Supplemental Table 2

| TraitName | Category | VarName | UnitName | Dataset |
| --- | --- | --- | --- | --- |
| % Whole Aboveground Aluminum in dry mass | Chemical | Aluminum | Percent | Local |
| % Whole Aboveground Boron in dry mass | Chemical | Boron | Percent | Local |
| % Whole Aboveground Calcium in dry mass | Chemical | Calcium | Percent | Local |
| % Whole Aboveground Carbon in dry mass | Chemical | Carbon | Percent | Local |
| % Whole Aboveground Copper in dry mass | Chemical | Copper | Percent | Local |
| % Whole Aboveground Iron in dry mass | Chemical | Iron | Percent | Local |
| % Whole Aboveground Magnesium in dry mass | Chemical | Magnesium | Percent | Local |
| % Whole Aboveground Manganese in dry mass | Chemical | Manganese | Percent | Local |
| % Whole Aboveground Nitrogen in dry mass | Chemical | Nitrogen | Percent | Local |
| % Whole Aboveground Phosphorus in dry mass | Chemical | Phosphorus | Percent | Local |
| % Whole Aboveground Potassium in dry mass | Chemical | Potassium | Percent | Local |
| % Whole Aboveground Sodium in dry mass | Chemical | Sodium | Percent | Local |
| % Whole Aboveground Sulfur in dry mass | Chemical | Sulfur | Percent | Local |
| % Whole Aboveground Zinc in dry mass | Chemical | Zinc | Percent | Local |
| Leaf nitrogen (N) content per leaf dry mass | Chemical | LeafNitrogen | mg/g | TRY |
| Leaf carbon (C) isotope signature (delta 13C) | Metabolic | LeafDelta13Carbon | per mill | TRY |
| Leaf nitrogen (N) isotope signature (delta 15N) | Metabolic | LeafDelta15Nitrogen | per mill | TRY |
| Leaf photosynthesis rate per leaf area | Metabolic | LeafPhoto\_area | micro mol m-2 s-1 | TRY |
| Leaf photosynthesis rate per leaf dry mass | Metabolic | LeafPhoto\_mass | micro mol g-1 s-1 | TRY |
| Stomata conductance per leaf area | Metabolic | StomataConductance\_area | milli mol m-2 s-1 | TRY |
| Stomata conductance per leaf dry mass | Metabolic | StomataConductance\_mass | milli mol g-1 s-1 | TRY |
| Average plant height at maturity (USDA) | Morphological | Local\_Height | meter | Local |
| Leaf area per leaf dry mass (petiole excluded) (Local) | Morphological | Local\_SLA\_pet\_ex | cm2 g-1 | Local |
| Leaf laminar area (Local) | Morphological | Local\_LeafBladeArea | cm2 | Local |
| Leaf perimeter per area (Local) | Morphological | Local\_P.A | waveNumber | Local |
| Leaf perimeter per area times leaf laminar length (Local) | Morphological | Local\_P.A.L | dimensionless | Local |
| Seed dry mass (Local) | Morphological | Local\_SeedDryMass | gram | Local |
| Leaf area (petiole included) | Morphological | LeafArea | mm2 | TRY |
| Fine root diameter | Morphological | FineRootDiameter | mm | TRY |
| Fine root tissue density | Morphological | FineRootTissueDensity | g/cm3 | TRY |
| Leaf area per leaf dry mass (petiole excluded) | Morphological | TRY\_SLA\_pet\_ex | mm2 mg-1 | TRY |
| Leaf area per leaf dry mass (petiole included) | Morphological | TRY\_SLA\_pet\_inc | mm2 mg-1 | TRY |
| Leaf area per leaf dry mass (petiole undefined) | Morphological | TRY\_SLA\_pet\_undef | mm2 mg-1 | TRY |
| Leaf dry mass (single leaf) | Morphological | LeafDryMassSingle | mg | TRY |
| Leaf dry mass per leaf fresh mass | Morphological | LDMC | g g-1 | TRY |
| Leaf fresh mass | Morphological | LeafFreshMass | g | TRY |
| Leaf shape | Morphological | LeafShape | cm/cm | TRY |
| Leaf water content per leaf dry mass (not saturated) | Morphological | LeafWater | g(W)/g(DM) | TRY |
| Leaflet number per leaf | Morphological | LeafletNum | 1/leaf | TRY |
| Plant height generative | Morphological | PlantHeightGen | m | TRY |
| Plant height vegetative | Morphological | PlantHeightVeg | m | TRY |
| Seed dry mass | Morphological | Try\_SeedDryMass | mg | TRY |