**Additional File 5.** Literature sources used in the meta-analysis of the QTL for resistance to powdery mildew.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Total No QTL** | **QTL used in meta-analysis** | **Mapping population** | **Population size** | **Population type** | **Stage of disease assessment**  | **Type of inoculation** | **Total no of environments or locations** | **No of years** | **Analysis method** | **Reference** |
|  |  |  |  |  |  |  |  |  |  |  |
| 10 | 8 | RE9001 x Courtot | 104 | RIL | adult plant | natural infection | 2 | 2 | CIM | [74] |
| 2 | 2 | vernalized seedling | artificial infection | 2 | 1 |
| 4 | 2 | vernalized seedling | natural infection | 2 | 1 |
|  |  |  |  |  |  |  |  |  |  |  |
| 3 | 1 | RE714 x Hardi | 44 | DH | adult plant | natural infection | 1 | 3 | SIM | [76] |
| 2 | 1 | RE714 x Hardi | 44 | DH | vernalized seedling | artificial infection | 1 | 3 |
| 4 | 3 | RE714 x Hardi | 140 | F2:3 | adult plant | natural infection | 1 | 2 |
|  |  |  |  |  |  |  |  |  |  |  |
| 5 | 5 | Jagger x 2174 | 96 | RIL | seedling stage | natural infection | 2 | 1 | SIM | [56] |
|  |  |  |  |  |  |  |  |  |  |  |
| 6 | 5 | Tahti x T. militinae | 130 | F2:3 | seedling stage and adult plant | natural infection | 1 | 2 | CIM | [72] |
|  |  |  |  |  |  |  |  |  |  |  |
| 18 | 8 | Forno x Oberkulmer | 204 | RIL | adult plant | natural/artificial infection | 5 | 2 | CIM | [77] |
|  |  |  |  |  |  |  |  |  |  |  |
| 4 | 4 | Bainong 64 × Jingshuang 16 | 181 | DH | adult plant | artificial infection | 2 | 2 | CIM | [55] |
|  |  |  |  |  |  |  |  |  |  |  |
| 3 | 3 | Lumai 21 x Jingshuang 16 | 200 | F3 | adult plant | artificial infection | 2 | 2 | CIM | [12] |
|  |  |  |  |  |  |  |  |  |  |  |
| 4 | 4 | Fukuho-komugi × Oligoculm | 107 | DH | adult plant | artificial infection | 2 | 2 | CIM | [78] |
|  |  |  |  |  |  |  |  |  |  |  |
| 7 | 6 | Avocet-YrA x Saar | 113 | RIL | adult plant | natural infection | 2 | 2 | SIM | [79] |
|  |  |  |  |  |  |  |  |  |  |  |
| 3 | 2 | Becker x Massey | 180 | F2:3 | adult plant | natural infection | 1 | 1 | SIM | [80] |
|  |  |  |  |  |  |  |  |  |  |  |
| 2 | 2 | Atlantis x Cortez | 91 | DH | adult plant | artificial infection | 6 | 4 | MIM | [81] |
|  |  |  |  |  |  |  |  |  |  |  |
| 4 | 4 | RE714 x Hardi | 160 | RIL | seedling stage | artificial infection | 1 | 1 | CIM | [82] |
|  |  |  |  |  |  |  |  |  |  |  |
| 7 | 6 | RE714 x Hardi | 160 | RIL | adult plant | natural infection | 1 | 3 | CIM | [83] |
|  |  |  |  |  |  |  |  |  |  |  |
| 7 | 5 | RE714 x Festin | 41 | DH | adult plant | natural infection | 3 | 3 | SIM | [84] |
|  |  |  |  |  |  |  |  |  |
| 2 | 2 | RE714 x Hardi | 44 | DH | adult plant | natural infection | 3 | 2 |
|  |  |  |  |  |  |  |  |  |  |  |
| 3 | 2 | Becker x Massey | 180 | F2:3 | adult plant | natural infection | 1 | 1 | CIM | [85] |
|  |  |  |  |  |  |  |  |  |
| 3 | 1 | USG 3209 x Jaypee | 293 | RIL | adult plant | natural infection | 1 | 2 |
|  |  |  |  |  |  |  |  |  |  |  |
| 27 | 3 | W7984 × Opata85 | 114 | RIL | NA | artificial infection | NA | NA | CIM | [86] |
|  |  |  |  |  |  |  |  |  |  |  |
| 3 | 3 | Huapei 3 x Yumai 57 | 168 | DH | adult plant | NA | 4 | 2 | CIM | [11] |
|  |  |  |  |  |  |  |  |  |  |  |
| 2 | 2 | Tb5088 x Tm14087 | 148 | RIL | adult plant | artificial infection | 1 | 1 | CIM | [87] |
|  |  |  |  |  |  |  |  |  |  |  |
| 8 | 8 | SHA3/CBRD x Naxos | 181 | RIL | adult plant | natural/artificial infection | 5 | 4 | CIM | [75] |
|  |  |  |  |  |  |  |  |  |  |  |
| 5 | 4 | Chinese Spring x 8.1 | 98 | F2 | seedling stage and adult plant | natural/artificial infection | 1 | 1 | SIM | [73] |

NA, not available; RIL, recombinant inbred line; DH, double haploid; SIM, simple interval mapping; CIM, composite interval mapping; MIM, multiple interval mapping

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