The statistical description of the predictive performance of fruit yield and phosphorus content in seeds, fruits, leaves, and roots for the training data (N = 144) represents according to the methodology described in Methods. The final data represents in Table S7.

**Table S7:**

**The statistical description of the predictive performance of fruit yield and phosphorus content in plant organs for the training data (N = 144).**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Model P | RMSE | MAPE | RPD | R | R2 | Adjusted R2 | Standardized Beta | t | Sig. |
| Seed | 0.334 | 0.46% | 17.455 | 0.998\*\* | 0.997 | 0.997 | 0.998 | 210.486 | 0.000 |
| Fruit | 0.228 | 0.38% | 27.957 | 0.999\*\* | 0.999 | 0.999 | 0.999 | 333.189 | 0.000 |
| Leaf | 22.98 | 90.57% | 0.208 | 0.991\*\* | 0.981 | 0.981 | 0.991 | 86.679 | 0.000 |
| Root | 0.579 | 0.82% | 13.493 | 0.997\*\* | 0.995 | 0.995 | 0.997 | 162.203 | 0.000 |
| Fruit yield | 0.485 | 9.55% | 2.597 | 0.942\*\* | 0.886 | 0.886 | 0.942 | 33.299 | 0.000 |