2015BalsamPhenoMunging.R

Audrey McCombs

Wed Jul 05 15:32:03 2017

library(tidyr)

## Warning: package 'tidyr' was built under R version 3.2.5

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

library(lubridate)

## Warning: package 'lubridate' was built under R version 3.2.5

##   
## Attaching package: 'lubridate'

## The following object is masked from 'package:base':  
##   
## date

setwd("D:/Iowa State University/Debinski Lab/Nectar data/MAL")  
  
bp15all <- read.csv("nectar analysis/data files/raw data/Balsamroot phenology/2015BalsamrootPhenologyFinal.csv", header = T, as.is = T)  
  
#Convert from wide to long format  
  
bp15 <- bp15all[,1:12]  
  
for (i in 1:15) {  
 bptemp <- bp15all[,c(1:2,13:22)]  
 names(bptemp)[3:12] <- c("Date", "Flower.height", "Leaf.height", "BD", "AB", "FF", "SG", "SD", "ST", "notes")  
 bp15 <- rbind(bp15, bptemp)  
 bp15all <- bp15all[,-c(13:22)]  
}  
  
rm(bp15all)  
rm(bptemp)  
  
#create unique plant ID  
bp15$Plot <- gsub("\\(", "", bp15$Plot)  
bp15$Plot <- gsub("\\)", "", bp15$Plot)  
bp15$plantid <- paste(bp15$Plot, bp15$Plant, sep = "-")  
  
#create treatment category  
bp15$treatment <- gsub("^C", "", bp15$Plot)  
bp15$treatment <- gsub("W", "", bp15$treatment)  
bp15$treatment <- gsub("E", "", bp15$treatment)  
bp15$treatment <- gsub("HSR", "H", bp15$treatment)  
bp15$treatment <- gsub("SR", "C", bp15$treatment)  
bp15$treatment <- substr(bp15$treatment, 1, 1)  
  
#remove plants that have no flowers  
bpsmall <- bp15[!(is.na(bp15$Flower.height)),]  
bpsmall <- bpsmall[bpsmall$Flower.height != "0",]  
rm(bp15)  
bpsmall <- bpsmall[,-c(2,4:5, 7, 11:12)]  
  
bpsmall <- rename(bpsmall, plot = Plot, date = Date)  
  
bpsmall <- bpsmall[,c(1,7,8,2,3,4,5,6)]  
  
bpsmall$date <- mdy(bpsmall$date)  
bpsmall$plot <- as.factor(bpsmall$plot)  
bpsmall$plantid <- as.factor(bpsmall$plantid)  
bpsmall$treatment <- as.factor(bpsmall$treatment)  
  
bpsmall[is.na(bpsmall)] <- 0  
bpsmall$TF <- rowSums(bpsmall[,5:8])  
  
#Create plant-level tables  
  
plantdfs <- list()  
dfnames <- levels(bpsmall$plantid)  
for (i in 1:length(dfnames)) {  
 plantdfs[[i]] = as.data.frame(subset(bpsmall, plantid == dfnames[i], select = c(1:9)))  
}  
  
# lapply(plantdfs, print) For some reason this prints the list twice, not sure why. For loop below works right.  
  
for (i in 1:length(plantdfs)){  
 print(plantdfs[[i]])  
}

## plot plantid treatment date BD FF SG SD TF  
## 375 CC6 CC6-1 C 2015-05-29 1 0 0 0 1  
## 534 CC6 CC6-1 C 2015-06-01 0 0 0 0 0  
## 693 CC6 CC6-1 C 2015-06-03 0 0 0 0 0  
## 852 CC6 CC6-1 C 2015-06-05 0 0 0 0 0  
## 1011 CC6 CC6-1 C 2015-06-07 0 0 0 0 0  
## 1170 CC6 CC6-1 C 2015-06-09 0 0 0 0 0  
## 1329 CC6 CC6-1 C 2015-06-11 0 0 0 0 0  
## 1488 CC6 CC6-1 C 2015-06-13 0 0 0 0 0  
## 1647 CC6 CC6-1 C 2015-06-15 0 0 0 0 0  
## 1806 CC6 CC6-1 C 2015-06-17 0 0 0 0 0  
## 1965 CC6 CC6-1 C 2015-06-19 0 0 0 0 0  
## 2124 CC6 CC6-1 C 2015-06-21 0 0 0 0 0  
## 2283 CC6 CC6-1 C 2015-06-23 0 0 0 0 0  
## 2442 CC6 CC6-1 C 2015-06-26 0 0 0 0 0  
## plot plantid treatment date BD FF SG SD TF  
## 66 CC6 CC6-10 C 2015-05-24 1 0 0 0 1  
## 225 CC6 CC6-10 C 2015-05-26 1 0 0 0 1  
## 384 CC6 CC6-10 C 2015-05-29 1 0 0 0 1  
## 543 CC6 CC6-10 C 2015-06-01 1 0 0 0 1  
## 702 CC6 CC6-10 C 2015-06-03 1 0 0 0 1  
## 861 CC6 CC6-10 C 2015-06-05 0 1 0 0 1  
## 1020 CC6 CC6-10 C 2015-06-07 0 1 0 0 1  
## 1179 CC6 CC6-10 C 2015-06-09 0 1 0 0 1  
## 1338 CC6 CC6-10 C 2015-06-11 0 0 1 0 1  
## 1497 CC6 CC6-10 C 2015-06-13 0 0 1 0 1  
## 1656 CC6 CC6-10 C 2015-06-15 0 0 0 1 1  
## 1815 CC6 CC6-10 C 2015-06-17 0 0 0 1 1  
## 1974 CC6 CC6-10 C 2015-06-19 0 0 0 1 1  
## 2133 CC6 CC6-10 C 2015-06-21 0 0 0 1 1  
## 2292 CC6 CC6-10 C 2015-06-23 0 0 0 1 1  
## 2451 CC6 CC6-10 C 2015-06-26 0 0 0 1 1  
## plot plantid treatment date BD FF SG SD TF  
## 65 CC6 CC6-9 C 2015-05-24 12 0 0 0 12  
## 224 CC6 CC6-9 C 2015-05-26 8 2 0 0 10  
## 383 CC6 CC6-9 C 2015-05-29 10 2 0 0 12  
## 542 CC6 CC6-9 C 2015-06-01 4 6 0 0 10  
## 701 CC6 CC6-9 C 2015-06-03 2 8 0 0 10  
## 860 CC6 CC6-9 C 2015-06-05 0 10 0 0 10  
## 1019 CC6 CC6-9 C 2015-06-07 0 10 0 0 10  
## 1178 CC6 CC6-9 C 2015-06-09 0 9 0 1 10  
## 1337 CC6 CC6-9 C 2015-06-11 0 10 0 0 10  
## 1496 CC6 CC6-9 C 2015-06-13 0 0 7 3 10  
## 1655 CC6 CC6-9 C 2015-06-15 0 0 8 1 9  
## 1814 CC6 CC6-9 C 2015-06-17 0 0 4 6 10  
## 1973 CC6 CC6-9 C 2015-06-19 0 0 4 6 10  
## 2132 CC6 CC6-9 C 2015-06-21 0 0 0 10 10  
## 2291 CC6 CC6-9 C 2015-06-23 0 0 1 9 10  
## 2450 CC6 CC6-9 C 2015-06-26 0 0 0 10 10  
## plot plantid treatment date BD FF SG SD TF  
## 74 CH5 CH5-2 H 2015-05-24 3 0 0 0 3  
## 233 CH5 CH5-2 H 2015-05-26 3 0 0 0 3  
## 392 CH5 CH5-2 H 2015-05-29 3 0 0 0 3  
## 551 CH5 CH5-2 H 2015-06-01 2 1 0 0 3  
## 710 CH5 CH5-2 H 2015-06-03 0 3 0 0 3  
## 869 CH5 CH5-2 H 2015-06-05 0 0 0 0 0  
## 1028 CH5 CH5-2 H 2015-06-07 0 3 0 0 3  
## 1187 CH5 CH5-2 H 2015-06-09 0 3 0 0 3  
## 1346 CH5 CH5-2 H 2015-06-11 0 3 0 0 3  
## 1505 CH5 CH5-2 H 2015-06-13 0 0 3 0 3  
## 1664 CH5 CH5-2 H 2015-06-15 0 0 3 0 3  
## 1823 CH5 CH5-2 H 2015-06-17 0 0 2 1 3  
## 1982 CH5 CH5-2 H 2015-06-19 0 0 0 3 3  
## 2141 CH5 CH5-2 H 2015-06-21 0 0 0 3 3  
## 2300 CH5 CH5-2 H 2015-06-23 0 0 0 3 3  
## 2459 CH5 CH5-2 H 2015-06-26 0 0 0 3 3  
## plot plantid treatment date BD FF SG SD TF  
## 76 CH5 CH5-4 H 2015-05-24 1 0 0 0 1  
## 235 CH5 CH5-4 H 2015-05-26 1 0 0 0 1  
## 394 CH5 CH5-4 H 2015-05-29 1 0 0 0 1  
## 553 CH5 CH5-4 H 2015-06-01 0 1 0 0 1  
## 712 CH5 CH5-4 H 2015-06-03 0 1 0 0 1  
## 871 CH5 CH5-4 H 2015-06-05 0 1 0 0 1  
## 1030 CH5 CH5-4 H 2015-06-07 0 1 0 0 1  
## 1189 CH5 CH5-4 H 2015-06-09 0 1 0 0 1  
## 1348 CH5 CH5-4 H 2015-06-11 0 1 0 0 1  
## 1507 CH5 CH5-4 H 2015-06-13 0 1 0 0 1  
## 1666 CH5 CH5-4 H 2015-06-15 0 1 0 0 1  
## 1825 CH5 CH5-4 H 2015-06-17 0 1 0 0 1  
## 1984 CH5 CH5-4 H 2015-06-19 0 0 1 0 1  
## 2143 CH5 CH5-4 H 2015-06-21 0 0 1 0 1  
## 2302 CH5 CH5-4 H 2015-06-23 0 0 1 0 1  
## 2461 CH5 CH5-4 H 2015-06-26 0 0 1 0 1  
## plot plantid treatment date BD FF SG SD TF  
## 77 CH5 CH5-5 H 2015-05-24 2 0 0 0 2  
## 395 CH5 CH5-5 H 2015-05-29 1 0 0 0 1  
## 554 CH5 CH5-5 H 2015-06-01 1 1 0 0 2  
## 713 CH5 CH5-5 H 2015-06-03 1 1 0 0 2  
## 872 CH5 CH5-5 H 2015-06-05 1 1 0 0 2  
## 1031 CH5 CH5-5 H 2015-06-07 1 1 0 0 2  
## 1190 CH5 CH5-5 H 2015-06-09 1 1 0 0 2  
## 1349 CH5 CH5-5 H 2015-06-11 0 2 0 0 2  
## 1508 CH5 CH5-5 H 2015-06-13 0 2 0 0 2  
## 1667 CH5 CH5-5 H 2015-06-15 0 2 0 0 2  
## 1826 CH5 CH5-5 H 2015-06-17 0 0 2 0 2  
## 1985 CH5 CH5-5 H 2015-06-19 0 0 1 1 2  
## 2144 CH5 CH5-5 H 2015-06-21 0 0 1 0 1  
## 2303 CH5 CH5-5 H 2015-06-23 0 0 0 2 2  
## 2462 CH5 CH5-5 H 2015-06-26 0 0 0 2 2  
## plot plantid treatment date BD FF SG SD TF  
## 78 CH5 CH5-6 H 2015-05-24 4 0 0 0 4  
## 237 CH5 CH5-6 H 2015-05-26 4 0 0 0 4  
## 396 CH5 CH5-6 H 2015-05-29 4 0 0 0 4  
## 555 CH5 CH5-6 H 2015-06-01 2 2 0 0 4  
## 714 CH5 CH5-6 H 2015-06-03 1 3 0 0 4  
## 873 CH5 CH5-6 H 2015-06-05 1 3 0 0 4  
## 1032 CH5 CH5-6 H 2015-06-07 0 4 0 0 4  
## 1191 CH5 CH5-6 H 2015-06-09 0 4 0 0 4  
## 1350 CH5 CH5-6 H 2015-06-11 0 4 0 0 4  
## 1509 CH5 CH5-6 H 2015-06-13 0 2 2 0 4  
## 1668 CH5 CH5-6 H 2015-06-15 0 1 3 0 4  
## 1827 CH5 CH5-6 H 2015-06-17 0 1 3 0 4  
## 1986 CH5 CH5-6 H 2015-06-19 0 0 4 0 4  
## 2145 CH5 CH5-6 H 2015-06-21 0 0 1 3 4  
## 2304 CH5 CH5-6 H 2015-06-23 0 0 0 4 4  
## 2463 CH5 CH5-6 H 2015-06-26 0 0 0 4 4  
## plot plantid treatment date BD FF SG SD TF  
## 79 CH5 CH5-7 H 2015-05-24 12 0 0 0 12  
## 238 CH5 CH5-7 H 2015-05-26 10 0 0 0 10  
## 397 CH5 CH5-7 H 2015-05-29 12 0 0 0 12  
## 556 CH5 CH5-7 H 2015-06-01 5 6 0 0 11  
## 715 CH5 CH5-7 H 2015-06-03 1 10 0 0 11  
## 874 CH5 CH5-7 H 2015-06-05 1 10 0 0 11  
## 1033 CH5 CH5-7 H 2015-06-07 1 10 0 0 11  
## 1192 CH5 CH5-7 H 2015-06-09 0 10 1 0 11  
## 1351 CH5 CH5-7 H 2015-06-11 0 11 0 0 11  
## 1510 CH5 CH5-7 H 2015-06-13 0 5 6 0 11  
## 1669 CH5 CH5-7 H 2015-06-15 0 0 11 0 11  
## 1828 CH5 CH5-7 H 2015-06-17 0 0 11 0 11  
## 1987 CH5 CH5-7 H 2015-06-19 0 0 3 8 11  
## 2146 CH5 CH5-7 H 2015-06-21 0 0 2 9 11  
## 2305 CH5 CH5-7 H 2015-06-23 0 0 2 9 11  
## 2464 CH5 CH5-7 H 2015-06-26 0 0 0 11 11  
## plot plantid treatment date BD FF SG SD TF  
## 85 CHSR8 CHSR8-2 H 2015-05-24 6 0 0 0 6  
## 244 CHSR8 CHSR8-2 H 2015-05-26 8 0 0 0 8  
## 403 CHSR8 CHSR8-2 H 2015-05-29 8 0 0 0 8  
## 562 CHSR8 CHSR8-2 H 2015-06-01 6 2 0 0 8  
## 721 CHSR8 CHSR8-2 H 2015-06-03 3 5 0 0 8  
## 880 CHSR8 CHSR8-2 H 2015-06-05 4 5 0 0 9  
## 1039 CHSR8 CHSR8-2 H 2015-06-07 2 7 0 0 9  
## 1198 CHSR8 CHSR8-2 H 2015-06-09 2 7 0 0 9  
## 1357 CHSR8 CHSR8-2 H 2015-06-11 1 7 1 0 9  
## 1516 CHSR8 CHSR8-2 H 2015-06-13 0 2 2 0 4  
## 1675 CHSR8 CHSR8-2 H 2015-06-15 0 4 4 0 8  
## 1834 CHSR8 CHSR8-2 H 2015-06-17 0 0 6 2 8  
## 1993 CHSR8 CHSR8-2 H 2015-06-19 0 0 3 5 8  
## 2152 CHSR8 CHSR8-2 H 2015-06-21 0 0 4 4 8  
## 2311 CHSR8 CHSR8-2 H 2015-06-23 0 0 2 6 8  
## 2470 CHSR8 CHSR8-2 H 2015-06-26 0 0 0 7 7  
## plot plantid treatment date BD FF SG SD TF  
## 87 CHSR8 CHSR8-4 H 2015-05-24 22 0 0 0 22  
## 246 CHSR8 CHSR8-4 H 2015-05-26 24 0 0 0 24  
## 405 CHSR8 CHSR8-4 H 2015-05-29 29 0 0 0 29  
## 564 CHSR8 CHSR8-4 H 2015-06-01 26 3 0 0 29  
## 723 CHSR8 CHSR8-4 H 2015-06-03 21 8 0 0 29  
## 882 CHSR8 CHSR8-4 H 2015-06-05 18 10 0 0 28  
## 1041 CHSR8 CHSR8-4 H 2015-06-07 17 13 0 0 30  
## 1200 CHSR8 CHSR8-4 H 2015-06-09 12 20 0 0 32  
## 1359 CHSR8 CHSR8-4 H 2015-06-11 14 21 0 0 35  
## 1518 CHSR8 CHSR8-4 H 2015-06-13 11 17 4 1 33  
## 1677 CHSR8 CHSR8-4 H 2015-06-15 7 15 8 0 30  
## 1836 CHSR8 CHSR8-4 H 2015-06-17 8 5 14 5 32  
## 1995 CHSR8 CHSR8-4 H 2015-06-19 6 5 14 5 30  
## 2154 CHSR8 CHSR8-4 H 2015-06-21 6 4 14 6 30  
## 2313 CHSR8 CHSR8-4 H 2015-06-23 5 1 11 11 28  
## 2472 CHSR8 CHSR8-4 H 2015-06-26 4 0 2 21 27  
## plot plantid treatment date BD FF SG SD TF  
## 89 CHSR8 CHSR8-6 H 2015-05-24 8 0 0 0 8  
## 248 CHSR8 CHSR8-6 H 2015-05-26 8 0 0 0 8  
## 407 CHSR8 CHSR8-6 H 2015-05-29 7 0 0 0 7  
## 566 CHSR8 CHSR8-6 H 2015-06-01 8 2 0 0 10  
## 725 CHSR8 CHSR8-6 H 2015-06-03 5 3 0 0 8  
## 884 CHSR8 CHSR8-6 H 2015-06-05 6 4 0 0 10  
## 1043 CHSR8 CHSR8-6 H 2015-06-07 5 5 0 0 10  
## 1202 CHSR8 CHSR8-6 H 2015-06-09 3 7 0 0 10  
## 1361 CHSR8 CHSR8-6 H 2015-06-11 3 5 2 0 10  
## 1520 CHSR8 CHSR8-6 H 2015-06-13 2 4 2 2 10  
## 1679 CHSR8 CHSR8-6 H 2015-06-15 2 4 4 0 10  
## 1838 CHSR8 CHSR8-6 H 2015-06-17 0 1 5 1 7  
## 1997 CHSR8 CHSR8-6 H 2015-06-19 2 1 5 2 10  
## 2156 CHSR8 CHSR8-6 H 2015-06-21 0 0 5 3 8  
## 2315 CHSR8 CHSR8-6 H 2015-06-23 0 0 1 6 7  
## 2474 CHSR8 CHSR8-6 H 2015-06-26 0 0 0 6 6  
## plot plantid treatment date BD FF SG SD TF  
## 2317 CHSR8 CHSR8-8 H 2015-06-23 0 0 0 0 0  
## plot plantid treatment date BD FF SG SD TF  
## 251 CSR7 CSR7-1 C 2015-05-26 0 0 0 0 0  
## 410 CSR7 CSR7-1 C 2015-05-29 1 0 0 0 1  
## 569 CSR7 CSR7-1 C 2015-06-01 1 0 0 0 1  
## 728 CSR7 CSR7-1 C 2015-06-03 0 0 0 0 0  
## 887 CSR7 CSR7-1 C 2015-06-05 0 0 0 0 0  
## 1046 CSR7 CSR7-1 C 2015-06-07 0 0 0 0 0  
## 1205 CSR7 CSR7-1 C 2015-06-09 0 0 0 0 0  
## 1364 CSR7 CSR7-1 C 2015-06-11 0 0 0 0 0  
## 1523 CSR7 CSR7-1 C 2015-06-13 0 0 0 0 0  
## 1682 CSR7 CSR7-1 C 2015-06-15 0 0 0 0 0  
## 1841 CSR7 CSR7-1 C 2015-06-17 0 0 0 0 0  
## 2000 CSR7 CSR7-1 C 2015-06-19 0 0 0 0 0  
## 2159 CSR7 CSR7-1 C 2015-06-21 0 0 0 0 0  
## 2318 CSR7 CSR7-1 C 2015-06-23 0 0 0 0 0  
## 2477 CSR7 CSR7-1 C 2015-06-26 0 0 0 0 0  
## plot plantid treatment date BD FF SG SD TF  
## 1207 CSR7 CSR7-3 C 2015-06-09 0 0 0 0 0  
## 1525 CSR7 CSR7-3 C 2015-06-13 0 0 0 0 0  
## 1684 CSR7 CSR7-3 C 2015-06-15 0 0 0 0 0  
## 2161 CSR7 CSR7-3 C 2015-06-21 0 0 0 0 0  
## plot plantid treatment date BD FF SG SD TF  
## 414 CSR7 CSR7-5 C 2015-05-29 0 0 0 0 0  
## plot plantid treatment date BD FF SG SD TF  
## 100 CSR7 CSR7-9 C 2015-05-24 0 0 0 0 0  
## 259 CSR7 CSR7-9 C 2015-05-26 2 0 0 0 2  
## 418 CSR7 CSR7-9 C 2015-05-29 2 0 0 0 2  
## 577 CSR7 CSR7-9 C 2015-06-01 0 1 0 0 1  
## 736 CSR7 CSR7-9 C 2015-06-03 1 1 0 0 2  
## 895 CSR7 CSR7-9 C 2015-06-05 0 2 0 0 2  
## 1054 CSR7 CSR7-9 C 2015-06-07 0 2 0 0 2  
## 1213 CSR7 CSR7-9 C 2015-06-09 0 2 0 0 2  
## 1372 CSR7 CSR7-9 C 2015-06-11 0 2 0 0 2  
## 1531 CSR7 CSR7-9 C 2015-06-13 0 1 1 0 2  
## 1690 CSR7 CSR7-9 C 2015-06-15 0 0 2 0 2  
## 1849 CSR7 CSR7-9 C 2015-06-17 0 0 2 0 2  
## 2008 CSR7 CSR7-9 C 2015-06-19 0 0 0 2 2  
## 2167 CSR7 CSR7-9 C 2015-06-21 0 0 0 0 0  
## 2326 CSR7 CSR7-9 C 2015-06-23 0 0 0 2 2  
## 2485 CSR7 CSR7-9 C 2015-06-26 0 0 0 0 0  
## plot plantid treatment date BD FF SG SD TF  
## 44 EC3 EC3-1 C 2015-05-24 0 0 0 0 0  
## 203 EC3 EC3-1 C 2015-05-26 1 0 0 0 1  
## 362 EC3 EC3-1 C 2015-05-29 1 0 0 0 1  
## 680 EC3 EC3-1 C 2015-06-03 0 0 0 0 0  
## 839 EC3 EC3-1 C 2015-06-05 1 0 0 0 1  
## 1157 EC3 EC3-1 C 2015-06-09 0 0 0 0 0  
## 1316 EC3 EC3-1 C 2015-06-11 0 0 0 0 0  
## 1634 EC3 EC3-1 C 2015-06-15 0 0 0 0 0  
## 1793 EC3 EC3-1 C 2015-06-17 0 0 0 0 0  
## plot plantid treatment date BD FF SG SD TF  
## 204 EC3 EC3-2 C 2015-05-26 1 0 0 0 1  
## 363 EC3 EC3-2 C 2015-05-29 1 0 0 0 1  
## 522 EC3 EC3-2 C 2015-06-01 1 0 0 0 1  
## 681 EC3 EC3-2 C 2015-06-03 0 0 0 0 0  
## 1317 EC3 EC3-2 C 2015-06-11 0 0 0 0 0  
## 1476 EC3 EC3-2 C 2015-06-13 0 0 0 0 0  
## 2430 EC3 EC3-2 C 2015-06-26 0 0 0 0 0  
## plot plantid treatment date BD FF SG SD TF  
## 46 EC3 EC3-3 C 2015-05-24 1 0 0 0 1  
## 205 EC3 EC3-3 C 2015-05-26 2 0 0 0 2  
## 364 EC3 EC3-3 C 2015-05-29 2 0 0 0 2  
## 523 EC3 EC3-3 C 2015-06-01 0 1 0 0 1  
## 682 EC3 EC3-3 C 2015-06-03 0 1 0 0 1  
## 841 EC3 EC3-3 C 2015-06-05 0 1 0 0 1  
## 1000 EC3 EC3-3 C 2015-06-07 0 1 0 0 1  
## 1159 EC3 EC3-3 C 2015-06-09 0 1 0 0 1  
## 1318 EC3 EC3-3 C 2015-06-11 0 1 0 0 1  
## 1477 EC3 EC3-3 C 2015-06-13 0 1 0 0 1  
## 1636 EC3 EC3-3 C 2015-06-15 0 0 1 0 1  
## 1795 EC3 EC3-3 C 2015-06-17 0 0 0 0 0  
## 1954 EC3 EC3-3 C 2015-06-19 0 0 0 1 1  
## 2113 EC3 EC3-3 C 2015-06-21 0 0 0 1 1  
## 2272 EC3 EC3-3 C 2015-06-23 0 0 0 1 1  
## 2431 EC3 EC3-3 C 2015-06-26 0 0 0 1 1  
## plot plantid treatment date BD FF SG SD TF  
## 51 EC3 EC3-8 C 2015-05-24 1 0 0 0 1  
## 210 EC3 EC3-8 C 2015-05-26 2 0 0 0 2  
## 369 EC3 EC3-8 C 2015-05-29 2 0 0 0 2  
## 528 EC3 EC3-8 C 2015-06-01 2 0 0 0 2  
## 687 EC3 EC3-8 C 2015-06-03 1 0 0 0 1  
## 846 EC3 EC3-8 C 2015-06-05 0 1 0 0 1  
## 1005 EC3 EC3-8 C 2015-06-07 0 1 0 0 1  
## 1164 EC3 EC3-8 C 2015-06-09 0 1 0 0 1  
## 1323 EC3 EC3-8 C 2015-06-11 0 1 0 0 1  
## 1482 EC3 EC3-8 C 2015-06-13 0 1 0 0 1  
## 1641 EC3 EC3-8 C 2015-06-15 0 0 1 0 1  
## 1800 EC3 EC3-8 C 2015-06-17 0 0 1 0 1  
## 1959 EC3 EC3-8 C 2015-06-19 0 0 1 0 1  
## 2118 EC3 EC3-8 C 2015-06-21 0 0 0 1 1  
## 2277 EC3 EC3-8 C 2015-06-23 0 0 1 0 1  
## 2436 EC3 EC3-8 C 2015-06-26 0 0 0 1 1  
## plot plantid treatment date BD FF SG SD TF  
## 191 EH4 EH4-11 H 2015-05-26 1 0 0 0 1  
## 350 EH4 EH4-11 H 2015-05-29 1 0 0 0 1  
## 668 EH4 EH4-11 H 2015-06-03 0 0 0 0 0  
## 1145 EH4 EH4-11 H 2015-06-09 0 0 0 0 0  
## 1304 EH4 EH4-11 H 2015-06-11 0 0 0 0 0  
## 1463 EH4 EH4-11 H 2015-06-13 0 0 0 0 0  
## 1622 EH4 EH4-11 H 2015-06-15 0 0 0 0 0  
## 1781 EH4 EH4-11 H 2015-06-17 0 0 0 0 0  
## 1940 EH4 EH4-11 H 2015-06-19 0 0 0 0 0  
## 2099 EH4 EH4-11 H 2015-06-21 0 0 0 0 0  
## 2258 EH4 EH4-11 H 2015-06-23 0 0 0 0 0  
## 2417 EH4 EH4-11 H 2015-06-26 0 0 0 0 0  
## plot plantid treatment date BD FF SG SD TF  
## 24 EH4 EH4-3 H 2015-05-24 2 0 0 0 2  
## 183 EH4 EH4-3 H 2015-05-26 2 0 0 0 2  
## 342 EH4 EH4-3 H 2015-05-29 3 0 0 0 3  
## 501 EH4 EH4-3 H 2015-06-01 2 0 0 0 2  
## 660 EH4 EH4-3 H 2015-06-03 3 0 0 0 3  
## 819 EH4 EH4-3 H 2015-06-05 2 1 0 0 3  
## 978 EH4 EH4-3 H 2015-06-07 1 2 0 0 3  
## 1137 EH4 EH4-3 H 2015-06-09 1 2 0 0 3  
## 1296 EH4 EH4-3 H 2015-06-11 1 2 0 0 3  
## 1455 EH4 EH4-3 H 2015-06-13 0 3 0 0 3  
## 1614 EH4 EH4-3 H 2015-06-15 0 2 1 0 3  
## 1773 EH4 EH4-3 H 2015-06-17 0 0 2 1 3  
## 1932 EH4 EH4-3 H 2015-06-19 0 0 2 1 3  
## 2091 EH4 EH4-3 H 2015-06-21 0 0 2 1 3  
## 2250 EH4 EH4-3 H 2015-06-23 0 0 2 1 3  
## 2409 EH4 EH4-3 H 2015-06-26 0 0 0 3 3  
## plot plantid treatment date BD FF SG SD TF  
## 25 EH4 EH4-4 H 2015-05-24 1 0 0 0 1  
## 184 EH4 EH4-4 H 2015-05-26 1 0 0 0 1  
## 343 EH4 EH4-4 H 2015-05-29 1 0 0 0 1  
## 502 EH4 EH4-4 H 2015-06-01 1 0 0 0 1  
## 661 EH4 EH4-4 H 2015-06-03 2 0 0 0 2  
## 820 EH4 EH4-4 H 2015-06-05 2 0 0 0 2  
## 979 EH4 EH4-4 H 2015-06-07 2 0 0 0 2  
## 1138 EH4 EH4-4 H 2015-06-09 0 1 0 0 1  
## 1297 EH4 EH4-4 H 2015-06-11 0 1 0 0 1  
## 1456 EH4 EH4-4 H 2015-06-13 0 1 0 0 1  
## 1615 EH4 EH4-4 H 2015-06-15 0 1 0 0 1  
## 1774 EH4 EH4-4 H 2015-06-17 0 0 1 0 1  
## 1933 EH4 EH4-4 H 2015-06-19 0 0 1 0 1  
## 2092 EH4 EH4-4 H 2015-06-21 0 0 0 1 1  
## 2251 EH4 EH4-4 H 2015-06-23 0 0 1 0 1  
## 2410 EH4 EH4-4 H 2015-06-26 0 0 0 1 1  
## plot plantid treatment date BD FF SG SD TF  
## 26 EH4 EH4-5 H 2015-05-24 5 0 0 0 5  
## 185 EH4 EH4-5 H 2015-05-26 3 1 0 0 4  
## 344 EH4 EH4-5 H 2015-05-29 5 0 0 0 5  
## 503 EH4 EH4-5 H 2015-06-01 3 1 0 0 4  
## 662 EH4 EH4-5 H 2015-06-03 2 3 0 0 5  
## 821 EH4 EH4-5 H 2015-06-05 2 3 0 0 5  
## 980 EH4 EH4-5 H 2015-06-07 3 2 1 0 6  
## 1139 EH4 EH4-5 H 2015-06-09 2 3 0 1 6  
## 1298 EH4 EH4-5 H 2015-06-11 1 3 1 0 5  
## 1457 EH4 EH4-5 H 2015-06-13 1 2 2 1 6  
## 1616 EH4 EH4-5 H 2015-06-15 0 1 2 2 5  
## 1775 EH4 EH4-5 H 2015-06-17 1 1 1 3 6  
## 1934 EH4 EH4-5 H 2015-06-19 0 0 1 4 5  
## 2093 EH4 EH4-5 H 2015-06-21 0 1 1 3 5  
## 2252 EH4 EH4-5 H 2015-06-23 0 1 2 3 6  
## 2411 EH4 EH4-5 H 2015-06-26 0 1 0 5 6  
## plot plantid treatment date BD FF SG SD TF  
## 27 EH4 EH4-6 H 2015-05-24 2 0 0 0 2  
## 186 EH4 EH4-6 H 2015-05-26 13 0 0 0 13  
## 345 EH4 EH4-6 H 2015-05-29 9 0 0 0 9  
## 504 EH4 EH4-6 H 2015-06-01 12 2 0 0 14  
## 663 EH4 EH4-6 H 2015-06-03 14 3 0 0 17  
## 822 EH4 EH4-6 H 2015-06-05 8 6 0 0 14  
## 981 EH4 EH4-6 H 2015-06-07 15 5 0 0 20  
## 1140 EH4 EH4-6 H 2015-06-09 7 10 0 0 17  
## 1299 EH4 EH4-6 H 2015-06-11 3 10 2 0 15  
## 1458 EH4 EH4-6 H 2015-06-13 2 7 7 0 16  
## 1617 EH4 EH4-6 H 2015-06-15 2 2 10 0 14  
## 1776 EH4 EH4-6 H 2015-06-17 1 1 9 3 14  
## 1935 EH4 EH4-6 H 2015-06-19 0 0 6 7 13  
## 2094 EH4 EH4-6 H 2015-06-21 0 0 4 10 14  
## 2253 EH4 EH4-6 H 2015-06-23 1 0 5 9 15  
## 2412 EH4 EH4-6 H 2015-06-26 0 0 0 11 11  
## plot plantid treatment date BD FF SG SD TF  
## 28 EH4 EH4-7 H 2015-05-24 1 0 0 0 1  
## 346 EH4 EH4-7 H 2015-05-29 1 0 0 0 1  
## 505 EH4 EH4-7 H 2015-06-01 1 0 0 0 1  
## 664 EH4 EH4-7 H 2015-06-03 0 1 0 0 1  
## 823 EH4 EH4-7 H 2015-06-05 0 1 0 0 1  
## 982 EH4 EH4-7 H 2015-06-07 0 1 0 0 1  
## 1141 EH4 EH4-7 H 2015-06-09 0 1 0 0 1  
## 1300 EH4 EH4-7 H 2015-06-11 0 1 0 0 1  
## 1459 EH4 EH4-7 H 2015-06-13 0 1 0 0 1  
## 1618 EH4 EH4-7 H 2015-06-15 0 1 0 0 1  
## 1777 EH4 EH4-7 H 2015-06-17 0 0 1 0 1  
## 1936 EH4 EH4-7 H 2015-06-19 0 0 1 0 1  
## 2095 EH4 EH4-7 H 2015-06-21 0 0 1 0 1  
## 2254 EH4 EH4-7 H 2015-06-23 0 0 1 0 1  
## 2413 EH4 EH4-7 H 2015-06-26 0 0 0 1 1  
## plot plantid treatment date BD FF SG SD TF  
## 188 EH4 EH4-8 H 2015-05-26 2 0 0 0 2  
## 347 EH4 EH4-8 H 2015-05-29 3 0 0 0 3  
## 506 EH4 EH4-8 H 2015-06-01 1 1 0 0 2  
## 665 EH4 EH4-8 H 2015-06-03 2 1 0 0 3  
## 824 EH4 EH4-8 H 2015-06-05 2 1 0 0 3  
## 983 EH4 EH4-8 H 2015-06-07 2 2 0 0 4  
## 1142 EH4 EH4-8 H 2015-06-09 2 2 0 0 4  
## 1301 EH4 EH4-8 H 2015-06-11 0 4 0 0 4  
## 1460 EH4 EH4-8 H 2015-06-13 0 3 1 0 4  
## 1619 EH4 EH4-8 H 2015-06-15 0 3 1 0 4  
## 1778 EH4 EH4-8 H 2015-06-17 0 1 3 0 4  
## 1937 EH4 EH4-8 H 2015-06-19 0 0 2 2 4  
## 2096 EH4 EH4-8 H 2015-06-21 0 0 2 2 4  
## 2255 EH4 EH4-8 H 2015-06-23 0 0 2 2 4  
## 2414 EH4 EH4-8 H 2015-06-26 0 0 0 3 3  
## plot plantid treatment date BD FF SG SD TF  
## 16 EHSR1 EHSR1-2 H 2015-05-24 8 1 0 0 9  
## 175 EHSR1 EHSR1-2 H 2015-05-26 8 0 0 0 8  
## 334 EHSR1 EHSR1-2 H 2015-05-29 5 4 0 0 9  
## 493 EHSR1 EHSR1-2 H 2015-06-01 2 4 0 0 6  
## 652 EHSR1 EHSR1-2 H 2015-06-03 2 5 0 0 7  
## 811 EHSR1 EHSR1-2 H 2015-06-05 1 5 1 0 7  
## 970 EHSR1 EHSR1-2 H 2015-06-07 1 5 1 0 7  
## 1129 EHSR1 EHSR1-2 H 2015-06-09 0 3 2 2 7  
## 1288 EHSR1 EHSR1-2 H 2015-06-11 0 3 3 1 7  
## 1447 EHSR1 EHSR1-2 H 2015-06-13 0 0 3 4 7  
## 1606 EHSR1 EHSR1-2 H 2015-06-15 0 0 2 5 7  
## 1765 EHSR1 EHSR1-2 H 2015-06-17 0 0 0 7 7  
## 1924 EHSR1 EHSR1-2 H 2015-06-19 0 0 0 7 7  
## 2083 EHSR1 EHSR1-2 H 2015-06-21 0 0 0 7 7  
## 2242 EHSR1 EHSR1-2 H 2015-06-23 0 0 0 7 7  
## 2401 EHSR1 EHSR1-2 H 2015-06-26 0 0 0 7 7  
## plot plantid treatment date BD FF SG SD TF  
## 18 EHSR1 EHSR1-4 H 2015-05-24 0 0 0 0 0  
## 177 EHSR1 EHSR1-4 H 2015-05-26 0 0 0 0 0  
## 336 EHSR1 EHSR1-4 H 2015-05-29 0 0 0 0 0  
## plot plantid treatment date BD FF SG SD TF  
## 1 ESR2 ESR2-1 C 2015-05-24 1 0 0 0 1  
## 160 ESR2 ESR2-1 C 2015-05-26 2 0 0 0 2  
## 319 ESR2 ESR2-1 C 2015-05-29 1 0 0 0 1  
## 478 ESR2 ESR2-1 C 2015-06-01 0 0 0 0 0  
## 637 ESR2 ESR2-1 C 2015-06-03 0 0 0 0 0  
## 796 ESR2 ESR2-1 C 2015-06-05 0 0 0 0 0  
## 955 ESR2 ESR2-1 C 2015-06-07 0 0 0 0 0  
## 1432 ESR2 ESR2-1 C 2015-06-13 0 0 0 0 0  
## 1591 ESR2 ESR2-1 C 2015-06-15 0 0 0 0 0  
## 1750 ESR2 ESR2-1 C 2015-06-17 0 0 0 0 0  
## 1909 ESR2 ESR2-1 C 2015-06-19 0 0 0 0 0  
## 2068 ESR2 ESR2-1 C 2015-06-21 0 0 0 0 0  
## 2227 ESR2 ESR2-1 C 2015-06-23 0 0 0 0 0  
## 2386 ESR2 ESR2-1 C 2015-06-26 0 0 0 0 0  
## plot plantid treatment date BD FF SG SD TF  
## 2 ESR2 ESR2-2 C 2015-05-24 6 0 0 0 6  
## 161 ESR2 ESR2-2 C 2015-05-26 5 0 0 0 5  
## 320 ESR2 ESR2-2 C 2015-05-29 5 0 0 0 5  
## 479 ESR2 ESR2-2 C 2015-06-01 3 0 0 0 3  
## 638 ESR2 ESR2-2 C 2015-06-03 2 1 0 0 3  
## 797 ESR2 ESR2-2 C 2015-06-05 2 1 0 0 3  
## 956 ESR2 ESR2-2 C 2015-06-07 0 2 0 0 2  
## 1115 ESR2 ESR2-2 C 2015-06-09 0 3 0 0 3  
## 1274 ESR2 ESR2-2 C 2015-06-11 0 3 0 0 3  
## 1433 ESR2 ESR2-2 C 2015-06-13 0 2 1 0 3  
## 1592 ESR2 ESR2-2 C 2015-06-15 0 2 1 0 3  
## 1751 ESR2 ESR2-2 C 2015-06-17 0 0 3 0 3  
## 1910 ESR2 ESR2-2 C 2015-06-19 0 0 3 0 3  
## 2069 ESR2 ESR2-2 C 2015-06-21 0 0 1 2 3  
## 2228 ESR2 ESR2-2 C 2015-06-23 0 0 2 1 3  
## 2387 ESR2 ESR2-2 C 2015-06-26 0 0 0 3 3  
## plot plantid treatment date BD FF SG SD TF  
## 3 ESR2 ESR2-3 C 2015-05-24 0 0 0 0 0  
## 162 ESR2 ESR2-3 C 2015-05-26 0 0 0 0 0  
## 321 ESR2 ESR2-3 C 2015-05-29 0 0 0 0 0  
## 480 ESR2 ESR2-3 C 2015-06-01 0 0 0 0 0  
## 639 ESR2 ESR2-3 C 2015-06-03 0 0 0 0 0  
## 798 ESR2 ESR2-3 C 2015-06-05 0 0 0 0 0  
## 957 ESR2 ESR2-3 C 2015-06-07 0 0 0 0 0  
## 1116 ESR2 ESR2-3 C 2015-06-09 0 0 0 0 0  
## 1275 ESR2 ESR2-3 C 2015-06-11 0 0 0 0 0  
## 1434 ESR2 ESR2-3 C 2015-06-13 0 0 0 0 0  
## 1593 ESR2 ESR2-3 C 2015-06-15 0 0 0 0 0  
## 1752 ESR2 ESR2-3 C 2015-06-17 0 0 0 0 0  
## 1911 ESR2 ESR2-3 C 2015-06-19 0 0 0 0 0  
## 2070 ESR2 ESR2-3 C 2015-06-21 0 0 0 0 0  
## 2229 ESR2 ESR2-3 C 2015-06-23 0 0 0 0 0  
## 2388 ESR2 ESR2-3 C 2015-06-26 0 0 0 0 0  
## plot plantid treatment date BD FF SG SD TF  
## 4 ESR2 ESR2-4 C 2015-05-24 2 0 0 0 2  
## 163 ESR2 ESR2-4 C 2015-05-26 2 0 0 0 2  
## 322 ESR2 ESR2-4 C 2015-05-29 2 0 0 0 2  
## 481 ESR2 ESR2-4 C 2015-06-01 2 1 0 0 3  
## 640 ESR2 ESR2-4 C 2015-06-03 2 1 0 0 3  
## 799 ESR2 ESR2-4 C 2015-06-05 1 2 0 0 3  
## 958 ESR2 ESR2-4 C 2015-06-07 1 2 0 0 3  
## 1117 ESR2 ESR2-4 C 2015-06-09 0 3 0 0 3  
## 1276 ESR2 ESR2-4 C 2015-06-11 0 3 0 0 3  
## 1435 ESR2 ESR2-4 C 2015-06-13 0 1 2 0 3  
## 1594 ESR2 ESR2-4 C 2015-06-15 0 0 3 0 3  
## 1753 ESR2 ESR2-4 C 2015-06-17 0 0 0 3 3  
## 1912 ESR2 ESR2-4 C 2015-06-19 0 0 0 3 3  
## 2071 ESR2 ESR2-4 C 2015-06-21 0 0 0 3 3  
## 2230 ESR2 ESR2-4 C 2015-06-23 0 0 2 1 3  
## 2389 ESR2 ESR2-4 C 2015-06-26 0 0 0 3 3  
## plot plantid treatment date BD FF SG SD TF  
## 6 ESR2 ESR2-6 C 2015-05-24 2 0 0 0 2  
## 165 ESR2 ESR2-6 C 2015-05-26 3 0 0 0 3  
## 324 ESR2 ESR2-6 C 2015-05-29 3 0 0 0 3  
## 483 ESR2 ESR2-6 C 2015-06-01 3 0 0 0 3  
## 642 ESR2 ESR2-6 C 2015-06-03 3 1 0 0 4  
## 801 ESR2 ESR2-6 C 2015-06-05 2 2 0 0 4  
## 960 ESR2 ESR2-6 C 2015-06-07 2 2 0 0 4  
## 1119 ESR2 ESR2-6 C 2015-06-09 1 2 0 0 3  
## 1278 ESR2 ESR2-6 C 2015-06-11 1 3 0 0 4  
## 1437 ESR2 ESR2-6 C 2015-06-13 0 1 2 0 3  
## 1596 ESR2 ESR2-6 C 2015-06-15 0 1 2 0 3  
## 1755 ESR2 ESR2-6 C 2015-06-17 0 0 1 2 3  
## 1914 ESR2 ESR2-6 C 2015-06-19 0 0 1 2 3  
## 2073 ESR2 ESR2-6 C 2015-06-21 0 0 1 2 3  
## 2232 ESR2 ESR2-6 C 2015-06-23 0 0 1 2 3  
## 2391 ESR2 ESR2-6 C 2015-06-26 0 0 0 3 3  
## plot plantid treatment date BD FF SG SD TF  
## 8 ESR2 ESR2-8 C 2015-05-24 6 0 0 0 6  
## 167 ESR2 ESR2-8 C 2015-05-26 12 1 0 0 13  
## 326 ESR2 ESR2-8 C 2015-05-29 14 1 0 0 15  
## 485 ESR2 ESR2-8 C 2015-06-01 10 3 0 0 13  
## 644 ESR2 ESR2-8 C 2015-06-03 10 3 0 0 13  
## 803 ESR2 ESR2-8 C 2015-06-05 6 5 0 0 11  
## 962 ESR2 ESR2-8 C 2015-06-07 7 6 0 0 13  
## 1121 ESR2 ESR2-8 C 2015-06-09 4 8 1 0 13  
## 1280 ESR2 ESR2-8 C 2015-06-11 1 7 2 0 10  
## 1439 ESR2 ESR2-8 C 2015-06-13 1 4 4 1 10  
## 1598 ESR2 ESR2-8 C 2015-06-15 0 3 6 2 11  
## 1757 ESR2 ESR2-8 C 2015-06-17 0 3 1 6 10  
## 1916 ESR2 ESR2-8 C 2015-06-19 0 2 2 7 11  
## 2075 ESR2 ESR2-8 C 2015-06-21 0 0 3 9 12  
## 2234 ESR2 ESR2-8 C 2015-06-23 0 0 3 8 11  
## 2393 ESR2 ESR2-8 C 2015-06-26 0 0 0 11 11  
## plot plantid treatment date BD FF SG SD TF  
## 133 WC11 WC11-1 C 2015-05-24 1 0 0 0 1  
## 292 WC11 WC11-1 C 2015-05-26 1 0 0 0 1  
## 451 WC11 WC11-1 C 2015-05-29 1 0 0 0 1  
## 610 WC11 WC11-1 C 2015-06-01 1 0 0 0 1  
## 769 WC11 WC11-1 C 2015-06-03 2 0 0 0 2  
## 928 WC11 WC11-1 C 2015-06-05 1 0 0 0 1  
## 1087 WC11 WC11-1 C 2015-06-07 2 0 0 0 2  
## 1246 WC11 WC11-1 C 2015-06-09 2 0 0 0 2  
## 1405 WC11 WC11-1 C 2015-06-11 1 0 0 0 1  
## 1564 WC11 WC11-1 C 2015-06-13 1 0 0 0 1  
## 1723 WC11 WC11-1 C 2015-06-15 0 1 0 0 1  
## 1882 WC11 WC11-1 C 2015-06-17 0 1 0 0 1  
## 2041 WC11 WC11-1 C 2015-06-19 0 0 1 0 1  
## 2200 WC11 WC11-1 C 2015-06-21 0 0 1 0 1  
## 2359 WC11 WC11-1 C 2015-06-23 0 0 0 1 1  
## 2518 WC11 WC11-1 C 2015-06-26 0 0 0 1 1  
## plot plantid treatment date BD FF SG SD TF  
## 134 WC11 WC11-2 C 2015-05-24 1 0 0 0 1  
## 293 WC11 WC11-2 C 2015-05-26 1 0 0 0 1  
## 452 WC11 WC11-2 C 2015-05-29 1 0 0 0 1  
## 611 WC11 WC11-2 C 2015-06-01 1 0 0 0 1  
## 770 WC11 WC11-2 C 2015-06-03 0 0 0 0 0  
## 1088 WC11 WC11-2 C 2015-06-07 0 0 0 0 0  
## 1247 WC11 WC11-2 C 2015-06-09 0 0 0 0 0  
## 1406 WC11 WC11-2 C 2015-06-11 0 0 0 0 0  
## 1724 WC11 WC11-2 C 2015-06-15 0 0 0 0 0  
## 1883 WC11 WC11-2 C 2015-06-17 0 0 0 0 0  
## 2042 WC11 WC11-2 C 2015-06-19 0 0 0 0 0  
## 2201 WC11 WC11-2 C 2015-06-21 0 0 0 0 0  
## 2360 WC11 WC11-2 C 2015-06-23 0 0 0 0 0  
## 2519 WC11 WC11-2 C 2015-06-26 0 0 0 0 0  
## plot plantid treatment date BD FF SG SD TF  
## 135 WC11 WC11-3 C 2015-05-24 6 0 0 0 6  
## 294 WC11 WC11-3 C 2015-05-26 7 0 0 0 7  
## 453 WC11 WC11-3 C 2015-05-29 6 0 0 0 6  
## 612 WC11 WC11-3 C 2015-06-01 3 0 0 0 3  
## 771 WC11 WC11-3 C 2015-06-03 2 1 0 0 3  
## 930 WC11 WC11-3 C 2015-06-05 1 2 0 0 3  
## 1089 WC11 WC11-3 C 2015-06-07 0 3 0 0 3  
## 1248 WC11 WC11-3 C 2015-06-09 0 3 0 0 3  
## 1407 WC11 WC11-3 C 2015-06-11 0 3 0 0 3  
## 1566 WC11 WC11-3 C 2015-06-13 0 3 0 0 3  
## 1725 WC11 WC11-3 C 2015-06-15 0 1 2 0 3  
## 1884 WC11 WC11-3 C 2015-06-17 0 0 2 1 3  
## 2043 WC11 WC11-3 C 2015-06-19 0 0 2 1 3  
## 2202 WC11 WC11-3 C 2015-06-21 0 0 1 2 3  
## 2361 WC11 WC11-3 C 2015-06-23 0 0 0 3 3  
## 2520 WC11 WC11-3 C 2015-06-26 0 0 0 3 3  
## plot plantid treatment date BD FF SG SD TF  
## 136 WC11 WC11-4 C 2015-05-24 1 0 0 0 1  
## 295 WC11 WC11-4 C 2015-05-26 1 0 0 0 1  
## 454 WC11 WC11-4 C 2015-05-29 1 0 0 0 1  
## 613 WC11 WC11-4 C 2015-06-01 1 0 0 0 1  
## 772 WC11 WC11-4 C 2015-06-03 0 1 0 0 1  
## 931 WC11 WC11-4 C 2015-06-05 0 1 0 0 1  
## 1090 WC11 WC11-4 C 2015-06-07 0 1 0 0 1  
## 1249 WC11 WC11-4 C 2015-06-09 0 1 0 0 1  
## 1408 WC11 WC11-4 C 2015-06-11 0 1 0 0 1  
## 1567 WC11 WC11-4 C 2015-06-13 0 0 1 0 1  
## 1726 WC11 WC11-4 C 2015-06-15 0 0 1 0 1  
## 1885 WC11 WC11-4 C 2015-06-17 0 0 0 1 1  
## 2044 WC11 WC11-4 C 2015-06-19 0 0 0 1 1  
## 2203 WC11 WC11-4 C 2015-06-21 0 0 0 1 1  
## 2362 WC11 WC11-4 C 2015-06-23 0 0 0 1 1  
## 2521 WC11 WC11-4 C 2015-06-26 0 0 0 1 1  
## plot plantid treatment date BD FF SG SD TF  
## 139 WC11 WC11-7 C 2015-05-24 4 0 0 0 4  
## 298 WC11 WC11-7 C 2015-05-26 4 0 0 0 4  
## 457 WC11 WC11-7 C 2015-05-29 4 0 0 0 4  
## 616 WC11 WC11-7 C 2015-06-01 3 0 0 0 3  
## 775 WC11 WC11-7 C 2015-06-03 0 2 0 0 2  
## 934 WC11 WC11-7 C 2015-06-05 0 2 0 0 2  
## 1093 WC11 WC11-7 C 2015-06-07 0 2 0 0 2  
## 1252 WC11 WC11-7 C 2015-06-09 0 2 0 0 2  
## 1411 WC11 WC11-7 C 2015-06-11 0 2 0 0 2  
## 1570 WC11 WC11-7 C 2015-06-13 0 2 0 0 2  
## 1729 WC11 WC11-7 C 2015-06-15 0 0 2 0 2  
## 1888 WC11 WC11-7 C 2015-06-17 0 0 2 0 2  
## 2047 WC11 WC11-7 C 2015-06-19 0 0 0 2 2  
## 2206 WC11 WC11-7 C 2015-06-21 0 0 0 2 2  
## 2365 WC11 WC11-7 C 2015-06-23 0 0 0 2 2  
## 2524 WC11 WC11-7 C 2015-06-26 0 0 0 2 2  
## plot plantid treatment date BD FF SG SD TF  
## 108 WHSR9 WHSR9-1 H 2015-05-24 2 0 0 0 2  
## 267 WHSR9 WHSR9-1 H 2015-05-26 2 0 0 0 2  
## 426 WHSR9 WHSR9-1 H 2015-05-29 2 0 0 0 2  
## 585 WHSR9 WHSR9-1 H 2015-06-01 1 1 0 0 2  
## 744 WHSR9 WHSR9-1 H 2015-06-03 1 1 0 0 2  
## 903 WHSR9 WHSR9-1 H 2015-06-05 0 2 0 0 2  
## 1062 WHSR9 WHSR9-1 H 2015-06-07 0 2 0 0 2  
## 1221 WHSR9 WHSR9-1 H 2015-06-09 0 2 0 0 2  
## 1380 WHSR9 WHSR9-1 H 2015-06-11 0 2 0 0 2  
## 1539 WHSR9 WHSR9-1 H 2015-06-13 0 1 1 0 2  
## 1698 WHSR9 WHSR9-1 H 2015-06-15 0 1 0 1 2  
## 1857 WHSR9 WHSR9-1 H 2015-06-17 0 0 1 1 2  
## 2016 WHSR9 WHSR9-1 H 2015-06-19 0 0 1 1 2  
## 2175 WHSR9 WHSR9-1 H 2015-06-21 0 0 0 2 2  
## 2334 WHSR9 WHSR9-1 H 2015-06-23 0 0 0 2 2  
## 2493 WHSR9 WHSR9-1 H 2015-06-26 0 0 0 2 2  
## plot plantid treatment date BD FF SG SD TF  
## 109 WHSR9 WHSR9-2 H 2015-05-24 3 0 0 0 3  
## 268 WHSR9 WHSR9-2 H 2015-05-26 2 0 0 0 2  
## 427 WHSR9 WHSR9-2 H 2015-05-29 2 0 0 0 2  
## 586 WHSR9 WHSR9-2 H 2015-06-01 1 1 0 0 2  
## 745 WHSR9 WHSR9-2 H 2015-06-03 0 2 0 0 2  
## 904 WHSR9 WHSR9-2 H 2015-06-05 0 2 0 0 2  
## 1063 WHSR9 WHSR9-2 H 2015-06-07 0 2 0 0 2  
## 1222 WHSR9 WHSR9-2 H 2015-06-09 0 2 0 0 2  
## 1381 WHSR9 WHSR9-2 H 2015-06-11 0 2 0 0 2  
## 1540 WHSR9 WHSR9-2 H 2015-06-13 0 2 0 0 2  
## 1699 WHSR9 WHSR9-2 H 2015-06-15 0 0 2 0 2  
## 1858 WHSR9 WHSR9-2 H 2015-06-17 0 0 2 0 2  
## 2017 WHSR9 WHSR9-2 H 2015-06-19 0 0 1 1 2  
## 2176 WHSR9 WHSR9-2 H 2015-06-21 0 0 1 1 2  
## 2335 WHSR9 WHSR9-2 H 2015-06-23 0 0 0 2 2  
## 2494 WHSR9 WHSR9-2 H 2015-06-26 0 0 0 2 2  
## plot plantid treatment date BD FF SG SD TF  
## 110 WHSR9 WHSR9-3 H 2015-05-24 14 0 0 0 14  
## 269 WHSR9 WHSR9-3 H 2015-05-26 17 0 0 0 17  
## 428 WHSR9 WHSR9-3 H 2015-05-29 14 0 0 0 14  
## 587 WHSR9 WHSR9-3 H 2015-06-01 18 0 0 0 18  
## 746 WHSR9 WHSR9-3 H 2015-06-03 14 3 0 0 17  
## 905 WHSR9 WHSR9-3 H 2015-06-05 10 7 0 0 17  
## 1064 WHSR9 WHSR9-3 H 2015-06-07 9 8 0 0 17  
## 1223 WHSR9 WHSR9-3 H 2015-06-09 8 12 0 0 20  
## 1382 WHSR9 WHSR9-3 H 2015-06-11 2 15 0 0 17  
## 1541 WHSR9 WHSR9-3 H 2015-06-13 2 14 2 0 18  
## 1700 WHSR9 WHSR9-3 H 2015-06-15 3 15 0 0 18  
## 1859 WHSR9 WHSR9-3 H 2015-06-17 2 3 13 0 18  
## 2018 WHSR9 WHSR9-3 H 2015-06-19 0 0 18 0 18  
## 2177 WHSR9 WHSR9-3 H 2015-06-21 0 0 17 0 17  
## 2336 WHSR9 WHSR9-3 H 2015-06-23 0 0 4 11 15  
## 2495 WHSR9 WHSR9-3 H 2015-06-26 0 0 0 17 17  
## plot plantid treatment date BD FF SG SD TF  
## 116 WHSR9 WHSR9-4 H 2015-05-24 1 0 0 0 1  
## 275 WHSR9 WHSR9-4 H 2015-05-26 2 0 0 0 2  
## 434 WHSR9 WHSR9-4 H 2015-05-29 2 0 0 0 2  
## 593 WHSR9 WHSR9-4 H 2015-06-01 1 0 0 0 1  
## 752 WHSR9 WHSR9-4 H 2015-06-03 1 1 0 0 2  
## 911 WHSR9 WHSR9-4 H 2015-06-05 1 1 0 0 2  
## 1070 WHSR9 WHSR9-4 H 2015-06-07 1 1 0 0 2  
## 1229 WHSR9 WHSR9-4 H 2015-06-09 1 1 0 0 2  
## 1388 WHSR9 WHSR9-4 H 2015-06-11 0 2 0 0 2  
## 1547 WHSR9 WHSR9-4 H 2015-06-13 0 2 0 0 2  
## 1706 WHSR9 WHSR9-4 H 2015-06-15 0 2 0 0 2  
## 1865 WHSR9 WHSR9-4 H 2015-06-17 0 1 1 0 2  
## 2024 WHSR9 WHSR9-4 H 2015-06-19 0 0 2 0 2  
## 2183 WHSR9 WHSR9-4 H 2015-06-21 0 0 2 0 2  
## 2342 WHSR9 WHSR9-4 H 2015-06-23 0 0 0 2 2  
## 2501 WHSR9 WHSR9-4 H 2015-06-26 0 0 0 2 2  
## plot plantid treatment date BD FF SG SD TF  
## 112 WSR10 WSR10-1 C 2015-05-24 5 0 0 0 5  
## 271 WSR10 WSR10-1 C 2015-05-26 4 0 0 0 4  
## 430 WSR10 WSR10-1 C 2015-05-29 3 0 0 0 3  
## 589 WSR10 WSR10-1 C 2015-06-01 0 2 0 0 2  
## 748 WSR10 WSR10-1 C 2015-06-03 0 2 0 0 2  
## 907 WSR10 WSR10-1 C 2015-06-05 0 2 0 0 2  
## 1066 WSR10 WSR10-1 C 2015-06-07 0 2 0 0 2  
## 1225 WSR10 WSR10-1 C 2015-06-09 0 0 2 0 2  
## 1384 WSR10 WSR10-1 C 2015-06-11 0 0 2 0 2  
## 1543 WSR10 WSR10-1 C 2015-06-13 0 0 1 1 2  
## 1702 WSR10 WSR10-1 C 2015-06-15 0 0 1 1 2  
## 1861 WSR10 WSR10-1 C 2015-06-17 0 0 0 2 2  
## 2020 WSR10 WSR10-1 C 2015-06-19 0 0 0 2 2  
## 2179 WSR10 WSR10-1 C 2015-06-21 0 0 0 2 2  
## 2338 WSR10 WSR10-1 C 2015-06-23 0 0 0 2 2  
## 2497 WSR10 WSR10-1 C 2015-06-26 0 0 0 2 2  
## plot plantid treatment date BD FF SG SD TF  
## 103 WSR10 WSR10-7 C 2015-05-24 7 0 0 0 7  
## 262 WSR10 WSR10-7 C 2015-05-26 2 0 0 0 2  
## 421 WSR10 WSR10-7 C 2015-05-29 5 0 0 0 5  
## 580 WSR10 WSR10-7 C 2015-06-01 1 1 0 0 2  
## 739 WSR10 WSR10-7 C 2015-06-03 0 1 0 0 1  
## 898 WSR10 WSR10-7 C 2015-06-05 0 1 0 0 1  
## 1057 WSR10 WSR10-7 C 2015-06-07 0 1 0 0 1  
## 1216 WSR10 WSR10-7 C 2015-06-09 0 1 0 0 1  
## 1375 WSR10 WSR10-7 C 2015-06-11 0 0 1 0 1  
## 1534 WSR10 WSR10-7 C 2015-06-13 0 0 1 0 1  
## 1693 WSR10 WSR10-7 C 2015-06-15 0 0 1 0 1  
## 1852 WSR10 WSR10-7 C 2015-06-17 0 0 0 1 1  
## 2011 WSR10 WSR10-7 C 2015-06-19 0 0 0 1 1  
## 2170 WSR10 WSR10-7 C 2015-06-21 0 0 0 1 1  
## 2329 WSR10 WSR10-7 C 2015-06-23 0 0 0 1 1  
## 2488 WSR10 WSR10-7 C 2015-06-26 0 0 0 1 1  
## plot plantid treatment date BD FF SG SD TF  
## 105 WSR10 WSR10-9 C 2015-05-24 3 0 0 0 3  
## 264 WSR10 WSR10-9 C 2015-05-26 2 1 0 0 3  
## 423 WSR10 WSR10-9 C 2015-05-29 2 1 0 0 3  
## 582 WSR10 WSR10-9 C 2015-06-01 0 2 0 0 2  
## 741 WSR10 WSR10-9 C 2015-06-03 0 2 0 0 2  
## 900 WSR10 WSR10-9 C 2015-06-05 0 2 0 0 2  
## 1059 WSR10 WSR10-9 C 2015-06-07 0 2 0 0 2  
## 1218 WSR10 WSR10-9 C 2015-06-09 0 2 0 0 2  
## 1377 WSR10 WSR10-9 C 2015-06-11 0 1 1 0 2  
## 1536 WSR10 WSR10-9 C 2015-06-13 0 0 2 0 2  
## 1695 WSR10 WSR10-9 C 2015-06-15 0 0 2 0 2  
## 1854 WSR10 WSR10-9 C 2015-06-17 0 0 0 2 2  
## 2013 WSR10 WSR10-9 C 2015-06-19 0 0 0 2 2  
## 2172 WSR10 WSR10-9 C 2015-06-21 0 0 0 2 2  
## 2331 WSR10 WSR10-9 C 2015-06-23 0 0 0 2 2  
## 2490 WSR10 WSR10-9 C 2015-06-26 0 0 0 2 2