|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Location | Drill | Rep | Yield | SPW |
| Top | Horsch | 1 | 10.285051 | 72.96 |
| Top | Horsch | 2 | 9.684169154 | 73.36 |
| Top | Horsch | 3 | 9.381741294 | 73.14 |
| Top | Horsch | 4 | 9.870783582 | 72.2 |
| Top | Horsch | 5 | 9.544029851 | 72.37 |
| Top | Horsch | 6 | 9.470507463 | 73.32 |
| Top | Cross Slot | 1 | 9.794635685 | 77.15 |
| Top | Cross Slot | 2 | 9.741981004 | 74.56 |
| Top | Cross Slot | 3 | 9.585616011 | 75.34 |
| Top | Cross Slot | 4 | 9.49419403 | 71.9 |
| Top | Cross Slot | 5 | 9.653481343 | 71.54 |
| Top | Cross Slot | 6 | 9.548173507 | 72.28 |
| Top | John Deere | 1 | 10.54843284 | 73.6 |
| Top | John Deere | 2 | 10.03976928 | 75.1 |
| Top | John Deere | 3 | 10.62109142 | 74.92 |
| Top | John Deere | 4 | 10.70192164 | 72.62 |
| Top | John Deere | 5 | 10.66843905 | 72.26 |
| Top | John Deere | 6 | 10.42759701 | 74.03 |
| Bottom | Horsch | 1 | 9.504664179 | 74.8 |
| Bottom | Horsch | 2 | 9.522899254 | 72.77 |
| Bottom | Horsch | 3 | 9.740487562 | 74.54 |
| Bottom | Horsch | 4 | 9.887404229 | 73.53 |
| Bottom | Horsch | 5 | 9.895982587 | 72.98 |
| Bottom | Horsch | 6 | 9.892296642 | 72.32 |
| Bottom | Cross Slot | 1 | 9.157274084 | 72.45 |
| Bottom | Cross Slot | 2 | 9.817408412 | 75.11 |
| Bottom | Cross Slot | 3 | 10.56749525 | 74.87 |
| Bottom | Cross Slot | 4 | 9.446293532 | 74.36 |
| Bottom | Cross Slot | 5 | 9.490563433 | 72.5 |
| Bottom | Cross Slot | 6 | 10.47745833 | 73.88 |
| Bottom | John Deere | 1 | 9.971315299 | 73.61 |
| Bottom | John Deere | 2 | 9.429850746 | 73.51 |
| Bottom | John Deere | 3 | 9.740882463 | 73.38 |
| Bottom | John Deere | 4 | 9.381689552 | 72.81 |
| Bottom | John Deere | 5 | 9.895515672 | 73.96 |
| Bottom | John Deere | 6 | 10.09355075 | 73.91 |

# 1: Trait=Yield

## 1.1 Summary plots





## 1.2 ANOVA anlaysis:

ModelName<-"AOV\_Trait\_Location\_Drill"

DATAaov<-aov(Trait~Data$Location+Data$Location/Data$Drill, data=Data)

ANOVA summary table:

TraitName:

1 Yield

 Df Sum Sq Mean Sq F value Pr(>F)

Data$Location 1 0.275 0.2754 2.585 0.118383

Data$Location:Data$Drill 4 2.796 0.6990 6.561 0.000644 \*\*\*

Residuals 30 3.196 0.1065

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

## 1.3 LSD analysis

> LSD<-LSD.test(DATAaov, "Data$Drill")

> LSD

$statistics

 Mean CV MSerror LSD

 9.860407 3.310336 0.1065452 0.2721479

$parameters

 Df ntr t.value alpha test name.t

 30 3 2.042272 0.05 Fisher-LSD Data$Drill

$means

 Trait std r LCL UCL Min Max

Cross Slot 9.731215 0.4104584 12 9.538777 9.923652 9.157274 10.56750

Horsch 9.723335 0.2567485 12 9.530897 9.915772 9.381741 10.28505

John Deere 10.126671 0.4683552 12 9.934234 10.319109 9.381690 10.70192

$comparison

NULL

$groups

 trt means M

1 John Deere 10.126671 a

2 Cross Slot 9.731215 b

3 Horsch 9.723335 b

# 2 Trait= SPW

## 2.1 Summary plots





## 2.2 ANOVA analysis

 Df Sum Sq Mean Sq F value Pr(>F)

Data$Location 1 0.19 0.1936 0.127 0.724

Data$Location:Data$Drill 4 3.63 0.9063 0.595 0.669

Residuals 30 45.72 1.5241

## 2.3 LSD analysis

> LSD<-LSD.test(DATAaov, "Data$Drill")

> LSD

$statistics

 Mean CV MSerror LSD

 73.55389 1.678434 1.524122 1.029314

$parameters

 Df ntr t.value alpha test name.t

 30 3 2.042272 0.05 Fisher-LSD Data$Drill

$means

 Trait std r LCL UCL Min Max

Cross Slot 73.82833 1.7024999 12 73.10050 74.55617 71.54 77.15

Horsch 73.19083 0.8124761 12 72.46300 73.91867 72.20 74.80

John Deere 73.64250 0.8430478 12 72.91466 74.37034 72.26 75.10

$comparison

NULL

$groups

 trt means M

1 Cross Slot 73.82833 a

2 John Deere 73.64250 a

3 Horsch 73.19083 a

# 3 Location

> DATAaov<-aov(Trait~Data$Location, data=Data)

> SUMaov<-summary(DATAaov)

> SUMaov

 Df Sum Sq Mean Sq F value Pr(>F)

Data$Location 1 0.275 0.2754 1.562 0.22

Residuals 34 5.992 0.1762

> LSD<-LSD.test(DATAaov, "Data$Location")

> LSD

$statistics

 Mean CV MSerror LSD

 9.860407 4.257618 0.1762475 0.2843912

$parameters

 Df ntr t.value alpha test name.t

 34 2 2.032245 0.05 Fisher-LSD Data$Location

$means

 Trait std r LCL UCL Min Max

Bottom 9.772946 0.3679943 18 9.571851 9.974041 9.157274 10.56750

Top 9.947868 0.4659133 18 9.746773 10.148962 9.381741 10.70192

$comparison

NULL

$groups

 trt means M

1 Top 9.947868 a

2 Bottom 9.772946 a