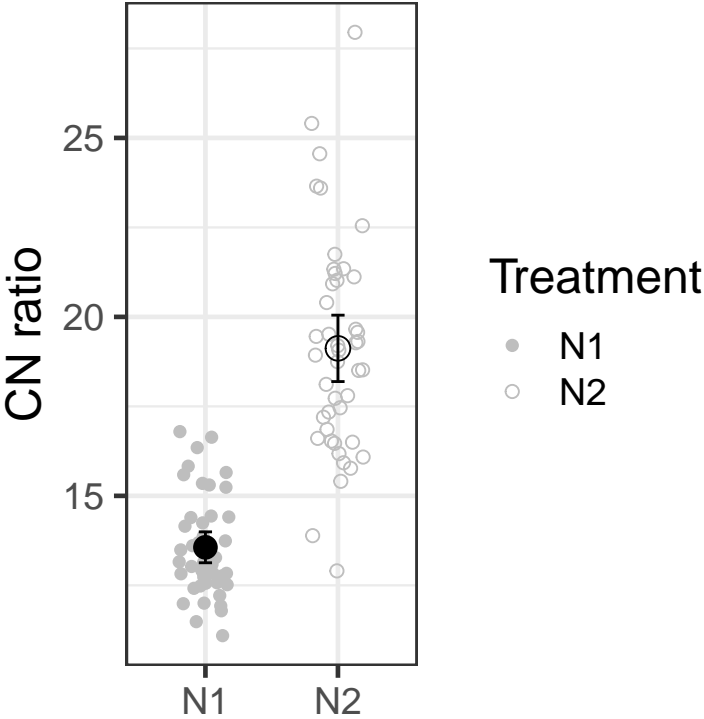


Use side-view HSI data to predict CN ratio from N1 (high-level nitrogen) data

```
##
## N1 N2
## 44 44
```



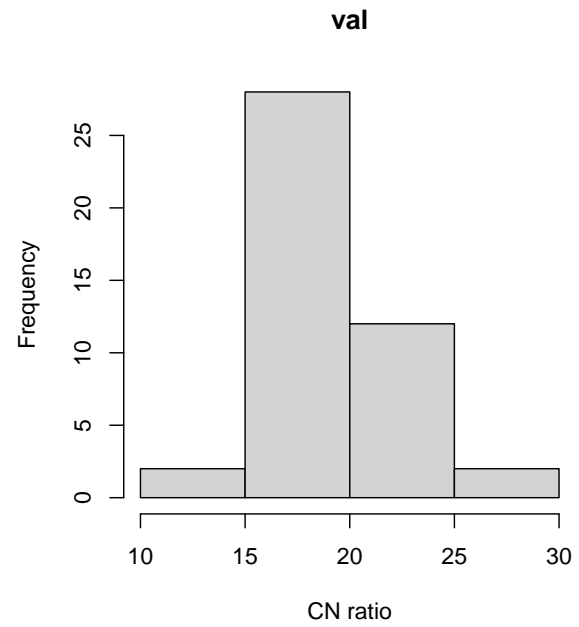
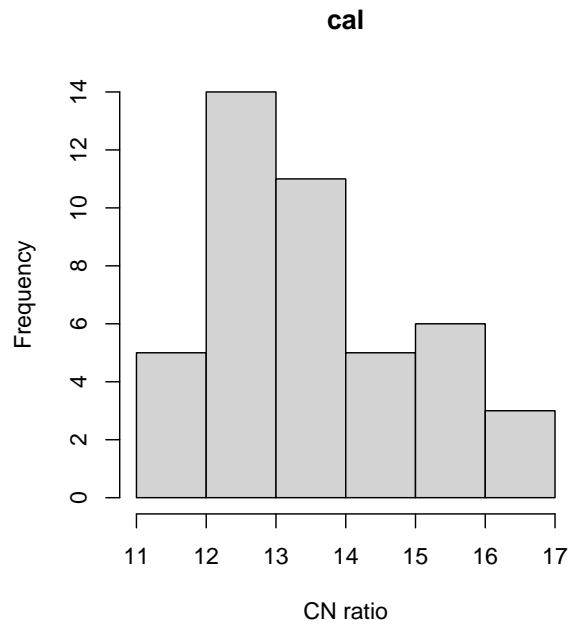
```
## $plsralg
## [1] "oscorespls"

## [1] "902" "903" "904" "905" "906" "907" "908" "909" "910" "911" "912" "914"
## [13] "915" "916" "917" "918" "919" "920" "921" "922" "923" "924" "925" "926"
## [25] "927" "928" "929" "930" "931" "932" "933" "934" "935" "936" "937" "940"
## [37] "941" "942" "943" "944" "945" "946" "947" "948"

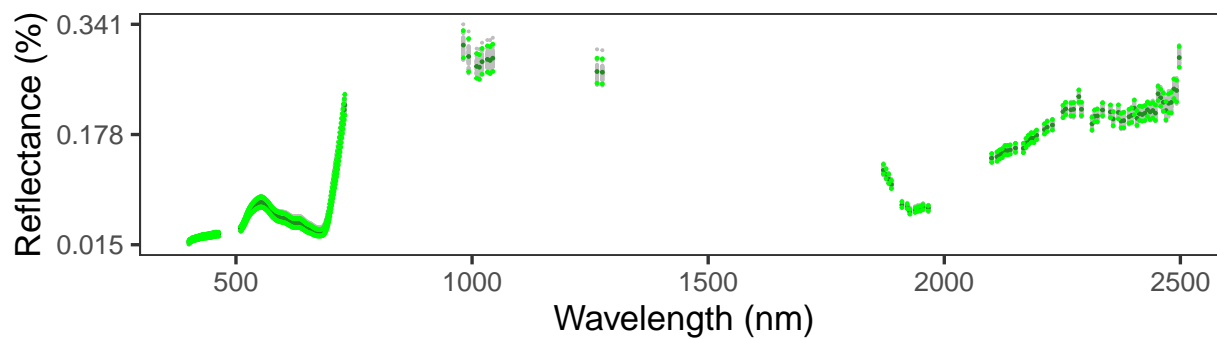
## [1] "950" "951" "952" "953" "954" "955" "956" "957" "958" "959" "960" "962"
## [13] "963" "965" "966" "967" "968" "969" "970" "971" "972" "973" "974" "975"
## [25] "977" "978" "979" "980" "981" "982" "983" "984" "985" "986" "987" "988"
## [37] "989" "990" "991" "992" "993" "994" "995" "996"

##          value          wv
```

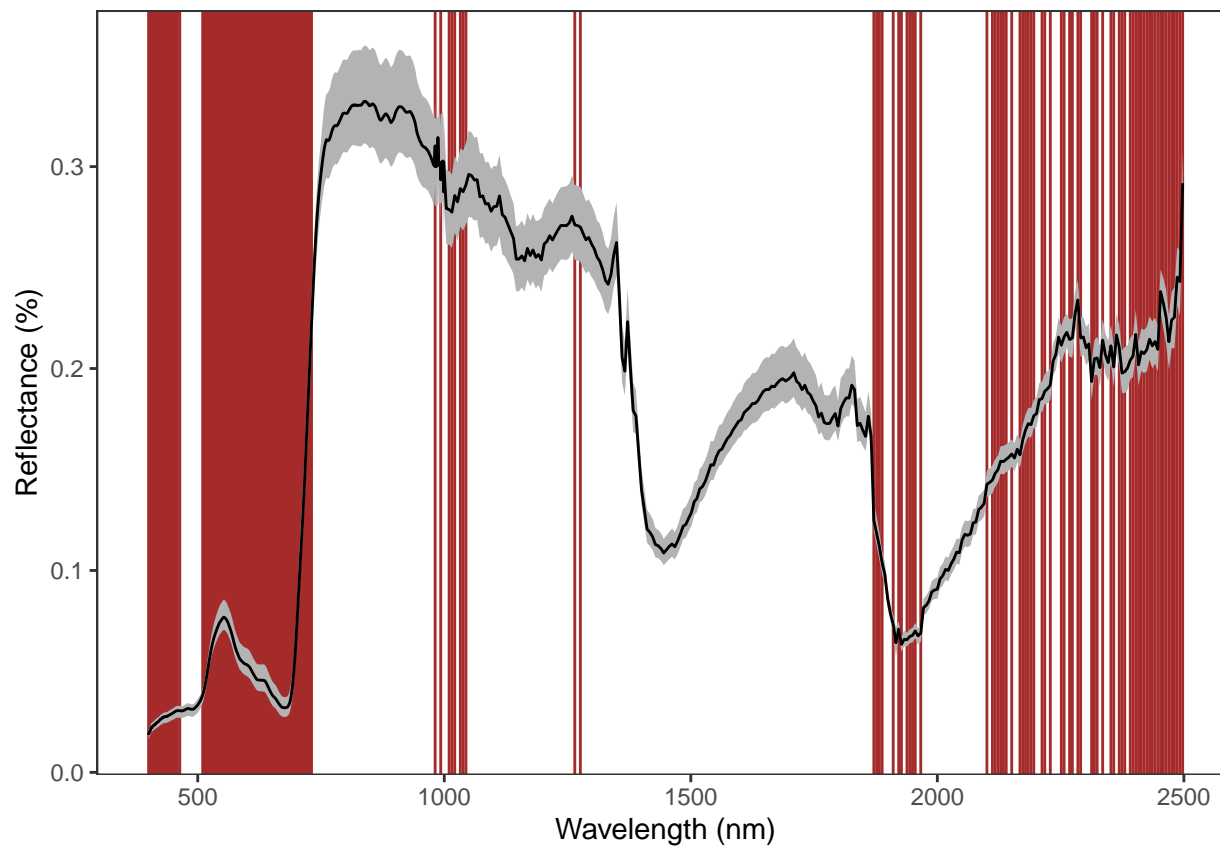
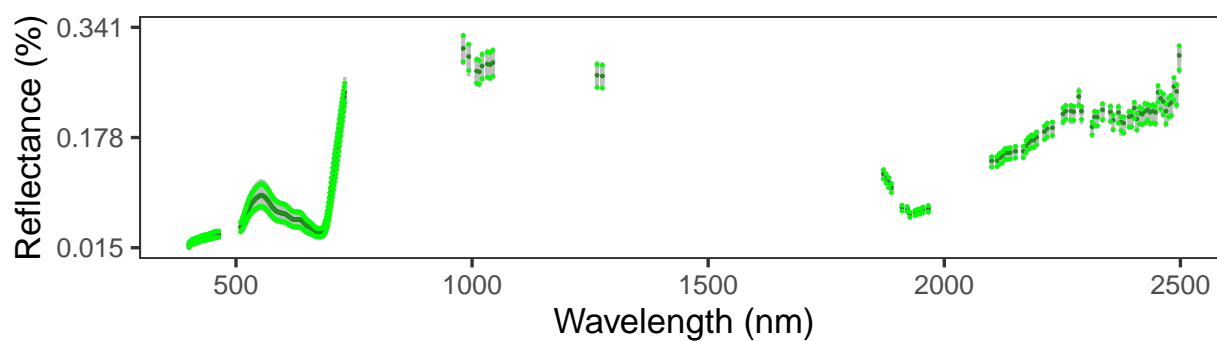
```
## 526 0.004529178 1275.9700
## 675 0.004251458 2111.6800
## 726 0.003815503 2396.8300
## 484 0.003728735 1038.2400
## 4 0.003476558 404.0172
## 53 0.003474843 463.5320
```

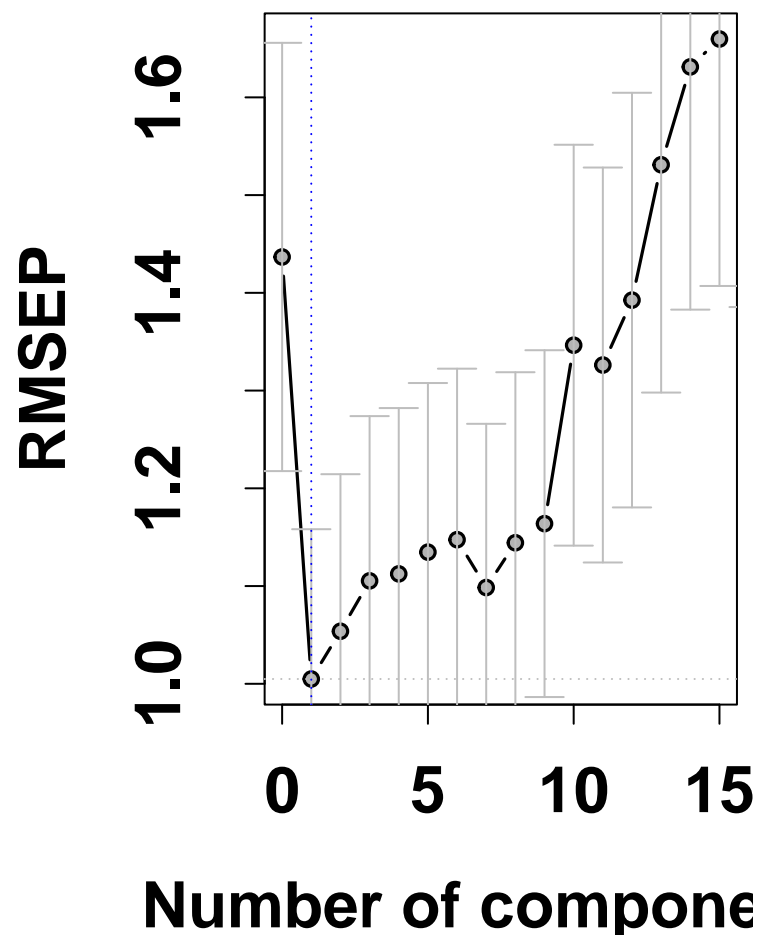


CN N1 calibration dataset



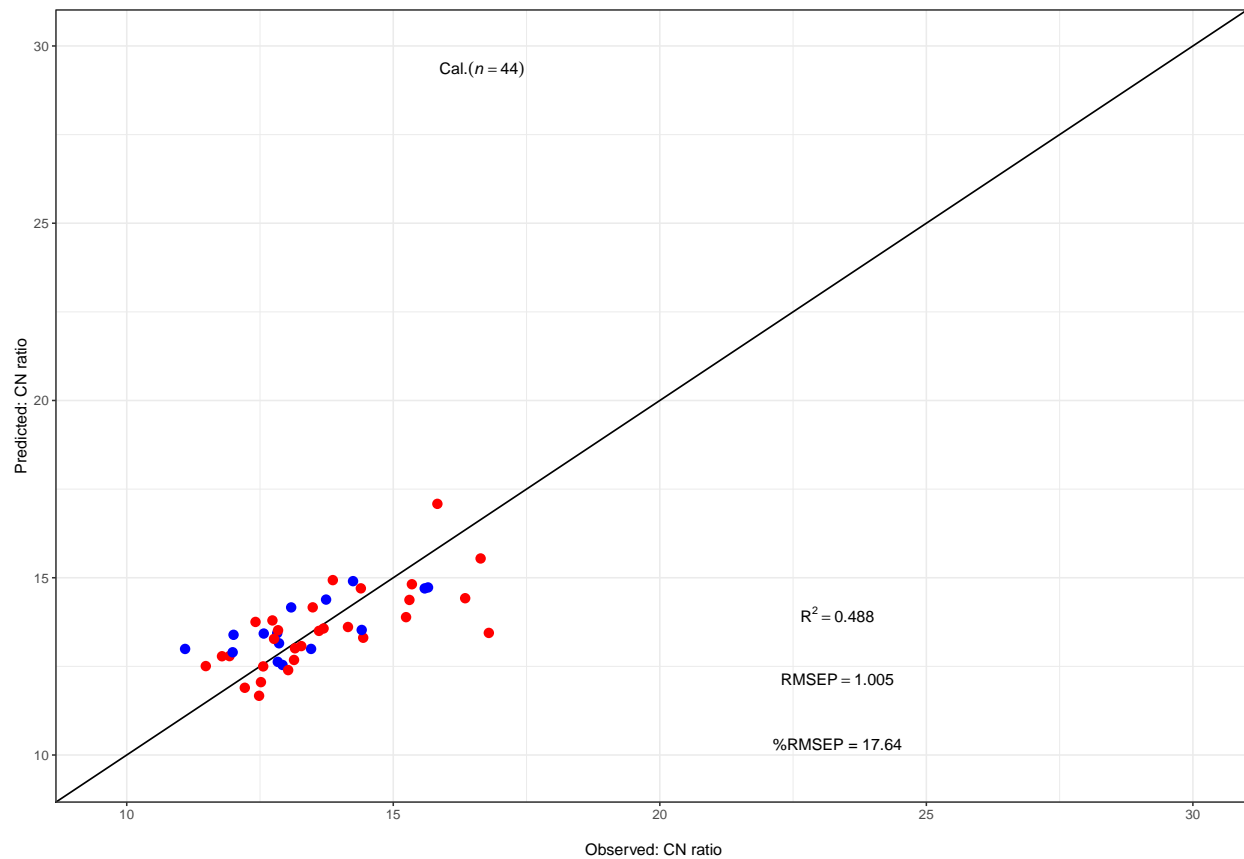
CN N1 validation dataset

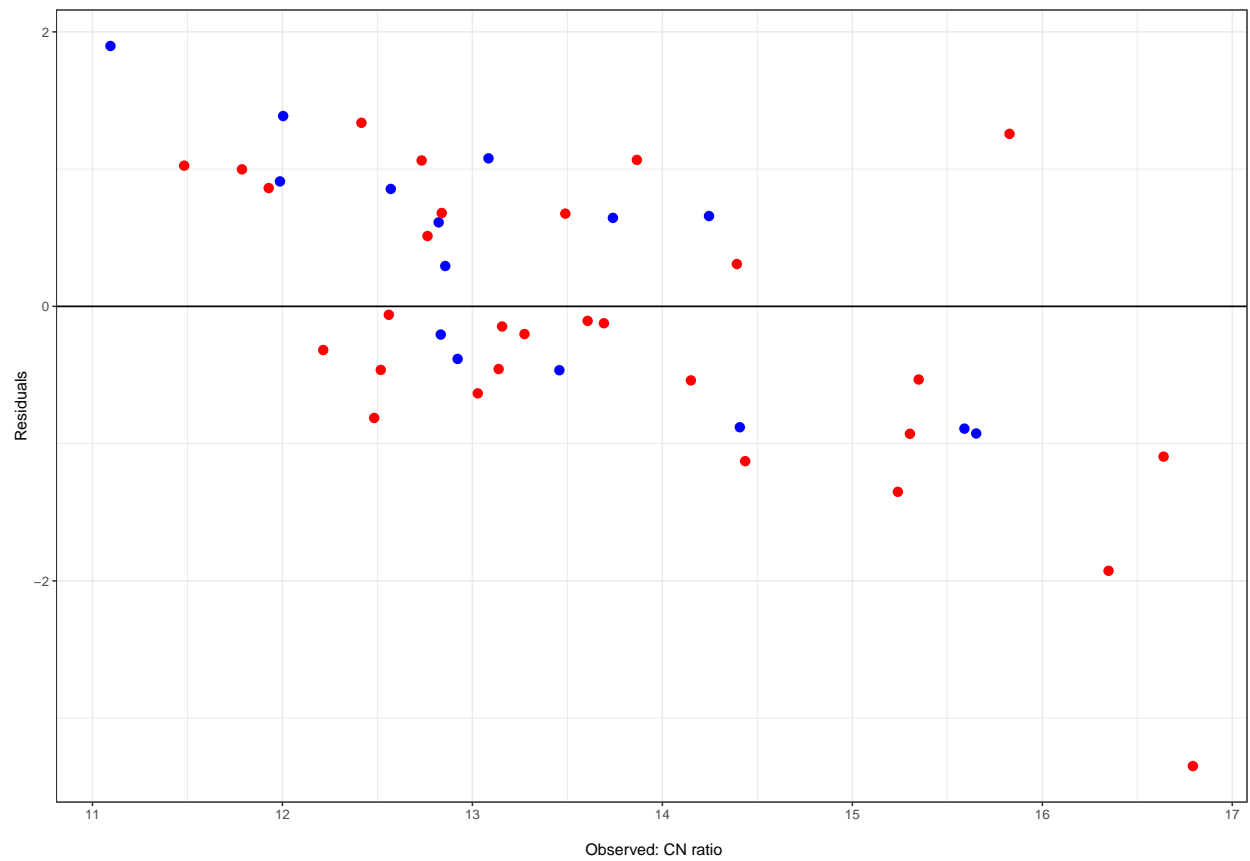


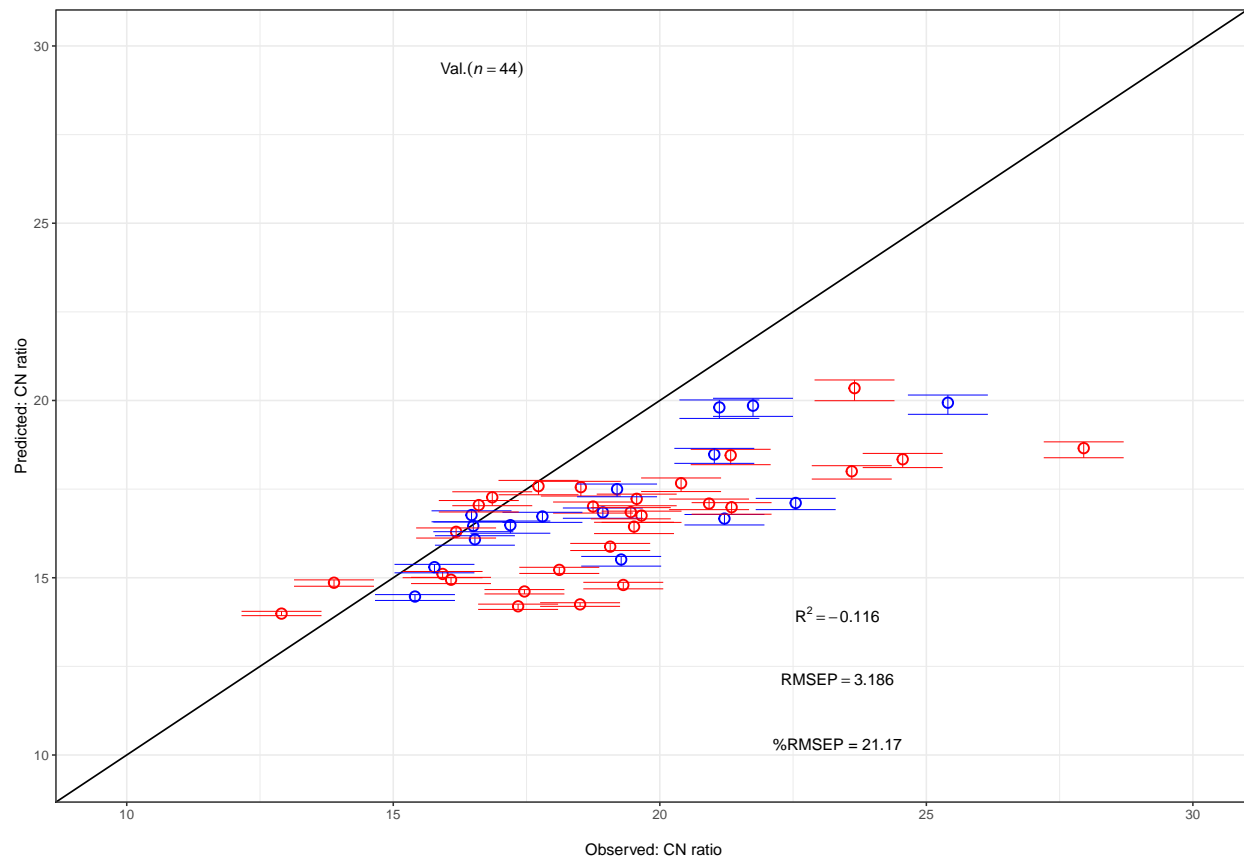


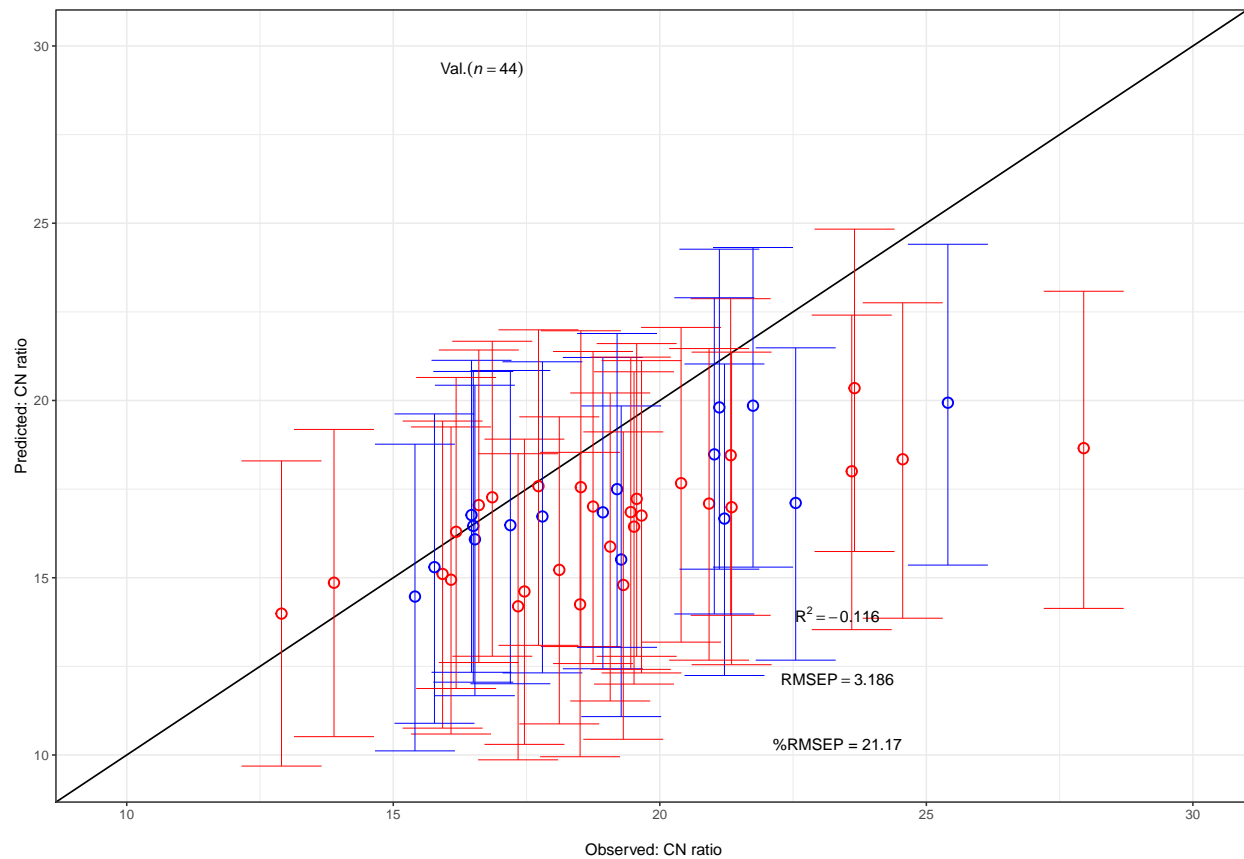
```
## data_set      R2 RMSEP NRMSEP
## 1      cal  0.488 1.005 17.636
## 2      val -0.116 3.186 21.174
```

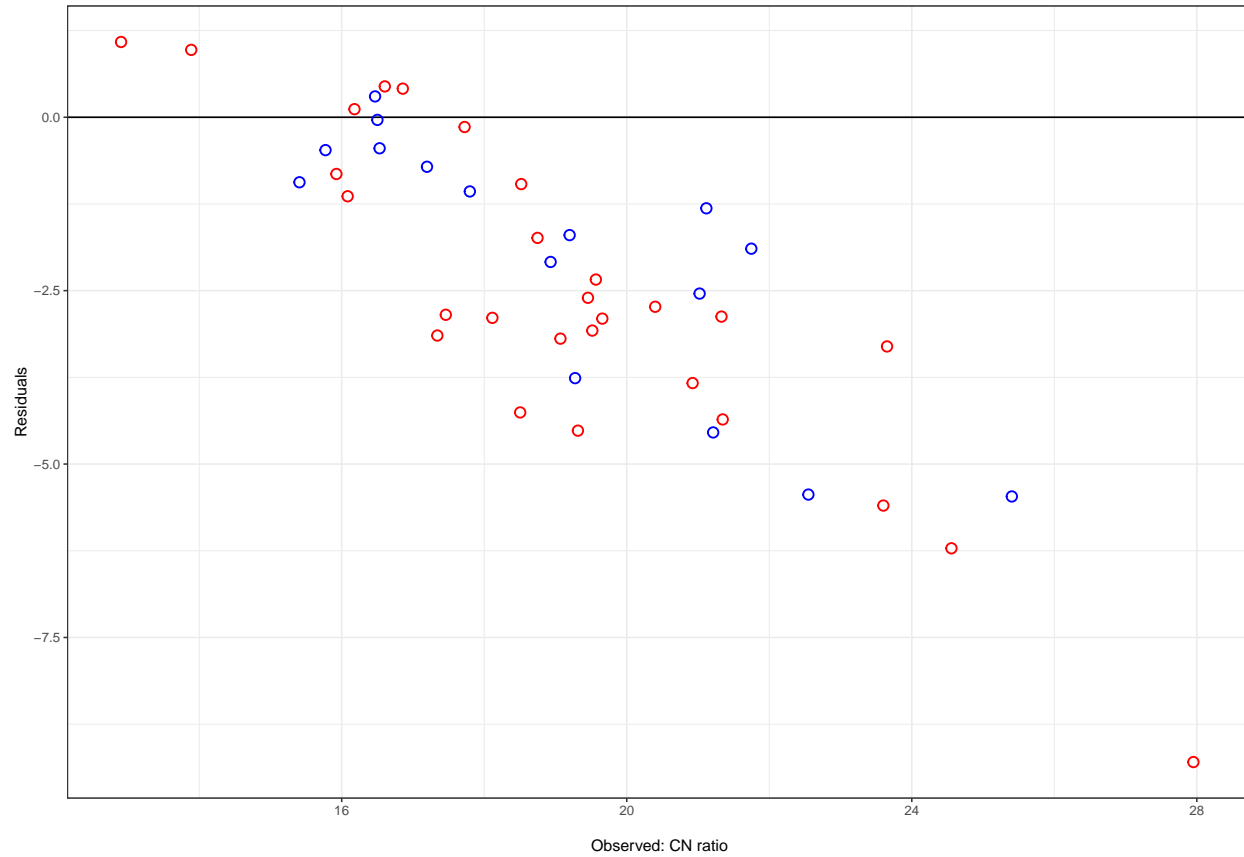
```
## Observed Predicted Residuals Treatment Subpop      uci      lci      upi
## 1 21.21259 16.66848 -4.5441022      N2      TRJ 16.78464 16.48871 21.03011
## 2 18.51886 17.55517 -0.9636869      N2      IND 17.71991 17.30528 21.96651
## 3 19.27533 15.51409 -3.7612373      N2      TRJ 15.60163 15.32736 19.84634
## 4 13.88809 14.85944  0.9713447      N2      IND 14.93989 14.76082 19.18326
## 5 21.74825 19.85336 -1.8948894      N2      TRJ 20.06234 19.55238 24.31486
## 6 18.74772 17.00831 -1.7394152      N2      IND 17.13620 16.82436 21.38173
##      lpi
## 1 12.24324
## 2 13.05868
## 3 11.08266
## 4 10.51745
## 5 15.29985
## 6 12.57883
```











```
##      Iteration Intercept X566.98042 X564.49648 X565.73833 X563.25488
## Seg 1          1 -11.59232  1.224499  1.225675  1.225262  1.228024
## Seg 2          2 -12.13145  1.219924  1.222150  1.221309  1.224855
## Seg 3          3 -12.06792  1.215998  1.218428  1.217529  1.221195
## Seg 4          4 -11.50373  1.250157  1.254094  1.252265  1.257381
## Seg 5          5 -11.71502  1.228737  1.231931  1.230672  1.234996
## Seg 6          6 -11.87321  1.225009  1.228113  1.226821  1.231188
```

```
##      coefs
## 566.98042 1.209047
## 564.49648 1.211425
## 565.73833 1.210506
## 563.25488 1.214179
## 562.01355 1.215767
## 560.77247 1.217371
```