

Supplementary materials

Table S1. Effects of salt and water deficit stresses on germination ability, total dry weight and grain yield of 184 barley varieties grown in pots under greenhouse conditions. Last column includes the results of the K-means cluster analysis.

| a/a | Barley variety | NaCl (mM) | | | | | | | | | | | | K-means cluster | |
|------------------------------|---|---------------------------------------|------|------|-----|------------------------------|------|-----|------|-------------------------|-----|-----|-----|-----------------|--|
| | | 0 | | | | 150 | | | | 0 | | | | | |
| | | 40 | | 80 | | 40 | | 80 | | 40 | | 80 | | | |
| Germination (plants per pot) | | Irrigation (% of soil water capacity) | | | | Total dry weight (g per pot) | | | | Grain yield (g per pot) | | | | rating | |
| a/a | Barley variety | 0 | 150 | 0 | 150 | 0 | 150 | 0 | 150 | 0 | 150 | 0 | 150 | K-means cluster | |
| 1 | Pistacho CMB 77 A-1266-2B-1Y-1B-0Y | 10.0 | 8.3 | 8.0 | 2.0 | 8.7 | 16.5 | 5.3 | 8.9 | 2.5 | 4.9 | 1.6 | 3.6 | 1 ^a | |
| 2 | Gloria 'S'/Come 'S' CMB 81-294-5B-2Y-8M-OY | 6.7 | 6.3 | 4.7 | 4.3 | 6.8 | 11.0 | 5.6 | 9.2 | 0.5 | 1.2 | 0.6 | 0.0 | 2 | |
| 3 | Gloria 'S'/Come 'S' CMB 81-294-5B-5Y-1M-1Y-0M | 11.0 | 12.0 | 11.7 | 6.3 | 5.5 | 6.8 | 0.1 | 7.4 | 0.0 | 0.0 | 0.1 | 0.0 | 3 | |
| 4 | Gloria 'S'/Copal 'S' CMB 81-295-6B-2Y-1M-0Y | 11.7 | 10.7 | 10.0 | 2.7 | 5.4 | 9.1 | 5.4 | 8.1 | 0.6 | 1.3 | 1.3 | 1.9 | 3 | |
| 5 | Caco 'S'/3/AP/CM 67/1594 | 2.0 | 4.0 | 2.0 | 1.0 | 7.5 | 8.1 | 3.7 | 10.0 | 2.7 | 1.4 | 1.6 | 0.7 | 4 | |
| 6 | Robust | 10.3 | 11.0 | 9.0 | 8.0 | 7.3 | 13.7 | 6.9 | 12.1 | 2.9 | 5.9 | 1.9 | 4.7 | 1 | |
| 7 | Oregon Line | 11.3 | 10.3 | 6.0 | 0.3 | 7.1 | 12.0 | 6.1 | 12.6 | 0.1 | 0.4 | 0.1 | 1.0 | 1 | |
| 8 | Quinbenras | 6.3 | 7.7 | 1.3 | 4.0 | 6.6 | 7.2 | 3.5 | 5.9 | 0.9 | 1.0 | 0.8 | 2.0 | 4 | |
| 9 | Karla | 9.7 | 10.0 | 0.7 | 5.0 | 6.5 | 7.8 | 3.8 | 6.3 | 1.8 | 0.9 | 1.4 | 2.3 | 3 | |
| 10 | Gloria 'S'/Come 'S' | 5.3 | 4.3 | 0.0 | 1.0 | 5.4 | 11.5 | 0.0 | 5.8 | 1.8 | 3.8 | 0.0 | 1.2 | 4 | |
| 11 | Karan 280 | 10.0 | 8.3 | 1.0 | 1.7 | 4.5 | 9.9 | 2.0 | 8.4 | 0.0 | 0.0 | 0.0 | 0.0 | 2 | |
| 12 | Gloria 'S'/Copal 'S' 2M-2Y-2M | 11.3 | 10.7 | 11.0 | 1.7 | 5.9 | 6.4 | 3.6 | 6.1 | 0.0 | 0.0 | 0.0 | 0.0 | 3 | |
| 13 | Pistacho | 11.7 | 11.0 | 10.0 | 2.3 | 4.2 | 7.3 | 3.9 | 7.4 | 0.0 | 0.6 | 0.1 | 0.3 | 3 | |

| | | | | | | | | | | | | | | |
|----|-----------------------------|------|------|-----|-----|------|------|-----|------|-----|-----|-----|-----|---|
| 14 | CHIA | 10.3 | 9.3 | 7.3 | 1.3 | 5.0 | 8.8 | 0.4 | 8.7 | 0.1 | 0.2 | 0.0 | 0.2 | 3 |
| 15 | Heatland | 9.3 | 11.0 | 0.7 | 4.3 | 6.4 | 10.1 | 3.9 | 10.4 | 1.1 | 1.4 | 0.1 | 0.5 | 2 |
| 16 | Ligneo 640 | 10.0 | 10.0 | 4.7 | 1.3 | 4.0 | 9.9 | 3.2 | 12.4 | 0.0 | 1.0 | 0.2 | 1.2 | 2 |
| 17 | Matnan 'S' /EH 165 | 10.3 | 9.3 | 1.7 | 1.0 | 3.8 | 10.3 | 0.0 | 7.9 | 0.0 | 0.0 | 0.0 | 0.2 | 3 |
| 18 | Paico 'S' | 6.0 | 7.3 | 5.7 | 0.7 | 3.4 | 4.9 | 2.0 | 3.0 | 0.3 | 0.7 | 0.0 | 0.7 | 4 |
| 19 | Galt Brea 'S' | 10.0 | 11.3 | 1.0 | 6.3 | 8.4 | 14.7 | 7.1 | 11.8 | 2.0 | 3.2 | 2.3 | 3.2 | 1 |
| 20 | IBTA 80 | 5.7 | 5.3 | 3.0 | 1.0 | 8.5 | 14.0 | 6.1 | 7.4 | 1.3 | 1.6 | 1.7 | 1.2 | 2 |
| 21 | Ruda 'S' | 7.0 | 9.0 | 1.7 | 2.7 | 9.1 | 13.8 | 4.2 | 15.4 | 1.7 | 1.9 | 1.7 | 2.6 | 1 |
| 22 | Paico 'S' 3B-1SB-1Y | 8.0 | 10.7 | 1.3 | 2.7 | 7.6 | 11.4 | 4.3 | 11.5 | 0.6 | 1.4 | 0.0 | 0.5 | 2 |
| 23 | F3 Bulk Resist. Desc/Sutter | 11.0 | 8.3 | 0.3 | 1.3 | 9.6 | 13.4 | 0.8 | 7.3 | 1.7 | 1.4 | 0.7 | 1.6 | 2 |
| 24 | Malebo | 8.3 | 10.0 | 1.7 | 0.7 | 8.4 | 11.9 | 7.5 | 14.8 | 2.3 | 1.0 | 2.9 | 5.9 | 1 |
| 25 | UNA 80 | 8.0 | 8.3 | 0.3 | 2.3 | 9.5 | 12.5 | 2.5 | 3.4 | 1.0 | 1.4 | 0.3 | 0.7 | 2 |
| 26 | Zarjau | 10.7 | 10.0 | 1.0 | 1.0 | 6.6 | 15.2 | 0.0 | 7.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2 |
| 27 | DZ-38-67 | 9.3 | 9.0 | 0.3 | 1.7 | 10.6 | 11.4 | 5.3 | 9.6 | 1.1 | 2.1 | 0.9 | 1.4 | 1 |
| 28 | Ager | 10.0 | 10.0 | 4.0 | 1.7 | 4.0 | 7.6 | 5.0 | 12.0 | 0.0 | 0.0 | 0.0 | 1.8 | 2 |
| 29 | ICB-100002 | 9.7 | 9.0 | 5.0 | 1.7 | 4.3 | 8.1 | 4.7 | 11.1 | 0.0 | 0.8 | 0.0 | 1.5 | 2 |
| 30 | Robur/WA 2196-68 | 9.7 | 11.3 | 7.0 | 1.7 | 5.7 | 12.2 | 8.6 | 10.2 | 0.8 | 1.2 | 0.8 | 0.7 | 1 |
| 31 | Clayton | 9.0 | 8.0 | 3.0 | 0.3 | 5.0 | 11.6 | 1.7 | 10.2 | 1.5 | 1.4 | 0.5 | 1.6 | 2 |
| 32 | Kearney | 7.0 | 8.0 | 2.3 | 2.0 | 8.5 | 10.5 | 6.4 | 12.7 | 1.2 | 0.9 | 1.3 | 1.7 | 1 |
| 33 | ICB-105968 | 6.3 | 6.3 | 0.7 | 0.3 | 5.1 | 12.0 | 0.7 | 5.7 | 0.0 | 0.3 | 0.0 | 0.0 | 4 |
| 34 | MD 801105-20 | 8.0 | 8.7 | 2.3 | 0.7 | 7.0 | 9.3 | 6.1 | 7.8 | 0.5 | 0.4 | 0.6 | 0.4 | 2 |
| 35 | KS-87 C 45 | 9.3 | 8.3 | 2.0 | 1.7 | 5.3 | 12.5 | 1.3 | 9.9 | 0.3 | 0.0 | 0.0 | 0.0 | 2 |
| 36 | Rihane 03 | 9.7 | 9.0 | 0.7 | 0.3 | 4.7 | 13.7 | 1.3 | 8.7 | 0.0 | 0.5 | 0.0 | 0.5 | 2 |
| 37 | WA 2138/S.W./Thibaut | 8.7 | 9.0 | 0.3 | 1.3 | 6.2 | 12.4 | 2.1 | 6.1 | 0.6 | 1.3 | 0.0 | 1.5 | 2 |

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|----|-----------------------|--|------|------|-----|-----|-----|------|-----|------|-----|-----|-----|-----|---|
| 38 | Astrix | | 6.3 | 8.0 | 0.7 | 1.3 | 6.6 | 7.1 | 2.2 | 11.9 | 1.9 | 4.3 | 0.9 | 2.0 | 2 |
| 39 | Belt 67 | | 7.0 | 11.0 | 0.7 | 0.3 | 7.7 | 10.3 | 4.7 | 12.6 | 2.7 | 2.8 | 0.3 | 1.3 | 2 |
| 40 | ICB 100126 | | 8.3 | 9.7 | 1.0 | 4.7 | 7.7 | 20.4 | 6.2 | 11.8 | 0.4 | 1.1 | 0.4 | 1.3 | 1 |
| 41 | MD-45-58-37 | | 9.3 | 10.3 | 0.0 | 0.7 | 6.3 | 13.3 | 0.0 | 4.1 | 0.0 | 0.7 | 0.0 | 0.7 | 2 |
| 42 | Pike USA | | 5.0 | 6.0 | 0.0 | 0.7 | 6.5 | 14.8 | 0.0 | 5.0 | 1.3 | 4.0 | 0.0 | 1.3 | 4 |
| 43 | Star | | 11.0 | 11.0 | 0.0 | 0.3 | 7.6 | 12.8 | 0.0 | 7.5 | 0.7 | 0.6 | 0.0 | 0.1 | 2 |
| 44 | Lignee 131 | | 10.3 | 9.7 | 0.3 | 1.3 | 4.0 | 13.2 | 1.6 | 10.7 | 0.0 | 0.0 | 0.0 | 0.0 | 2 |
| 45 | Debut | | 11.3 | 11.0 | 1.0 | 5.3 | 6.7 | 13.2 | 2.1 | 5.6 | 0.0 | 0.0 | 0.0 | 0.0 | 3 |
| 46 | Bemir-2 | | 8.7 | 10.0 | 1.3 | 5.7 | 7.6 | 13.1 | 1.7 | 5.3 | 0.0 | 0.0 | 0.0 | 0.0 | 2 |
| 47 | Kamiak/BELTS 67-875 | | 5.3 | 7.0 | 0.7 | 0.7 | 8.3 | 14.6 | 3.5 | 8.9 | 0.7 | 1.3 | 0.0 | 0.5 | 2 |
| 48 | Md 45-59-32 | | 6.3 | 7.3 | 0.7 | 1.3 | 5.0 | 9.4 | 0.0 | 6.8 | 0.0 | 0.4 | 0.0 | 0.0 | 4 |
| 49 | ICB 104085 | | 9.7 | 10.3 | 6.3 | 0.7 | 6.2 | 11.0 | 5.5 | 9.4 | 0.7 | 0.1 | 0.0 | 0.4 | 2 |
| 50 | Activ | | 9.7 | 9.3 | 1.0 | 0.7 | 8.0 | 12.8 | 2.6 | 8.9 | 2.6 | 2.9 | 0.8 | 2.4 | 2 |
| 51 | Acton | | 9.7 | 11.0 | 3.7 | 5.7 | 8.8 | 15.8 | 5.1 | 9.9 | 2.5 | 2.4 | 1.2 | 2.8 | 1 |
| 52 | Friberga | | 9.3 | 10.7 | 0.7 | 6.3 | 8.0 | 11.2 | 5.0 | 9.1 | 1.9 | 3.6 | 1.6 | 2.3 | 1 |
| 53 | Cyclone | | 4.3 | 6.3 | 4.7 | 4.7 | 7.9 | 12.2 | 6.3 | 9.9 | 1.3 | 3.1 | 2.1 | 2.1 | 1 |
| 54 | III 62-19/FB | | 7.3 | 4.7 | 1.7 | 0.7 | 5.2 | 10.1 | 0.9 | 4.0 | 1.1 | 1.5 | 0.0 | 0.3 | 4 |
| 55 | Robur/J-126/OWB | | 9.3 | 10.0 | 0.0 | 0.3 | 7.8 | 13.2 | 0.0 | 0.6 | 0.0 | 0.2 | 0.0 | 0.0 | 4 |
| 56 | Hesk/WA 2905-75 | | 9.3 | 11.3 | 1.3 | 3.3 | 8.0 | 16.2 | 4.8 | 10.9 | 0.6 | 1.6 | 0.6 | 1.0 | 1 |
| 57 | Scotia 1/WA 1356-70 | | 8.3 | 9.3 | 0.7 | 3.0 | 9.0 | 14.0 | 4.9 | 6.4 | 0.2 | 2.7 | 0.1 | 1.3 | 2 |
| 58 | Robur/WA 2196-68 | | 7.0 | 9.3 | 0.0 | 0.3 | 6.1 | 14.4 | 0.0 | 4.7 | 0.0 | 0.0 | 0.0 | 0.0 | 4 |
| 59 | Robur/J-126/OWB | | 9.7 | 9.7 | 0.0 | 0.3 | 3.9 | 13.2 | 0.0 | 4.4 | 0.0 | 0.5 | 0.0 | 0.2 | 4 |
| 60 | Athene/DAR 69-735/MLR | | 9.7 | 10.7 | 1.0 | 2.3 | 6.4 | 13.8 | 3.5 | 5.6 | 0.7 | 1.7 | 0.8 | 0.9 | 2 |
| 61 | Novator | | 7.7 | 8.7 | 0.7 | 1.3 | 6.4 | 12.7 | 2.9 | 7.3 | 0.5 | 0.7 | 0.0 | 0.5 | 2 |

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| 62 | Meteor | | 4.0 | 6.3 | 0.3 | 2.7 | 6.6 | 12.6 | 2.2 | 6.9 | 0.0 | 0.7 | 0.0 | 0.0 | 2 |
| 63 | Donor | | 2.0 | 4.0 | 0.3 | 1.0 | 3.9 | 16.0 | 0.0 | 7.9 | 0.5 | 0.0 | 0.0 | 0.2 | 4 |
| 64 | ZDM 938 | | 4.7 | 6.0 | 0.0 | 1.0 | 6.1 | 12.2 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 4 |
| 65 | 80.5016/P Dulce 'S' A-82 | | 4.0 | 5.7 | 0.0 | 0.0 | 4.2 | 14.6 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 4 |
| 66 | Saconia | | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 4.4 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 4 |
| 67 | Alaska/GSI A-212 | | 7.7 | 8.3 | 0.3 | 4.7 | 6.2 | 15.5 | 4.7 | 5.1 | 0.7 | 2.9 | 0.3 | 0.8 | 2 |
| 68 | Alaska/Triumph | | 4.3 | 4.3 | 0.7 | 0.7 | 4.1 | 17.4 | 0.6 | 7.7 | 0.7 | 1.7 | 0.1 | 0.3 | 2 |
| 69 | Moulin/TCHN A-216 | | 8.3 | 8.0 | 0.3 | 1.0 | 1.6 | 3.0 | 0.0 | 3.7 | 0.0 | 0.0 | 0.0 | 0.0 | 4 |
| 70 | Moulin/Egypt | | 9.7 | 10.7 | 0.3 | 0.7 | 7.8 | 16.2 | 0.1 | 5.7 | 0.4 | 1.0 | 0.0 | 0.6 | 2 |
| 71 | Alpha/Ramona A-226 | | 7.7 | 9.0 | 0.3 | 2.3 | 4.0 | 16.4 | 2.3 | 9.8 | 0.4 | 3.0 | 0.0 | 2.9 | 2 |
| 72 | Mauri/Iran | | 10.0 | 11.3 | 1.3 | 2.7 | 2.9 | 11.6 | 0.0 | 6.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3 |
| 73 | 1206 N/Amsel A-24 | | 3.0 | 4.3 | 0.0 | 0.7 | 4.9 | 13.7 | 0.0 | 6.5 | 0.0 | 0.1 | 0.0 | 0.0 | 4 |
| 74 | Hagenamugi/Gloria 'S' A-26 | | 5.7 | 5.3 | 0.3 | 2.3 | 6.9 | 14.0 | 1.7 | 5.2 | 0.9 | 1.4 | 0.0 | 0.0 | 2 |
| 75 | Robur/Astrix A-33 | | 8.7 | 11.0 | 1.7 | 2.0 | 6.3 | 12.5 | 0.0 | 5.0 | 0.0 | 0.8 | 0.0 | 0.7 | 2 |
| 76 | Egypt 20 A-41 | | 7.0 | 6.3 | 1.0 | 0.7 | 8.7 | 11.1 | 1.9 | 8.3 | 2.0 | 1.8 | 0.3 | 0.3 | 2 |
| 77 | Kamiak/Gloria 'S'/Come 'S' A-55 | | 6.7 | 9.0 | 0.0 | 3.7 | 4.5 | 12.9 | 0.0 | 4.7 | 0.6 | 4.4 | 0.0 | 2.0 | 4 |
| 78 | Alpha/PM5/Ben A-68 | | 7.0 | 8.0 | 0.3 | 0.7 | 8.8 | 12.3 | 0.0 | 0.0 | 0.7 | 0.7 | 0.0 | 0.0 | 4 |
| 79 | Gerbel/PM5/Ben A-89 | | 6.7 | 6.3 | 1.0 | 2.0 | 6.7 | 11.2 | 0.0 | 0.8 | 0.1 | 0.1 | 0.0 | 0.0 | 4 |
| 80 | Gerbel/Una 80 A-98 | | 6.0 | 7.0 | 2.3 | 2.3 | 7.9 | 13.1 | 0.0 | 0.0 | 0.1 | 0.4 | 0.0 | 0.0 | 4 |
| 81 | Alpine/Gloria A-111 | | 7.0 | 9.3 | 3.3 | 4.0 | 8.1 | 16.2 | 2.4 | 8.3 | 0.2 | 1.0 | 0.0 | 0.9 | 2 |
| 82 | Forrajera Klein/Gloria 'S' A113 | | 8.3 | 9.0 | 0.3 | 1.0 | 7.2 | 14.9 | 4.6 | 5.5 | 0.4 | 0.9 | 0.0 | 1.1 | 2 |
| 83 | MS 2375/Gloria 'S' A-117 | | 10.0 | 9.7 | 1.3 | 1.3 | 6.8 | 13.8 | 6.2 | 9.0 | 1.0 | 1.6 | 0.0 | 0.0 | 2 |
| 84 | MS 2375/Valeriana 'S' A-118 | | 4.0 | 6.7 | 0.0 | 0.0 | 8.1 | 12.4 | 0.0 | 0.0 | 1.1 | 2.3 | 0.0 | 0.0 | 4 |
| 85 | HB855/467/Alpha/Gloria 'S' A-143 | | 4.0 | 9.0 | 1.7 | 2.0 | 5.5 | 10.5 | 0.0 | 4.2 | 0.1 | 0.0 | 0.0 | 0.0 | 4 |

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|-----|-----------------------------------|------|------|-----|-----|-----|------|-----|------|-----|-----|-----|-----|---|
| 86 | Hudson/Tunis/Eh 165 A-188 | 6.3 | 8.3 | 1.7 | 4.7 | 7.9 | 13.8 | 1.5 | 1.5 | 0.2 | 0.5 | 0.0 | 0.5 | 2 |
| 87 | Quinn/Rumorosa A-3 | 5.3 | 8.0 | 0.3 | 1.0 | 3.1 | 13.2 | 0.0 | 6.2 | 0.1 | 0.4 | 0.0 | 0.1 | 4 |
| 88 | Quinn/Tunis A-6 | 7.0 | 8.0 | 1.3 | 4.0 | 5.3 | 13.1 | 6.2 | 6.2 | 0.1 | 0.6 | 0.3 | 0.5 | 2 |
| 89 | Lignee 131/Tunis A-12 | 4.0 | 6.0 | 0.3 | 0.3 | 6.4 | 14.5 | 2.6 | 10.3 | 1.6 | 1.9 | 0.0 | 0.8 | 2 |
| 90 | FB 73 607 D35/Manker/Aths A-72 | 1.3 | 3.3 | 0.3 | 0.7 | 1.4 | 7.1 | 0.0 | 3.4 | 0.0 | 0.7 | 0.0 | 0.2 | 4 |
| 91 | 80.5054/Tunis/EH 165 A-106 | 7.0 | 8.3 | 0.7 | 1.0 | 7.2 | 14.4 | 0.0 | 2.0 | 1.8 | 3.0 | 0.0 | 0.9 | 4 |
| 92 | Barberousse/Rumososa A-160 | 6.0 | 7.0 | 0.3 | 0.7 | 4.0 | 10.5 | 0.0 | 4.2 | 0.0 | 0.2 | 0.0 | 0.2 | 4 |
| 93 | FB73.126/3/4259/C15831 A-167 | 7.7 | 7.3 | 0.0 | 0.3 | 6.3 | 15.1 | 0.0 | 2.2 | 1.1 | 1.9 | 0.0 | 0.5 | 4 |
| 94 | Franka/Nackta/HJA A33 A-172 | 8.0 | 8.3 | 0.7 | 1.3 | 4.0 | 10.6 | 2.6 | 9.1 | 0.4 | 1.0 | 0.0 | 1.4 | 2 |
| 95 | Monroe/Gloria 'S'/Come 'S' A-179 | 7.0 | 9.3 | 0.3 | 1.0 | 4.3 | 12.1 | 3.1 | 10.5 | 0.6 | 1.2 | 0.5 | 0.5 | 2 |
| 96 | Schuyler/Matnan 'S' /EH165 A-192 | 6.7 | 7.3 | 0.7 | 1.0 | 0.9 | 9.7 | 1.3 | 2.6 | 0.0 | 0.4 | 0.0 | 0.3 | 4 |
| 97 | 80.5060/Gloria 'S' A-196 | 4.3 | 5.7 | 0.3 | 1.3 | 1.0 | 12.9 | 0.0 | 0.9 | 0.0 | 0.2 | 0.0 | 0.0 | 4 |
| 98 | 80.5180/EH165/Cross270 A-199 | 5.0 | 7.7 | 1.0 | 1.7 | 2.4 | 11.1 | 0.0 | 0.7 | 0.0 | 0.2 | 0.0 | 0.0 | 4 |
| 99 | Barberousse/Matnan 'S' A-201 | 8.0 | 9.0 | 0.3 | 0.7 | 3.0 | 12.8 | 3.1 | 3.1 | 0.4 | 0.9 | 0.0 | 0.0 | 4 |
| 100 | Robur/Matnan 'S' A-207 | 4.0 | 6.0 | 0.3 | 0.7 | 7.9 | 16.2 | 1.8 | 3.7 | 0.0 | 1.9 | 0.0 | 0.8 | 2 |
| 101 | Quinn/Encino 'S' A-211 | 7.3 | 8.7 | 0.0 | 0.3 | 6.0 | 15.0 | 0.6 | 3.1 | 0.4 | 1.1 | 0.0 | 0.1 | 4 |
| 102 | Franka/4/SP6H/Iris/Cota 'S' A-227 | 1.7 | 2.3 | 0.0 | 1.0 | 5.3 | 9.3 | 0.0 | 3.8 | 0.2 | 1.2 | 0.0 | 0.0 | 4 |
| 103 | Franka/6/Mona/Nopal 'S' A-242 | 7.3 | 10.3 | 0.0 | 1.0 | 7.2 | 9.3 | 0.0 | 0.9 | 0.7 | 0.7 | 0.0 | 0.0 | 4 |
| 104 | Franka/4/SP 6H/Iris A-245 | 7.0 | 9.3 | 0.0 | 0.0 | 2.0 | 10.1 | 0.0 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 4 |
| 105 | Tunis/EH165 A-18 | 7.3 | 7.0 | 0.0 | 0.0 | 5.4 | 11.5 | 0.0 | 0.8 | 0.6 | 1.1 | 0.0 | 0.0 | 4 |
| 106 | 4259/CI5831/Estate A-69 | 5.3 | 5.3 | 0.0 | 0.0 | 3.9 | 8.6 | 0.0 | 0.0 | 0.2 | 1.3 | 0.0 | 0.0 | 4 |
| 107 | Gloria 'S'/Saida 'S' A-122 | 5.3 | 9.3 | 0.0 | 0.7 | 2.6 | 8.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4 |
| 108 | Molle 'S'/Matnan 'S'/EH165 A-152 | 5.3 | 8.7 | 0.0 | 0.7 | 3.9 | 11.7 | 0.0 | 4.4 | 0.1 | 0.1 | 0.0 | 0.1 | 4 |
| 109 | Abyssinian/CN48 A-174 | 11.0 | 11.3 | 1.3 | 7.3 | 6.6 | 6.8 | 0.7 | 1.8 | 0.0 | 1.0 | 0.0 | 0.1 | 3 |

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|-----|-----------------------------------|------|------|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|---|
| 110 | Bente/EH165/Cross270.2.3 A-186 | 1.0 | 2.3 | 0.0 | 0.0 | 2.0 | 7.1 | 0.0 | 0.0 | 0.4 | 1.1 | 0.0 | 0.0 | 4 |
| 111 | Robur/Egipt20/Gloria 'S' A-189 | 7.0 | 9.0 | 0.7 | 0.7 | 3.2 | 6.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4 |
| 112 | Gloria 'S'/Saida/3/Corcho A-190 | 4.7 | 7.3 | 0.7 | 1.3 | 5.8 | 10.8 | 2.2 | 6.3 | 1.0 | 1.1 | 0.8 | 1.7 | 4 |
| 113 | Rihane 'S'/3/Corcho 'S' A-198 | 4.7 | 5.0 | 0.0 | 0.3 | 1.3 | 9.6 | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 4 |
| 114 | Brea 'S'/3/4476W/Emir A-208 | 8.7 | 10.0 | 0.3 | 4.3 | 6.6 | 13.5 | 4.1 | 7.7 | 2.1 | 3.3 | 0.6 | 2.0 | 2 |
| 115 | Galt/11012.2//CH/DU/3/A-212 | 7.0 | 9.3 | 0.3 | 1.3 | 5.0 | 14.4 | 2.7 | 5.5 | 0.8 | 1.2 | 0.8 | 1.0 | 2 |
| 116 | GTO 'S'/Matnan 'S'/H165 A-216 | 6.7 | 8.3 | 2.0 | 2.0 | 4.5 | 13.7 | 4.0 | 4.7 | 0.9 | 2.6 | 0.4 | 0.3 | 2 |
| 117 | U.Sask Harvey 143/Bal163/3/A-225 | 6.0 | 10.0 | 0.3 | 0.7 | 4.3 | 10.7 | 0.4 | 8.2 | 0.0 | 0.1 | 0.0 | 0.0 | 4 |
| 118 | MCU33/FZA/TIB/3/P135 A-227 | 6.3 | 7.3 | 0.3 | 3.7 | 5.0 | 14.8 | 3.7 | 4.6 | 1.3 | 4.6 | 0.6 | 1.3 | 2 |
| 119 | 135/Aramir/Robin/Zephir A-231 | 8.3 | 8.3 | 2.0 | 2.0 | 5.7 | 7.1 | 1.9 | 9.5 | 0.6 | 1.0 | 0.1 | 0.6 | 2 |
| 120 | BR6705.1/3/API/CM67/11 A-273 | 2.7 | 2.7 | 0.0 | 0.3 | 5.7 | 8.7 | 0.0 | 1.5 | 0.7 | 2.0 | 0.0 | 0.0 | 4 |
| 121 | DL69/Bahtim10/H251 275 | 10.0 | 9.7 | 1.0 | 1.3 | 1.9 | 7.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4 |
| 122 | CQ/CER*3/API*2/3/PRO*2 A-277 | 3.7 | 7.7 | 0.0 | 0.3 | 3.7 | 10.5 | 1.2 | 5.8 | 1.4 | 2.1 | 0.0 | 0.3 | 4 |
| 123 | Gloria 'S'/Copal 'S'/CI12784 A-34 | 7.3 | 7.7 | 1.0 | 1.0 | 3.6 | 11.1 | 3.7 | 6.4 | 0.3 | 1.1 | 0.0 | 1.2 | 4 |
| 124 | Matnan 'S'/EH165 A-56 | 7.7 | 7.3 | 0.3 | 0.3 | 3.3 | 6.5 | 1.2 | 8.3 | 0.3 | 0.3 | 0.0 | 0.0 | 4 |
| 125 | PI382934/Lignee640 A-80 | 8.0 | 9.0 | 1.0 | 3.0 | 4.8 | 9.3 | 3.5 | 9.1 | 0.4 | 1.8 | 0.0 | 1.1 | 2 |
| 126 | Gloria 'S'/Copal 'S'/Paico SA-107 | 5.3 | 8.0 | 1.0 | 1.3 | 3.2 | 8.5 | 1.0 | 6.3 | 0.3 | 2.0 | 0.0 | 0.1 | 4 |
| 127 | BA/GAL/FUN/5/A-124 | 8.0 | 9.0 | 1.3 | 2.3 | 3.7 | 10.0 | 3.1 | 6.8 | 0.4 | 1.8 | 0.1 | 2.1 | 2 |
| 128 | Gloria 'S'/Come 'S'/LB Iran A-137 | 7.0 | 9.7 | 1.0 | 2.0 | 2.7 | 9.8 | 3.5 | 5.3 | 1.1 | 1.9 | 0.1 | 0.9 | 4 |
| 129 | Molle 'S'/LB Bolivia A-149 | 9.0 | 10.3 | 0.3 | 1.7 | 6.4 | 12.2 | 1.5 | 7.3 | 0.5 | 1.5 | 0.1 | 0.9 | 2 |
| 130 | Ruda 'S'/ROW906.73 A-155 | 9.0 | 10.7 | 0.7 | 1.0 | 3.5 | 8.0 | 1.9 | 2.7 | 0.0 | 0.7 | 0.0 | 0.3 | 4 |
| 131 | Paico 'S'/LB Iran A-157 | 8.7 | 9.3 | 1.3 | 4.0 | 0.5 | 1.3 | 0.0 | 1.5 | 0.0 | 0.1 | 0.0 | 0.0 | 4 |
| 132 | Matico 'S'/LB Bolivia A-163 | 6.7 | 10.3 | 1.0 | 1.0 | 3.8 | 6.0 | 1.0 | 4.7 | 0.0 | 1.2 | 0.0 | 1.4 | 4 |
| 133 | Matico 'S'/LB Iran A-164 | 4.3 | 8.7 | 1.0 | 1.0 | 2.2 | 10.7 | 2.6 | 5.5 | 0.1 | 1.5 | 0.1 | 0.4 | 3 |

| | | | | | | | | | | | | | | |
|-----|---------------------------------------|------|------|-----|-----|-----|------|-----|------|-----|-----|-----|-----|---|
| 134 | Matico 'S'/LB Iran A-170 | 7.3 | 7.7 | 2.0 | 2.3 | 2.7 | 9.7 | 1.5 | 5.1 | 0.0 | 0.4 | 0.0 | 0.2 | 4 |
| 135 | Tomillo 'S'/DS 4931 A-172 | 7.0 | 8.3 | 0.3 | 1.0 | 4.8 | 7.8 | 0.5 | 2.6 | 0.8 | 2.0 | 0.7 | 1.4 | 3 |
| 136 | SEN 'S'/LB Iran A-285 | 9.0 | 10.0 | 0.3 | 5.3 | 5.8 | 11.5 | 4.1 | 10.4 | 0.1 | 1.7 | 0.0 | 0.7 | 2 |
| 137 | Bulk F8(S-81A)48S/Glo-Cop A-289 | 7.0 | 10.3 | 1.0 | 3.7 | 6.7 | 11.4 | 2.8 | 3.9 | 0.5 | 2.4 | 0.1 | 0.4 | 2 |
| 138 | MILN 140.41/9845/PYE 'S' A-32 | 5.7 | 6.3 | 0.7 | 1.0 | 3.9 | 10.1 | 0.7 | 3.7 | 0.2 | 0.6 | 0.0 | 0.3 | 4 |
| 139 | Anka/2469/Gloria 'S'/Come 'S' | 5.0 | 6.3 | 1.0 | 3.7 | 3.2 | 13.2 | 3.8 | 5.4 | 0.0 | 0.0 | 0.0 | 0.0 | 4 |
| 140 | Robur /142/Astrix | 2.7 | 3.7 | 0.3 | 2.3 | 4.4 | 9.6 | 2.0 | 4.0 | 0.6 | 1.4 | 0.1 | 0.5 | 4 |
| 141 | F1 HJ 17/Maris Otter/Gloria 'S' A-156 | 5.0 | 6.0 | 0.3 | 1.3 | 3.0 | 11.1 | 0.8 | 4.7 | 0.2 | 0.8 | 0.0 | 0.4 | 4 |
| 142 | F1 HJ 17/Maris Otter/Valeriana 'S' | 6.3 | 8.3 | 0.7 | 3.3 | 2.7 | 8.4 | 2.1 | 4.1 | 0.2 | 0.5 | 0.0 | 0.2 | 4 |
| 143 | Franca/SM 4142/Nackta | 2.3 | 3.3 | 1.7 | 2.0 | 3.0 | 6.3 | 0.7 | 4.3 | 0.0 | 0.4 | 0.0 | 0.1 | 4 |
| 144 | 80.5152/EH 165 A-198 | 9.0 | 10.0 | 1.0 | 5.0 | 5.2 | 6.6 | 3.5 | 4.9 | 0.6 | 0.8 | 0.4 | 1.1 | 3 |
| 145 | Armelle/5/Kenya 20 | 8.3 | 9.0 | 0.3 | 5.3 | 3.3 | 7.1 | 3.8 | 4.5 | 0.8 | 1.7 | 0.1 | 1.2 | 3 |
| 146 | Franka/3/Mona/Ben/Impala | 1.3 | 3.3 | 0.7 | 2.3 | 6.5 | 7.2 | 3.3 | 5.8 | 0.9 | 0.8 | 0.4 | 0.9 | 4 |
| 147 | Orgei/EH 165/Cross 270.2.3 | 8.3 | 10.0 | 0.3 | 9.3 | 6.6 | 11.2 | 5.5 | 7.1 | 0.4 | 1.6 | 0.3 | 0.7 | 2 |
| 148 | Magnum/HLLA 'S' | 10.3 | 10.3 | 1.0 | 6.3 | 2.7 | 7.2 | 3.2 | 5.5 | 0.4 | 0.9 | 0.2 | 0.7 | 3 |
| 149 | Gloria 'S'/Come 'S'/Perle A-29 | 2.7 | 3.7 | 1.0 | 2.0 | 3.0 | 9.3 | 3.1 | 6.1 | 0.9 | 1.0 | 0.2 | 0.4 | 4 |
| 150 | FM 437 Gloria 'S'/Come 'S' | 6.3 | 9.7 | 0.7 | 5.0 | 5.7 | 10.1 | 4.2 | 5.9 | 0.2 | 0.3 | 0.0 | 0.2 | 2 |
| 151 | Andromeda | 7.0 | 9.0 | 3.0 | 4.0 | 6.6 | 11.4 | 6.3 | 11.7 | 2.5 | 5.7 | 2.1 | 2.4 | 1 |
| 152 | Athinaida | 1.5 | 2.0 | 0.3 | 0.7 | 4.5 | 15.1 | 1.3 | 1.7 | 1.5 | 4.5 | 0.0 | 0.0 | 4 |
| 153 | Dimitra | 2.7 | 8.7 | 0.3 | 1.7 | 7.2 | 10.4 | 5.0 | 13.5 | 0.5 | 3.5 | 0.1 | 2.3 | 2 |
| 154 | Ippolytos | 7.3 | 9.0 | 3.0 | 4.0 | 6.4 | 14.2 | 2.1 | 10.3 | 0.0 | 1.5 | 0.0 | 0.0 | 2 |
| 155 | Konstantinos | 7.0 | 11.0 | 2.7 | 4.7 | 6.6 | 13.4 | 5.7 | 6.7 | 0.0 | 2.0 | 0.0 | 0.7 | 2 |
| 156 | Kos | 8.0 | 10.0 | 2.0 | 4.3 | 5.4 | 12.5 | 5.8 | 9.8 | 0.0 | 1.3 | 0.0 | 0.5 | 2 |
| 157 | Kypros | 5.7 | 7.7 | 2.0 | 2.3 | 5.5 | 9.6 | 5.8 | 7.8 | 1.4 | 2.4 | 1.0 | 1.1 | 2 |

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|-----|--------------|--|-----|------|-----|-----|-----|------|-----|------|-----|-----|-----|-----|---|
| 158 | Macedonia | | 8.7 | 10.0 | 2.0 | 2.7 | 6.3 | 10.4 | 4.5 | 9.1 | 0.4 | 0.8 | 0.0 | 0.2 | 2 |
| 159 | Niki | | 6.7 | 10.3 | 3.3 | 3.7 | 4.9 | 9.5 | 6.9 | 9.3 | 0.0 | 0.2 | 0.0 | 0.5 | 2 |
| 160 | Palaiologos | | 5.3 | 9.0 | 2.0 | 3.3 | 4.0 | 14.8 | 3.4 | 9.9 | 0.1 | 1.0 | 0.1 | 0.6 | 2 |
| 161 | Persefoni | | 4.3 | 8.3 | 0.7 | 2.3 | 6.9 | 14.7 | 5.1 | 5.7 | 0.6 | 3.4 | 0.0 | 0.4 | 2 |
| 162 | Thermi | | 7.7 | 7.3 | 2.0 | 2.7 | 3.0 | 7.7 | 6.4 | 9.1 | 1.1 | 1.8 | 1.0 | 2.6 | 2 |
| 163 | Triptolemos | | 6.3 | 8.3 | 1.0 | 2.0 | 5.0 | 21.4 | 5.3 | 9.8 | 1.2 | 5.2 | 0.0 | 1.5 | 1 |
| 164 | Byzantio | | 5.7 | 7.3 | 3.0 | 3.0 | 6.9 | 13.8 | 5.0 | 5.9 | 0.5 | 0.6 | 0.0 | 0.2 | 2 |
| 165 | Prestige | | 8.0 | 9.7 | 2.0 | 2.7 | 5.4 | 10.4 | 8.6 | 11.4 | 0.1 | 1.6 | 0.0 | 0.2 | 2 |
| 166 | Scarlett | | 9.3 | 10.0 | 2.7 | 3.3 | 5.3 | 19.5 | 6.9 | 9.8 | 1.5 | 2.7 | 0.8 | 0.8 | 1 |
| 167 | Thessaloniki | | 6.3 | 9.0 | 0.7 | 3.7 | 7.6 | 10.0 | 4.8 | 4.9 | 0.3 | 2.2 | 0.0 | 0.2 | 2 |
| 168 | Alexis | | 1.7 | 3.0 | 1.0 | 2.3 | 3.8 | 7.9 | 4.7 | 5.3 | 0.1 | 0.6 | 0.0 | 0.0 | 4 |
| 169 | Beka | | 0.7 | 3.3 | 0.3 | 1.3 | 3.2 | 4.7 | 2.1 | 4.4 | 0.2 | 0.4 | 0.0 | 0.5 | 4 |
| 170 | Capri | | 1.7 | 2.7 | 2.7 | 2.7 | 6.2 | 12.1 | 5.8 | 8.6 | 0.7 | 2.3 | 0.0 | 0.6 | 2 |
| 171 | Carina | | 2.0 | 3.0 | 1.3 | 2.0 | 4.9 | 10.3 | 3.0 | 8.3 | 0.2 | 1.1 | 0.0 | 0.9 | 4 |
| 172 | Claret | | 4.0 | 6.7 | 2.7 | 2.7 | 4.4 | 7.5 | 6.4 | 7.3 | 0.0 | 1.0 | 0.0 | 0.0 | 4 |
| 173 | Elassona | | 9.7 | 10.3 | 3.0 | 3.7 | 4.6 | 10.2 | 2.1 | 5.8 | 0.0 | 0.0 | 0.0 | 0.0 | 3 |
| 174 | Europa | | 1.3 | 3.0 | 1.3 | 2.0 | 2.9 | 10.5 | 2.3 | 6.6 | 0.1 | 1.1 | 0.0 | 0.1 | 4 |
| 175 | Georgie | | 2.7 | 4.3 | 2.7 | 4.0 | 4.0 | 7.5 | 5.0 | 5.3 | 0.1 | 0.4 | 0.0 | 0.4 | 4 |
| 176 | Leukonoiko | | 4.3 | 5.3 | 0.3 | 0.7 | 5.3 | 12.9 | 1.3 | 7.8 | 1.8 | 5.0 | 0.1 | 1.6 | 4 |
| 177 | Marko | | 6.7 | 6.7 | 0.7 | 3.7 | 2.7 | 3.3 | 1.2 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 4 |
| 178 | Nymphé | | 1.0 | 3.7 | 0.7 | 1.0 | 2.3 | 12.3 | 1.6 | 3.6 | 0.1 | 2.0 | 0.0 | 0.0 | 4 |
| 179 | Scala | | 5.3 | 7.7 | 3.0 | 4.0 | 4.6 | 9.0 | 0.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 4 |
| 180 | Syrtaki | | 1.3 | 2.7 | 1.7 | 2.3 | 3.1 | 16.0 | 2.6 | 5.7 | 0.3 | 1.8 | 0.1 | 0.3 | 4 |
| 181 | Printa | | 3.3 | 7.3 | 1.7 | 4.3 | 4.8 | 8.5 | 5.8 | 9.4 | 0.1 | 1.5 | 0.0 | 0.0 | 2 |

| | | | | | | | | | | | | | | |
|-----|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|
| 182 | Tirano | 1.3 | 1.7 | 1.0 | 1.3 | 5.3 | 7.2 | 1.3 | 5.6 | 0.2 | 0.6 | 0.1 | 0.2 | 4 |
| 183 | Triance | 1.7 | 3.7 | 1.0 | 2.7 | 3.3 | 7.5 | 1.1 | 4.7 | 0.2 | 1.2 | 0.1 | 0.4 | 4 |
| 184 | Tubille 100 | 6.0 | 7.7 | 3.0 | 4.3 | 3.5 | 4.5 | 2.2 | 2.9 | 0.0 | 0.4 | 0.0 | 0.4 | 4 |
| | LSD _{0.05} | | | 2.1 | | | 4.2 | | | | 1.1 | | | |

^a 1, tolerant; 2, intermediate tolerant; 3, intermediate susceptible; 4, susceptible.

Table S2. Analysis of variance of barley plant number, tiller number, dry weight (16 WAS), total dry weight (harvest), ear number, grain yield and 1000-grains weight data as affected by growing season, location (saline and non-saline soil) and variety.

| Source | DF | Mean square and significance of F ratio ^a | | | | | | |
|---------------------|-----|--|---------------|--------------|-------------|---------------|-----------|------------|
| | | PN ^b | TN | DW | TDW | EN | GY | 1000-GW |
| Growing season (GS) | 1 | 88060.6 *** | 165293.1 * | 8338.0 ns | 849.0 *** | 1679130.0 *** | 1.4 ns | 1.0 ns |
| Location (L) | 1 | 116110.6 *** | 9766015.6 *** | 500998.5 *** | 12072.1 *** | 1559844.9 *** | 253.8 *** | 1063.2 *** |
| GS x L | 1 | 90300.3 *** | 165293.1 * | 8338.0 ns | 849.0 *** | 1679130.1 *** | 1.4 ns | 23.8 ns |
| R(LGS) | 12 | 1376.2 ns | 53568.8 ns | 44326.9 *** | 9.8 ns | 4806.4 ns | 1.1 ** | 12.0 ns |
| Variety (V) | 15 | 12189.1 *** | 173245.4 *** | 240664.3 ** | 113.3 *** | 189501.4 *** | 7.3 *** | 131.3 *** |
| GS x V | 15 | 2794.3 ns | 9401.1 ns | 9372.1 ns | 23.4 * | 23760.8 *** | 0.6 ns | 23.7 ** |
| L x V | 15 | 6588.5 *** | 69502.1 ** | 123528.6 *** | 50.5 *** | 59033.2 *** | 11.5 *** | 25.7 ** |
| GS x L x V | 15 | 2787.0 ns | 9401.1 ns | 9372.1 ns | 23.4 * | 23760.8 *** | 0.6 ns | 24.4 ** |
| Error | 180 | 1744.9 | 30913.9 | 7873.0 | 11.9 | 7161.9 | 0.4 | 10.4 |

^a *, significant at the 0.05 level; **, significant at the 0.01 level; ***, significant at the 0.001 level; ns, not significant.

^b PN, plant number; TN, tiller number; DW, dry weight; TDW, total dry weight; EN, ear number; GY, grain yield; 1000-GW, 1000-grains weight.