**Supplementary information**

The range of values for growing degree days (GDD) corresponding to each GYGA-CZ value are as follows:

|  |  |
| --- | --- |
| GDD (°Cd) | GYGA-CZ Value |
| 0 - 2670 | 1000 |
| 2671 - 3169 | 2000 |
| 3170 - 3791 | 3000 |
| 3792 - 4829 | 4000 |
| 4830 - 5949 | 5000 |
| 5950 - 7111 | 6000 |
| 7112 - 8564 | 7000 |
| 8565 - 9311 | 8000 |
| 9312 - 9850 | 9000 |
| > 9851 | 10000 |

Source: Global Yield Gap Analysis website <http://www.yieldgap.org/web/guest/cz-ted> and van Wart *et al*. (2013)

Aridity Index (AI) is calculated as mean annual precipitation (mm × 100) divided by mean annual evaporation (mm × 100). The range of values correspond to GYGA-CZ levels as follows:

|  |  |
| --- | --- |
| AI (-) | GYGA-CZ Value |
| 0 - 2695 | 000 |
| 2696 - 3893 | 100 |
| 3894 - 4791 | 200 |
| 4792 - 5689 | 300 |
| 5690 - 6588 | 400 |
| 6589 - 7785 | 500 |
| 7786 - 8685 | 600 |
| 8686 - 10181 | 700 |
| 10182 - 12876 | 800 |
| > 12877 | 900 |

Source: Global Yield Gap Analysis website <http://www.yieldgap.org/web/guest/cz-ted> and van Wart *et al*. (2013)

Temperature Seasonality (TS) is calculated as S.D. of the 12 mean monthly temperatures × 100 (where mean monthly temperatures are °C × 10). The range of values correspond to GYGA-CZ levels as follows:

|  |  |
| --- | --- |
| Temperature seasonality | GYGA-CZ Value |
| 0 - 3832 | 01 |
| 3833 - 8355 | 02 |
| > 8356 | 03 |

Source: Global Yield Gap Analysis website <http://www.yieldgap.org/web/guest/cz-ted> and van Wart *et al*. (2013)

**Reference**

**van Wart J, van Bussel LGJ, Wolf J, Licker R, Grassini P, Nelson A, Boogaard H, Gerber J, Mueller ND, Claessens L, van Ittersum MK and Cassman KG** (2013).Use of agro-climatic zones to upscale simulated crop yield potential.*Field Crops Research*, **143,** 44-55.