

Supplementary Table 3. Soil characteristics at the locations of the field trials.

| Location | Soil depth, cm | pH | Total K kg hectare⁻¹ | Total P kg hectare⁻¹ | Total Mg kg hectare⁻¹ | Nmin kg hectare⁻¹ | Bulk density kg m⁻³ | Stone fraction |
|-----------------|-----------------------|-----------|--|--|---|---|---|---------------------------|
| Adana | >200 | 7.7 | 669 | 66 | 911 | 181 | 1.52 | 10% |
| Stuttgart | 40-100 | 7.74 | 609 | 296 | 1,371 | 87 | 1.46 | 9% |
| Potash | >200 | 6.5 | 363 | 240 | 1,470 | 113 | 1.43 | 0% |
| Wageningen | 40-100 | 5.88 | 359 | 403 | 331 | 45 | 1.43 | 0% |
| Aberystwyth | 30-50 | 5.56 | 126 | 46 | 171 | 31 | 1.41 | 35% |
| Moscow | >200 | 4.9 | 148 | 127 | 772 | 254 | 1.56 | 3% |