

# 03\_Ejercicio\_Tarea.R

Usuario

2023-10-03

```
# Diego David Flores Cadena  
# 05/09/2023  
# Matricula: 2070509
```

```
# Importar -----
```

```
setwd("C:/Repositorio_GIT_DiegoFlores/Met.ES/Codigos")  
Tarea<-read.csv("Tarea.csv",header = T)
```

```
# Descriptivas -----
```

```
library(dplyr)
```

```
##  
## Attaching package: 'dplyr'
```

```
## The following objects are masked from 'package:stats':  
##  
##   filter, lag
```

```
## The following objects are masked from 'package:base':  
##  
##   intersect, setdiff, setequal, union
```

```
A<-Tarea %>%  
  filter(Tratamiento == "A")  
  
B<-Tarea %>%  
  filter(Tratamiento == "B")  
  
mean(A$Diametro)
```

```
## [1] 39.76467
```

```
mean(B$Diametro)
```

```
## [1] 45.89167
```

```
Descriptor<-Tarea %>%
  group_by(Tratamiento) %>%
  summarise(
    n=n(),
    media=mean(Diametro),
    mediana=median(Diametro),
    sd=sd(Diametro),
    var=var(Diametro)
  )
```

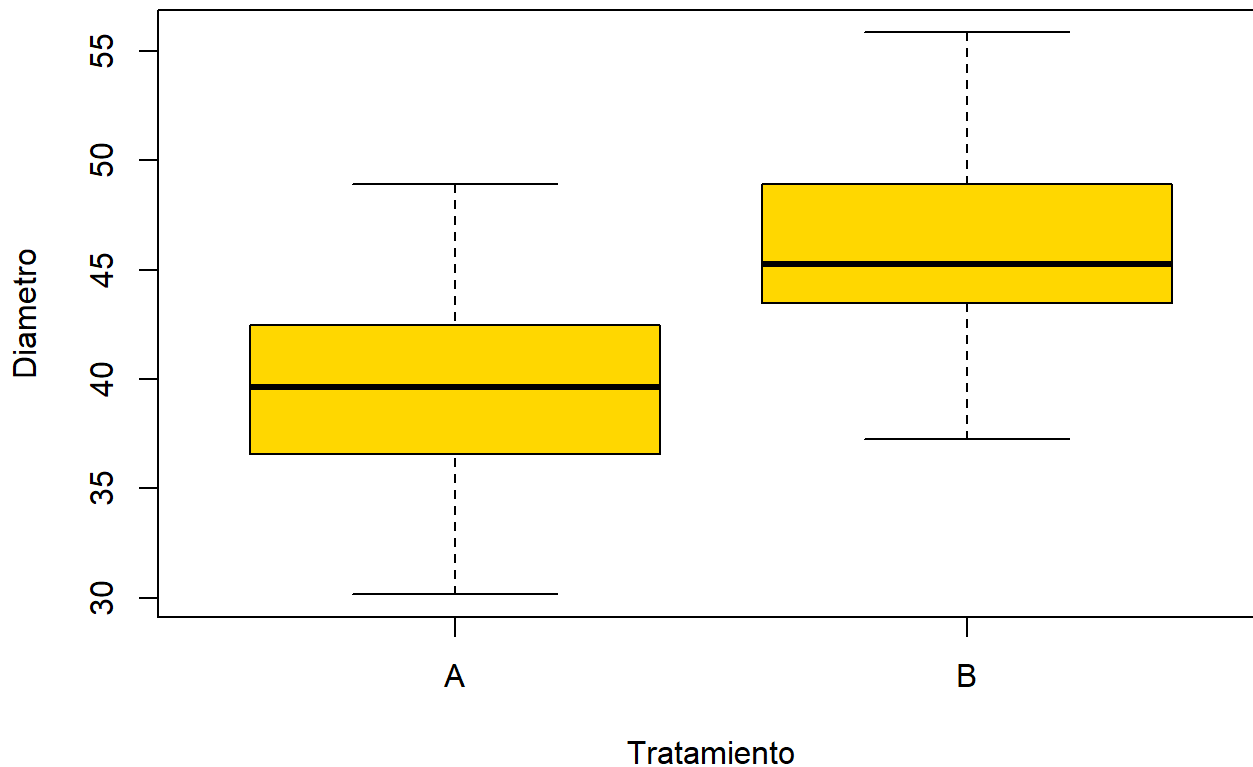
Descriptor

```
## # A tibble: 2 × 6
##   Tratamiento     n media mediana    sd   var
##   <chr>         <int> <dbl>   <dbl> <dbl> <dbl>
## 1 A             30  39.8   39.6  4.90  24.1
## 2 B             30  45.9   45.2  4.17  17.4
```

```
# Gráfica -----

boxplot(Tarea$Diametro~Tarea$Tratamiento,
  xlab = "Tratamiento",
  ylab = "Diametro",
  main = "Árboles Diego",
  col = "gold")
```

## Árboles Diego



```
t.test(Tarea$Diametro~Tarea$Tratamiento,var.equal=T)
```

```
##
## Two Sample t-test
##
## data: Tarea$Diametro by Tarea$Tratamiento
## t = -5.2103, df = 58, p-value = 2.61e-06
## alternative hypothesis: true difference in means between group A and group B is not equal to 0
## 95 percent confidence interval:
## -8.480898 -3.773102
## sample estimates:
## mean in group A mean in group B
## 39.76467 45.89167
```

*# Conclusiones -----*

*#En conclusión los árboles tratados con el fertilizante resultaron perjudicados, ya que, su diametro es menor que los árboles que no utilizaron fertilizante.*