**Supplementary Table S1.** Details of the 67 finger millet genotypes used in the study, their genebank accession numbers, their origins and traits.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sl. No. | Accession numbers (IC/IE) | Popular/other names | Origin | Known response to blast disease  | Other known important traits |
|  | - | BAU 8 | India | Leaf blast resistant | Improved cultivar |
|  | IC 474231  | GE-4987 | Unknown | Leaf blast resistant | Improved cultivar |
|  | IC 312307 | GPU 26 | India | Leaf blast resistant | Released variety from (I-5 x I-9) IE 1012 cross, early maturing  |
|  | - | TNAU 1204 | India | Leaf blast resistant | Improved cultivar |
|  | - | BAU 9 | India | Leaf blast resistant | Improved cultivar |
|  | - | BAU 10 | India | Leaf blast resistant | Improved cultivar |
|  | IC 473819/ IE 2718 | GE-4851, SAD 774 | Malawi | Leaf blast resistant | - |
|  | IC 312321 | L-5 | India | Leaf blast resistant | Released variety from Malawi x Indaf 9 cross; late maturing |
|  | - | GE-5525 | Unknown | Leaf blast resistant | - |
|  | IC 473976/ IE 2889 | GE-4920 | Zambia | Leaf blast resistant | - |
|  | IC 565523 | GPU 48 | Karnataka, India | Leaf blast resistant | Released variety from GPU 26 x L-5 cross, early maturity |
|  | - | GPU 67 | India | Leaf blast resistant | Improved cultivar, late maturity |
|  | IC 410116 | GPU 28 | India | Highly resistant to leaf blast  | Released variety from Indaf 5 x IE 1012 cross |
|  | IC 432860 IE 1012 | GE-669 | Karnataka, India | Highly resistant to leaf blast  | Improved cultivar |
|  | - | 18IE | Unknown | Leaf blast resistant | Resistant to foot-rot and smut |
|  | - | GPU 45 | India | Leaf blast resistant | Released variety developed from GPU 26 x L-5 cross, early maturing |
|  | IC 312290/ IE 4673 | VL 149 | India | Leaf blast resistant | Released variety from VL 204 x IE 882 cross, early maturing and high yield |
|  | IC 259126 | Maruthi, PR 230 | Andhra Pradesh, India | Leaf blast resistant | Pureline selection, early maturity |
|  | IC 476321 | GE-71 | Unknown | Blast resistant | - |
|  | IC 476594 | GE-132 | Unknown | Blast resistant | - |
|  | IC 476517 | GE-496 | Unknown | Blast resistant | - |
|  | IC 475958 | GE-796 | Unknown | Blast resistant | - |
|  | IC 475531 | GE-1026 | Unknown | Blast resistant | - |
|  | IC 476703 | GE-4440 | India | Blast resistant | - |
|  | IC 588005 | GE-4449 | Karnataka | Blast resistant | - |
|  | IE 6537 | AOC 116 | Nigeria | Blast resistant  | High calcium and protein in seeds |
|  | IE 5091 | SDFM 313 | Zimbabwe | Blast resistant | Early flowering |
|  | IC 402475 /IE 1055 | - | Unknown | Blast resistant | Early flowering |
|  | IC 474413 /IE 3392 | GE-5092,TGR 1599 | Zimbabwe | Blast resistant | High iron in seeds |
|  | IE 4121 | UM 532 | Uganda | Blast resistant | Early flowering |
|  | - | GE-4975 | Unknown | Leaf blast susceptible | - |
|  | - | TNAU 1231 | India | Leaf blast susceptible | Improved cultivar |
|  | IC 476673 | GE-201 | Unknown | Leaf blast susceptible | - |
|  | IC 473994/ IE 2907 | GE-5141, ZM 995 | Zambia | Leaf blast susceptible | - |
|  | IC 410115 | VR 708 (Champavathi) | India | Leaf blast susceptible | Pureline selection |
|  | IC 403077/ IE 4683 | PES-400 | India | Leaf blast susceptible | Pureline selection, early maturing cultivar |
|  | IC 474181 /IE 3130 | INDAF 8 | India | Leaf blast susceptible | Released variety from Hullubele x IE 929 cross; long duration crop |
|  | IC 410123IE 2043 | PR-202, Godavari | India | Highly susceptible to blast | Released variety from Sarada x EC 158 cross, long duration crop |
|  | IC 474182 /IE 3131 | INDAF 9 | India | Blast susceptible | Released variety from KI x IE 98 R cross |
|  | IE 3618 | RAU-8 | India | Blast susceptible | Released variety from BR 407 x Ranchi Local cross |
|  | IC 475067 | GE-1857 | Unknown | Highly susceptible to blast  | - |
|  | IC 474180/ IE 3129 | INDAF 7, HASTA | India |  Blast susceptible | Improved cultivar, high yield potential |
|  | IC 403096/ IE 4702 | HR-911 | India | Blast susceptible | Released variety from UAS 1 x IE 927 cross for cultivation under rainfed and irrigation conditions |
|  | IC 409022 | VL-315 | India | Finger and neck blast resistant | Improved variety suitable for high altitude |
|  | - | KM-252 | India | Highly susceptible to blast  | Improved cultivar |
|  | IC 402574 /IE 2052 | HR-374 | India | Blast resistant | Improved cultivar |
|  | - | K-7 | Tamil Nadu, India | Leaf blast susceptible | Released variety |
|  | IC 410120 | OEB-10 (Chilika) | Orissa, India | Blast resistant | Released variety from GE 68 x GE 156 cross, resistant to stem borer, lodging and shattering, late flowering |
|  | IC 75473 | Hullubele | India | Blast susceptible | Indigenous improved cultivar |
|  | IE 6634 | INFM 95001 | Zimbabwe | Blast susceptible | Breeding/research material, genetic male sterile line; Donor IE 3318 from Zimbabwe |
|  | IE 5870 | Acc. No. 2720 | Nepal | Blast susceptible | Early flowering |
|  | IE 6082 | Accession No. 2935 | Nepal | Blast susceptible | Early flowering |
|  | IC 403123 /IE 4734 | AS 67 | Andhra Pradesh, India | Blast susceptible | Early flowering |
|  | IE 7567 | SDFM 2664, Okhale 1 | Nepal | Blast resistant  | Drought tolerant |
|  | IE 5066 | SDFM 208 | Senegal | Blast resistant | Early flowering |
|  | IC 402886 /IE 3104 | RPSP 738 | Almora, India | Blast susceptible | Early flowering |
|  | IE 7509 | KAT/FM-1, SDFM 2543 | Kenya | Highly resistant to blast  | Drought tolerant, high in calcium |
|  | IE 2872 | ZM 552, EC 138376 | Zambia | Blast resistant | Early flowering |
|  | IE 4491 | AMM 197 | Zimbabwe | Blast resistant | Early flowering |
|  | IE 5537 | Accession No. 443 | Nepal | Blast resistant | Early flowering |
|  | IC 403074 /IE 4680 | PR-1158-9, Gautami  | India | Blast resistant | Released variety from PR 202 x U22 cross, high yield |
|  | IE 4709 | MTB 80, EZ 212863 | Burundi | Highly resistant to blast  | *E. coracana* sub sp. *africana*, high grain nutrient, collection from wild habitat |
|  | IE 894 | Gulu E | Uganda | Blast resistant | Early maturing, high yield |
|  | IE 3499 | P 224, EC 164282, PESE 1 | Kenya | Blast resistant | Lodging tolerant |
|  | IE 2957 | EC 140211 | Germany | Blast resistant  | High calcium, drought tolerant |
|  | IE 2821 | EC 132101 | Nepal | Blast resistant | Early flowering |
|  | IC 403254 /IE 501 | Tenda mandia | Orissa, India | Blast susceptible | Early flowering |

- : information not available, IC: Indigenous collection existing at National Bureau of Plant Genetic Resources, India; IE: Accession number of the global collection of finger millet germplasm from the International Crop research Institute for the Semi-Arid Tropics, India; EC: Exotic collection existing in the NBPGR gene bank, India.

**Supplementary Table S2.** Sequences (5’-3’) of the SRAP and SSR primers used in the study.

|  |  |  |  |
| --- | --- | --- | --- |
| Sl. No. | Primer IDs | Forward sequence (5'-3') | Reverse sequence (5'-3') |
| ***SRAP primers*** |
| 1 | ME7-F/EM7-R | TGAGTCCTTTCCGGTCC | GACTGCGTACGAATTCAA |
| 2 | ME7-F/EM6-R | GAGTCCTTTCCGGTCC | GACTGCGTACGAATTGCA  |
| 3 | ME1-F/OD3-R | TGAGTCCAAACCGGATA  | CCAAAACCTAAAACCAGGA |
| 4 | ME5-F/OD3-R | TGAGTCCAAACCGGAAT  | CCAAAACCTAAAACCAGGA  |
| 5 | ME11-F/EM5-R | TGAGTCCAAACCGGTCT | GACTGCGTACGAATTAAC |
| 6 | ME11-F/EM6-R | TGAGTCCAAACCGGTCT | GACTGCGTACGAATTGCA |
| 7 | ME11-F/EM3-R | TGAGTCCAAACCGGTCT | GACTGCGTACGAATTGAC |
| 8 | ME8-F/SA4-R | TGAGTCCTTTCCGGTGC | CCAAAACCTAAAACCAGGT  |
| 9 | ME11-F/EM7-R | TGAGTCCAAACCGGTCT | GACTGCGTACGAATTCAA |
| 10 | ME3-F/OD3-R | TGAGTCCAAACCGGAAT  | CCAAAACCTAAAACCAGGA |
| 11 | ME8-F/EM7-R | TGAGTCCTTTCCGGTGC  | GACTGCGTACGAATTCAA |
| 12 | ME5-F/EM5-R | TGAGTCCAAACCGGAAG  | GACTGCGTACGAATTAAC |
| ***SSR primers*** |
| 1 | UGEP12; SSR motif-(CT)22 | ATCCCCACCTACGAGATGC | TCAAAGTGATGCGTCAGGTC |
| 2 | UGEP15; SSR motif -(CT)22 | AAGGCAATCTCGAATGCAAC | AAGCCATGGATCCTTCCTTC |
| 3 | UGEP18; SSR motif -(CT)12 | TTGCATGTGTTGCTTTTTGC | TGTTCTTGATTGCAAACTGATG |
| 4 | UGEP19; SSR motif-(GA)18 | GGCAAGGATACCTTCATTCG | TACCTCTGCTCTGCACATGG |
| 5 | UGEP21; SSR motif - (GA)16 | CAATTGATGTCATTGGGACAAC | GTATCCACCTGCATGCCAAC |
| 6 | UGEP26; SSR motif -(CGG)7 | ATGGGGTTAGGGTTCGAGTC | TGTCCCTCACTCGTCTCCTC |
| 7 | UGEP52; SSR motif - (GA)16 | TCATGCTAGCTTCAACACAACC | TGCTGGGTGAAACCCTAGAC |
| 8 | UGEP53; SSR motif -(AG)26 | TGCCACAACTGTCAACAAAAG | CCTCGATGGCCATTATCAAG |
| 9 | UGEP67; SSR motif-(TC)22TT(GT)5 | CTCCTGATGCAAGCAAGGAC | AGGTGCCGTAGTTTGTGCTC |
| 10 | UGEP68; SSR motif -(CT)14 | CGGTCAGCATATAACGAATGG | TCATTGATGAATCCGACGTG |
| 11 | UGEP77; SSR motif-CT)19 | TTCGCGCGAAATATAGGC | CTCGTAAGCACCCACCTTTC |
| 12 | UGEP81; SSR motif -(GT)12 | AAGGGCCATACCAACACTCC | CACTCGAGAACCGACCTTTG |