year
                                                        1235.8 1455.1
## - X
                                                    1
                                                        1235.9 1455.2
## - Snowfall.amount.raw.daily.sum..sfc.
                                                        1236.0 1455.2
## - Wind.Gust.daily.max..sfc.
                                                        1236.1 1455.4
                                                    1
                                                        1236.2 1455.4
## - Month
                                                    1
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1236.3 1455.5
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                    1
                                                        1236.4 1455.7
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1238.1 1457.3
                                                    1
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1238.7 1458.0
## - Temperature.daily.min..2.m.above.gnd.
                                                        1239.0 1458.2
                                                    1
## <none>
                                                        1233.7 1460.0
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                        1242.2 1461.5
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1243.5 1462.8
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                        1243.6 1462.9
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1246.8 1466.1
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1248.1 1467.3
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1249.5 1468.7
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1255.7 1475.0
##
## Step: AIC=1453.24
  pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
       Relative. Humidity. daily. mean.. 2.m. above.gnd. + Mean. Sea. Level. Pressure. daily. mean.. MSL. +
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
       Total.Cloud.Cover.daily.mean..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
##
##
       Sunshine.Duration.daily.sum..sfc. + Wind.Direction.daily.mean..10.m.above.gnd. +
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
       Wind.Gust.daily.mean..sfc. + Temperature.daily.min..2.m.above.gnd. +
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
##
       High.Cloud.Cover.daily.max..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
##
       Low.Cloud.Cover.daily.max..low.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Speed.daily.min..80.m.above.gnd. +
##
##
       Wind.Speed.daily.max..900.mb. + Wind.Gust.daily.max..sfc.
##
```

```
##
                                                   Df Deviance
                                                                   AIC
## - Wind.Gust.daily.mean..sfc.
                                                        1234.2 1446.4
                                                    1
## - Wind.Speed.daily.mean..900.mb.
                                                        1234.5 1446.8
## - Total.Precipitation.daily.sum..sfc.
                                                        1234.6 1446.8
                                                    1
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                        1234.6 1446.8
## - Sunshine.Duration.daily.sum..sfc.
                                                    1
                                                        1234.6 1446.8
## - Total.Cloud.Cover.daily.max..sfc.
                                                        1234.7 1446.9
                                                    1
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                    1
                                                        1235.0 1447.2
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                    1
                                                        1235.0 1447.2
## - Wind.Speed.daily.max..900.mb.
                                                    1
                                                        1235.2 1447.3
## - Relative.Humidity.daily.mean..2.m.above.gnd.
                                                    1
                                                        1235.2 1447.4
## - Total.Cloud.Cover.daily.mean..sfc.
                                                        1235.2 1447.4
                                                    1
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                        1235.5 1447.7
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                        1235.7 1447.9
                                                        1236.1 1448.3
## - Year
                                                    1
## - X
                                                    1
                                                        1236.2 1448.4
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1236.3 1448.5
## - Wind.Gust.daily.max..sfc.
                                                        1236.4 1448.6
                                                        1236.4 1448.6
## - Month
                                                    1
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1236.6 1448.8
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1236.7 1448.9
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1238.6 1450.8
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                        1239.1 1451.3
                                                    1
## - Temperature.daily.min..2.m.above.gnd.
                                                        1239.3 1451.5
## <none>
                                                        1234.0 1453.2
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                        1242.5 1454.7
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                        1243.8 1456.0
                                                    1
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1243.9 1456.1
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1247.0 1459.2
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1248.4 1460.6
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1249.5 1461.8
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                    1
                                                        1255.8 1468.0
##
## Step: AIC=1446.4
   pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
       Relative. Humidity. daily. mean.. 2.m. above.gnd. + Mean. Sea. Level. Pressure. daily. mean.. MSL. +
##
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
       Total.Cloud.Cover.daily.mean..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
       Sunshine.Duration.daily.sum..sfc. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
##
       Temperature.daily.min..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.max..MSL. +
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Low.Cloud.Cover.daily.max..low.cld.lay. +
##
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
##
##
       Wind.Gust.daily.max..sfc.
##
##
                                                   Df Deviance
                                                                   AIC
## - Low.Cloud.Cover.daily.max..low.cld.lay.
                                                        1234.8 1440.0
                                                    1
## - Sunshine.Duration.daily.sum..sfc.
                                                        1234.9 1440.0
## - Total.Precipitation.daily.sum..sfc.
                                                    1
                                                        1234.9 1440.0
## - Total.Cloud.Cover.daily.max..sfc.
                                                        1234.9 1440.0
```

```
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1235.2 1440.3
## - Relative. Humidity.daily.mean..2.m.above.gnd.
                                                        1235.3 1440.4
                                                    1
                                                        1235.3 1440.4
## - Wind.Direction.daily.mean..10.m.above.gnd.
## - Total.Cloud.Cover.daily.mean..sfc.
                                                        1235.5 1440.7
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                        1235.6 1440.7
## - Wind.Speed.daily.mean..900.mb.
                                                    1
                                                        1235.7 1440.8
## - Wind.Speed.daily.max..900.mb.
                                                        1235.8 1440.9
                                                    1
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                    1
                                                        1235.9 1441.0
## - Year
                                                    1
                                                        1236.3 1441.5
## - X
                                                    1
                                                        1236.4 1441.5
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1236.5 1441.6
## - Month
                                                    1
                                                        1236.6 1441.8
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1236.8 1442.0
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1236.8 1442.0
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1238.8 1443.9
                                                    1
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1239.0 1444.1
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1239.2 1444.3
## - Temperature.daily.min..2.m.above.gnd.
                                                        1239.5 1444.7
                                                        1234.2 1446.4
## <none>
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                        1242.7 1447.8
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1244.1 1449.2
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                        1244.4 1449.6
                                                        1247.2 1452.3
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
## - Wind.Direction.daily.mean..900.mb.
                                                        1248.6 1453.7
                                                    1
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1249.7 1454.9
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1256.0 1461.1
##
## Step: AIC=1439.96
   pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
##
       Relative.Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
##
       Total.Cloud.Cover.daily.mean..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
##
       Sunshine.Duration.daily.sum..sfc. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
       Temperature.daily.min..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.max..MSL. +
##
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Speed.daily.min..80.m.above.gnd. +
       Wind.Speed.daily.max..900.mb. + Wind.Gust.daily.max..sfc.
##
##
##
                                                   Df Deviance
                                                                   AIC
## - Total.Precipitation.daily.sum..sfc.
                                                        1235.5 1433.5
                                                    1
## - Sunshine.Duration.daily.sum..sfc.
                                                    1
                                                        1235.7 1433.8
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                        1235.9 1434.0
                                                    1
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                    1
                                                        1236.0 1434.0
## - Relative. Humidity.daily.mean.. 2.m. above.gnd.
                                                        1236.0 1434.0
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                        1236.2 1434.3
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                    1
                                                        1236.3 1434.4
## - Wind.Speed.daily.mean..900.mb.
                                                        1236.4 1434.4
                                                    1
## - Wind.Speed.daily.max..900.mb.
                                                    1
                                                        1236.4 1434.5
                                                        1236.8 1434.9
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
## - Year
                                                        1236.9 1434.9
```

```
## - Total.Cloud.Cover.daily.mean..sfc.
                                                        1236.9 1435.0
## - X
                                                        1236.9 1435.0
                                                    1
                                                        1237.2 1435.2
## - Month
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1237.4 1435.4
                                                    1
## - Total.Cloud.Cover.daily.max..sfc.
                                                        1237.4 1435.5
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1237.5 1435.6
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1238.9 1436.9
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1239.6 1437.7
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1239.8 1437.9
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1240.3 1438.3
## <none>
                                                        1234.8 1440.0
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                        1243.3 1441.3
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1244.3 1442.4
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                        1245.6 1443.7
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                        1247.7 1445.7
                                                    1
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1249.2 1447.2
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1250.2 1448.2
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1256.4 1454.5
##
## Step: AIC=1433.54
  pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
       Relative. Humidity. daily. mean.. 2.m. above.gnd. + Mean. Sea. Level. Pressure. daily. mean.. MSL. +
##
       Snowfall.amount.raw.daily.sum..sfc. + Total.Cloud.Cover.daily.mean..sfc. +
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Sunshine.Duration.daily.sum..sfc. +
##
       Wind.Direction.daily.mean..10.m.above.gnd. + Wind.Speed.daily.mean..80.m.above.gnd. +
##
##
       Wind.Direction.daily.mean..80.m.above.gnd. + Wind.Speed.daily.mean..900.mb. +
##
       Wind.Direction.daily.mean..900.mb. + Temperature.daily.min..2.m.above.gnd. +
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
##
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
##
       High.Cloud.Cover.daily.max..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
##
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
##
       Wind.Gust.daily.max..sfc.
##
                                                   Df Deviance
                                                                   AIC
                                                        1236.4 1427.4
## - Sunshine.Duration.daily.sum..sfc.
                                                    1
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                        1236.7 1427.6
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                        1236.8 1427.8
## - Wind.Speed.daily.mean..900.mb.
                                                    1
                                                        1236.9 1427.8
                                                        1236.9 1427.9
## - Wind.Speed.daily.max..900.mb.
                                                    1
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                        1236.9 1427.9
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1237.0 1428.0
                                                    1
## - Relative. Humidity.daily.mean..2.m.above.gnd.
                                                    1
                                                        1237.3 1428.2
## - Year
                                                    1
                                                        1237.5 1428.5
                                                    1
                                                        1237.6 1428.6
## - Total.Cloud.Cover.daily.mean..sfc.
                                                        1237.6 1428.6
                                                    1
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1237.7 1428.7
## - Month
                                                    1
                                                        1237.8 1428.8
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1237.9 1428.9
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1237.9 1428.9
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                    1
                                                        1238.1 1429.1
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                    1
                                                        1239.4 1430.4
                                                        1240.2 1431.2
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
## - Wind.Gust.daily.max..sfc.
                                                        1240.6 1431.6
```

```
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                        1240.8 1431.8
## <none>
                                                        1235.5 1433.5
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                        1243.9 1434.8
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1244.9 1435.9
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                        1246.1 1437.1
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1247.8 1438.7
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                        1250.3 1441.3
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1250.5 1441.5
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1256.6 1447.5
##
## Step: AIC=1427.39
  pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
##
       Relative.Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
       Snowfall.amount.raw.daily.sum..sfc. + Total.Cloud.Cover.daily.mean..sfc. +
##
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
       Temperature.daily.min..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.max..MSL. +
##
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Speed.daily.min..80.m.above.gnd. +
##
       Wind.Speed.daily.max..900.mb. + Wind.Gust.daily.max..sfc.
##
##
                                                   Df Deviance
                                                                   AIC
## - Wind.Direction.daily.mean..10.m.above.gnd.
                                                    1
                                                        1237.6 1421.5
## - Total.Cloud.Cover.daily.mean..sfc.
                                                        1237.6 1421.5
                                                    1
## - Wind.Speed.daily.mean..900.mb.
                                                    1
                                                        1237.7 1421.6
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                    1
                                                        1237.7 1421.6
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1237.7 1421.6
                                                    1
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                        1237.8 1421.7
## - Wind.Speed.daily.max..900.mb.
                                                    1
                                                        1237.8 1421.7
## - Relative. Humidity.daily.mean.. 2.m. above.gnd.
                                                        1237.9 1421.8
## - Year
                                                        1238.5 1422.4
                                                    1
## - X
                                                    1
                                                        1238.5 1422.4
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1238.7 1422.6
## - Month
                                                        1238.8 1422.7
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1238.9 1422.8
## - Total.Cloud.Cover.daily.max..sfc.
                                                        1238.9 1422.8
                                                    1
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                    1
                                                        1238.9 1422.8
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1240.3 1424.2
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1241.3 1425.2
## - Wind.Gust.daily.max..sfc.
                                                        1241.5 1425.4
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                        1241.9 1425.8
                                                        1236.4 1427.4
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                        1244.9 1428.8
                                                    1
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1246.8 1430.7
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1246.9 1430.8
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1249.0 1432.9
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1250.9 1434.8
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1251.7 1435.6
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1258.2 1442.1
##
```

Step: AIC=1421.48

```
## pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
##
       Relative. Humidity. daily. mean.. 2.m. above.gnd. + Mean. Sea. Level. Pressure. daily. mean.. MSL. +
       Snowfall.amount.raw.daily.sum..sfc. + Total.Cloud.Cover.daily.mean..sfc. +
##
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Wind.Speed.daily.mean..80.m.above.gnd. +
       Wind.Direction.daily.mean..80.m.above.gnd. + Wind.Speed.daily.mean..900.mb. +
##
##
       Wind.Direction.daily.mean..900.mb. + Temperature.daily.min..2.m.above.gnd. +
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
##
##
       High.Cloud.Cover.daily.max..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
##
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
##
       Wind.Gust.daily.max..sfc.
##
                                                   Df Deviance
##
                                                                  AIC
## - Wind.Speed.daily.mean..900.mb.
                                                        1238.6 1415.5
                                                    1
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1238.7 1415.5
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                    1
                                                        1238.8 1415.6
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                        1238.8 1415.6
## - Total.Cloud.Cover.daily.mean..sfc.
                                                    1
                                                        1239.0 1415.8
## - Wind.Speed.daily.max..900.mb.
                                                        1239.0 1415.8
## - Relative. Humidity.daily.mean..2.m.above.gnd.
                                                    1
                                                        1239.3 1416.1
## - Year
                                                        1239.6 1416.4
## - X
                                                        1239.6 1416.5
                                                    1
## - Month
                                                    1
                                                        1239.9 1416.7
## - Total.Cloud.Cover.daily.min..sfc.
                                                        1240.0 1416.8
                                                    1
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1240.0 1416.8
## - Snowfall.amount.raw.daily.sum..sfc.
                                                        1240.1 1416.9
                                                    1
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                    1
                                                        1241.6 1418.4
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1241.7 1418.5
                                                    1
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1242.2 1419.1
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1242.8 1419.6
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1243.3 1420.1
## <none>
                                                        1237.6 1421.5
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                        1245.8 1422.7
                                                    1
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1247.7 1424.5
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1247.7 1424.6
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                        1250.3 1427.1
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1251.0 1427.8
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1253.2 1430.0
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1259.8 1436.7
## Step: AIC=1415.46
## pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
##
       Relative. Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
       Snowfall.amount.raw.daily.sum..sfc. + Total.Cloud.Cover.daily.mean..sfc. +
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Wind.Speed.daily.mean..80.m.above.gnd. +
##
       Wind.Direction.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..900.mb. +
##
##
       Temperature.daily.min..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.max..MSL. +
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Speed.daily.min..80.m.above.gnd. +
##
##
       Wind.Speed.daily.max..900.mb. + Wind.Gust.daily.max..sfc.
##
```

```
##
                                                   Df Deviance
                                                                   AIC
## - Wind.Speed.daily.max..900.mb.
                                                    1
                                                        1239.0 1408.8
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                        1239.7 1409.4
## - Total.Cloud.Cover.daily.mean..sfc.
                                                        1239.8 1409.5
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                        1239.8 1409.5
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1239.9 1409.7
                                                    1
## - Relative. Humidity.daily.mean.. 2.m. above.gnd.
                                                        1240.2 1409.9
## - Year
                                                        1240.5 1410.3
                                                    1
## - X
                                                    1
                                                        1240.6 1410.3
## - Month
                                                    1
                                                        1240.8 1410.6
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1241.0 1410.8
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1241.2 1411.0
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1241.6 1411.4
                                                        1242.4 1412.1
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1242.5 1412.3
                                                    1
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1243.0 1412.8
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1243.7 1413.5
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                        1244.1 1413.8
## <none>
                                                        1238.6 1415.5
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                        1246.7 1416.5
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1247.7 1417.5
## - Temperature.daily.mean..2.m.above.gnd.
                                                        1248.3 1418.1
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                        1250.7 1420.4
                                                    1
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1251.9 1421.7
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1253.3 1423.1
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1259.8 1429.6
##
## Step: AIC=1408.79
   pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
##
       Relative.Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
##
       Snowfall.amount.raw.daily.sum..sfc. + Total.Cloud.Cover.daily.mean..sfc. +
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Wind.Speed.daily.mean..80.m.above.gnd. +
##
       Wind.Direction.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..900.mb. +
##
       Temperature.daily.min..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.max..MSL. +
##
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Speed.daily.min..80.m.above.gnd. +
##
       Wind.Gust.daily.max..sfc.
##
##
                                                   Df Deviance
                                                                   ATC
## - Wind.Speed.daily.min..80.m.above.gnd.
                                                    1
                                                        1240.0 1402.7
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                    1
                                                        1240.1 1402.8
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1240.2 1402.9
                                                    1
## - Total.Cloud.Cover.daily.mean..sfc.
                                                    1
                                                        1240.2 1402.9
## - Relative. Humidity.daily.mean.. 2.m. above.gnd.
                                                        1240.5 1403.2
                                                    1
## - Year
                                                    1
                                                        1240.9 1403.6
## - X
                                                    1
                                                        1240.9 1403.6
                                                        1241.2 1403.9
## - Month
                                                    1
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1241.5 1404.2
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1241.6 1404.3
## - Snowfall.amount.raw.daily.sum..sfc.
                                                        1241.8 1404.5
                                                        1242.7 1405.4
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                    1
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1243.0 1405.7
```

```
## - Temperature.daily.min..2.m.above.gnd.
                                                        1243.4 1406.1
                                                        1244.1 1406.7
## - Wind.Gust.daily.max..sfc.
                                                    1
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                        1244.3 1407.0
                                                        1239.0 1408.8
## <none>
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                        1247.0 1409.7
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                        1248.2 1410.9
                                                    1
## - Temperature.daily.mean..2.m.above.gnd.
                                                        1248.8 1411.5
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1251.2 1413.9
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1251.9 1414.6
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1253.6 1416.3
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                    1
                                                        1260.0 1422.7
## Step: AIC=1402.73
  pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
       Relative. Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
##
       Snowfall.amount.raw.daily.sum..sfc. + Total.Cloud.Cover.daily.mean..sfc. +
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Wind.Speed.daily.mean..80.m.above.gnd. +
##
       Wind.Direction.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..900.mb. +
##
       Temperature.daily.min..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.max..MSL. +
##
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Gust.daily.max..sfc.
##
##
                                                   Df Deviance
                                                                  AIC
## - Total.Cloud.Cover.daily.mean..sfc.
                                                        1241.0 1396.7
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                        1241.2 1396.8
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                    1
                                                        1241.3 1397.0
## - Relative. Humidity.daily.mean.. 2.m. above.gnd.
                                                        1241.6 1397.2
                                                    1
## - Year
                                                    1
                                                        1241.9 1397.5
## - X
                                                    1
                                                        1241.9 1397.5
## - Month
                                                    1
                                                        1242.2 1397.8
## - Total.Cloud.Cover.daily.min..sfc.
                                                        1242.5 1398.1
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1242.5 1398.1
## - Total.Cloud.Cover.daily.max..sfc.
                                                        1242.7 1398.3
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                    1
                                                        1244.0 1399.6
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1244.3 1399.9
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1244.5 1400.2
## - Wind.Gust.daily.max..sfc.
                                                        1245.2 1400.8
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1246.9 1402.5
## <none>
                                                        1240.0 1402.7
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                        1249.7 1405.3
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1249.9 1405.5
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                        1252.4 1408.0
                                                    1
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1253.3 1408.9
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                        1254.4 1410.0
                                                    1
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1254.8 1410.4
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                    1
                                                        1261.2 1416.8
##
## Step: AIC=1396.66
  pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
##
       Relative.Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
##
       Snowfall.amount.raw.daily.sum..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
```

```
##
       Wind.Direction.daily.mean..900.mb. + Temperature.daily.min..2.m.above.gnd. +
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
##
       High.Cloud.Cover.daily.max..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
##
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
       Wind.Gust.daily.max..sfc.
##
##
##
                                                   Df Deviance
                                                                   ATC
## - High.Cloud.Cover.daily.max..high.cld.lay.
                                                        1242.1 1390.6
## - Year
                                                    1
                                                        1242.8 1391.3
## - X
                                                    1
                                                        1242.9 1391.4
## - Month
                                                        1243.2 1391.7
                                                    1
## - Relative.Humidity.daily.mean..2.m.above.gnd.
                                                    1
                                                        1243.3 1391.9
## - Snowfall.amount.raw.daily.sum..sfc.
                                                        1243.7 1392.3
                                                    1
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1244.7 1393.2
                                                    1
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1244.7 1393.3
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                    1
                                                        1244.8 1393.4
## - Temperature.daily.min..2.m.above.gnd.
                                                        1244.9 1393.4
                                                    1
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1245.2 1393.8
                                                    1
## - Total.Cloud.Cover.daily.max..sfc.
                                                        1245.9 1394.4
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1246.4 1394.9
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                        1248.0 1396.5
                                                        1241.0 1396.7
## <none>
## - Temperature.daily.mean..2.m.above.gnd.
                                                        1250.0 1398.5
                                                    1
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                        1251.4 1400.0
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1253.3 1401.8
## - Wind.Direction.daily.mean..900.mb.
                                                        1254.4 1403.0
                                                    1
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1255.7 1404.3
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1256.0 1404.5
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1262.1 1410.6
##
## Step: AIC=1390.6
  pluie.demain ~ X + Year + Month + Temperature.daily.mean..2.m.above.gnd. +
       Relative. Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
##
##
       Snowfall.amount.raw.daily.sum..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Direction.daily.mean..900.mb. + Temperature.daily.min..2.m.above.gnd. +
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Gust.daily.max..sfc.
##
##
##
                                                   Df Deviance
                                                                   AIC
## - Year
                                                        1243.8 1385.3
                                                    1
## - X
                                                    1
                                                        1243.9 1385.4
## - Month
                                                        1244.2 1385.6
## - Relative. Humidity.daily.mean.. 2.m. above.gnd.
                                                    1
                                                        1244.4 1385.8
## - Snowfall.amount.raw.daily.sum..sfc.
                                                        1244.9 1386.3
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1245.6 1387.1
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                    1
                                                        1245.9 1387.3
## - Temperature.daily.min..2.m.above.gnd.
                                                        1246.3 1387.7
                                                    1
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1247.1 1388.6
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1247.7 1389.2
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1247.9 1389.4
```

```
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1248.2 1389.6
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                    1
                                                        1248.8 1390.3
                                                        1242.1 1390.6
                                                        1252.0 1393.5
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                        1252.1 1393.6
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1254.4 1395.9
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1255.6 1397.1
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1256.9 1398.3
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1257.1 1398.5
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                    1
                                                        1263.5 1405.0
## Step: AIC=1385.29
  pluie.demain ~ X + Month + Temperature.daily.mean..2.m.above.gnd. +
       Relative. Humidity.daily.mean..2.m.above.gnd. + Mean. Sea. Level. Pressure.daily.mean.. MSL. +
##
##
       Snowfall.amount.raw.daily.sum..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Direction.daily.mean..900.mb. + Temperature.daily.min..2.m.above.gnd. +
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Gust.daily.max..sfc.
##
##
                                                   Df Deviance
                                                                  ATC
                                                        1245.8 1380.2
## - Month
## - Relative. Humidity.daily.mean..2.m.above.gnd.
                                                        1245.9 1380.3
## - Snowfall.amount.raw.daily.sum..sfc.
                                                    1
                                                        1246.5 1380.9
## - Total.Cloud.Cover.daily.min..sfc.
                                                        1247.6 1382.0
                                                    1
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                    1
                                                        1247.8 1382.2
## - Temperature.daily.min..2.m.above.gnd.
                                                        1248.0 1382.4
                                                    1
## - X
                                                    1
                                                        1248.8 1383.2
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1249.0 1383.4
## - Wind.Gust.daily.max..sfc.
                                                    1
                                                        1249.1 1383.5
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1249.7 1384.1
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                        1250.0 1384.3
                                                    1
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                        1250.6 1385.0
                                                        1243.8 1385.3
## <none>
## - Temperature.daily.mean..2.m.above.gnd.
                                                        1253.6 1388.0
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                        1253.9 1388.3
                                                    1
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                        1255.9 1390.3
## - Wind.Direction.daily.mean..900.mb.
                                                    1
                                                        1257.7 1392.1
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                        1258.5 1392.9
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                    1
                                                        1258.7 1393.0
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1264.9 1399.2
##
## Step: AIC=1380.17
## pluie.demain ~ X + Temperature.daily.mean..2.m.above.gnd. + Relative.Humidity.daily.mean..2.m.above.
       Mean.Sea.Level.Pressure.daily.mean..MSL. + Snowfall.amount.raw.daily.sum..sfc. +
##
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Wind.Speed.daily.mean..80.m.above.gnd. +
##
       Wind.Direction.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..900.mb. +
       Temperature.daily.min..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.max..MSL. +
##
##
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
       Total.Cloud.Cover.daily.min..sfc. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
##
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
##
       Wind.Gust.daily.max..sfc.
```

```
##
##
                                                                   ATC
                                                   Df Deviance
## - Relative. Humidity.daily.mean.. 2.m. above.gnd.
                                                        1247.3 1374.6
## - Snowfall.amount.raw.daily.sum..sfc.
                                                        1248.8 1376.2
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                        1249.0 1376.4
## - Total.Cloud.Cover.daily.min..sfc.
                                                    1
                                                        1249.6 1376.9
## - Wind.Gust.daily.max..sfc.
                                                        1250.7 1378.0
                                                    1
## - X
                                                    1
                                                        1250.9 1378.2
## - Temperature.daily.min..2.m.above.gnd.
                                                    1
                                                        1251.0 1378.3
## - Total.Cloud.Cover.daily.max..sfc.
                                                    1
                                                        1251.1 1378.4
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                    1
                                                        1251.6 1379.0
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                        1252.1 1379.4
## <none>
                                                        1245.8 1380.2
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                        1253.3 1380.7
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                    1
                                                        1256.3 1383.6
## - Temperature.daily.mean..2.m.above.gnd.
                                                    1
                                                        1256.3 1383.7
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                    1
                                                        1258.0 1385.3
## - Wind.Direction.daily.mean..900.mb.
                                                        1259.0 1386.4
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                    1
                                                        1260.4 1387.7
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                        1261.5 1388.8
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                        1266.8 1394.1
## Step: AIC=1374.61
  pluie.demain ~ X + Temperature.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL.
##
       Snowfall.amount.raw.daily.sum..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Direction.daily.mean..900.mb. + Temperature.daily.min..2.m.above.gnd. +
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
##
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Gust.daily.max..sfc.
##
##
                                                  Df Deviance
## - Snowfall.amount.raw.daily.sum..sfc.
                                                       1250.1 1370.3
                                                   1
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                       1250.3 1370.5
## - Temperature.daily.min..2.m.above.gnd.
                                                   1
                                                       1251.2 1371.4
## - X
                                                       1251.4 1371.7
## - Total.Cloud.Cover.daily.min..sfc.
                                                   1
                                                       1251.5 1371.8
## - Wind.Gust.daily.max..sfc.
                                                       1252.0 1372.2
                                                   1
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                   1
                                                       1252.8 1373.0
## - Total.Cloud.Cover.daily.max..sfc.
                                                       1253.1 1373.4
                                                       1247.3 1374.6
## <none>
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                   1
                                                       1254.5 1374.8
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                       1254.6 1374.8
                                                   1
## - Temperature.daily.mean..2.m.above.gnd.
                                                   1
                                                       1256.4 1376.6
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                       1257.1 1377.4
                                                   1
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                   1
                                                       1259.5 1379.8
## - Wind.Direction.daily.mean..900.mb.
                                                   1
                                                       1260.1 1380.4
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                   1
                                                       1262.1 1382.3
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                   1
                                                       1262.5 1382.7
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                       1268.6 1388.8
                                                   1
## Step: AIC=1370.33
## pluie.demain ~ X + Temperature.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL.
```

```
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Wind.Speed.daily.mean..80.m.above.gnd. +
##
       Wind.Direction.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..900.mb. +
       Temperature.daily.min..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.max..MSL. +
##
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
       Total.Cloud.Cover.daily.min..sfc. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
##
       Wind.Gust.daily.max..sfc.
##
##
##
                                                  Df Deviance
                                                                 AIC
## - Wind.Direction.daily.mean..80.m.above.gnd.
                                                       1253.4 1366.5
## - Total.Cloud.Cover.daily.min..sfc.
                                                       1253.8 1366.9
## - Temperature.daily.min..2.m.above.gnd.
                                                       1254.0 1367.2
                                                   1
## - X
                                                   1
                                                       1254.8 1368.0
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                   1
                                                       1255.5 1368.7
## - Wind.Gust.daily.max..sfc.
                                                   1
                                                       1255.8 1369.0
## - Total.Cloud.Cover.daily.max..sfc.
                                                   1
                                                       1256.2 1369.4
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                   1
                                                       1256.4 1369.5
## <none>
                                                       1250.1 1370.3
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                   1
                                                       1257.3 1370.5
## - Temperature.daily.mean..2.m.above.gnd.
                                                       1259.5 1372.7
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                   1
                                                       1260.2 1373.3
## - Wind.Direction.daily.mean..900.mb.
                                                       1263.5 1376.7
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                       1263.5 1376.7
                                                   1
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                   1
                                                       1265.0 1378.2
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                   1
                                                       1265.3 1378.5
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                   1
                                                       1270.7 1383.8
##
## Step: AIC=1366.54
  pluie.demain ~ X + Temperature.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL.
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Wind.Speed.daily.mean..80.m.above.gnd. +
##
##
       Wind.Direction.daily.mean..900.mb. + Temperature.daily.min..2.m.above.gnd. +
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
##
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Gust.daily.max..sfc.
##
##
                                                  Df Deviance
                                                                 AIC
## - Total.Cloud.Cover.daily.min..sfc.
                                                   1
                                                       1256.1 1362.2
## - X
                                                       1257.9 1364.0
## - Total.Cloud.Cover.daily.max..sfc.
                                                       1258.4 1364.5
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                       1258.6 1364.7
## - Wind.Gust.daily.max..sfc.
                                                       1259.2 1365.3
                                                   1
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                   1
                                                       1259.4 1365.5
## - Temperature.daily.min..2.m.above.gnd.
                                                       1259.6 1365.7
                                                       1253.4 1366.5
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                       1261.8 1367.9
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                   1
                                                       1263.5 1369.7
## - Wind.Direction.daily.mean..900.mb.
                                                   1
                                                       1263.6 1369.7
## - Temperature.daily.mean..2.m.above.gnd.
                                                   1
                                                       1266.2 1372.3
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                   1
                                                       1267.0 1373.1
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                   1
                                                       1267.4 1373.5
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                   1
                                                       1268.6 1374.7
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                   1
                                                       1273.8 1379.9
```

##

```
## Step: AIC=1362.23
## pluie.demain ~ X + Temperature.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL.
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Wind.Speed.daily.mean..80.m.above.gnd. +
##
       Wind.Direction.daily.mean..900.mb. + Temperature.daily.min..2.m.above.gnd. +
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
       Total.Cloud.Cover.daily.max..sfc. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
##
       Wind.Gust.daily.max..sfc.
##
##
##
                                                  Df Deviance
                                                                 AIC
## - X
                                                      1260.3 1359.3
## - Total.Cloud.Cover.daily.max..sfc.
                                                       1261.0 1360.0
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                      1261.2 1360.2
## - Temperature.daily.min..2.m.above.gnd.
                                                      1261.3 1360.3
                                                   1
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                   1
                                                      1261.7 1360.7
## - Wind.Gust.daily.max..sfc.
                                                   1
                                                      1261.7 1360.7
## <none>
                                                       1256.1 1362.2
## - Wind.Direction.daily.mean..900.mb.
                                                      1265.5 1364.5
## - Temperature.daily.mean..2.m.above.gnd.
                                                      1267.4 1366.4
                                                   1
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                   1
                                                       1268.1 1367.1
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                   1
                                                      1269.6 1368.6
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                      1271.1 1370.1
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                      1271.2 1370.2
                                                  1
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                  1
                                                       1271.5 1370.5
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                   1
                                                       1276.2 1375.2
## Step: AIC=1359.3
   pluie.demain ~ Temperature.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Wind.Speed.daily.mean..80.m.above.gnd. +
##
       Wind.Direction.daily.mean..900.mb. + Temperature.daily.min..2.m.above.gnd. +
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
       Total.Cloud.Cover.daily.max..sfc. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd. +
##
       Wind.Gust.daily.max..sfc.
##
##
                                                 Df Deviance
                                                                 AIC
## - Wind.Gust.daily.max..sfc.
                                                     1264.0 1355.9
## - Total.Cloud.Cover.daily.max..sfc.
                                                      1264.7 1356.7
## - Temperature.daily.min..2.m.above.gnd.
                                                       1265.6 1357.6
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                       1265.9 1357.8
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                      1267.3 1359.3
## <none>
                                                       1260.3 1359.3
## - Wind.Direction.daily.mean..900.mb.
                                                   1
                                                      1269.9 1361.8
## - Temperature.daily.mean..2.m.above.gnd.
                                                   1
                                                      1271.9 1363.9
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                   1
                                                      1272.4 1364.3
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                   1
                                                      1273.7 1365.7
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                   1
                                                      1274.6 1366.5
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                   1
                                                      1275.6 1367.6
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                   1
                                                       1275.7 1367.7
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                   1
                                                       1281.0 1372.9
##
## Step: AIC=1355.91
## pluie.demain ~ Temperature.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Wind.Speed.daily.mean..80.m.above.gnd. +
```

```
##
       Wind.Direction.daily.mean..900.mb. + Temperature.daily.min..2.m.above.gnd. +
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
       Total.Cloud.Cover.daily.max..sfc. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd.
##
##
##
                                                 Df Deviance
                                                                 AIC
## - Total.Cloud.Cover.daily.max..sfc.
                                                      1268.5 1353.4
## - Temperature.daily.min..2.m.above.gnd.
                                                       1269.4 1354.3
                                                   1
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                       1269.5 1354.4
                                                       1264.0 1355.9
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                   1
                                                      1274.4 1359.3
## - Wind.Direction.daily.mean..900.mb.
                                                       1275.0 1359.9
                                                   1
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                   1
                                                      1275.8 1360.7
## - Temperature.daily.mean..2.m.above.gnd.
                                                   1
                                                      1275.9 1360.8
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                   1
                                                      1278.6 1363.4
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                   1
                                                      1279.9 1364.7
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                   1
                                                      1281.1 1366.0
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                       1281.1 1366.0
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                   1
                                                      1287.3 1372.2
## Step: AIC=1353.39
## pluie.demain ~ Temperature.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Wind.Speed.daily.mean..80.m.above.gnd. +
##
       Wind.Direction.daily.mean..900.mb. + Temperature.daily.min..2.m.above.gnd. +
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
       Wind.Speed.daily.min..10.m.above.gnd.
##
##
                                                  Df Deviance
                                                                 AIC
## - Temperature.daily.min..2.m.above.gnd.
                                                      1272.3 1350.1
                                                       1268.5 1353.4
## - Temperature.daily.mean..2.m.above.gnd.
                                                   1
                                                       1277.8 1355.6
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                       1278.6 1356.4
## - Wind.Direction.daily.mean..900.mb.
                                                      1280.2 1358.1
                                                   1
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                   1
                                                       1281.6 1359.4
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                   1
                                                      1283.0 1360.8
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                   1
                                                      1283.3 1361.1
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay.
                                                   1
                                                      1284.1 1361.9
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                   1
                                                       1285.4 1363.2
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                   1
                                                       1286.7 1364.5
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                                   1
                                                       1291.2 1369.0
##
## Step: AIC=1350.14
## pluie.demain ~ Temperature.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Wind.Speed.daily.mean..80.m.above.gnd. +
##
       Wind.Direction.daily.mean..900.mb. + Mean.Sea.Level.Pressure.daily.max..MSL. +
       Mean.Sea.Level.Pressure.daily.min..MSL. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
##
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd.
##
##
                                                  Df Deviance
## <none>
                                                       1272.3 1350.1
## - Wind.Direction.daily.mean..900.mb.
                                                      1281.0 1351.8
## - Wind.Speed.daily.min..10.m.above.gnd.
                                                  1
                                                      1281.2 1351.9
## - Wind.Speed.daily.mean..80.m.above.gnd.
                                                       1284.5 1355.2
```

```
## - Medium.Cloud.Cover.daily.mean..mid.cld.lay. 1 1285.2 1355.9
## - Mean.Sea.Level.Pressure.daily.max..MSL.
                                                1 1286.2 1357.0
## - Medium.Cloud.Cover.daily.max..mid.cld.lay.
                                                1 1286.8 1357.5
## - Mean.Sea.Level.Pressure.daily.mean..MSL.
                                                1 1289.0 1359.7
## - Wind.Speed.daily.max..10.m.above.gnd.
                                                1 1289.6 1360.3
## - Temperature.daily.mean..2.m.above.gnd.
                                                1 1293.2 1363.9
## - Mean.Sea.Level.Pressure.daily.min..MSL.
                                              1 1296.0 1366.8
# summary(m6)
pred_backward_aic=predict(m6, d , type = "response")
tab_backward=table(d$pluie.demain, pred_backward_aic >=.5)
tab_backward
##
##
          FALSE TRUE
##
    FALSE
            409 170
##
    TRUE
            127 474
matrixconfusion_bacward=1-sum(diag(tab_backward)/sum(tab_backward))
matrixconfusion_bacward
## [1] 0.2516949
```

la valeur de matrice de confusion est de 25.16%

[1] 0.02261613

Choix de modéle à l'aide de déviance

Analysons la déviance. La sortie nous indique

```
# m1=glm(pluie.demain~ . , data=d, family=binomial)
# d'après summary(m1)
# Null deviance: 1635.4 on 1179 degrees of freedom
# Residual deviance: 1232.4 on 1135 degrees of freedom
# On commence par comparer notre modèle au modèle sans covariable
pchisq(1635.4 - 1232.4, 1179 - 1135, lower = F)
## [1] 1.654304e-59
# On obtient une p-valeur très faible : on rejette le modèle sans covariable. Notre modèle est donc uti
# Comparons maintenant notre modèle au modèle saturé
pchisq(1232.4, 1135, lower = F)
```

```
# Là aussi, la p-valeur est faible : on rejette donc notre modèle et on préfère le modèle saturé. Autre
# m2=step(m1)
# d'après summary (m2)
# Null deviance: 1635.4 on 1179 degrees of freedom
# Residual deviance: 1247.3 on 1162 degrees of freedom
# On commence par comparer notre modèle au modèle sans covariable
pchisq(1635.4 - 1247.3, 1179 - 1162, lower = F)
## [1] 5.67989e-72
# On obtient une p-valeur très faible : on rejette le modèle sans covariable. Notre modèle est donc uti
# Comparons maintenant notre modèle au modèle saturé
pchisq(1247.3, 1162, lower = F)
## [1] 0.04078618
# Là aussi, la p-valeur est faible : on rejette donc notre modèle et on préfère le modèle saturé. Autre
# Notons que dans cette situation, notre modéle m2 bien qu'insuffisant, peut tout de même être utile.
# d'après summary(m3)
# Null deviance: 1635.4 on 1179 degrees of freedom
# Residual deviance: 1381.3 on 1174 degrees of freedom
# On commence par comparer notre modèle au modèle sans covariable
pchisq(1635.4 - 1381.3, 1179 - 1174, lower = F)
## [1] 7.249852e-53
# On obtient une p-valeur très faible : on rejette le modèle sans covariable. Notre modèle est donc uti
# Comparons maintenant notre modèle au modèle saturé
pchisq(1381.3, 1174, lower = F)
## [1] 2.422467e-05
# Là aussi, la p-valeur est faible : on rejette donc notre modèle et on préfère le modèle saturé. Autre
# d'après summary(m4)
#Null deviance: 1635.4 on 1179 degrees of freedom
# Residual deviance: 1312.3 on 1171 degrees of freedom
# On commence par comparer notre modèle au modèle sans covariable
pchisq(1635.4 - 1312.3, 1179 - 1171, lower = F)
## [1] 4.949777e-65
# On obtient une p-valeur très faible : on rejette le modèle sans covariable. Notre modèle est donc uti
# Comparons maintenant notre modèle au modèle saturé
pchisq(1312.3, 1171, lower = F)
```

[1] 0.002374343

```
# Residual deviance: 1304.2 on 1170 degrees of freedom
# On commence par comparer notre modèle au modèle sans covariable
pchisq(1635.4 - 1304.2, 1179 - 1170, lower = F)
## [1] 6.181885e-66
# On obtient une p-valeur très faible : on rejette le modèle sans covariable. Notre modèle est donc uti
# Comparons maintenant notre modèle au modèle saturé
pchisq(1304.2, 1170, lower = F)
## [1] 0.003589709
# Là aussi, la p-valeur est faible : on rejette donc notre modèle et on préfère le modèle saturé. Autre
# d'après summary(m6)
# Null deviance: 1635.4 on 1179 degrees of freedom
# Residual deviance: 1272.3 on 1169 degrees of freedom
# On commence par comparer notre modèle au modèle sans covariable
pchisq(1635.4 - 1272.3, 1179 - 1169, lower = F)
## [1] 6.595256e-72
# On obtient une p-valeur très faible : on rejette le modèle sans covariable. Notre modèle est donc uti
# Comparons maintenant notre modèle au modèle saturé
pchisq(1272.3, 1169, lower = F)
## [1] 0.01830009
# Là aussi, la p-valeur est faible : on rejette donc notre modèle et on préfère le modèle saturé. Autre
choix de modéle à l'aide de anova
anova(m1,m2,test="LRT")
## Analysis of Deviance Table
## Model 1: pluie.demain ~ X + Year + Month + Day + Hour + Minute + Temperature.daily.mean..2.m.above.g
       Relative.Humidity.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean..MSL. +
##
       Total.Precipitation.daily.sum..sfc. + Snowfall.amount.raw.daily.sum..sfc. +
       Total.Cloud.Cover.daily.mean..sfc. + High.Cloud.Cover.daily.mean..high.cld.lay. +
##
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Low.Cloud.Cover.daily.mean..low.cld.lay. +
       Sunshine.Duration.daily.sum..sfc. + Shortwave.Radiation.daily.sum..sfc. +
##
       Wind.Speed.daily.mean..10.m.above.gnd. + Wind.Direction.daily.mean..10.m.above.gnd. +
##
```

Là aussi, la p-valeur est faible : on rejette donc notre modèle et on préfère le modèle saturé. Autre

d'après summary (m5)

Null deviance: 1635.4 on 1179 degrees of freedom

```
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Speed.daily.mean..900.mb. + Wind.Direction.daily.mean..900.mb. +
##
       Wind.Gust.daily.mean..sfc. + Temperature.daily.max..2.m.above.gnd. +
       Temperature.daily.min..2.m.above.gnd. + Relative.Humidity.daily.max..2.m.above.gnd. +
##
##
       Relative.Humidity.daily.min..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.max..MSL. +
       Mean.Sea.Level.Pressure.daily.min..MSL. + Total.Cloud.Cover.daily.max..sfc. +
##
       Total.Cloud.Cover.daily.min..sfc. + High.Cloud.Cover.daily.max..high.cld.lay. +
##
       High.Cloud.Cover.daily.min..high.cld.lay. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +
##
##
       Medium.Cloud.Cover.daily.min..mid.cld.lay. + Low.Cloud.Cover.daily.max..low.cld.lay. +
       Low.Cloud.Cover.daily.min..low.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Speed.daily.max..80.m.above.gnd. +
##
       Wind.Speed.daily.min..80.m.above.gnd. + Wind.Speed.daily.max..900.mb. +
##
       Wind.Speed.daily.min..900.mb. + Wind.Gust.daily.max..sfc. +
       Wind.Gust.daily.min..sfc.
##
## Model 2: pluie.demain ~ X + Temperature.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.m
##
       Snowfall.amount.raw.daily.sum..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
##
       Wind.Direction.daily.mean..900.mb. + Temperature.daily.min..2.m.above.gnd. +
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Gust.daily.max..sfc.
##
     Resid. Df Resid. Dev Df Deviance Pr(>Chi)
##
          1135
## 1
                   1232.4
## 2
          1162
                   1247.3 -27 -14.894
                                         0.9709
anova(m3,m2,test="LRT")
## Analysis of Deviance Table
##
## Model 1: pluie.demain ~ Mean.Sea.Level.Pressure.daily.mean..MSL. + Wind.Direction.daily.mean..900.mb
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
##
       Wind.Speed.daily.min..10.m.above.gnd.
## Model 2: pluie.demain ~ X + Temperature.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.m
##
       Snowfall.amount.raw.daily.sum..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Direction.daily.mean..900.mb. + Temperature.daily.min..2.m.above.gnd. +
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Gust.daily.max..sfc.
##
##
     Resid. Df Resid. Dev Df Deviance Pr(>Chi)
## 1
          1174
                   1381.3
                               133.97 < 2.2e-16 ***
          1162
                   1247.3 12
## 2
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' '1
anova(m4,m3,m2,test="LRT")
## Analysis of Deviance Table
##
## Model 1: pluie.demain ~ Mean.Sea.Level.Pressure.daily.mean..MSL. + Wind.Direction.daily.mean..900.mb
```

##

Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +

```
##
       Wind.Speed.daily.min..10.m.above.gnd. + Sunshine.Duration.daily.sum..sfc. +
##
       Total.Cloud.Cover.daily.max..sfc. + Temperature.daily.max..2.m.above.gnd.
## Model 2: pluie.demain ~ Mean.Sea.Level.Pressure.daily.mean..MSL. + Wind.Direction.daily.mean..900.mb
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
       Wind.Speed.daily.min..10.m.above.gnd.
## Model 3: pluie.demain ~ X + Temperature.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.m
       Snowfall.amount.raw.daily.sum..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Direction.daily.mean..900.mb. + Temperature.daily.min..2.m.above.gnd. +
##
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Gust.daily.max..sfc.
##
     Resid. Df Resid. Dev Df Deviance Pr(>Chi)
## 1
          1171
                   1312.3
## 2
          1174
                   1381.3 -3 -68.996 7.002e-15 ***
## 3
          1162
                   1247.3 12 133.975 < 2.2e-16 ***
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
anova(m3,m4,test="LRT")
## Analysis of Deviance Table
##
## Model 1: pluie.demain ~ Mean.Sea.Level.Pressure.daily.mean..MSL. + Wind.Direction.daily.mean..900.mb
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
       Wind.Speed.daily.min..10.m.above.gnd.
##
## Model 2: pluie.demain ~ Mean.Sea.Level.Pressure.daily.mean..MSL. + Wind.Direction.daily.mean..900.mb
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
       Wind.Speed.daily.min..10.m.above.gnd. + Sunshine.Duration.daily.sum..sfc. +
##
       Total.Cloud.Cover.daily.max..sfc. + Temperature.daily.max..2.m.above.gnd.
##
     Resid. Df Resid. Dev Df Deviance Pr(>Chi)
## 1
          1174
                   1381.3
          1171
## 2
                   1312.3 3
                               68.996 7.002e-15 ***
## ---
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' 1
anova(m5,m2,test="LRT")
## Analysis of Deviance Table
##
## Model 1: pluie.demain ~ Mean.Sea.Level.Pressure.daily.mean..MSL. + Wind.Direction.daily.mean..900.mb
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
##
       Sunshine.Duration.daily.sum..sfc. + Total.Cloud.Cover.daily.max..sfc. +
##
       Temperature.daily.max..2.m.above.gnd. + Wind.Gust.daily.max..sfc. *
       Mean.Sea.Level.Pressure.daily.min..MSL.
##
## Model 2: pluie.demain ~ X + Temperature.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.m
       Snowfall.amount.raw.daily.sum..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
       Wind.Direction.daily.mean..900.mb. + Temperature.daily.min..2.m.above.gnd. +
##
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
```

```
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Gust.daily.max..sfc.
     Resid. Df Resid. Dev Df Deviance Pr(>Chi)
##
                   1304.2
## 1
          1170
          1162
                               56.938 1.852e-09 ***
## 2
                   1247.3 8
                  0 '*** 0.001 '** 0.01 '* 0.05 '. ' 0.1 ' 1
## Signif. codes:
anova(m5,m4,test="LRT")
## Analysis of Deviance Table
##
## Model 1: pluie.demain ~ Mean.Sea.Level.Pressure.daily.mean..MSL. + Wind.Direction.daily.mean..900.mb
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
       Sunshine.Duration.daily.sum..sfc. + Total.Cloud.Cover.daily.max..sfc. +
##
##
       Temperature.daily.max..2.m.above.gnd. + Wind.Gust.daily.max..sfc. *
##
       Mean.Sea.Level.Pressure.daily.min..MSL.
## Model 2: pluie.demain ~ Mean.Sea.Level.Pressure.daily.mean..MSL. + Wind.Direction.daily.mean..900.mb
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
       Wind.Speed.daily.min..10.m.above.gnd. + Sunshine.Duration.daily.sum..sfc. +
##
##
       Total.Cloud.Cover.daily.max..sfc. + Temperature.daily.max..2.m.above.gnd.
     Resid. Df Resid. Dev Df Deviance Pr(>Chi)
##
## 1
          1170
                   1304.2
                   1312.3 -1 -8.0417 0.004571 **
          1171
## ---
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' ' 1
anova(m5,m3,test="LRT")
## Analysis of Deviance Table
##
## Model 1: pluie.demain ~ Mean.Sea.Level.Pressure.daily.mean..MSL. + Wind.Direction.daily.mean..900.mb
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
       Sunshine.Duration.daily.sum..sfc. + Total.Cloud.Cover.daily.max..sfc. +
##
       Temperature.daily.max..2.m.above.gnd. + Wind.Gust.daily.max..sfc. *
##
       Mean.Sea.Level.Pressure.daily.min..MSL.
## Model 2: pluie.demain ~ Mean.Sea.Level.Pressure.daily.mean..MSL. + Wind.Direction.daily.mean..900.mb
##
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
       Wind.Speed.daily.min..10.m.above.gnd.
     Resid. Df Resid. Dev Df Deviance Pr(>Chi)
##
          1170
                   1304.2
## 1
## 2
          1174
                   1381.3 -4 -77.038 7.384e-16 ***
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' 1
anova(m6,m2,test="LRT")
## Analysis of Deviance Table
## Model 1: pluie.demain ~ Temperature.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.mean.
##
       Medium.Cloud.Cover.daily.mean..mid.cld.lay. + Wind.Speed.daily.mean..80.m.above.gnd. +
       Wind.Direction.daily.mean..900.mb. + Mean.Sea.Level.Pressure.daily.max..MSL. +
##
```

Mean.Sea.Level.Pressure.daily.min..MSL. + Medium.Cloud.Cover.daily.max..mid.cld.lay. +

##

```
##
       Wind.Speed.daily.max..10.m.above.gnd. + Wind.Speed.daily.min..10.m.above.gnd.
## Model 2: pluie.demain ~ X + Temperature.daily.mean..2.m.above.gnd. + Mean.Sea.Level.Pressure.daily.m
       Snowfall.amount.raw.daily.sum..sfc. + Medium.Cloud.Cover.daily.mean..mid.cld.lay. +
##
       Wind.Speed.daily.mean..80.m.above.gnd. + Wind.Direction.daily.mean..80.m.above.gnd. +
##
##
       Wind.Direction.daily.mean..900.mb. + Temperature.daily.min..2.m.above.gnd. +
       Mean.Sea.Level.Pressure.daily.max..MSL. + Mean.Sea.Level.Pressure.daily.min..MSL. +
##
       Total.Cloud.Cover.daily.max..sfc. + Total.Cloud.Cover.daily.min..sfc. +
##
       Medium.Cloud.Cover.daily.max..mid.cld.lay. + Wind.Speed.daily.max..10.m.above.gnd. +
##
##
       Wind.Speed.daily.min..10.m.above.gnd. + Wind.Gust.daily.max..sfc.
     Resid. Df Resid. Dev Df Deviance Pr(>Chi)
##
## 1
          1169
                   1272.3
          1162
                   1247.3 7
                               25.044 0.0007453 ***
## 2
## ---
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' ' 1
```

D'après les différents tests anova ,le modèle m2 est le meilleur.

d'après les diffirérents choix de modéles ci dessus, on a choisit le modèle m2 pour faire la prédiction sur le données test.

```
#prédiction sur les données test D
pred_test_m2=predict(m2,newdata = D, type = "response")
head(pred_test_m2)

## 1 2 3 4 5 6
## 0.2799017 0.7992082 0.5830196 0.6477012 0.5034632 0.3448316

predict_test_m2=(pred_test_m2 >=.5)
head(predict_test_m2)

## 1 2 3 4 5 6
## FALSE TRUE TRUE TRUE FALSE
```