Soil characteristic table

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library(tidyverse)

## Loading tidyverse: ggplot2  
## Loading tidyverse: tibble  
## Loading tidyverse: tidyr  
## Loading tidyverse: readr  
## Loading tidyverse: purrr  
## Loading tidyverse: dplyr

## Conflicts with tidy packages ----------------------------------------------

## filter(): dplyr, stats  
## lag(): dplyr, stats

tex<- read\_csv("Data/Characterization Summary for COBS 2008 Fall Soil Samples.csv"  
 ,skip = 2)

## Parsed with column specification:  
## cols(  
## .default = col\_character(),  
## `Rep#` = col\_integer(),  
## `Plot#` = col\_integer(),  
## `Density-Weighted K Mean (2 top depths)` = col\_integer(),  
## `NH4-N (30 cm)` = col\_double(),  
## `Density-Weighted NH4-N Mean (2 top depths)` = col\_integer(),  
## `Density-Weighted NO3-N Mean (2 top depths)` = col\_integer(),  
## `NO3-N (30 cm)` = col\_integer(),  
## SAND = col\_integer(),  
## COSILT = col\_integer(),  
## FISILT = col\_integer(),  
## CLAY = col\_integer()  
## )

## See spec(...) for full column specifications.

mean\_tex<-tex%>%  
 filter(`Trt #` != "NA")%>%  
 filter(!(`Trt #` %in% c("S2", "C2", "CCW")))%>%  
 select(Depth, `BULK DENSITY`, `pH`, `Bray P`, `Avail K`, SAND,   
 COSILT, FISILT, CLAY)%>%  
 rename(depth = Depth, bd = `BULK DENSITY`, P =`Bray P`, K = `Avail K`,   
 sand = SAND, cosilt = COSILT, fisilt = FISILT, clay = CLAY)%>%  
 mutate(bd = as.numeric(bd), pH = as.numeric(pH), P = as.numeric(P),   
 K = as.numeric(K))%>%  
 mutate(sand = sand\*.1, cosilt = cosilt\*.1, fisilt = fisilt\*.1,  
 clay = clay\*.1)%>%  
 mutate(silt = cosilt + fisilt)%>%  
 group\_by(depth)%>%  
 summarise\_each(funs(mean(., na.rm = TRUE)))  
  
  
cn<-read.table("Data/2008CNbd.txt", header = TRUE)  
  
mean\_cn<-cn%>%  
 filter(!(trt %in% c("S2", "C2", "CCW")))%>%  
 select(depth, BD, TN, TC)%>%  
 group\_by(depth)%>%  
 summarise\_each(funs(mean(., na.rm = TRUE)))%>%  
 mutate(depth = ifelse((depth == 5), "0-5",  
 ifelse((depth == 15), "5-15",  
 ifelse((depth == 30), "15-30",  
 ifelse((depth == 60), "30-60",  
 ifelse((depth == 100), "60-100", "nope"))))))  
  
char<-full\_join(mean\_cn, mean\_tex, by = "depth")%>%  
 select(-P, -K, -bd, -cosilt, -fisilt)%>%  
 select(depth, BD, pH, TC, TN, sand, silt, clay)%>%  
 rename(Depth = depth)  
  
knitr::kable(char, digits = c(2, 2, 2, 2, 1, 1,1, 1))

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Depth | BD | pH | TC | TN | Sand | Silt | Clay |
| cm | mg/g |  | % | % | % | % | % |
| 0-5 | 1.28 | 6.36 | 2.81 | 0.2 | 37.5 | 36.8 | 25.8 |
| 5-15 | 1.41 | 5.85 | 2.55 | 0.2 | 37.5 | 36.0 | 26.6 |
| 15-30 | 1.50 | 5.94 | 2.14 | 0.2 | 35.4 | 35.8 | 28.9 |
| 30-60 | 1.45 | NA | 1.23 | 0.1 | NA | NA | NA |
| 60-100 | 1.60 | NA | 0.95 | 0.0 | NA | NA | NA |