Scott Farm Data

Simon Woodward, DairyNZ 2017

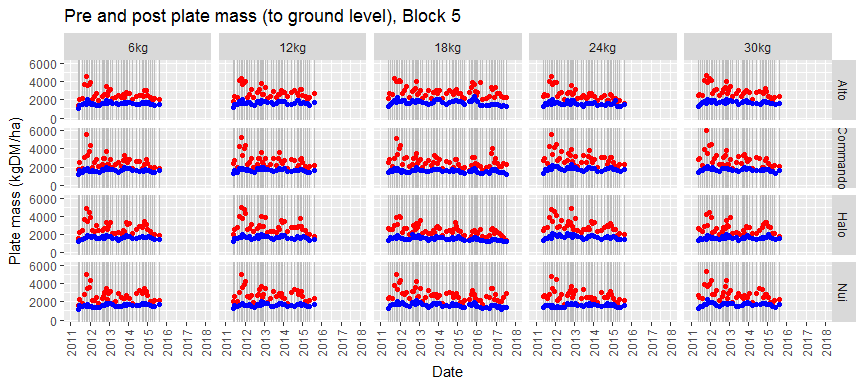
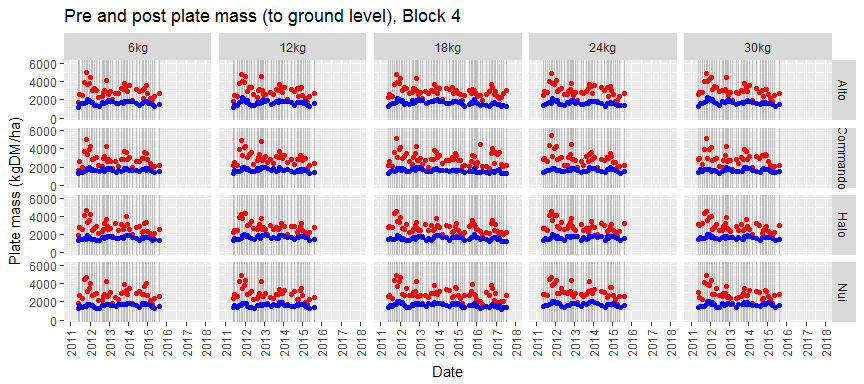
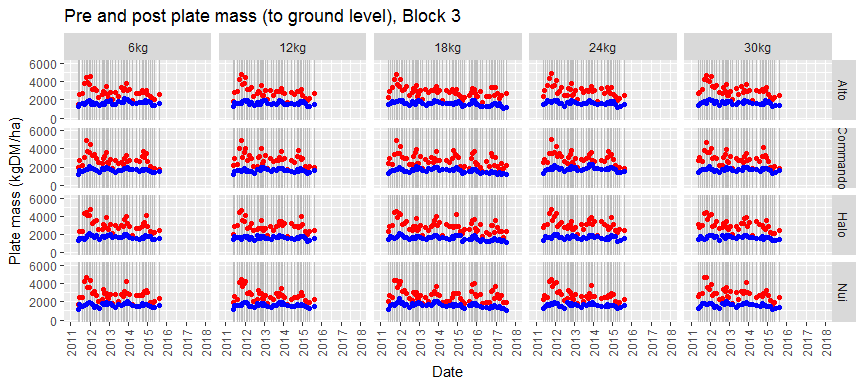
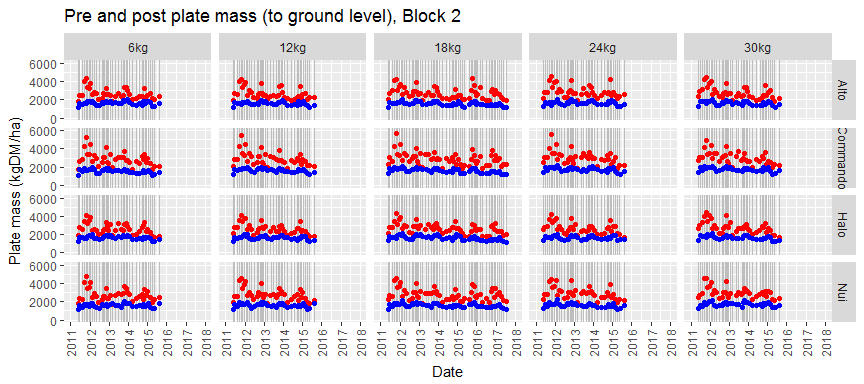
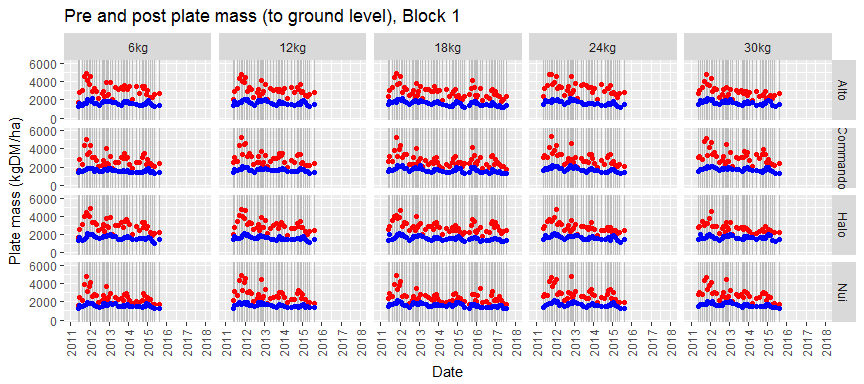
## Scott Farm Data

# file name  
file\_name <- 'FD1004 Data For Modelling.xlsx'  
  
# seed rates in order  
seed\_rate\_levels <- c('6kg', '12kg', '18kg', '24kg', '30kg')

## Rising Plate Meter

Average pre-graze mass = 2854

Average post-graze mass = 1651

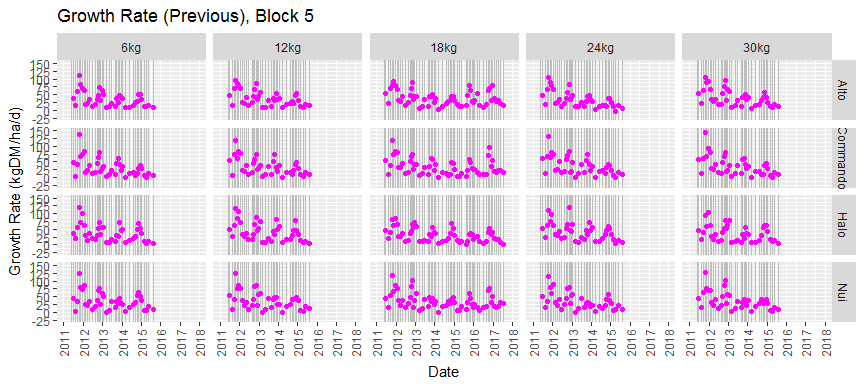
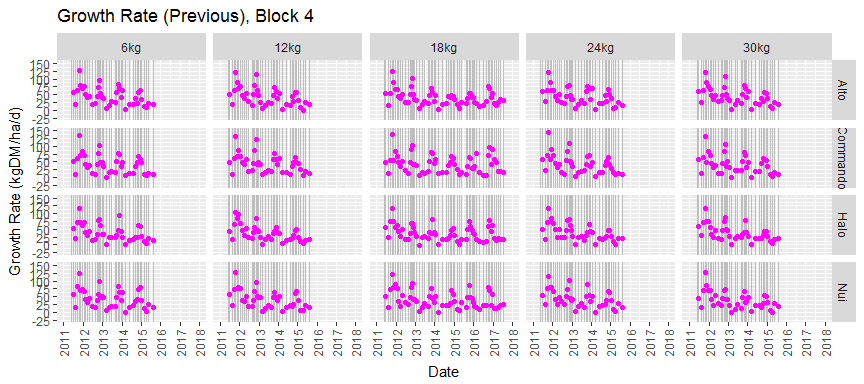
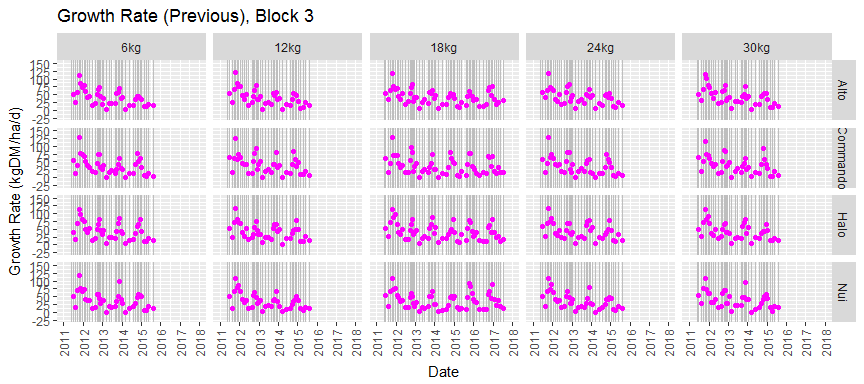
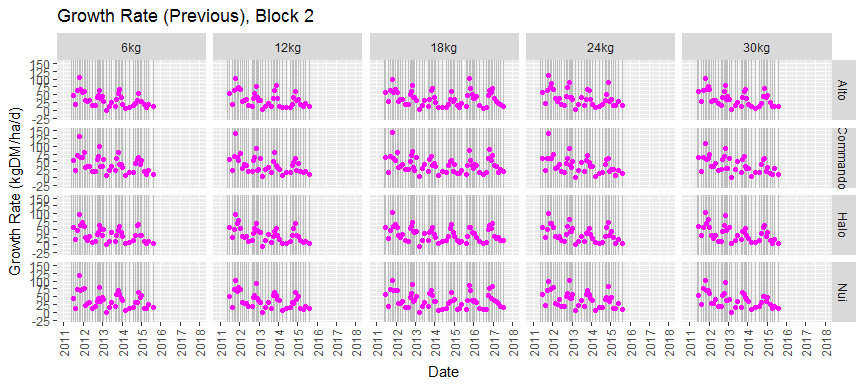
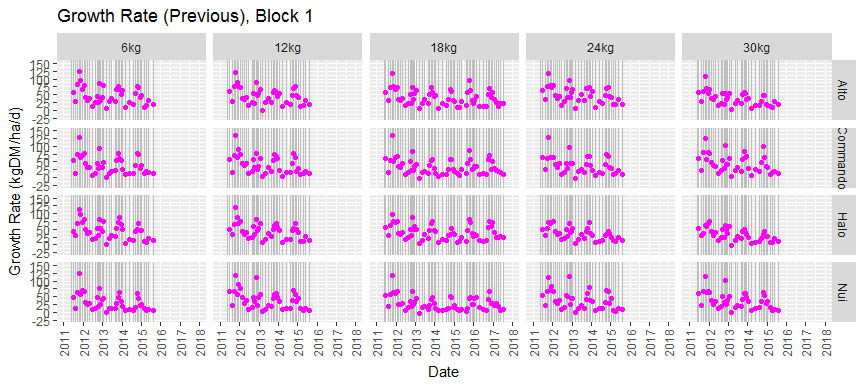


## Rising Plate Meter Growth Rate

### Assumptions

* Growth rate calculated from RPM data and assumed constant between grazings.

Average growth rate = 39

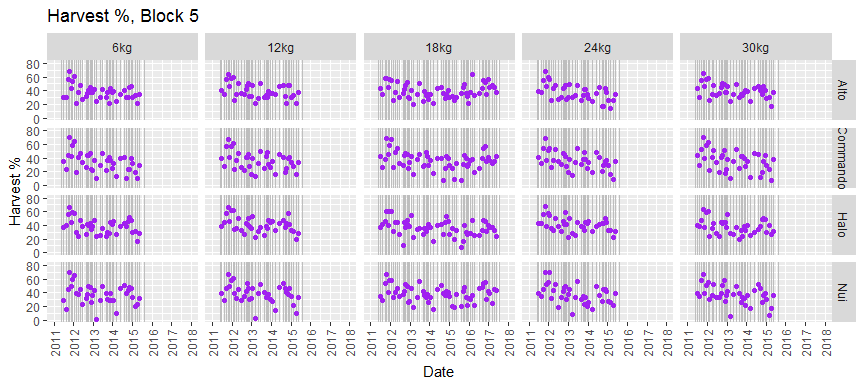
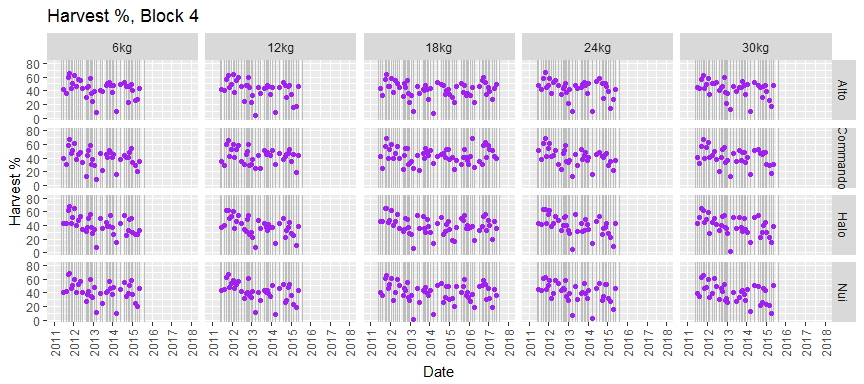
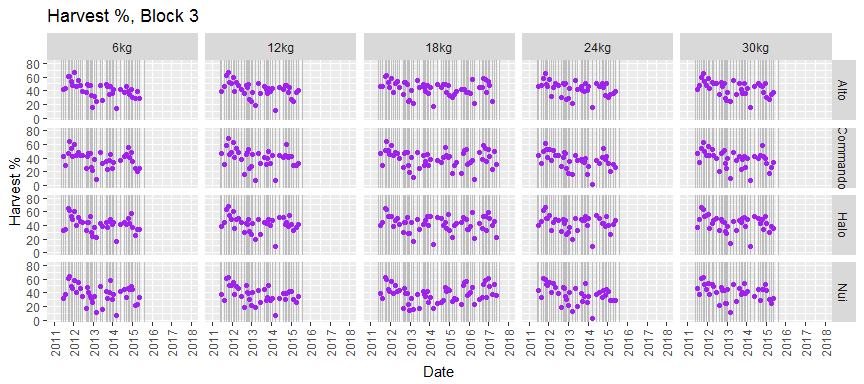
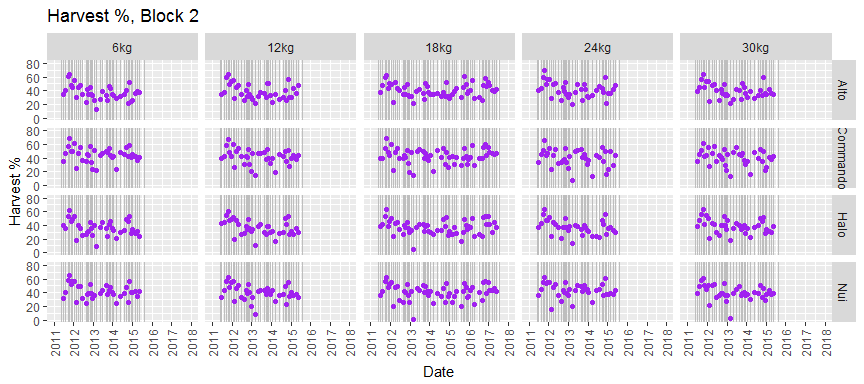
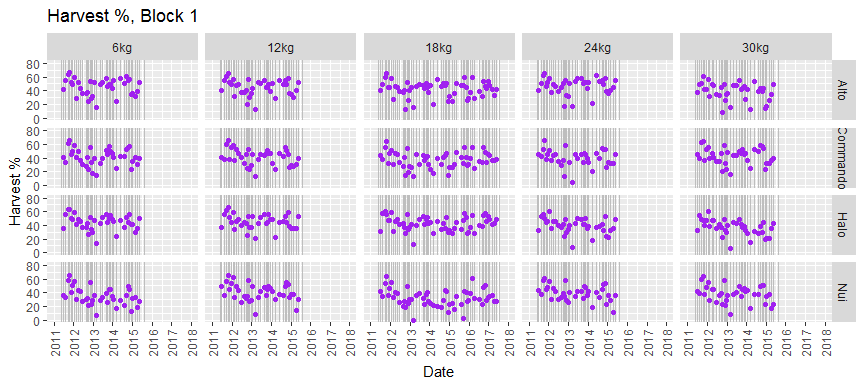


## Rising Plate Meter Harvest %

### Assumptions

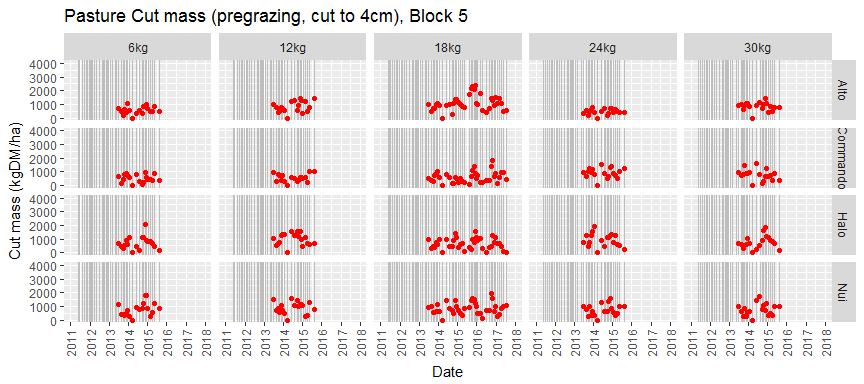
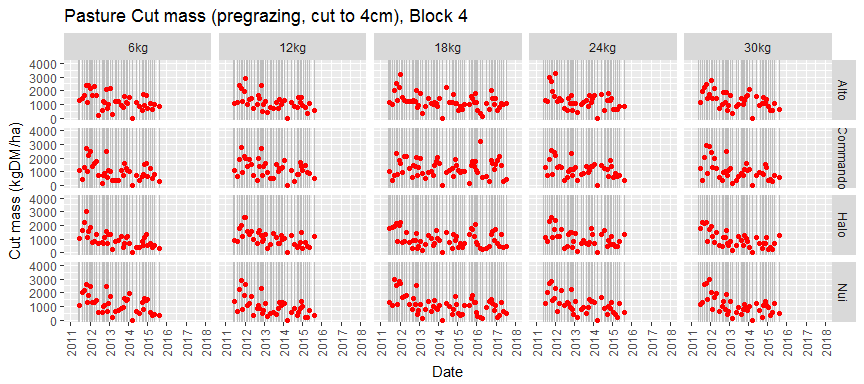
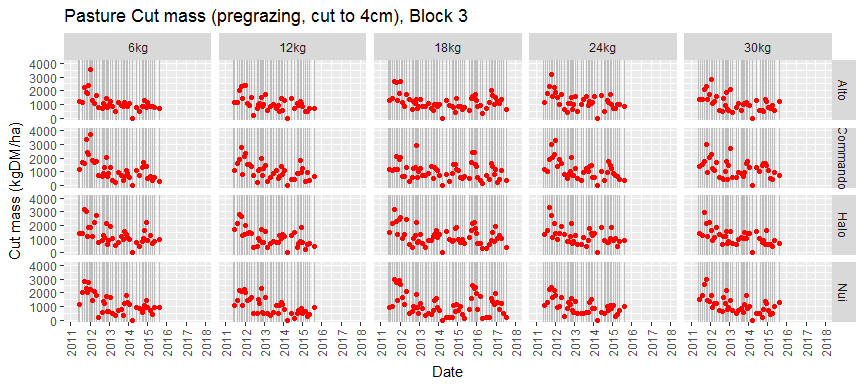
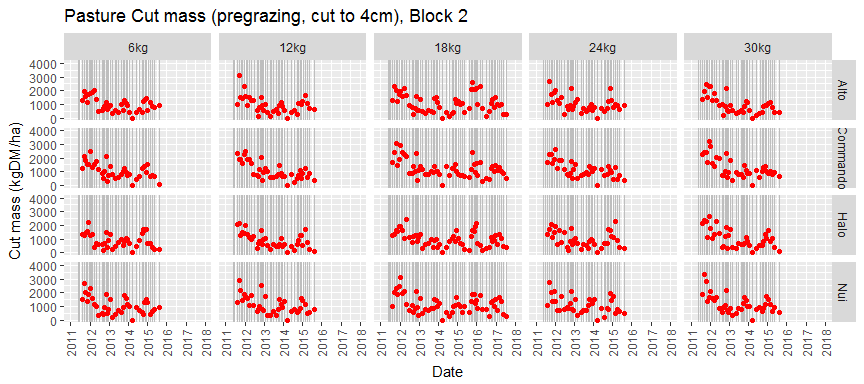
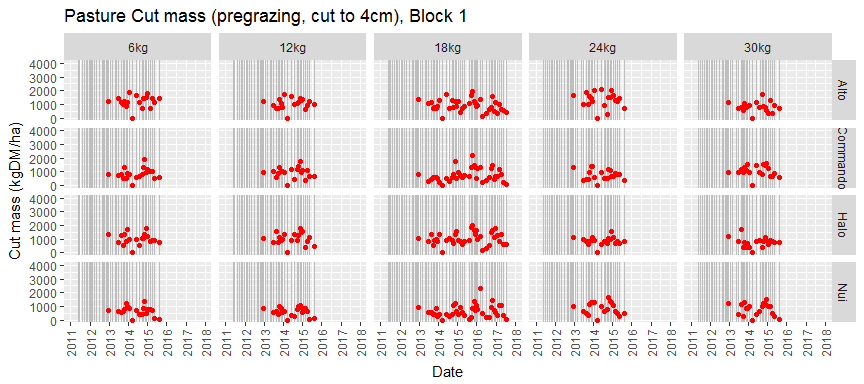
* Assume no pasture growth between pre and post RPM.

Average harvest % = 40



## Pasture Cut Mass

Average cut mass = 1030

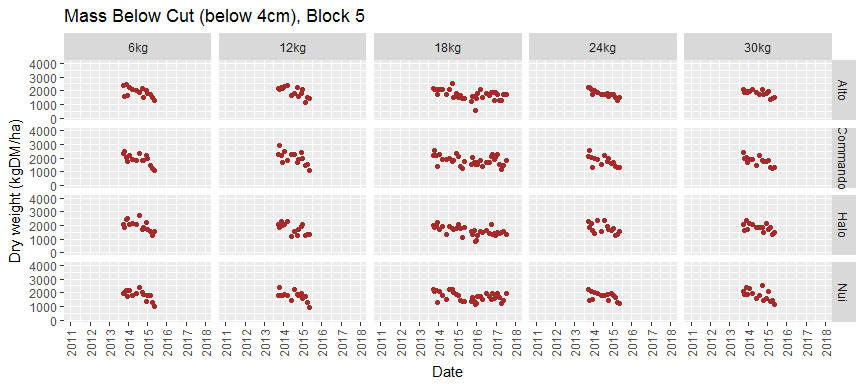
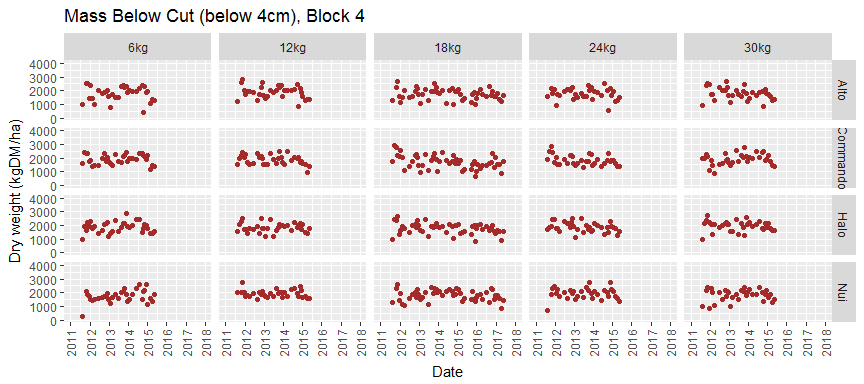
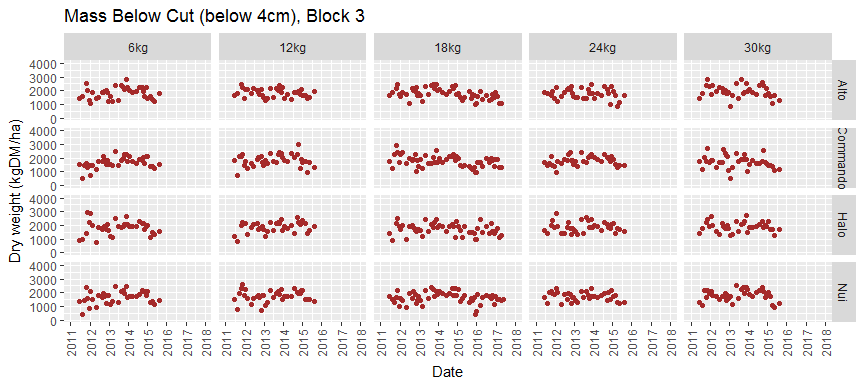
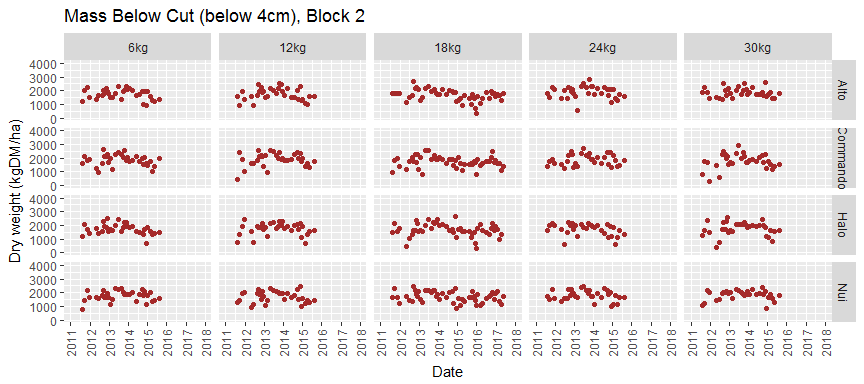
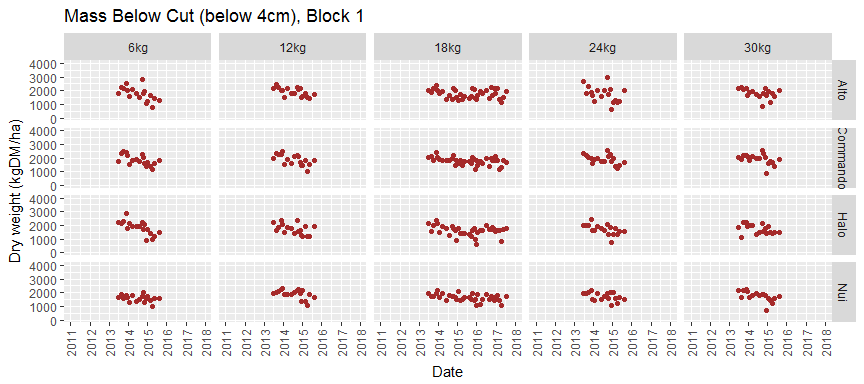


## Estimate Mass Below Cutting Height

### Assumptions

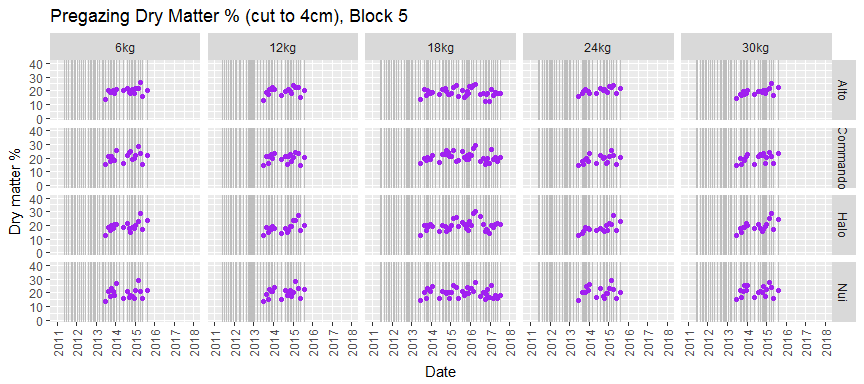
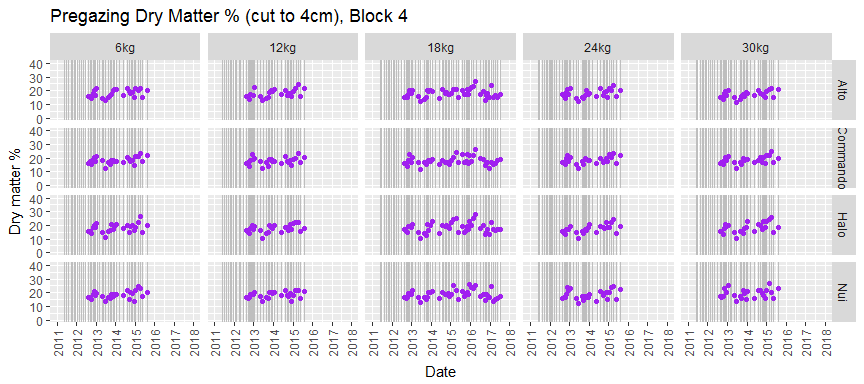
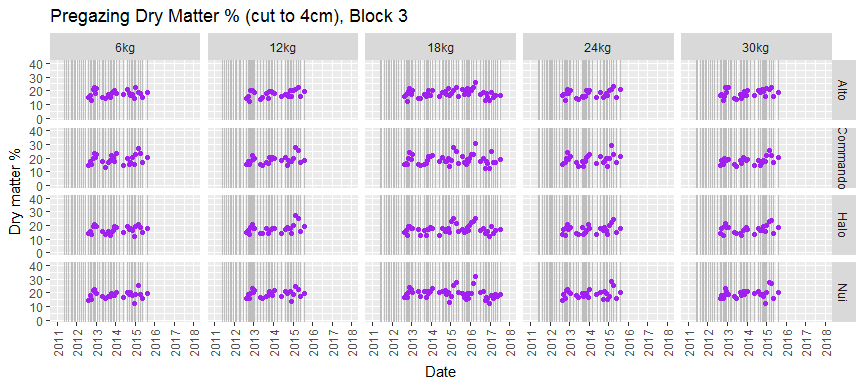
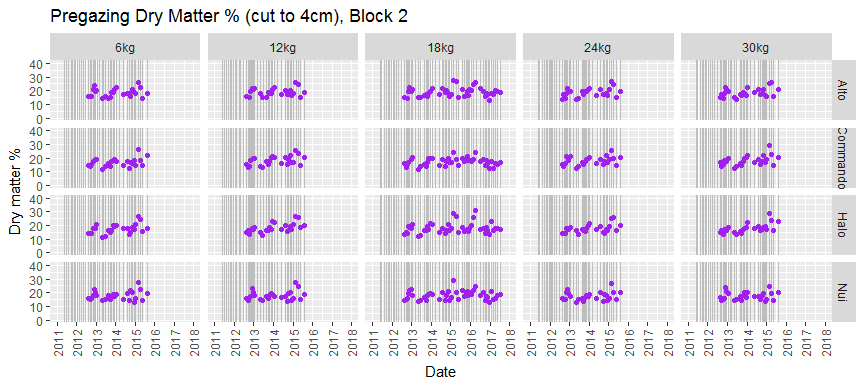
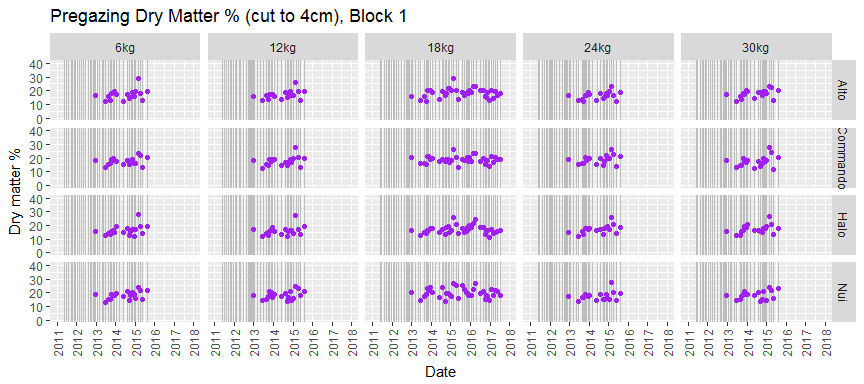
* Total mass at cutting assumed to be equal to pregraze RPM.

Average mass below cutting estimate = 1783



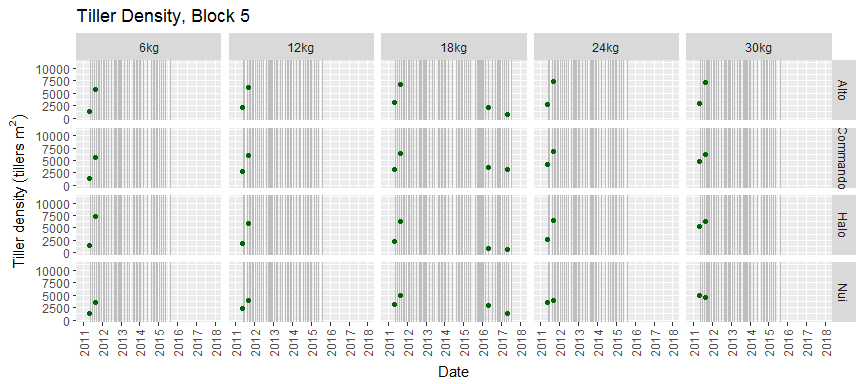
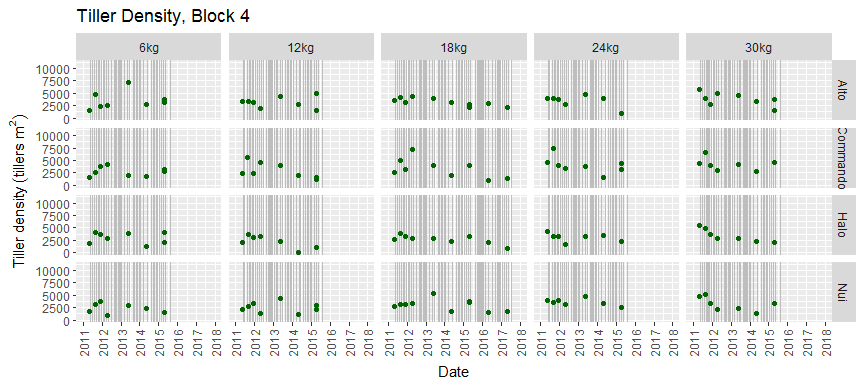
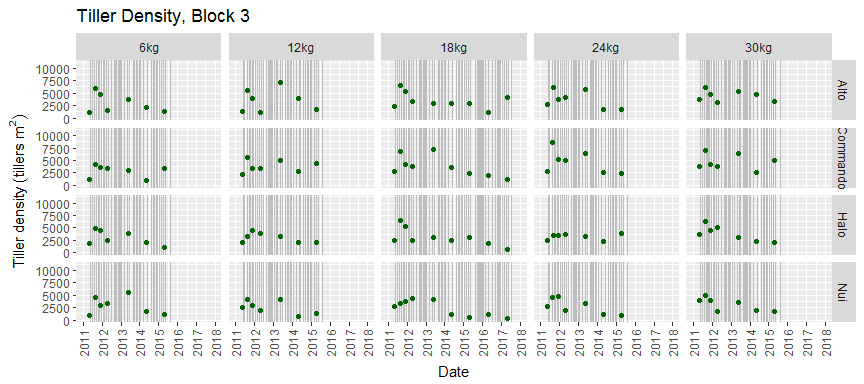
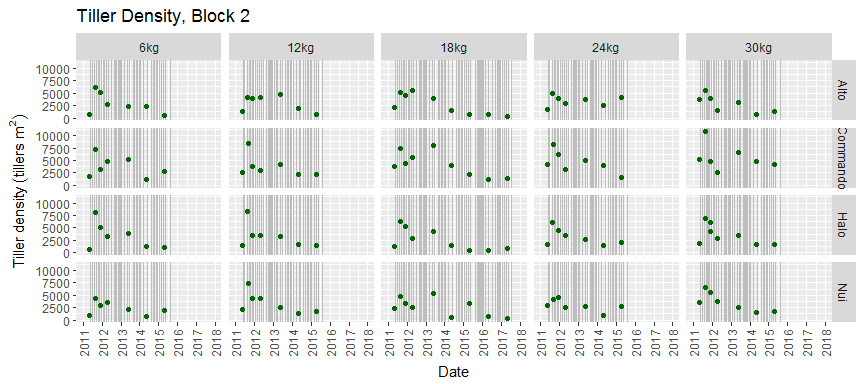
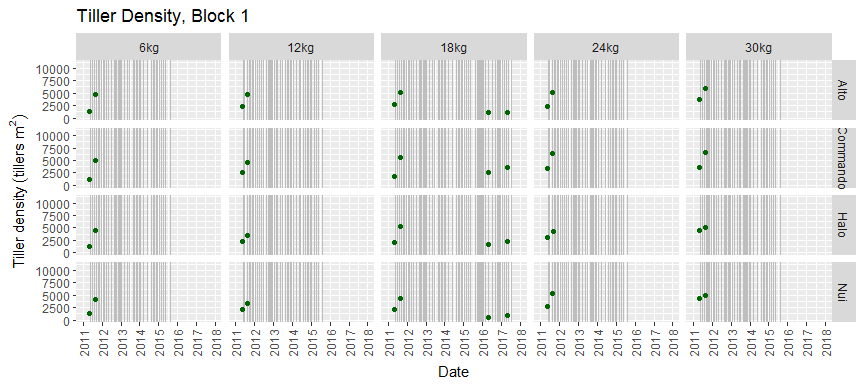
## Pasture Cuts DM%

Average cut dry matter % = 18

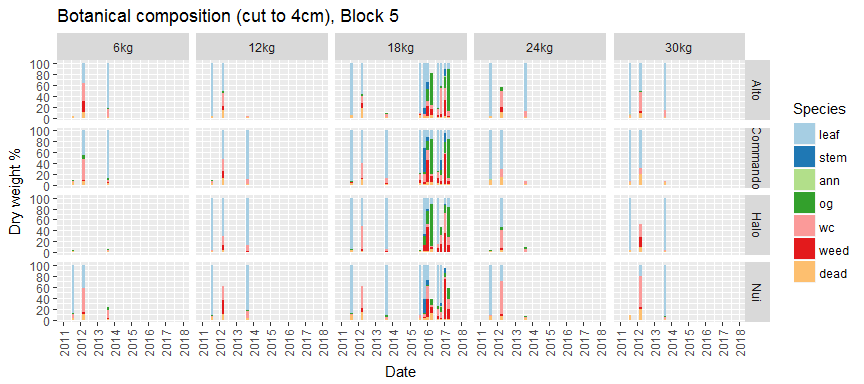
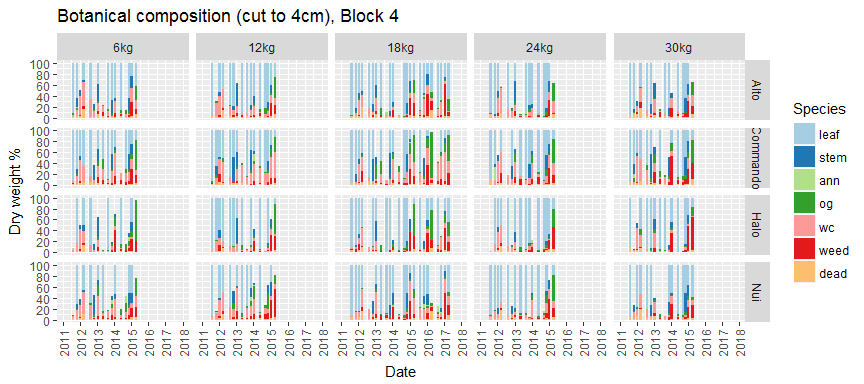
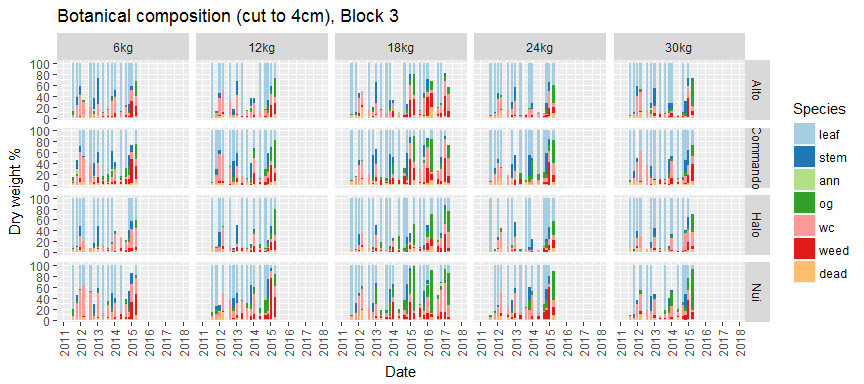
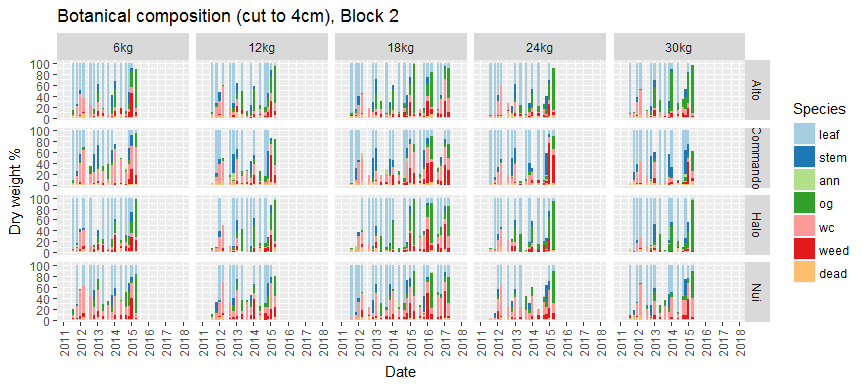
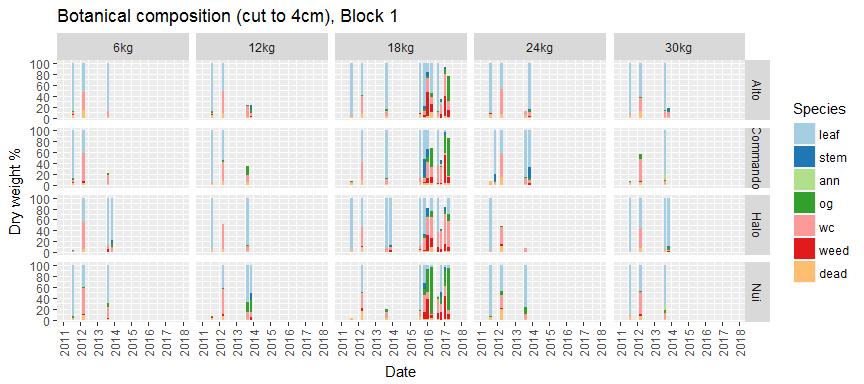


## Tiller Density

Average tiller density = 3364



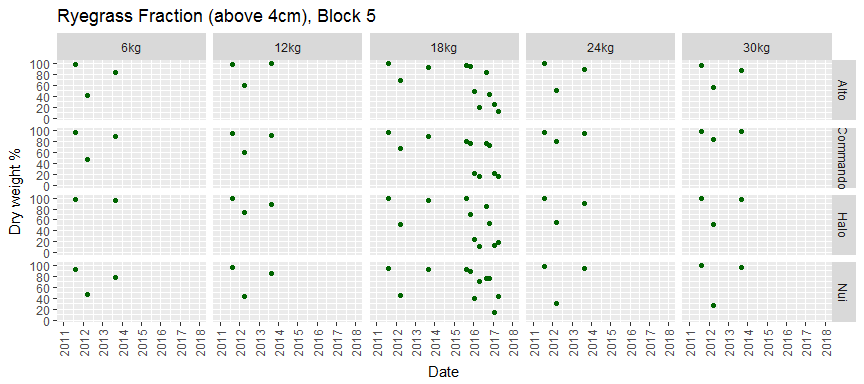
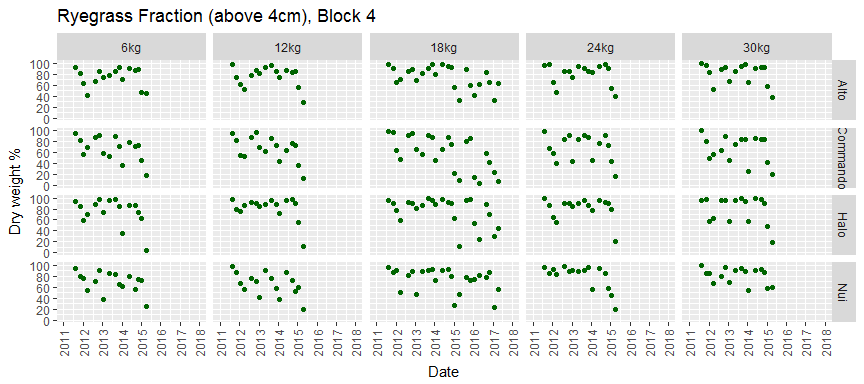
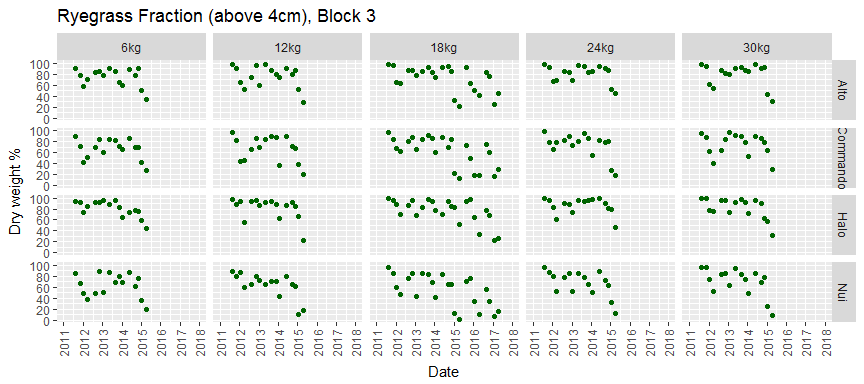
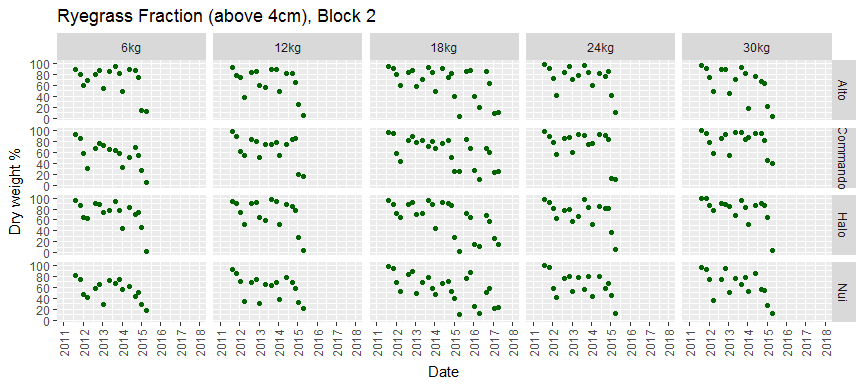
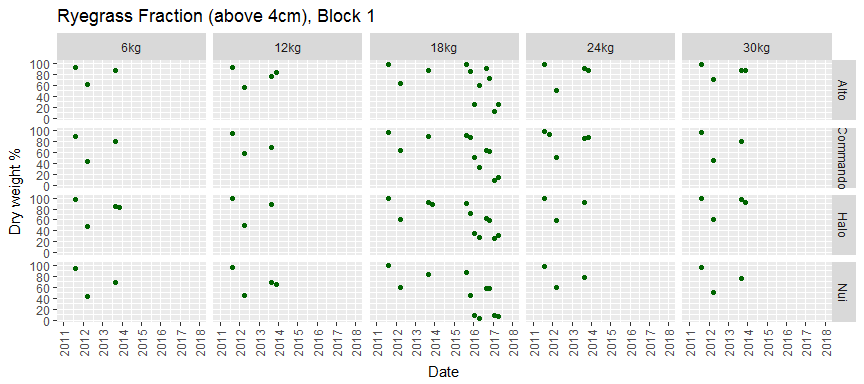
## Botanical Composition



## Ryegrass Fraction

### Assumptions

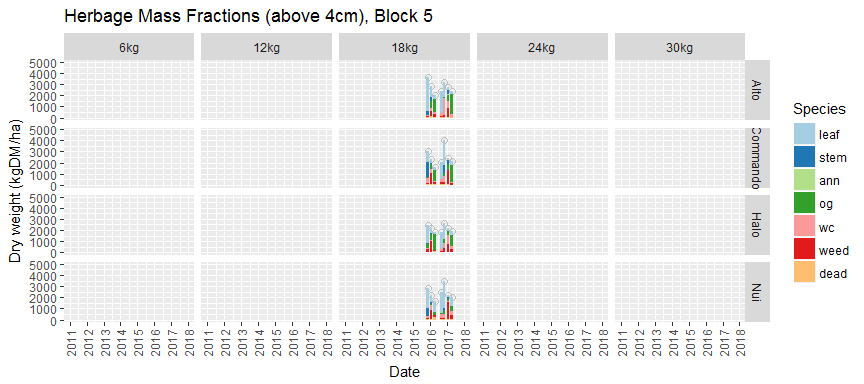
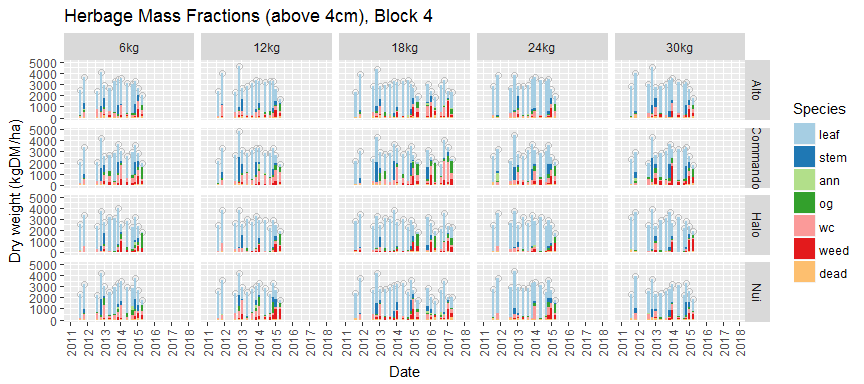
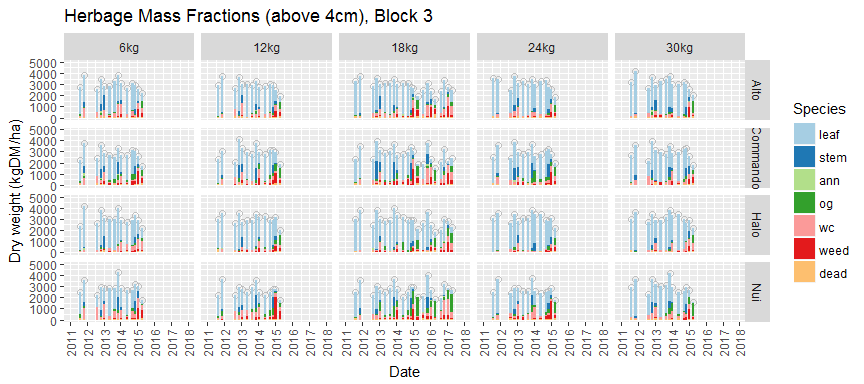
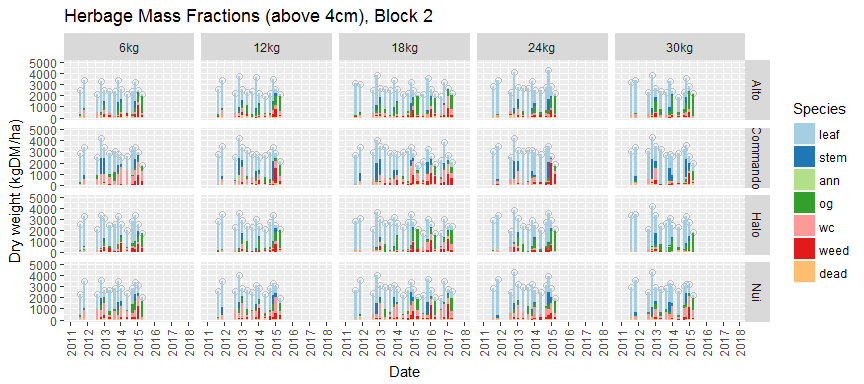
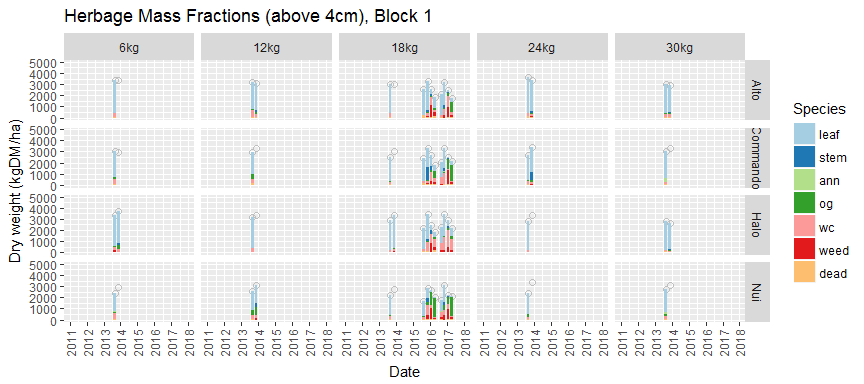
* Ryegrass fraction calculated on green mass only.



## Estimate Botancial Mass

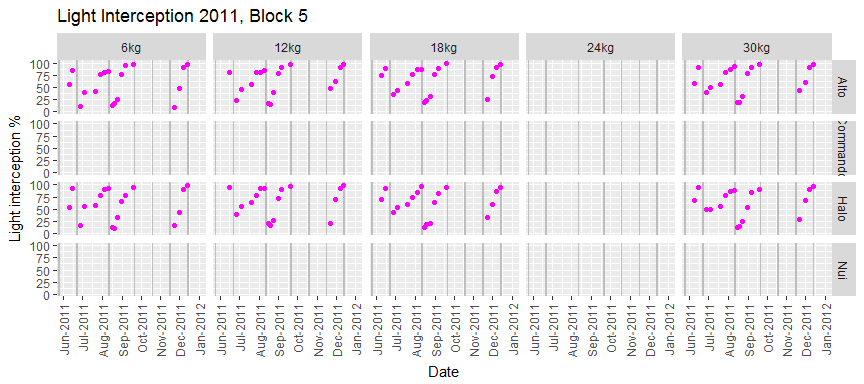
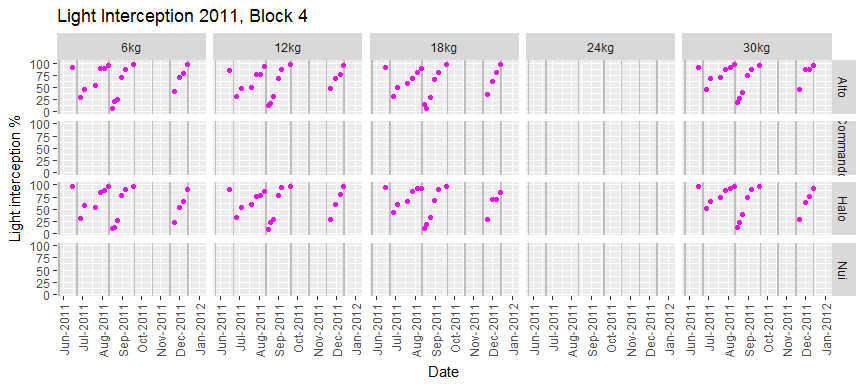
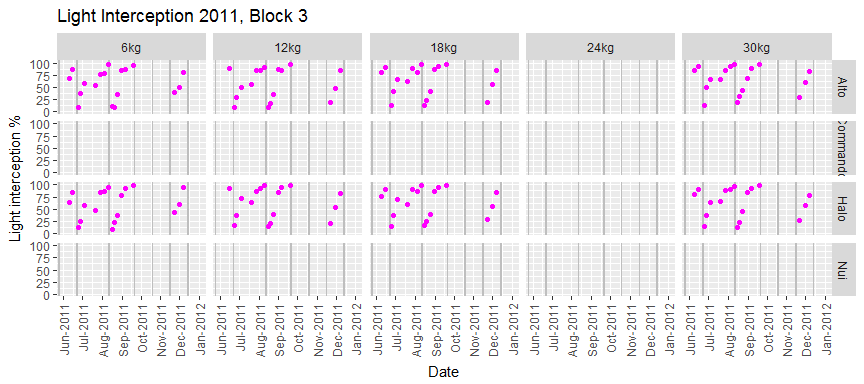
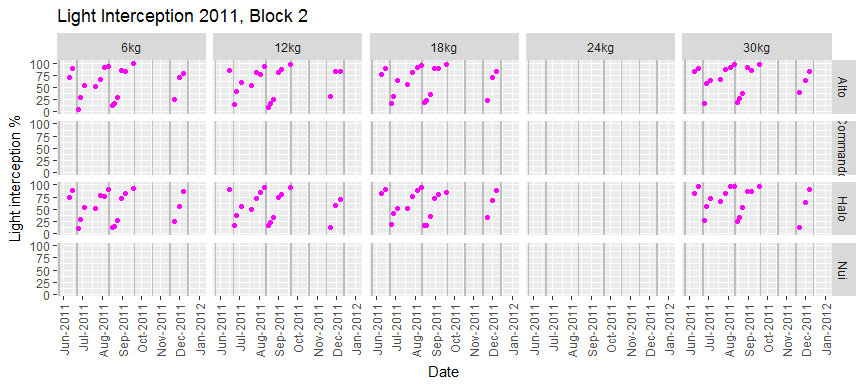
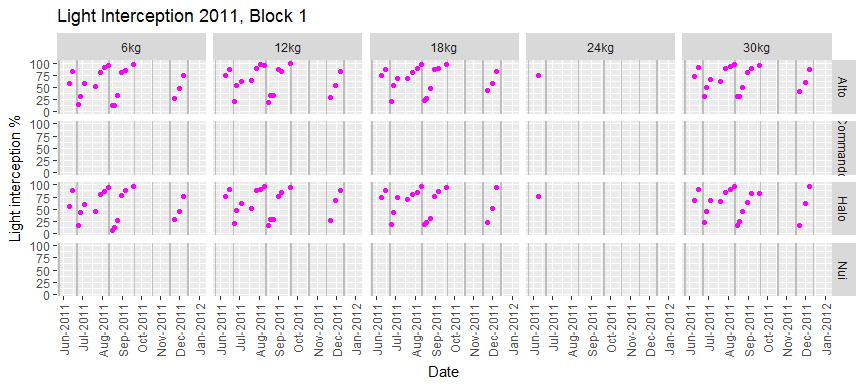
### Assumptions

* Total mass at botanical date assumed to be equal to pregraze RPM.
* Botanical composition assumed the same above and below cutting height (what's the alternative?).



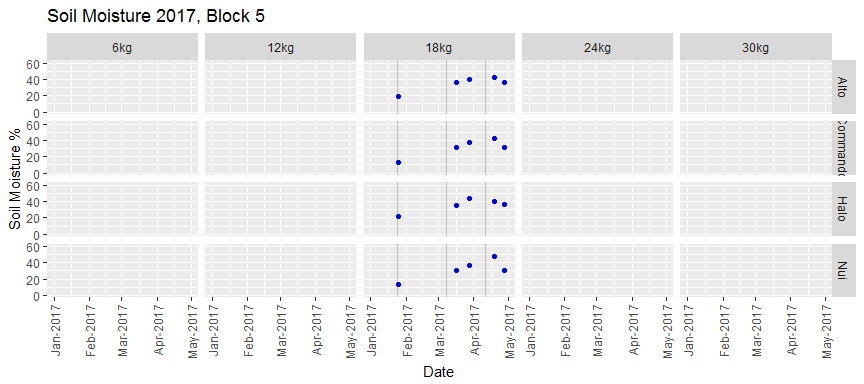
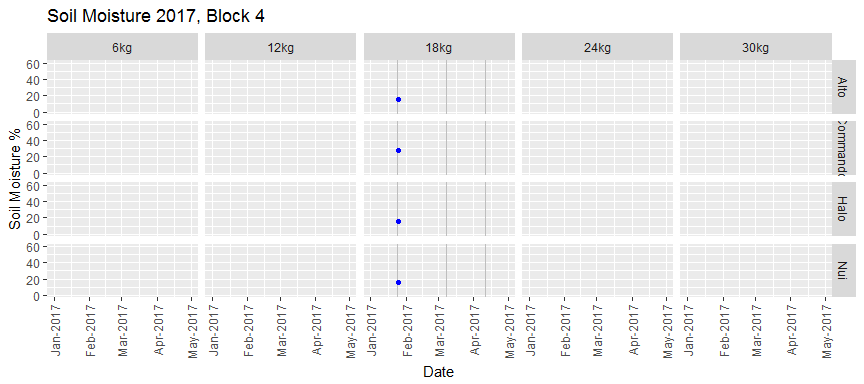
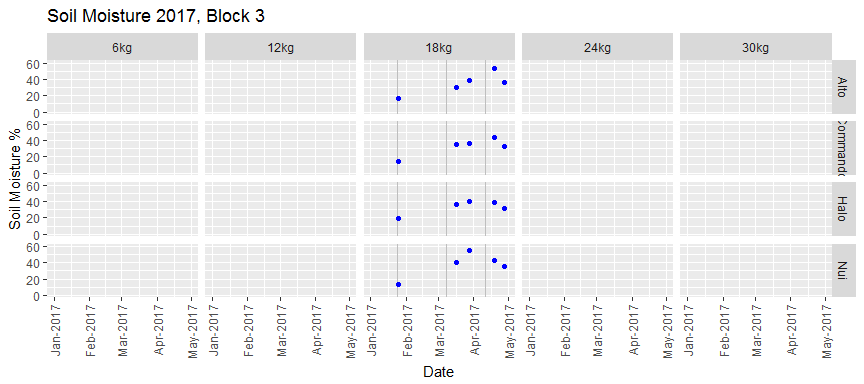
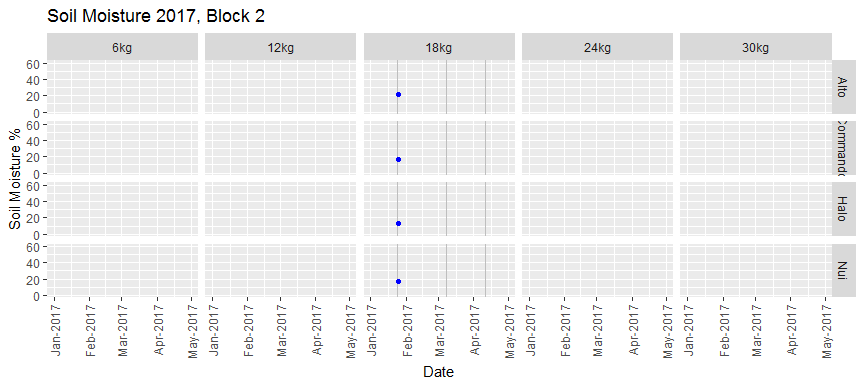
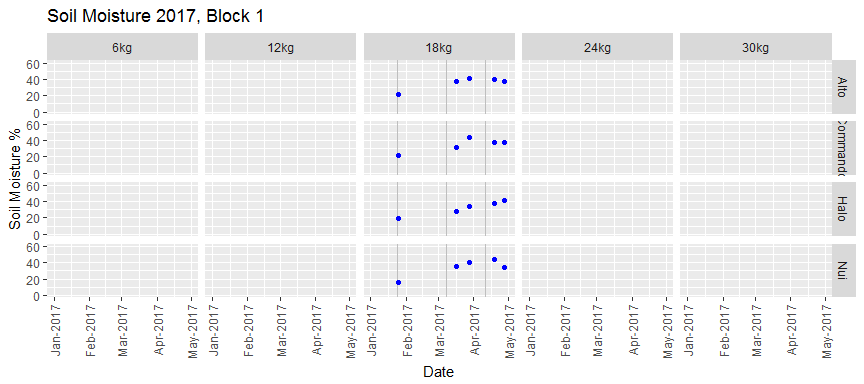
## Light Interception

Average light interception = 63



## Soil Moisture

Average soil moisture = 32



## Write Harvest Dates

# choose data  
acultivar <- 'Alto' # only Alto and Halo have light interception data  
aseed\_rate <- '18kg'  
ablock <- 3  
  
# file name  
file\_name <- "harvest\_Scott.txt"

## Write Calibration Data

# file name  
file\_name <- "data\_calibration\_Scott.txt"