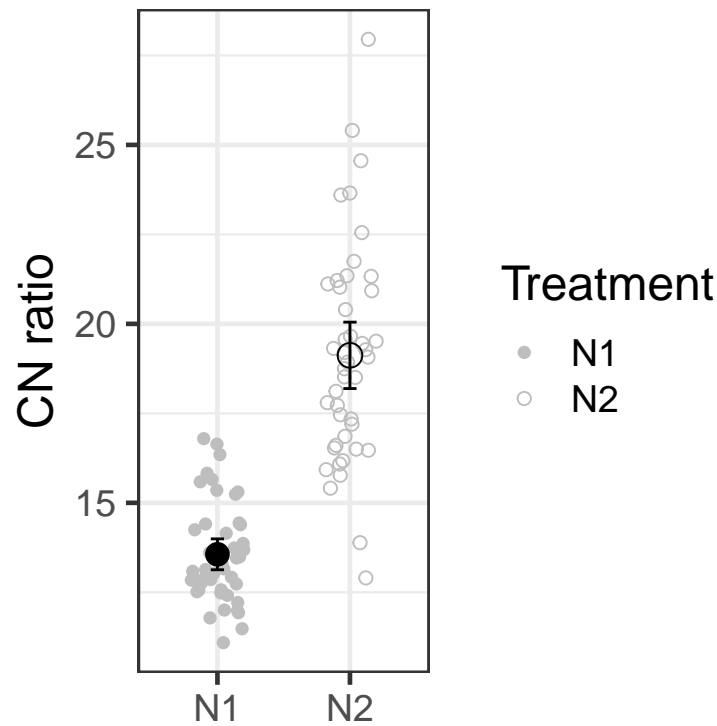


Use side-view HSI data to predict CN ratio from N2 (low-level nitrogen) data

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



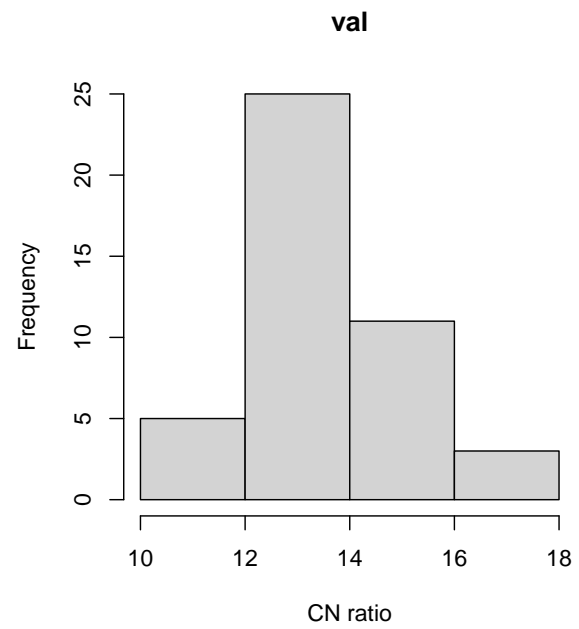
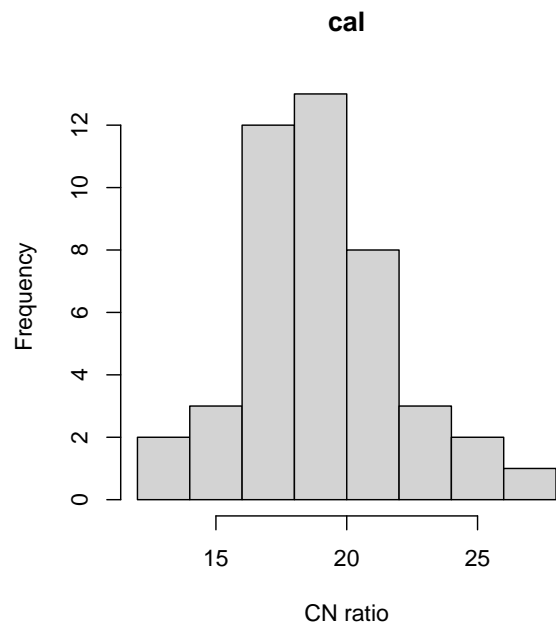
```
## $plsralg
## [1] "oscorespls"
```

```
## [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"
```

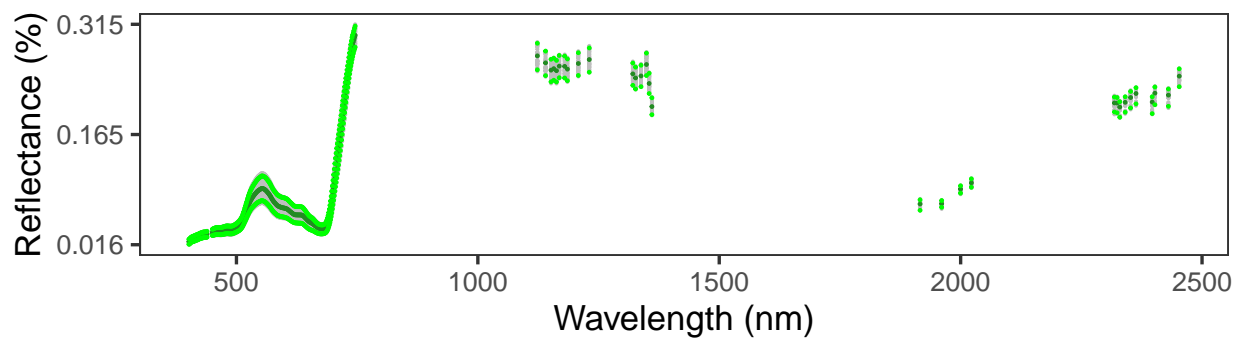
```
## [1] "902" "903" "904" "905" "906" "907" "908" "909" "910" "911" "912" "914"
## [13] "915" "916" "917" "918" "919" "920" "921" "922" "923" "924" "925" "926"
## [25] "927" "928" "929" "930" "931" "932" "933" "934" "935" "936" "937" "940"
## [37] "941" "942" "943" "944" "945" "946" "947" "948"
```

```
##          value          wv
```

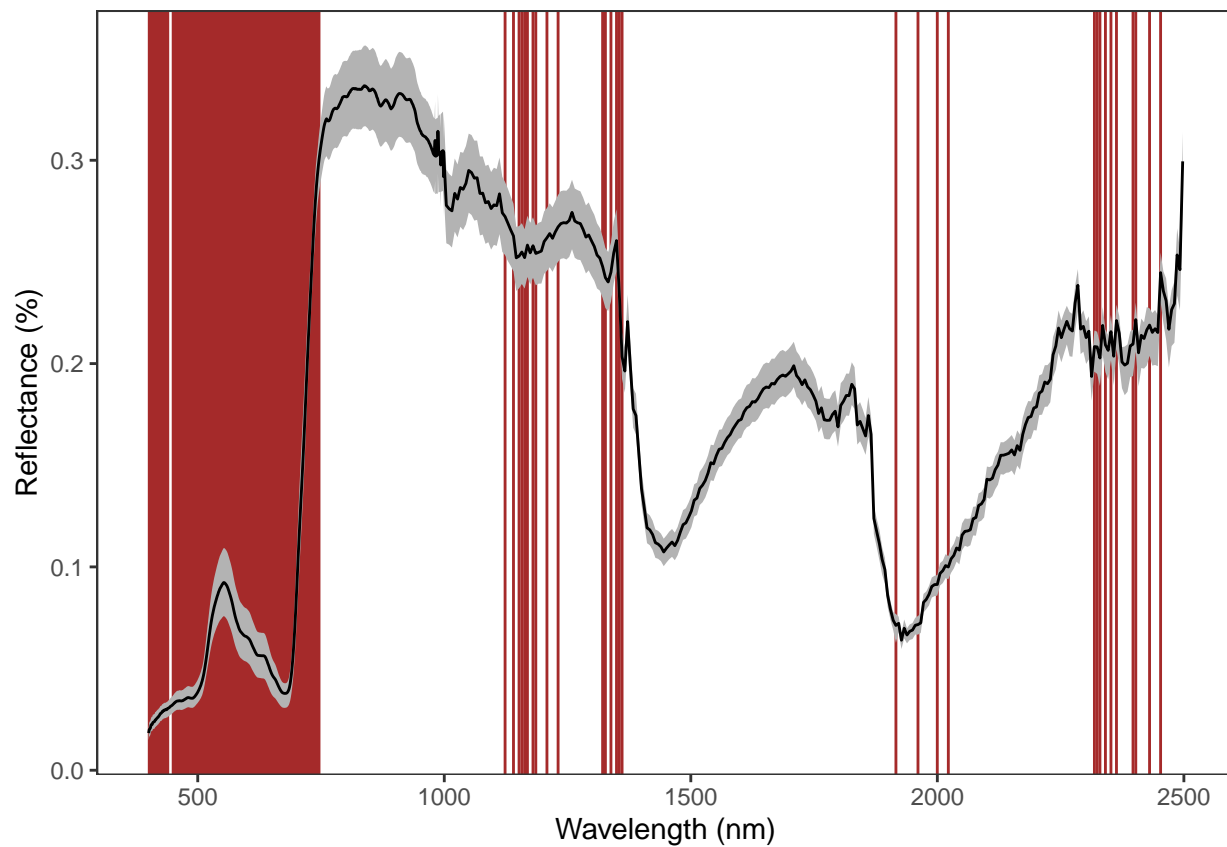
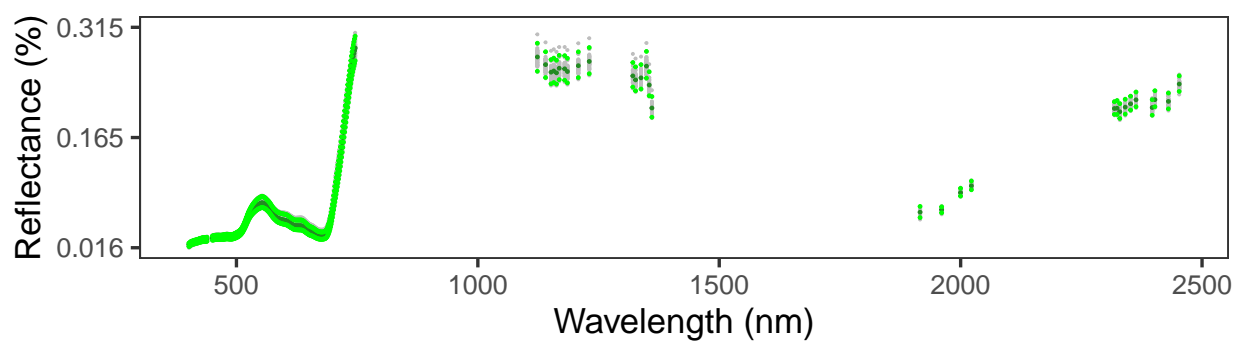
```
## 535 0.007744313 1326.7500
## 32 0.007496191 437.9508
## 507 0.007328163 1168.6000
## 499 0.006929546 1123.3100
## 10 0.006531004 411.2719
## 537 0.006213350 1338.0200
```

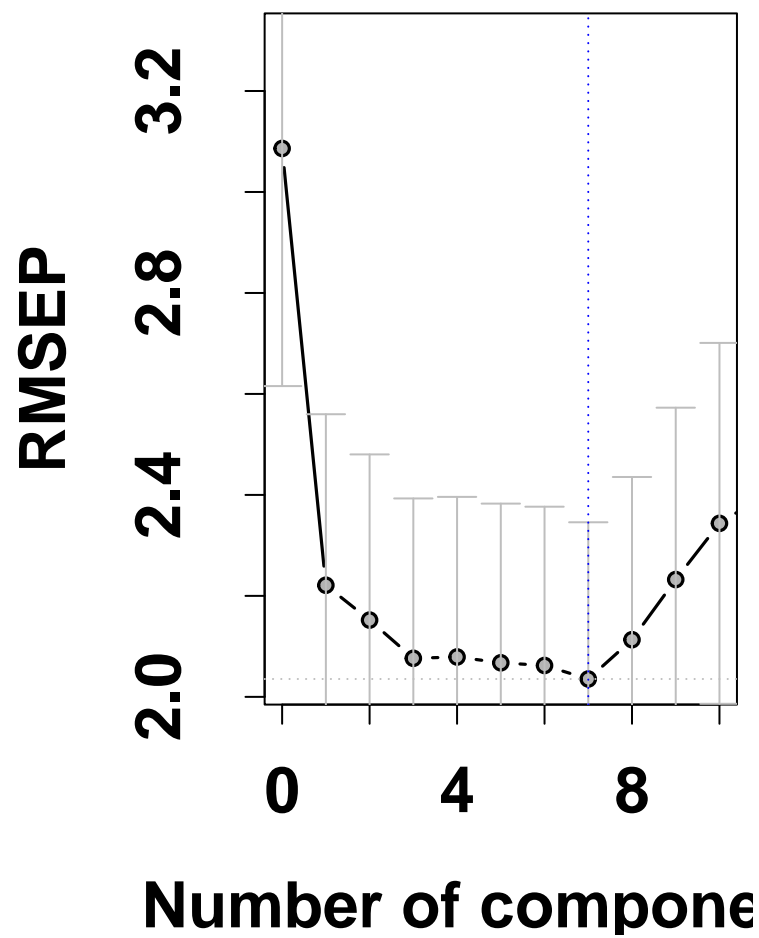


CN N2 calibration dataset



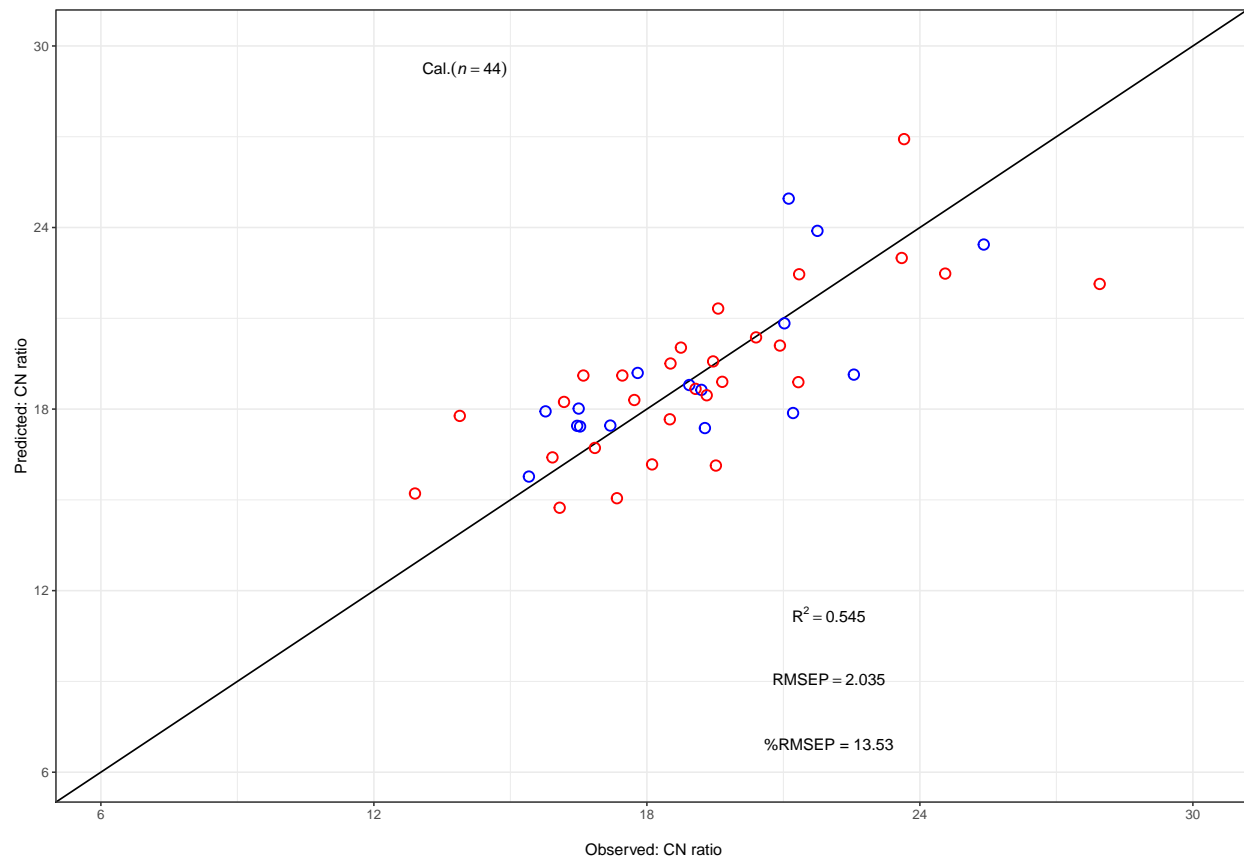
CN N2 validation dataset

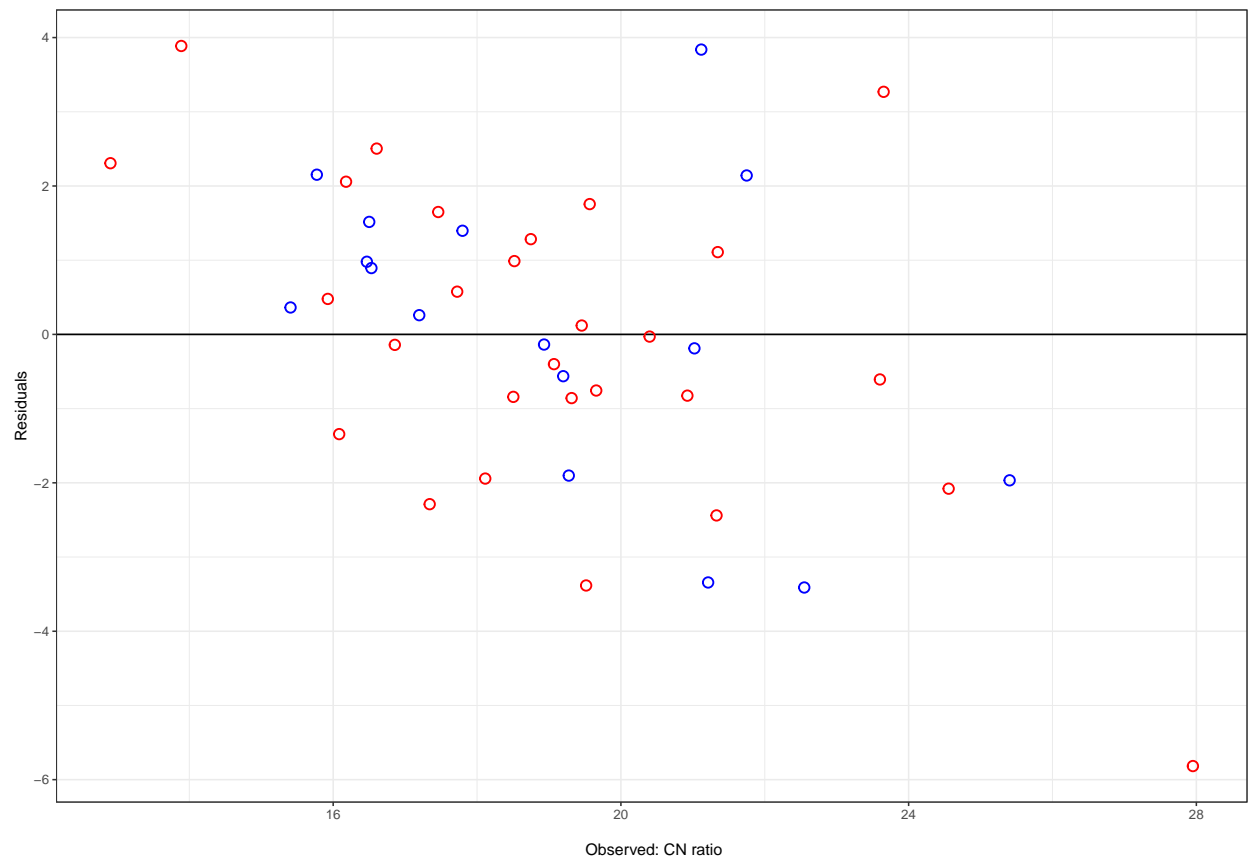


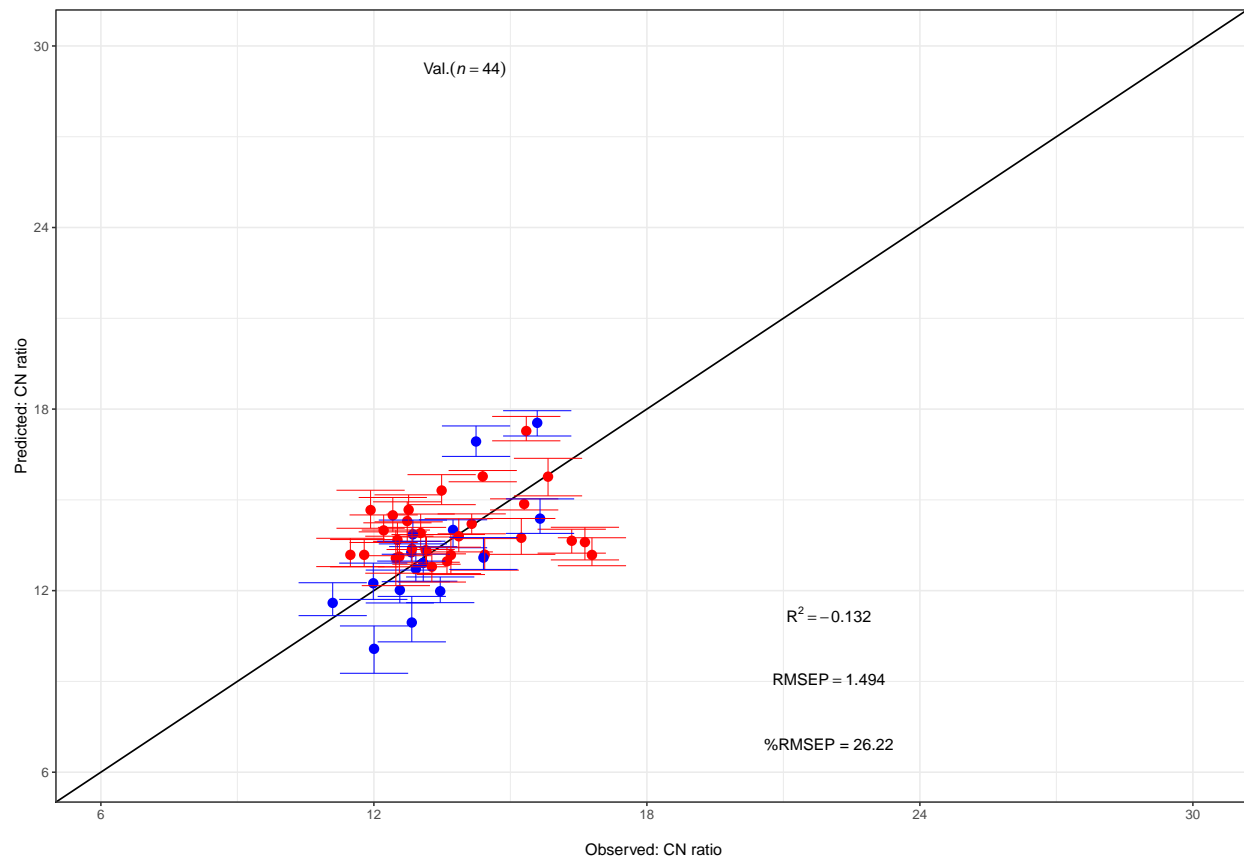


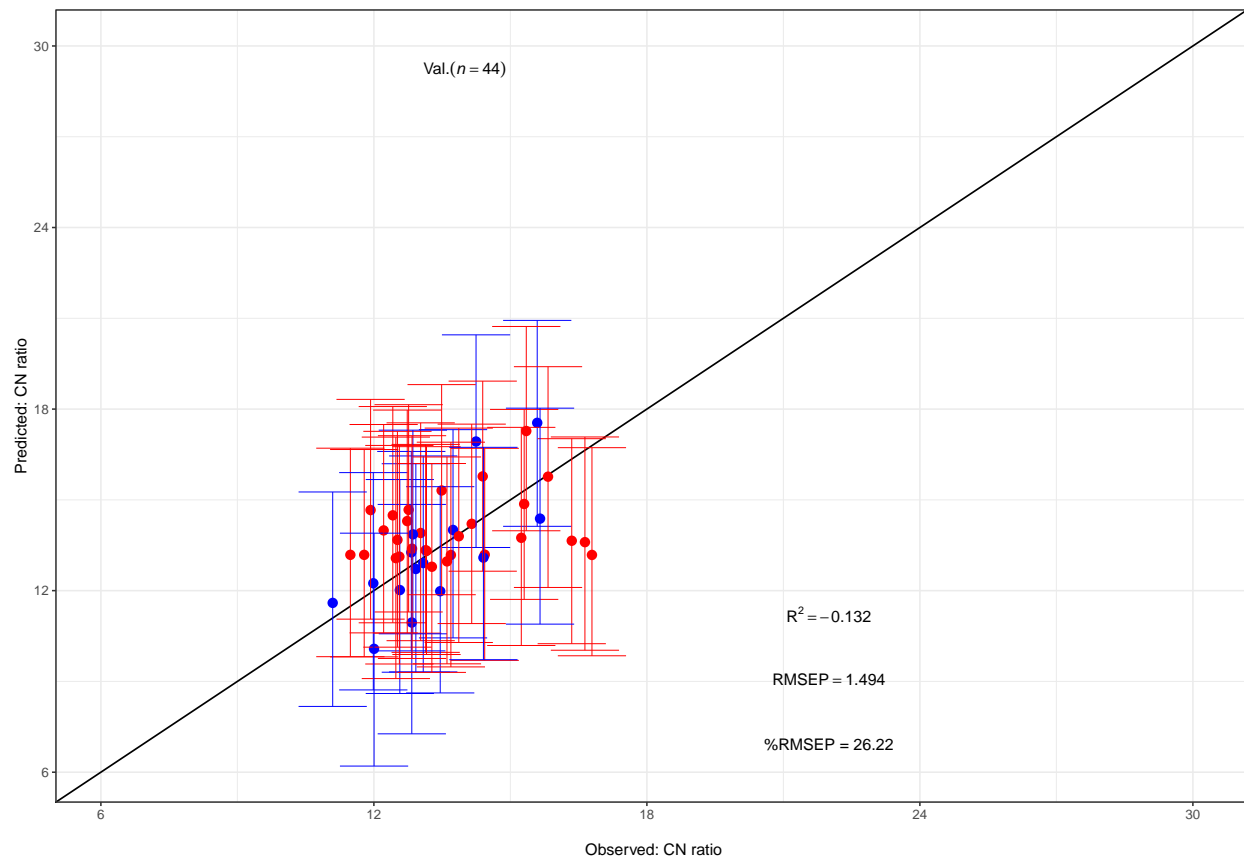
```
## data_set      R2 RMSEP NRMSEP
## 1      cal  0.545 2.035 13.525
## 2      val -0.132 1.494 26.218
```

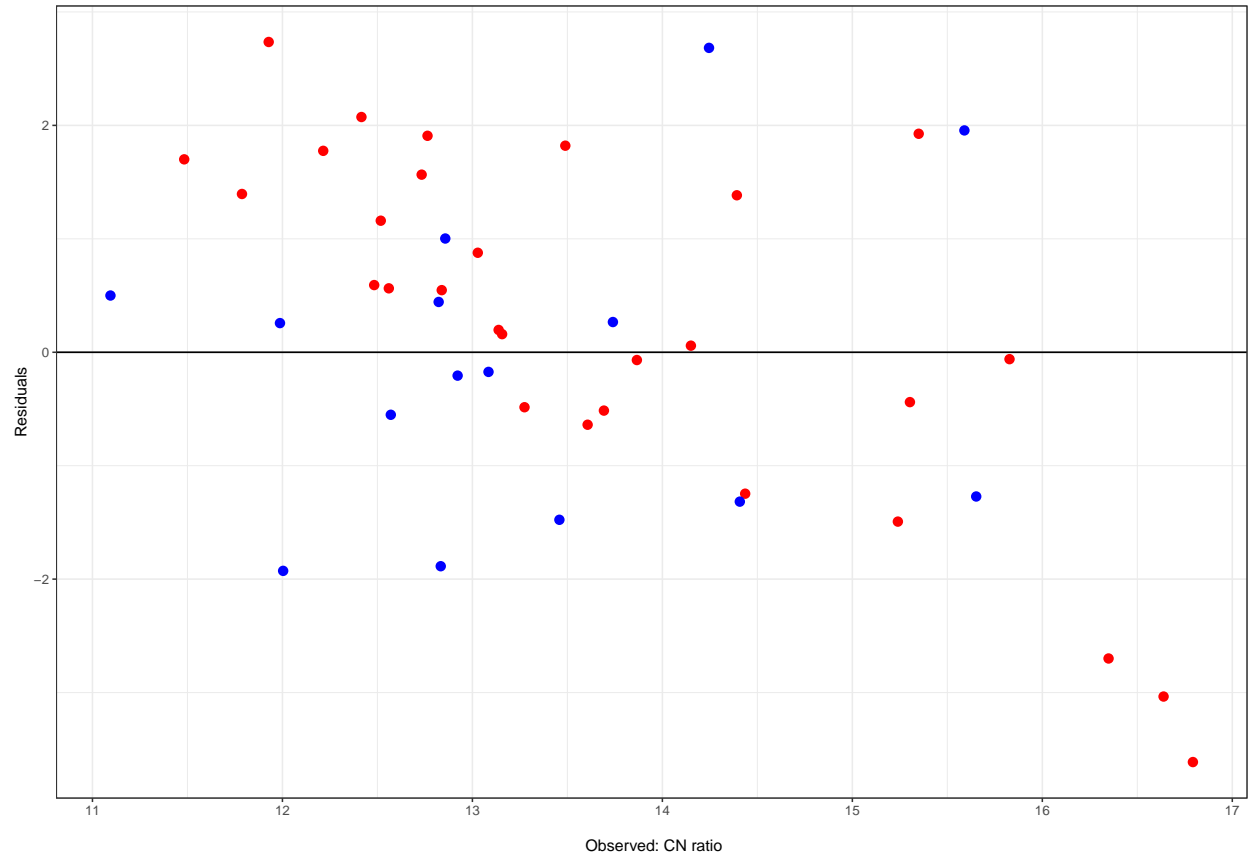
```
## Observed Predicted Residuals Treatment Subpop      uci      lci      upi
## 1 12.92215 12.71609 -0.2060575      N1      TRJ 13.20310 12.29513 16.19402
## 2 13.73949 14.00579  0.2662999      N1      TRJ 14.34169 13.41700 17.32045
## 3 13.13801 13.33466  0.1966472      N1      IND 13.85318 12.93855 16.83203
## 4 16.79262 13.17983 -3.6127834      N1      IND 13.74790 12.82367 16.72443
## 5 12.51760 13.67730  1.1597038      N1      IND 14.24132 13.15502 17.26460
## 6 12.41584 14.48953  2.0736900      N1      IND 15.07878 13.94260 18.08373
##      lpi
## 1  9.304212
## 2 10.438234
## 3  9.959690
## 4  9.847142
## 5 10.131737
## 6 10.937645
```











```
##      Iteration Intercept X663.38722 X664.64919 X662.1255 X665.91142
## Seg 1          1  38.46682 -10.89391 -11.526068 -9.962488 -12.343786
## Seg 2          2  34.40644 -8.96113 -9.351537 -8.249258 -9.935347
## Seg 3          3  28.80523 -10.72847 -11.314545 -9.829999 -12.074603
## Seg 4          4  26.35498 -13.77170 -14.294682 -13.066676 -14.961791
## Seg 5          5  32.29399 -11.01611 -11.617426 -10.124684 -12.375812
## Seg 6          6  33.69911 -11.06841 -11.591546 -10.207584 -12.319034
```

```
##      coefs
## 663.38722 -10.827194
## 664.64919 -11.357293
## 662.1255  -9.976713
## 665.91142 -12.077389
## 660.86404 -9.310288
## 667.1739  -12.712980
```