**Supplementary Table S8**. Mean predictive ability for combined data (combENV) lesion length, lesion width, and plant mortality for sclerotinia stem rot resistance in the GWAS population, derived using all SNPs and subset of SNPs meeting GWAS-based criteria.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Traitsa | GWAS threshold | GWAS threshold symbol | Number of SNPs | Prediction accuracy |
| LL\_CombENV | - | T0 | 25,809 | 0.43 |
| LL\_ CombENV | -log10(*P*) > 0.01 | T1 | 260 | 0.84 |
| LL\_ CombENV | -log10(*P*) > 0.001 | T2 | 40 | 0.65 |
| LL\_ CombENV | -log10(*P*) > 0.0004 | T3 | 14 | 0.55 |
| LW\_ CombENV | - | T0 | 25,809 | 0.44 |
| LW\_ CombENV | -log10(*P*) > 0.01 | T1 | 189 | 0.87 |
| LW\_ CombENV | -log10(*P*) > 0.001 | T2 | 30 | 0.77 |
| LW\_ CombENV | -log10(*P*) > 0.0004 | T3 | 17 | 0.68 |
| PM\_14D\_ CombENV | - | T0 | 25,809 | 0.49 |
| PM\_14D\_ CombENV | -log10(*P*) > 0.01 | T1 | 292 | 0.86 |
| PM\_14D\_ CombENV | -log10(*P*) > 0.001 | T2 | 29 | 0.79 |
| PM\_14D\_ CombENV | -log10(*P*) > 0.0004 | T3 | 15 | 0.74 |
| PM\_21D\_ CombENV | - | T0 | 25,809 | 0.63 |
| PM\_21D\_ CombENV | -log10(*P*) > 0.01 | T1 | 208 | 0.82 |
| PM\_21D\_ CombENV | -log10(*P*) > 0.001 | T2 | 32 | 0.88 |
| PM\_21D\_ CombENV | -log10(*P*) > 0.0004 | T3 | 19 | 0.86 |

Traitsa : LL\_ CombENV, combined lesion length across four environments; LW\_CombENV, combined lesion width across four environments; PM\_14D\_ CombENV, combined plant mortality at 14 days post inoculation (dpi) across four environments; PM\_21D\_CombENV, combined plant mortality at 21 dpi across four environments