Automatic report for a Randomized Complete Block Design (RCBD)

International Potato Center

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# 1. Model specification and data description

There are data from 12 treatments evaluated using a randomize complete block design with 4 blocks. The statistical model is

where

* is the observed response with treatment and block .
* is the mean response over all treatments and blocks.
* is the effect for treatment .
* is the effect for block .
* is the error term.

In this model we assume that the errors are independent and have a normal distribution with common variance, that is, .

# 2. Analysis for trait Rice\_Total\_aboveground\_biomass\_(including\_panicles)\_Fresh\_weight\_kg

There is more than one datum for at least one treatment in at least one replication. This could be the result of a mislabeling for the levels of the factors. The table below shows the frequencies of valid data for each treatment in each replication.

##   
## 1 2 3 4  
## Rice1 / 0 / Band application beneath surface 1 1 1 0  
## Rice1 / 0 / Broadcast incorporated 0 0 2 1  
## Rice1 / 2 / Band application beneath surface 1 0 1 1  
## Rice1 / 2 / Broadcast incorporated 1 0 2 0  
## Rice1 / 4 / Band application beneath surface 0 2 0 1  
## Rice1 / 4 / Broadcast incorporated 1 1 0 1  
## Rice2 / 0 / Band application beneath surface 1 1 0 1  
## Rice2 / 0 / Broadcast incorporated 1 0 0 2  
## Rice2 / 2 / Band application beneath surface 1 0 1 1  
## Rice2 / 2 / Broadcast incorporated 0 2 1 0  
## Rice3 / 4 / Band application beneath surface 2 0 1 0  
## Rice3 / 4 / Broadcast incorporated 0 2 0 1