

DA_ANOVA2.R

USUARIO

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# Experimento ganancia en peso (GP) basado en diferentes
# Niveles de factor: 4 dietas (D1, D1, D3, D4)

D1 <- c(2.4, 2.2, 3.4, 1.6)
D2 <- c(2.2, 1.9, 1.7, 2.1)
D3 <- c(3.3, 1.3, 2.8, 2.1)
D4 <- c(1.6, 2.5, 1.4, 2.4)

D1[1]
## [1] 2.4

D2[2]
## [1] 1.9

## Para peso bajo sumar la ganancia en peso
sum(D1[1]+D2[1]+D3[1]+D4[1])
## [1] 9.5

sum(D1[2]+D2[2]+D3[2]+D4[2])
## [1] 7.9

sum(D1[3]+D2[3]+D3[3]+D4[3])
## [1] 9.3

sum(D1[4]+D2[4]+D3[4]+D4[4])
## [1] 8.2

## Suamtoria de las dietas independientes de grupo
sum(D1); sum(D2); sum(D3); sum(D4)
## [1] 9.6
## [1] 7.9
## [1] 9.5
```

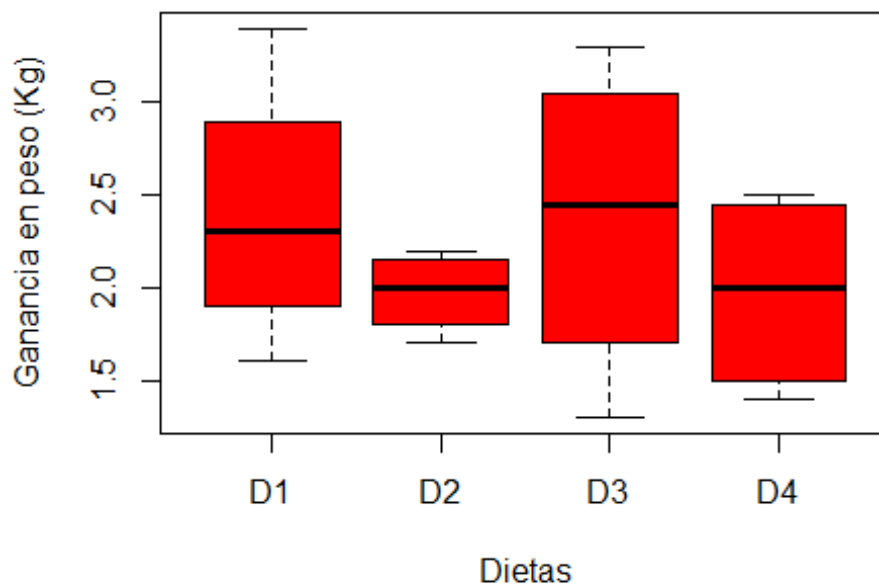
```
## [1] 7.9

# Ganancia en peso, Tratamientos y Bloques
GP <- c(D1,D2,D3,D4)
Trat <- gl(4,4,16, labels = c("D1","D2","D3","D4"))
Bloq <- gl(4,4,16, labels = c("Bajo","Normal","SP", "OB"))

Dietas <- data.frame(Trat,Bloq,GP)
head(Dietas)

##   Trat  Bloq  GP
## 1  D1   Bajo 2.4
## 2  D1   Bajo 2.2
## 3  D1   Bajo 3.4
## 4  D1   Bajo 1.6
## 5  D2 Normal 2.2
## 6  D2 Normal 1.9

boxplot(Dietas$GP~Dietas$Trat, col = "red", xlab = "Dietas",
        ylab = "Ganancia en peso (Kg)")
```



```
tapply(Dietas$GP, Dietas$Trat, var)

##          D1          D2          D3          D4
## 0.56000000 0.04916667 0.75583333 0.30916667

fligner.test(Dietas$GP, Dietas$Trat)
```

```
##
##  Fligner-Killeen test of homogeneity of variances
##
## data:  Dietas$GP and Dietas$Trat
## Fligner-Killeen:med chi-squared = 4.6369, df = 3, p-value = 0.2004

bartlett.test(Dietas$GP, Dietas$Trat)

##
##  Bartlett test of homogeneity of variances
##
## data:  Dietas$GP and Dietas$Trat
## Bartlett's K-squared = 4.1152, df = 3, p-value = 0.2493

diet.aov <- aov(Dietas$GP~Dietas$Trat)
summary(diet.aov)

##              Df Sum Sq Mean Sq F value Pr(>F)
## Dietas$Trat   3  0.682  0.2273   0.543  0.662
## Residuals    12  5.022  0.4185

Di2.aov <- aov(Dietas$GP ~ Dietas$Trat + Dietas$Bloq)
summary(Di2.aov)

##              Df Sum Sq Mean Sq F value Pr(>F)
## Dietas$Trat   3  0.682  0.2273   0.543  0.662
## Residuals    12  5.022  0.4185
```