**Supplementary Figures**



**Supplementary Figure 1:** High humidity incubation of inoculated seedlings in

a single high humidity incubation box seen from the side.

**Supplementary Figure 2:** Graph showing the OD600 measurements and associated spore count estimates from haemocytometry measurements from 78 wheat line – *Z. tritici* isolate interactions.



**Supplementary Table 1:** Full data showing which wheat lines are resistant or susceptible based on the leaf area covered by chlorosis/necrosis 28 days post infection.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Z. tritici* isolate tested | Taichung 29 | Riband | KWS Cashel | Synthetic 6X | Synthetic M3 | KavkazK4500 | Tadinia | Estanzuella Federal | Israel 493 | TE9111 | Bulgaria 88 | Veranopolis | Synthetic M6 | Tonic | Salamouni | Balance | Lorikeet |
| IPO 323 | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Susceptible | Resistant | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Resistant |
| 1 | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | - | - | - | - | - | - | - |
| 2 | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | - |
| 3 | Susceptible | Susceptible | Susceptible | Susceptible | - | Resistant | Susceptible | Susceptible | Susceptible | Resistant | - | - | - | - | - | Susceptible | - |
| 4 | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | - | - | - | - | - | - | - |
| 5 | Susceptible | Susceptible | Susceptible | Susceptible | - | Resistant | Susceptible | Susceptible | Susceptible | Resistant | - | - | - | - | - | Susceptible | - |
| 6 | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | - | - | - | - | - | - | - |
| 7 | Susceptible | Susceptible | Susceptible | Susceptible | - | Resistant | Resistant | Susceptible | Susceptible | Resistant | - | - | - | - | - | Susceptible | - |
| 8 | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | - |
| 9 | Susceptible | Susceptible | Susceptible | Resistant | Susceptible | Susceptible | Susceptible | - | Susceptible | Susceptible | - | - | - | - | - | - | - |
| 10 | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | - |
| 11 | Susceptible | Susceptible | Susceptible | - | - | - | - | Susceptible | Susceptible | Resistant | - | - | - | - | - | - | - |
| 12 | Susceptible | Susceptible | Susceptible | Susceptible | - | Susceptible | Susceptible | - | Susceptible | Susceptible | - | - | - | - | - | Susceptible | - |
| 13 | Susceptible | Susceptible | Susceptible | Susceptible | - | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | - | - | - | - | - | - | - |
| 14 | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | - | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | - | - |
| 15 | Susceptible | Susceptible | Susceptible | Susceptible | - | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | - | - | - | - | - | Susceptible | - |
| 16 | Susceptible | Susceptible | Susceptible | Susceptible | - | - | Susceptible | Susceptible | Susceptible | Resistant | Susceptible | Susceptible | Susceptible | - | - | - | - |
| 17 | Susceptible | Susceptible | Resistant | - | - | - | - | Susceptible | Susceptible | Susceptible | - | - | - | - | - | - | - |
| 18 | Susceptible | Susceptible | Susceptible | Susceptible | - | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | - | - | - | - | - | - | - |
| 19 | Susceptible | Susceptible | Susceptible | Susceptible | - | Resistant | Susceptible | Susceptible | Resistant | Susceptible | - | - | - | - | - | - | - |
| 20 | Susceptible | - | - | Susceptible | Resistant | Susceptible | Susceptible | Susceptible | - | Susceptible | Susceptible | Resistant | Susceptible | Susceptible | - | Susceptible | - |
| 21 | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Susceptible | Susceptible | Susceptible | Resistant | Susceptible | - | - | - | - | - | - | - |
| 22 | Susceptible | Susceptible | Susceptible | Susceptible | - | Susceptible | Susceptible | Susceptible | Resistant | Susceptible | - | - | - | - | - | Susceptible | - |
| 23 | Susceptible | Susceptible | Susceptible | Resistant | - | Susceptible | Susceptible | Susceptible | Resistant | Resistant | - | - | - | - | - | - | - |
| 24 | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible |
| 25 | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | - | - | - | - | - | - | - |
| 26 | Susceptible | Susceptible | Susceptible | Susceptible | - | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | - | - | - | - | - | Susceptible | - |
| 27 | Susceptible | Susceptible | Susceptible | Susceptible | - | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | - | - | - | - | - | - | - |
| 28 | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | - | - | - | - | - | - | - |
| 29 | Susceptible | Susceptible | Susceptible | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible |
| 30 | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Susceptible | Susceptible | - | - | Susceptible | Susceptible | Susceptible | Susceptible | - | Susceptible | Susceptible | - |
| 31 | Susceptible | Susceptible | Susceptible | Resistant | - | - | Susceptible | - | - | Susceptible | Susceptible | Susceptible | Susceptible | - | - | - | - |
| 32 | - | Susceptible | Susceptible | - | - | - | - | - | - | Resistant | - | - | - | - | - | - | - |
| 33 | - | Susceptible | Susceptible | Susceptible | - | - | Susceptible | - | - | Susceptible | - | - | - | - | - | - | - |
| 34 | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Resistant | Susceptible | Resistant | Resistant | Susceptible | Susceptible | Resistant | Susceptible | Susceptible | Susceptible | Resistant |
| 35 | - | Susceptible | Susceptible | Resistant | Susceptible | Susceptible | Susceptible | - | - | Resistant | - | - | - | - | - | - | - |
| 36 | - | Susceptible | Susceptible | Resistant | - | Resistant | Susceptible | - | - | Resistant | - | - | - | - | - | Susceptible | - |
| 37 | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Susceptible | Susceptible | Susceptible | Resistant |
| 38 | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Susceptible | Susceptible | Resistant | Susceptible | Resistant | Resistant | Susceptible | Resistant | Susceptible | Susceptible |
| 39 | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Susceptible | Resistant | Susceptible | Resistant |
| 41 | Susceptible | Susceptible | Susceptible | Susceptible | - | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | - | - | - | - | - | Susceptible | - |
| 42 | Susceptible | Susceptible | Susceptible | Susceptible | - | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | - | - | - | - | - | Susceptible | - |
| 44 | Susceptible | Susceptible | Susceptible | - | Resistant | Resistant | Susceptible | Susceptible | - | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Resistant |
| 45 | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Resistant |
| 46 | Susceptible | Susceptible | Susceptible | - | - | - | - | Susceptible | Susceptible | Susceptible | - | - | - | - | - | - | - |
| 47 | Susceptible | Susceptible | Susceptible | Susceptible | - | Susceptible | Susceptible | Susceptible | Susceptible | - | - | - | - | - | - | Susceptible | - |
| 48 | Susceptible | Susceptible | Susceptible | Resistant | - | Resistant | - | Susceptible | Susceptible | Susceptible | - | - | - | - | - | - | - |
| 49 | Susceptible | Susceptible | Susceptible | - | - | - | - | - | Susceptible | Susceptible | - | - | - | - | - | - | - |
| 50 | Susceptible | Susceptible | Susceptible | Susceptible | - | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | - | - | - | - | - | Susceptible | - |
| 51 | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Resistant |
| 52 | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Resistant |
| 53 | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Susceptible | Susceptible | - | Susceptible | Susceptible | Susceptible | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Resistant |
| 54 | Susceptible | Susceptible | Susceptible | Resistant | - | - | - | Susceptible | Susceptible | Resistant | - | - | - | - | - | - | - |
| 55 | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | - | - | - | - | - | - | - |
| 56 | Susceptible | Susceptible | Susceptible | - | - | - | - | Susceptible | Susceptible | Susceptible | - | - | - | - | - | - | - |
| 57 | Susceptible | Susceptible | Susceptible | - | - | - | - | - | Susceptible | Susceptible | - | - | - | - | - | - | - |
| 58 | Susceptible | Susceptible | Susceptible | - | - | - | - | - | Susceptible | Susceptible | - | - | - | - | - | - | - |
| 60 | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible |
| 62 | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible |
| 63 | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible |
| 64 | Susceptible | - | - | Susceptible | Susceptible | - | Susceptible | - | - | Resistant | Susceptible | Susceptible | Susceptible | - | Resistant | Susceptible | - |
| 65 | - | - | - | Susceptible | - | - | Susceptible | - | - | Resistant | Susceptible | Susceptible | Resistant | - | - | - | - |
| 66 | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | - | Susceptible | Susceptible | Susceptible |
| 67 | Susceptible | Susceptible | Susceptible | Susceptible | - | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | - | Susceptible | Susceptible | Susceptible |
| 68 | - | Susceptible | Susceptible | - | - | - | - | - | - | - | - | - | Resistant | - | - | - | Susceptible |
| 69 | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Resistant |
| 70 | - | Susceptible | Susceptible | - | Susceptible | Susceptible | Susceptible | - | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible |
| 71 | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | - | Susceptible | Susceptible | Susceptible | - | Susceptible | Susceptible | Susceptible | - | Susceptible |
| 72 | Susceptible | Susceptible | Susceptible | Resistant | - | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | - | - | - | - | - | Susceptible | - |
| 73 | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible |
| 74 | Susceptible | Susceptible | Susceptible | Resistant | - | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | - | - | - | - | - | Susceptible | - |
| 75 | Susceptible | Susceptible | Susceptible | - | - | - | - | Susceptible | Susceptible | Susceptible | - | - | - | - | - | - | - |
| 76 | Susceptible | Susceptible | Susceptible | - | Susceptible | Resistant | - | Susceptible | Susceptible | Susceptible | - | - | Susceptible | - | - | - | Resistant |
| 78 | Susceptible | Susceptible | Susceptible | - | - | - | - | Susceptible | Susceptible | Susceptible | - | - | - | - | - | - | - |
| 79 | Susceptible | Susceptible | Susceptible | - | - | - | - | Susceptible | Susceptible | Susceptible | - | - | - | - | - | - | - |
| 80 | Susceptible | Susceptible | Susceptible | - | - | - | - | Susceptible | Susceptible | Susceptible | - | - | - | - | - | - | - |
| 82 | Susceptible | Susceptible | Susceptible | - | - | - | - | Susceptible | Susceptible | Susceptible | - | - | - | - | - | - | - |
| 83 | Susceptible | Susceptible | Susceptible | - | - | - | - | Susceptible | Susceptible | Susceptible | - | - | - | - | - | - | - |
| 84 | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | - | - | - | - | - | - | - |
| 85 | Susceptible | Susceptible | Susceptible | Resistant | - | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | - | - | - | - | - | - | - |
| 86 | Susceptible | Susceptible | Susceptible | - | - | - | - | Susceptible | Susceptible | Susceptible | - | - | - | - | - | - | - |
| 87 | Susceptible | Susceptible | Susceptible | - | - | - | - | Susceptible | Susceptible | Susceptible | - | - | - | - | - | - | - |
| 91 | - | Susceptible | Susceptible | Resistant | - | - | Susceptible | - | Susceptible | Susceptible | - | - | - | - | - | - | - |
| 92 | - | Susceptible | Susceptible | Resistant | - | - | Susceptible | - | - | Resistant | - | - | - | - | - | - | - |
| 93 | - | Susceptible | Susceptible | - | - | - | - | - | - | Susceptible | - | - | - | - | - | - | - |
| 94 | - | Susceptible | - | - | - | - | - | - | - | Susceptible | - | - | - | - | - | - | - |
| 95 | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | - | Susceptible | Susceptible |
| 96 | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | - | Susceptible | Resistant |
| 97 | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | - | Susceptible | Susceptible | Resistant |
| 98 | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible |
| 99 | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Resistant |
| 100 | Susceptible | Susceptible | Susceptible | Susceptible | - | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | - | Susceptible | Resistant |
| 101 | - | Susceptible | Susceptible | - | - | - | Susceptible | - | Susceptible | - | Susceptible | Susceptible | Susceptible | Susceptible | Susceptible | - | Resistant |
| 102 | - | - | Susceptible | - | Susceptible | Susceptible | - | - | - | - | - | - | Susceptible | - | - | - | Resistant |

**Supplementary Table 2:** Full data showing which wheat lines are resistant or susceptible based on the inoculated leaf area covered by pycnidia 28 days post infection.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Z. tritici* isolate tested | Taichung 29 | Riband | KWS Cashel | Synthetic 6X | Synthetic M3 | KavkazK4500 | Tadinia | Estanzuella Federal | Israel 493 | TE9111 | Bulgaria 88 | Veranopolis | Synthetic M6 | Tonic | Salamouni | Balance | Lorikeet |
| IPO 323 | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Susceptible | Resistant | Susceptible | Resistant | Resistant | Resistant |
| 1 | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Resistant | Resistant | Susceptible | Resistant | Resistant | - | - | - | - | - | - | - |
| 2 | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Resistant | Susceptible | Susceptible | Resistant | Resistant | Resistant | Resistant | Susceptible | Susceptible | Resistant | Resistant | - |
| 3 | Susceptible | Susceptible | Susceptible | Resistant | - | Resistant | Resistant | Resistant | Resistant | Resistant | - | - | - | - | - | Resistant | - |
| 4 | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Resistant | Resistant | Susceptible | Resistant | Resistant | - | - | - | - | - | - | - |
| 5 | Susceptible | Susceptible | Susceptible | Resistant | - | Resistant | Resistant | Susceptible | Resistant | Resistant | - | - | - | - | - | Resistant | - |
| 6 | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Resistant | Resistant | Susceptible | Resistant | Resistant | - | - | - | - | - | - | - |
| 7 | Susceptible | Susceptible | Susceptible | Resistant | - | Resistant | Resistant | Resistant | Resistant | Resistant | - | - | - | - | - | Resistant | - |
| 8 | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Resistant | Susceptible | Susceptible | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | - |
| 9 | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Resistant | Resistant | - | Resistant | Resistant | - | - | - | - | - | - | - |
| 10 | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Resistant | Susceptible | Susceptible | Resistant | Resistant | Resistant | Resistant | Resistant | Susceptible | Resistant | Resistant | - |
| 11 | Susceptible | Susceptible | Susceptible | - | - | - | - | Susceptible | Resistant | Resistant | - | - | - | - | - | - | - |
| 12 | Susceptible | Susceptible | Susceptible | Resistant | - | Resistant | Resistant | - | Resistant | Resistant | - | - | - | - | - | Resistant | - |
| 13 | Susceptible | Susceptible | Susceptible | Resistant | - | Resistant | Resistant | Susceptible | Resistant | Resistant | - | - | - | - | - | - | - |
| 14 | Susceptible | Susceptible | Susceptible | Resistant | Resistant | - | Resistant | Susceptible | Resistant | Resistant | Resistant | Resistant | Resistant | Susceptible | Resistant | - | - |
| 15 | Susceptible | Susceptible | Susceptible | Resistant | - | Resistant | Resistant | Susceptible | Resistant | Resistant | - | - | - | - | - | Resistant | - |
| 16 | Susceptible | Susceptible | Susceptible | Resistant | - | - | Susceptible | Susceptible | Resistant | Resistant | Resistant | Resistant | Resistant | - | - | - | - |
| 17 | Susceptible | Susceptible | Resistant | - | - | - | - | Susceptible | Resistant | Resistant | - | - | - | - | - | - | - |
| 18 | Susceptible | Susceptible | Susceptible | Resistant | - | Resistant | Susceptible | Susceptible | Resistant | Resistant | - | - | - | - | - | - | - |
| 19 | Susceptible | Resistant | Susceptible | Resistant | - | Resistant | Resistant | Resistant | Resistant | Resistant | - | - | - | - | - | - | - |
| 20 | Susceptible | - | - | Resistant | Resistant | Resistant | Resistant | Susceptible | - | Resistant | Resistant | Resistant | Resistant | Susceptible | - | Resistant | - |
| 21 | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Resistant | Resistant | Susceptible | Resistant | Resistant | - | - | - | - | - | - | - |
| 22 | Susceptible | Susceptible | Susceptible | Resistant | - | Resistant | Susceptible | Susceptible | Resistant | Resistant | - | - | - | - | - | Resistant | - |
| 23 | Susceptible | Susceptible | Susceptible | Resistant | - | Resistant | Susceptible | Susceptible | Resistant | Resistant | - | - | - | - | - | - | - |
| 24 | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Resistant | Resistant | Susceptible | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant |
| 25 | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Resistant | Susceptible | Susceptible | Resistant | Resistant | - | - | - | - | - | - | - |
| 26 | Resistant | Susceptible | Susceptible | Resistant | - | Resistant | Susceptible | Resistant | Resistant | Resistant | - | - | - | - | - | Susceptible | - |
| 27 | Resistant | Susceptible | Susceptible | Resistant | - | Resistant | Susceptible | Resistant | Resistant | Resistant | - | - | - | - | - | - | - |
| 28 | Resistant | Susceptible | Susceptible | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | - | - | - | - | - | - | - |
| 29 | Resistant | Susceptible | Susceptible | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant |
| 30 | Resistant | Susceptible | Susceptible | Resistant | Resistant | Resistant | Resistant | - | - | Resistant | Susceptible | Resistant | Resistant | - | Resistant | Resistant | - |
| 31 | Susceptible | Resistant | Susceptible | Resistant | - | - | Resistant | - | - | Resistant | Resistant | Resistant | Resistant | - | - | - | - |
| 32 | - | Susceptible | Susceptible | - | - | - | - | - | - | Resistant | - | - | - | - | - | - | - |
| 33 | - | Susceptible | Susceptible | Resistant | - | - | Susceptible | - | - | Resistant | - | - | - | - | - | - | - |
| 34 | Susceptible | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Susceptible | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant |
| 35 | - | Susceptible | Susceptible | Resistant | Resistant | Resistant | Susceptible | - | - | Resistant | - | - | - | - | - | - | - |
| 36 | - | Susceptible | Susceptible | Resistant | - | Resistant | Susceptible | - | - | Resistant | - | - | - | - | - | Resistant | - |
| 37 | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Susceptible | Susceptible | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Susceptible | Resistant | Resistant |
| 38 | Susceptible | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant |
| 39 | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Susceptible | Resistant | Resistant | Resistant |
| 40 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 41 | Resistant | Susceptible | Resistant | Resistant | - | Resistant | Susceptible | Resistant | Resistant | Resistant | - | - | - | - | - | Resistant | - |
| 42 | Resistant | Susceptible | Susceptible | Resistant | - | Resistant | Susceptible | Resistant | Resistant | Resistant | - | - | - | - | - | Resistant | - |
| 43 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 44 | Susceptible | Resistant | Susceptible | - | Resistant | Resistant | Resistant | Susceptible | - | Resistant | Resistant | Resistant | Resistant | Susceptible | Susceptible | Susceptible | Resistant |
| 45 | Susceptible | Resistant | Susceptible | Susceptible | Resistant | Resistant | Resistant | Resistant | Susceptible | Resistant | Susceptible | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | Resistant |
| 46 | Resistant | Susceptible | Resistant | - | - | - | - | Resistant | Resistant | Resistant | - | - | - | - | - | - | - |
| 47 | Resistant | Susceptible | Resistant | Resistant | - | Resistant | Resistant | Resistant | Resistant | - | - | - | - | - | - | Resistant | - |
| 48 | Resistant | Resistant | Susceptible | Resistant | - | Resistant | - | Resistant | Resistant | Resistant | - | - | - | - | - | - | - |
| 49 | Resistant | Susceptible | Resistant | - | - | - | - | - | Resistant | Resistant | - | - | - | - | - | - | - |
| 50 | Resistant | Susceptible | Susceptible | Resistant | - | Resistant | Susceptible | Resistant | Resistant | Resistant | - | - | - | - | - | Resistant | - |
| 51 | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Resistant | Resistant | Susceptible | Resistant | Resistant | Resistant | Resistant | Susceptible | Susceptible | Resistant | Susceptible | Resistant |
| 52 | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Resistant | Susceptible | Resistant | Resistant | Resistant | Resistant | Resistant | Susceptible | Resistant | Resistant | Resistant |
| 53 | Susceptible | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Susceptible | - | Susceptible | Resistant | Resistant | Resistant | Resistant | Resistant | Susceptible | Resistant | Resistant |
| 54 | Resistant | Susceptible | Susceptible | Resistant | - | - | - | Resistant | Resistant | Resistant | - | - | - | - | - | - | - |
| 55 | Resistant | Susceptible | Susceptible | Resistant | Resistant | Resistant | Susceptible | Resistant | Resistant | Resistant | - | - | - | - | - | - | - |
| 56 | Resistant | Susceptible | Resistant | - | - | - | - | Resistant | Resistant | Resistant | - | - | - | - | - | - | - |
| 57 | Resistant | Susceptible | Resistant | - | - | - | - | - | Resistant | Resistant | - | - | - | - | - | - | - |
| 58 | Resistant | Susceptible | Resistant | - | - | - | - | - | Resistant | Resistant | - | - | - | - | - | - | - |
| 60 | Resistant | Susceptible | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant |
| 62 | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant |
| 63 | Resistant | Susceptible | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant |
| 64 | Resistant | - | - | Resistant | Resistant | - | Susceptible | - | - | Resistant | Resistant | Resistant | Resistant | - | Resistant | Resistant | - |
| 65 | - | - | - | Resistant | - | - | Resistant | - | - | Resistant | Resistant | Susceptible | Resistant | - | - | - | - |
| 66 | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | - | Resistant | Resistant | Resistant |
| 67 | Resistant | Resistant | Resistant | Resistant | - | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | - | Resistant | Resistant | Resistant |
| 68 | - | Resistant | Resistant | - | - | - | - | - | - | - | - | - | Resistant | - | - | - | Resistant |
| 69 | Resistant | Resistant | Susceptible | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Susceptible | Susceptible | Resistant | Resistant | Resistant |
| 70 | - | Susceptible | Susceptible | - | Resistant | Resistant | Susceptible | - | Resistant | Resistant | Resistant | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Resistant |
| 71 | Resistant | Susceptible | Susceptible | Resistant | Resistant | Resistant | Resistant | - | Resistant | Resistant | Resistant | - | Susceptible | Resistant | Resistant | - | Resistant |
| 72 | Resistant | Susceptible | Susceptible | Resistant | - | Resistant | Susceptible | Susceptible | Resistant | Susceptible | - | - | - | - | - | Resistant | - |
| 73 | Resistant | Resistant | Susceptible | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Susceptible | Susceptible | Resistant | Resistant | Resistant |
| 74 | Susceptible | Susceptible | Susceptible | Resistant | - | Resistant | Susceptible | Resistant | Susceptible | Resistant | - | - | - | - | - | Susceptible | - |
| 75 | Resistant | Susceptible | Susceptible | - | - | - | - | Susceptible | Resistant | Susceptible | - | - | - | - | - | - | - |
| 76 | Susceptible | Susceptible | Susceptible | - | Resistant | Resistant | - | Susceptible | Resistant | Resistant | - | - | Susceptible | - | - | - | Resistant |
| 78 | Resistant | Susceptible | Susceptible | - | - | - | - | Susceptible | Susceptible | Resistant | - | - | - | - | - | - | - |
| 79 | Resistant | Susceptible | Susceptible | - | - | - | - | Susceptible | Susceptible | Resistant | - | - | - | - | - | - | - |
| 80 | Susceptible | Susceptible | Resistant | - | - | - | - | Susceptible | Resistant | Resistant | - | - | - | - | - | - | - |
| 82 | Resistant | Susceptible | Susceptible | - | - | - | - | Susceptible | Resistant | Resistant | - | - | - | - | - | - | - |
| 83 | Resistant | Susceptible | Susceptible | - | - | - | - | Susceptible | Resistant | Susceptible | - | - | - | - | - | - | - |
| 84 | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Resistant | Resistant | Susceptible | Resistant | Resistant | - | - | - | - | - | - | - |
| 85 | Susceptible | Susceptible | Susceptible | Resistant | - | Resistant | Resistant | Susceptible | Resistant | Resistant | - | - | - | - | - | - | - |
| 86 | Susceptible | Susceptible | Susceptible | - | - | - | - | Susceptible | Resistant | Resistant | - | - | - | - | - | - | - |
| 87 | Susceptible | Susceptible | Susceptible | - | - | - | - | Susceptible | Resistant | Resistant | - | - | - | - | - | - | - |
| 91 | - | Susceptible | Susceptible | Resistant | - | - | Susceptible | - | Resistant | Resistant | - | - | - | - | - | - | - |
| 92 | - | Susceptible | Susceptible | Resistant | - | - | Susceptible | - | - | Resistant | - | - | - | - | - | - | - |
| 93 | - | Susceptible | Susceptible | - | - | - | - | - | - | Resistant | - | - | - | - | - | - | - |
| 94 | - | Susceptible | - | - | - | - | - | - | - | Resistant | - | - | - | - | - | - | - |
| 95 | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant | Susceptible | Susceptible | Susceptible | - | Resistant | Resistant |
| 96 | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Resistant | Susceptible | Resistant | Resistant | Resistant | Susceptible | Susceptible | Susceptible | Susceptible | - | Susceptible | Resistant |
| 97 | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Resistant | Resistant | Susceptible | Resistant | Resistant | Resistant | Susceptible | Susceptible | - | Resistant | Resistant | Resistant |
| 98 | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Resistant | Susceptible | Susceptible | Resistant | Resistant | Resistant | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Resistant |
| 99 | Susceptible | Susceptible | Susceptible | Resistant | Resistant | Resistant | Susceptible | Resistant | Resistant | Resistant | Resistant | Resistant | Susceptible | Resistant | Resistant | Resistant | Resistant |
| 100 | Susceptible | Susceptible | Susceptible | Resistant | - | Resistant | Resistant | Susceptible | Resistant | Resistant | Resistant | Resistant | Susceptible | Susceptible | - | Resistant | Resistant |
| 101 | - | Resistant | Susceptible | - | - | - | Susceptible | - | Resistant | - | Resistant | Resistant | Resistant | Susceptible | Resistant | - | Resistant |
| 102 | - | - | Susceptible | - | Resistant | Resistant | - | - | - | - | - | - | Susceptible | - | - | - | Resistant |

**Supplementary Table 3:** Full list of original names and collection years of the UK *Z. tritici* isolates used.

|  |  |  |
| --- | --- | --- |
| **Name of *Z. tritici* isolate used in this project** | **Year in which *Z. tritici* isolate was initially collected** | **Cultivar from which *Z. tritici* strain was isolated** |
| RResHT-1 | 2015 | Consort |
| RResHT-2 | 2015 | Gallant |
| RResHT-3 | 2015 | KWS Cashel |
| RResHT-4 | 2015 | KWS Cashel |
| RResHT-5 | 2015 | KWS Cashel |
| RResHT-6 | 2016 | Consort |
| RResHT-7 | 2016 | Consort |
| RResHT-8 | 2016 | Cougar |
| RResHT-9 | 2016 | Consort |
| RResHT-10 | 2015 | Gallant |
| RResHT-11 | 2015 | Zulu |
| RResHT-12 | 2015 | Cougar |
| RResHT-13 | 2015 | Horatio |
| RResHT-14 | 2015 | Cougar |
| RResHT-15 | 2015 | Cougar |
| RResHT-16 | 2016 | Consort |
| RResHT-17 | 2015 | Cougar |
| RResHT-18 | 2015 | KWS Santiago |
| RResHT-19 | 2015 | JB Diego |
| RResHT-20 | 2015 | Cougar |
| RResHT-21 | 2015 | Cougar |
| RResHT-22 | 2015 | KWS Cashel |
| RResHT-23 | 2016 | Consort |
| RResHT-24 | 2016 | Consort |
| RResHT-25 | 2016 | Consort |
| RResHT-26 | 2015 | Cougar |
| RResHT-27 | 2015 | Gallant |
| RResHT-28 | 2015 | Cougar |
| RResHT-29 | 2016 | Cordiale |
| RResHT-30 | 2016 | Cordiale |
| RResHT-31 | 2016 | Cordiale |
| RResHT-32 | 2016 | Cordiale |
| RResHT-33 | 2016 | Cordiale |
| RResHT-34 | 2016 | Cordiale |
| RResHT-35 | 2016 | Cordiale |
| RResHT-36 | 2016 | Cordiale |
| RResHT-37 | 2016 | Cordiale |
| RResHT-38 | 2016 | Cordiale |
| RResHT-39 | 2016 | Cordiale |
| RResHT-40 | 2016 | Dickens |
| RResHT-41 | 2016 | Dickens |
| RResHT-42 | 2016 | Dickens |
| RResHT-43 | 2016 | Dickens |
| RResHT-44 | 2016 | Dickens |
| RResHT-45 | 2016 | KWS Santiago |
| RResHT-46 | 2016 | KWS Santiago |
| RResHT-47 | 2016 | Alchemy |
| RResHT-48 | 2016 | Cordiale |
| RResHT-49 | 2015 | KWS Cashel |
| RResHT-50 | 2016 | Dickens |
| RResHT-51 | 2016 | Dickens |
| RResHT-52 | 2016 | Dickens |
| RResHT-53 | 2015 | KWS Cashel |
| RResHT-54 | 2016 | Dickens |
| RResHT-55 | 2016 | Dickens |
| RResHT-56 | 2016 | Dickens |
| RResHT-57 | 2016 | Dickens |
| RResHT-58 | 2016 | Dickens |
| RResHT-59 | 2016 | Dickens |
| RResHT-60 | 2016 | Dickens |
| RResHT-61 | 2016 | Dickens |
| RResHT-62 | 2016 | Dickens |
| RResHT-63 | 2016 | Dickens |
| RResHT-64 | 2015 | KWS Cashel |
| RResHT-65 | 2015 | KWS Cashel |
| RResHT-66 | 2015 | KWS Cashel |
| RResHT-67 | 2015 | KWS Cashel |
| RResHT-68 | 2015 | KWS Cashel |
| RResHT-69 | 2015 | KWS Cashel |
| RResHT-70 | 2015 | KWS Cashel |
| RResHT-71 | 2015 | KWS Cashel |
| RResHT-72 | 2015 | Dickens |
| RResHT-73 | 2016 | Reflection |
| RResHT-74 | 2017 | Siskin |
| RResHT-75 | 2017 | Siskin |
| RResHT-76 | 2017 | Siskin |
| RResHT-77 | 2017 | Siskin |
| RResHT-78 | 2017 | Siskin |
| RResHT-79 | 2017 | Siskin |
| RResHT-80 | 2017 | Siskin |
| RResHT-81 | 2017 | Siskin |
| RResHT-82 | 2017 | Siskin |
| RResHT-83 | 2017 | Siskin |
| RResHT-84 | 2017 | Siskin |
| RResHT-85 | 2015 | Cougar |
| RResHT-86 | 2015 | Cougar |
| RResHT-87 | 2015 | Cougar |
| RResHT-88 | 2015 | Cougar |
| RResHT-89 | 2015 | Cougar |
| RResHT-90 | 2016 | Evolution |
| RResHT-91 | 2016 | Evolution |
| RResHT-92 | 2016 | Evolution |
| RResHT-93 | 2016 | JB Diego |
| RResHT-94 | 2016 | Zulu |
| RResHT-95 | 2016 | Dickens |
| RResHT-96 | 2016 | Dickens |
| RResHT-97 | 2016 | Consort |
| RResHT-98 | 2016 | Reflection |
| RResHT-99 | 2016 | Reflection |
| RResHT-100 | 2016 | Reflection |
| RResHT-101 | 2016 | Reflection |
| RResHT-102 | 2017 | Siskin |
| RResHT-103 | 2017 | Siskin |
| RResHT-104 | 2016 | Evolution |