**Supplementary Information for Tenorio et al.**

***Supplementary Table S1.*** *Meteorological stations and inputs used to simulate yield potential or water-limited yield potential in each technology extrapolation domain (TED)-water regime.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TED-water regime | Meteorological stations | Sowing date | Hybrid relative maturity (days) | Plant density (plants m-2) |
| 1I | Axtell, Holdrege, Ragan, Smithfield | April 23 | 115 | 8.7 |
| 2I | Harvard, Guiderock, York | April 23 | 115 | 8.7 |
| 2R | Duncan, Harvard, York | April 25 | 115 | 7.0 |

***Supplementary Table S2.*** *Soil and field input used to simulate water-limited yield potential in rainfed maize fields located in TED 2R.*

|  |  |
| --- | --- |
| Variable | Value |
| Rooting depth (cm) | 150 |
| Topsoil texture | silt loam |
| Subsoil texture | silt loam |
| Bulk density (g cm-3) | 1.3 |
| Available soil water (at sowing) | 100% PAWHC |
| Soil surface residues coverage (%) | 50 |
| Field slope (%) | ≤ 2 |
| Soil drainage | good |