**Table 5.** *Year, Season, and treatment of each inbred grown in this study. Plants were grown in the Magoon or Pope greenhouse facility at the University of Hawaii at Manoa in pots using sunshine mix #4.*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Inbred** | **Treatment** | **Year (Season)** | **Genetic Origin** | **Geographic Origin** | **Climate Zone** |
| B73 | Control | 2021(summer), 2022 (summer, fall), 2023 (spring, summer), 2024 (spring, summer) | Stiff Stalk | USA | TEMPERATE |
| Shade | 2023 (summer) |
| Drought | 2023 (summer), 2024 (summer) |
| HP301 | Control | 2022 (summer), 2024 (summer) | POPCORN | USA | TEMPERATE |
| Drought | 2024 (summer) |
| NC350 | Control | 2022 (fall), 2024 (summer) | SubTropical | USA | TEMPERATE |
| Drought | 2024 (summer) |
| OH7b | Control | 2021 (summer), 2024 (summer) | NON\_STIFF\_STALK | USA | TEMPERATE |
| Drought | 2024 (summer) |
| M162W | Control | 2023 (summer) | NON\_STIFF\_STALK | SOUTH\_AFRICA | TROPICAL |
| Shade | 2023 (summer) |
| Drought | 2023 (summer) |
| CML333 | Control | 2023 (summer) | SubTropical | MEXICO | TROPICAL |
| Shade | 2023 (summer) |
| Drought | 2023 (summer) |
| Ki11 | Control | 2021 (summer), 2024 (spring) | SubTropical | THAILAND | TROPICAL |
| B97 | Control | 2021 (summer) | Stiff Stalk | USA | TEMPERATE |
| MO18W | Control | 2021 (summer) | MIXED | USA | TEMPERATE |
| CML69 | Control | 2021 (summer) | Subtropical | MEXICO | TROPICAL |
| CML52 | Control | 2021 (summer) | Subtropical | MEXICO | TROPICAL |
| CML322 | Control | 2021 (summer) | Subtropical | MEXICO | TROPICAL |
| Tx303 | Control | 2022 (summer) | MIXED | USA | TEMPERATE |
| MS71 | Control | 2022 (summer) | NON\_STIFF\_STALK | USA | TEMPERATE |
| M37w | Control | 2022 (summer) | MIXED | SOUTH\_AFRICA | TROPICAL |
| Ky21 | Control | 2022 (summer) | NON\_STIFF\_STALK | USA | TEMPERATE |
| CML228 | Control | 2022 (summer) | Subtropical | MEXICO | TROPICAL |
| CML103 | Control | 2022 (summer) | Subtropical | MEXICO | TROPICAL |
| CML277 | Control | 2022 (fall) | Subtropical | MEXICO | TROPICAL |
| CML247 | Control | 2022 (fall) | Subtropical | MEXICO | TROPICAL |
| Tzi8 | Control | 2023 (spring) | Subtropical | NIGERIA | TROPICAL |
| OH43 | Control | 2023 (spring) | NON\_STIFF\_STALK | USA | TEMPERATE |
| NC358 | Control | 2023 (spring) | Subtropical | USA | TEMPERATE |
| IL14H | Control | 2024 (spring) | sweetcorn | USA | TEMPERATE |
| Ki3 | NA | NA | Subtropical | THAILAND | TROPICAL |
| P39 | NA | NA | Sweetcorn | USA | TEMPERATE |

This paper describes variation in shoot and root traits collected from the founders of the Maize Nested Association Mapping panel, which was designed to maximize genetic diversity while ensuring appropriate flowering in eastern North America. Here, we present a description of greenhouse experiments conducted by four cohorts of undergraduate research interns at the University of Hawaiʻi at Mānoa. We summarize data collection, data cleaning procedures, and present data for 38 phenotypic variables for 24 genotypes with the number of plant replicates ranging from 3 to 20. The genotype B73 served as our experimental control to enable comparison over the four years. We also grew a subset oft genotypes under different abiotic stress treatments to assess the phenotypic plasticity. These data can be used to predict the potential for different lines to function and capacity to adapt to different environments. Data are published on GitHub repositories, and have large reuse potential by the scientific community, as well as educators of undergraduate and graduate instruction.