Table 1. Table header and variable information in the data file “PlantNE\_ Abbreviation.csv”. NA = not applicable.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable name | Variable definition | Unit | Storage type | Variable codes or numeric values | Missing values |
| Table | Table name | NA | Character | NA | No missing values |
| Column | Column name in the Table | NA | Character | NA | No missing values |
| Abbreviation | Abbreviation of the variable in the Column | NA | Character | NA | No missing values |
| Definition | Definition and details of the Abbreviation | NA | Character | NA | No missing values |

Table 2. Table header and variable information in the data file “PlantNE\_Biomass.csv”. NA = not applicable.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable name | Variable definition | Unit | Storage type | Variable codes or numeric values | Missing values |
| Ref\_ID | Identification number  for the reference | NA | Numeric | 1-348 | No missing values |
| Species | Scientific name of the species | NA | Character | NA | No missing values |
| Age | Plant age at the beginning of the treatment | year | Numeric | 0.02-100 | Nd=no data (n=2752) |
| P\_pattern | Planting pattern to describe the species number during the treatment | NA | Character | Given in PlantNE\_Abbreviation.csv | No missing values |
| P\_part | Plant part on which biomass was reported | NA | Character | Given in PlantNE\_Abbreviation.csv | No missing values |
| CK\_M | Plant biomass in the control group | NA | Numeric | NA | No missing values |
| CK\_SD | Standard deviation in the control group | NA | Numeric | NA | No missing values |
| CK\_N | Sample size in the control group | NA | Numeric | 2-85 | No missing values |
| T-M | Plant biomass in the treatment group | NA | Numeric | NA | No missing values |
| T\_SD | Standard deviation in the treatment group | NA | Numeric | NA | No missing values |
| T\_N | Sample size in the treatment group | NA | Numeric | 2-85 | No missing values |
| Unit | Unit of plant biomass | NA | Character | NA | No missing values |
| N\_dose | The additive amount of N per year | g N m-2 yr-1 | Numeric | 0.02-309 | Nd=no data (n=1062) |
| N\_interval | The time between two continuous fertilizer applications | month | Numeric | 0.01-72 | Nd=no data (n=1082) |
| N\_duration | The length of the experiment at the time of sampling | year | Numeric | 0.01-22 | Nd=no data (n=198) |
| N\_other | Whether N addition with other treatments exist | NA | Character | N=single N addition; ON= N addition with other treatment | No missing values |
| N\_other\_treat | To describe what the other treatments is | NA | Character | Given in PlantNE\_Abbreviation.csv | No missing values |
| Site\_type | The site type where experiments were conducted | NA | Character | Given in PlantNE\_Abbreviation.csv | No missing values |
| Site\_condition | The study condition categorizing the Site\_type on the basis of whether the disturbance of environmental variables is artificially managed | NA | Character | Given in PlantNE\_Abbreviation.csv | No missing values |
| MAT | Mean annual temperature | °C | Numeric | -10 – 39 | Nd=no data (n=804) |
| MAT\_min | Mean temperature of the coldest month for field experiments or of the night for laboratory experiments. | °C | Numeric | -41.6 - 34 | Nd=no data (n=2550) |
| MAT\_max | Mean temperature of the warmest month for field experiments or of the daytime for laboratory experiments. | °C | Numeric | 2.9 - 47 | Nd=no data (n=2538) |
| MAP | Water condition reported by the mean annual precipitation (mm), relative humidity (%, RH) or soil moisture (%, SM). | mm,  %RH,  %SM | Numeric | 94 – 7000 mm;  24%-98% RH;  20% - 80% SM | Nd=no data (n=1091) |

Table 3. Table header and variable information in the data file “PlantNE\_Species.csv”. NA = not applicable.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable name | Variable definition | Unit | Storage type | Variable codes or numeric values | Missing values |
| Species | Scientific name of the species | NA | Character | NA | No missing values |
| Family | Family which the reported species belongs to | NA | Character | NA | No missing values |
| Biol\_realm | Biological realm based on whether a species is seed or spore plant | NA | Character | Given in PlantNE\_Abbreviation.csv | No missing values |
| Growth\_form | Plant classification of growth form based on the existence of xylem. | NA | Character | Given in PlantNE\_Abbreviation.csv | No missing values |
| PFT | Categories of plant functional types on the basis of morphology and physiology | NA | Character | Given in PlantNE\_Abbreviation.csv | No missing values |
| Life\_history | The life history of herbaceous plants | NA | Character | Given in PlantNE\_Abbreviation.csv | No missing values |
| Leaf\_type | The leaf type of trees | NA | Character | Given in PlantNE\_Abbreviation.csv | No missing values |
| Phenology | The leaf phenology of trees | NA | Character | Given in PlantNE\_Abbreviation.csv | No missing values |
| Photosynthesis | The photosynthesis pathway of seed plants | NA | Character | Given in PlantNE\_Abbreviation.csv | Nd=no data (n=2) |
| Legume | The capacity of seed plants to fix N | NA | Character | Given in PlantNE\_Abbreviation.csv | No missing values |

Table 4. Table header and variable information in the data file “PlantNE\_Site.csv”. NA = not applicable.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable name | Variable definition | Unit | Storage type | Variable codes or numeric values | Missing values |
| Ref\_ID | Identification number  for the reference | NA | Numeric | 1-348 | No missing values |
| Country | Country of the study site | NA | Character | NA | Nd=no data (n=1) |
| Latitude | Latitude of the study site. | ° | Numeric | 54.75°S–69.66°N; | No missing values |
| Longitude | Longitude of the study site. | ° | Numeric | 157.80°W–175.30°E | No missing values |
| Ecosystem | Ecosystem type where the study was conducted | NA | Character | NA | Nd=no data (n=211) |

Table 5. Table header and variable information in the data file “PlantNE\_Reference.csv”. NA = not applicable.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable name | Variable definition | Unit | Storage type | Variable codes or numeric values | Missing values |
| Ref\_ID | Identification number  for the reference | NA | Numeric | 1-348 | No missing values |
| Reference | Short citation of the studies | NA | Character | NA | No missing values |