**Table. S1:** Rice Genotypes Panel used in screening for blast strains (*Magnaporthe oryzae*) resistance in 2019 -2020

|  |  |  |
| --- | --- | --- |
|  | **Genotype** | **Parentage** |
| 1 | IR 72967-12-2-3::C1 | ?/? |
| 2 | IR12A311 | IR 80559 B/IR 60819-34-2 R |
| 3 | IR12A136 | [NSIC RC 158,IR 71146-97-1-2-1-3,IR 71676-90-2-2,IR 72870-19-2-2-3,IRRI 143,IRRI 174,IR03A550,IR 72967-12-2-3,IR 72903-121-2-1-2,IRRI 119] |
| 4 | IRRI 115 | IR 48613-54-3-3-1/IR 28239-94-2-3-6-2 |
| 5 | IR10M210 | IRRI 123/IR 68144-2B-2-2-3-1-127 |
| 6 | IRRI 154 | IR 73012-137-2-2-2/PSB RC 10 (IR 50404-57-2-2-3) |
| 7 | PIR-26>C0-2071-1-4-2-1 | [IR 85483-68 RIL-1-1-1,IR 85488-76-B-B-1-1-1-1,ADRON 125,B11143D-MR-1-PN-3-MR-3-SI-2-3-PN-1,B11598C-TB-2-1-B-7,BP1976B-2-3-7-TB-1-1,CT 16658-5-2-2SR-2-3-6MP,HHZ 5-SAL 9-Y 3-Y 1,IR02A127,IRRI 154,IR004A428,IRRI 168,IR06A144,IR06N119,IR 68,IR BB 57 (IR 72919 |
| 8 | IR 09M120 | IR 75862-206-2-8-3-B-B-B/IR 64 |
| 9 | IR11A282 | IR04A427/BR 29 |
| 10 | IRGC 126961 | CHERIVIRUPPU/IR 10205-37-1-3 |
| 11 | IR09A136 | IR01A135/IRRI 123//IR01A163 |
| 12 | IR 74 | IR 19661-131-1-2/IR 15795-199-3-3 |
| 13 | IR 72 | IR 19661-9-2-3-3/IR 15795-199-3-3//IR 9129-209-2-2-2-1 |
| 14 | IRBB23 | IRBB23 |
| 15 | KASALATH | KASALATH |
| 16 | IR11N313 | IR05N173/IRRI 143//IR 67966-44-2-3-2 |
| 17 | IR04A428 | IR 73718-1-2-1-3/PSB RC 10 (IR 50404-57-2-2-3) |
| 18 | IR11A293 | IR04A427/IR 69726-116-1-3 (MATATAG 1) |
| 19 | IR11N202 | IR05N173/BR 29 |
| 20 | IR13N102 | IR 83317-50-1-2-2/IR 71700-247-1-1-2 |
| 21 | IR10N237 | IR01N111/IRRI 164//IR 72890-81-3-2-2 |
| 22 | IR 100097-B-B RGA-B RGA-8 | IR10N108/IRRI 154 |
| 23 | IR13N157 | IR09N531/IRRI 154 |
| 24 | IR 09N496 | IR01N200/IR01N148//IRRI 123 |
| 25 | IR 69428-6-1-1-3-3 | IR 65564-44-5-2/SENGKEU//IR 65600-1-3-2 |
| 26 | IRRI 132 | UPL RI 5/IR 12979-24-1 (BROWN) |
| 27 | IR 02A127 | IR00A107/IR 62243-41-1-3-3 |
| 28 | IRRI 150 | IR 68077-82-2-2-2-3/IR 59548-122-1-4-1 |
| 29 | Lijiangxintuanheigu (LTH) | CULT 340/KANNAGI |
| 30 | SWARNA-SUB1 (BC2F3) | IR 82809:227/SWARNA |
| 31 | IR 09A235 | IR 77429-38-69-B-6-1-1/NSIC RC 138//IR 55423-01 (NSIC RC 9) |
| 32 | IR12N252 | IR 72971-77-1-5-2-2/IR02W101//NERICA 6 |
| 33 | IR12A282 | IR03A550/TEQING |
| 34 | IR10F559 | IR 80410-B-197-4/IRRI 149//NSIC RC 158 |
| 35 | IR12N165 | FEDEARROZ 50/IR07F289 |
| 36 | IR 93339:39-B-6-5-B-B-B-47 | IR 77298-14-1-2-10/SANHUANGZHAN NO 2//IR 45427-2B-2-2B-1-1/NSIC RC 158///IRRI 123/IR 4630-22-2-5-1-3//FEDEARROZ 50/IR07F287 |
| 37 | IR13N152 | IR 83704-31-3-3-2/IR09N529 |
| 38 | IR 54447-3B-10-2 | BKNFR 76106-16-0-1/IR 9764-45-2-2//IR 50404/NONA BOKRA |
| 39 | IR09A228 | PR 29232-B-17-2-1-1/IR 64 |
| 40 | IR09A130 | IR 77080-B-34-3/IR 71606-1-1-4-2-3-1-2 (NSIC 110 |
| 41 | IR14A216 | MTU 1115/IR 65482-4-136-2-2-B//IR09A131 |
| 42 | IR08N134 | IR 72967-12-2-3/PR 31090-33-2-1 |
| 43 | IR04A115 | IR68077-82-2-2-2-3/IR00A117 |
| 44 | IR12N249 | IR05N204/IR01W102//IRRI 145 |
| 45 | IR 108005-B-B RGA-B RGA-1 | PR 37704-2B-6-1-2-1-1/IRRI 154 |
| 46 | IR09N516 | IRRI 143/NSIC RC 158 |
| 47 | IR05N341 | IR 73707-56-5-1-2/IR 73707-45-3-2-3 |
| 48 | IRBL9-W | LIJIANG XINTUAN HEIGU (AC 59323)\*4/WHD IS 75-1-127 |
| 49 | IRBLta2-Pi | LIJIANG XINTUAN HEIGU (AC 59323)\*2/PI NO 4 |
| 50 | IRBLsh-B | LIJIANG XINTUAN HEIGU (AC 59323)\*2/BL-1 |
| 51 | IRBLkh-K3 | LIJIANG XINTUAN HEIGU (AC 59323)\*2/K 3 |
| 52 | IRBLkm-Ts | LIJIANG XINTUAN HEIGU (AC 59323)\*2/TSUYUAKE |
| 53 | M 401 | TERSO/. |
| 54 | IR 66 | IR 13240-108-2-2-3/IR 9129-209-2-2-2-1 |
| 55 | IR14F711 | IRRI 154\*2/IRRI 149 |
| 56 | IR 10N230 | IR01N106/IR01N194//IRRI 143 |
| 57 | ITA |  |
| 58 | BAS370(Pi9) |  |
| 59 | BAS370 |  |
| 60 | BAS217 |  |
| 61 | BAS217(Pi9) |  |

**Table. S2**: Monogenic lines and local checks

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Monogenic lines**  **(Isolate specific** | (IRBL9-W  (Pi9) | (IRBLta2-Pi9 (pita) | (IRBsh-B) (Pis-h) | (IRBLkh-K3) (Pi-km) | (IRBLkm-Ts)  (Pi-km) |
| **Local Checks** | ITA310 | BW370 | Basmat370 | Basmat 217  (Pi9) | Basmat370  (Pi9) |

**Table. S3.** Primers used to amplify *M. oryzae*-resistant genes in Elite rice genotypes

|  |  |  |  |
| --- | --- | --- | --- |
| **Gene** | **Marker** | **FORWARD(5'-3')** | **REVERSE(3'-5')** |
| *Pib* | Pb28 | GACTCGGTCGACCAATTCGCC | AGGCCAGGCCAGATTTG |
| *Piz* | Z56592 | GGACCCGCGTTTTCCACGTGTAA | AGGAATCTATTGCTAAGCATGAC |
| *Piz-t* | Zt56591 | TTGCTGAGCCATTGTTAAACA | ATCTCTTCATATATATGAAGGCCAC |
| *Pik* | K39512 | GCCACATCAATGGCTACAACGTT | CCAGAATTTACAGGCTCTGG |
| *Pik-p* | K3957 | ATAGTTGAATGTATGGAATGGAAT | CTGCGCCAAGCAATAAAGTC |
| *Pikm* | k2167 | CGTGCTGTCGCCTGAATCTG | CACGAACAAGAGTGTGTCGG |
| *Pikh* | Pikh | CAATCTCCAAAGTTTTCAGG | GCTTCAATCACTGCTAGACC |
| *Pi9* | Pi9-i | GCTGTGCTCCAAATGAGGAT | GCGATCTCACATCCTTTGCT |
| *Pi2* | Pi2-1 | CAGCGATGGTATGAGCACAA | CGTTCCTATACTGCCACATCG |
| *Pita/Pita2* | YL155/YL87 | AGCAGGTTATAAGCTAGGCC | CTACCAACAAGTTCATCAAA |
| *Pi5* | 40N23R | TGTGAGGCAACAATGCCTATTGCG | CTATGAGTTCACTATGTGGAGGCT |
| *Pit* | tk59-1 | ATGATAACCTCATCCTCAATAAGT | GTTGGAGCTACGGTTGTTCAG |
| *Pit* | tk59-2 | ATGATAACCTCATCCTCAATAAGT | CCAAGGGATTAGGTCCTAGTG |
| *Pid2* | dln2 | GCGTCGAAGATGTCCTGAAGCTCA | GGCAGTCGTATTGCTGTGAA |
| *Pish* | RM6648 | GATCGATCATGGCCAGAGAG | ACAGCAGGTTGATGAGGACC |
|  | RM5811 | TTCGCGCTCTCCAAGCTC | GGATTTGGTCGAACAGGTTG |
| *Pb1* | RM26998 | ACGCACGCACATCCTCTTCC | CGGTTCTCCATCTGAAATCCCTAGC |
| *Pi33* | RM72 | CCGGCGATAAAACAATGAG | GCATCGGTCCTAACTAAGGG |
| *Pia* | Pia-STS | CTTTTGAGCTTGATTGGTCTGC | CTATTGCACCAGAGGGACCAG |
| *Pi1* | RM1233 | GTGTAAATCATGGGCACGTG | AGATTGGCTCCTGAAGAAGG |
|  | RM224 | ATCGATCGATCTTCACGAGG | TGCTATAAAAGGCATTCGGG |
| *pi21* | pi21\_79-3 | GATCCTCATCGTCGACGTCTGGC | AGGGTACGGCACCAGCTTG |
| *Pi36* | CRG4-2 | CCTGTCAGTCTTTCCGAGAG | GAATCCGGTAGCTCAAGGTG |
| *Pi65* | SNP\_3 | TGCCACCAGCCATCTTCAACAT | ACCACATCACTCATCGCCATCC |
| *Pi36* | RM5647 | ACTCCGACTGCAGTTTTTGC | AACTTGGTCGTGGACAGTGC |
| *Pi37* | RM302 | TCATGTCATCTACCATCACAC | ATGGAGAAGATGGAATACTTGC |
|  | RM212 | CCACTTTCAGCTACTACCAG | CACCCATTTGTCTCTCATTATG |
| *Pi25* | RM564 | CATGGCCTTGTGTATGCATC | ATGCAGAGGATTGGCTTGAG |
| *Pi50* | Pi50 F2/R2 | CTTGACATCCAAACCGCACC | TAGGCCTAGCCAATTTTTGCC |
| Pi2/9 | Pi2/9-F3/R4 | AGTTGTTTGCACATGGTGCTGGATG | TCAGCCAGCTTGAGCTGTGCCTATC |