

Supplementary data

QTL for grain yield under water stress and non-stress conditions over years in rice (*Oryza sativa* L.)

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Supplementary Table 1. Primers used for developing genotypic data

S.No.	Markers	Forward Sequence (5' ----->3')	Reverse Sequence (5' ----->3')
1	RM - 499	TACCAAACACCAACTGCG	ACCTGCAGTATCCAAGTGTACG
2	HvSSR 1-24	ACGCAGTTACACCCACTACT	ATAAGTGCCTATGCATGGTT
3	HvSSR 1-33	AACTTGGGCTCTTTAATTCC	CAGAGTTCGAGAGAGACCAG
4	HvSSR 1-34	AACTGGAGATGAACTCGAA	GTAACGAACTAGAGCATGGG
5	HvSSR 1-49	TCCTAAAGTTCACACCAACC	TGTCGATTCTCCTTCACTTT
6	RM - 428	AACAGATGGCATCGTCTTCC	CGCTGCATCCACTACTGTTG
7	HvSSR 1-55	ACACCATAACCAATACGAAGG	ACACCGTACTGTTTATTGGG
8	RM - 84	TAAGGGTCCATCCACAAGATG	TTGCAAATGCAGCTAGAGTAC
9	RM - 1	GCGAAAACACAATGCAAAAA	GCGTTGGTTGGACCTGAC
10	HvSSR 1-80	TTTGAGCAAATAAACTTGAGG	GCTTCTACTTCCACAAGGC
11	HvSSR 1-87	TTGGTACACGACCATGATTA	ATGGATCTGTGTGTGCGT
12	HvSSR 1-89	TGCGACGGATAGAGTACATA	GGATGCAAAGAAAGAACAAG
13	RM - 259	TGGAGTTTGAGAGGAGGG	CTTGTTGCATGGTGCCATGT
14	RM - 243	GATCTGCAGACTGCAGTTGC	AGCTGCAACGATGTTGTCC
15	RM - 572	CGGTAAATGTCATCTGATTGG	TTCGAGATCCAAGACTGACC
16	RM - 24	GAAGTGTGATCACTGTAACC	TACAGTGGACGGCGAAGTCG
17	RM - 449	TTGGGAGGTGTTGATAAGGC	ACCACCAGCGTCTCTCTCTC
18	RM - 5	TGCAACTTCTAGCTGCTCGA	GCATCCGATCTTGATGGG
19	RM - 212	CCACTTTCAGCTACTACCAG	CACCCATTTGTCTCTCATTATG
20	RM - 3825	AAAGCCCCCAAAGCAGTAC	GTGAAACTCTGGGGTGTTCG
21	RM - 302*	TCATGTCACTTACCATCACAC	ATGGAGAAGATGGAATACTTGC
22	RM - 486	CCCCCTCTCTCTCTCTCTC	TAGCCACATCAACAGCTTGC
23	RM - 14	CCGAGGAGAGGAGTTCGAC	GTGCCAATTCCTCGAAAAA
24	RM - 109	GCCGCCGGAGAGGGAGAGAGAG	CCCCGACGGGATCTCCATCGTC
25	RM - 485*	CACACTTTCAGTCTCTCTCC	CATCTTCTCTCTTTCGGCAC
26	HvSSR 2-1	AAGAGATGAGAAGAGCAATGA	CAACTTAGAGGAAGAAGGAGG
27	HvSSR 2-12	TCTCCAATTCTCCATCAAAC	CTTGCTTGAGCGAGTCTAAT
28	HvSSR 2-23	AGCTAGCTACACACTTCCG	ATAGATGCATGGCGATATTT
29	HvSSR 2-27	GGTCAATTCTTATTCCTTG	AATTTGGATTCAGATGTTGC
30	HvSSR 2-78	GTTTCCTTGCAAACAGACAT	AGTCATTCTAGCATTTCCCA
31	RM - 174	AGCGACGCCAAGACAAGTCGGG	TCCACGTCGATCGACACGACGG
32	RM - 492	CCAAAAATAGCGGAGAGAG	AAGACGTACATGGGTGAGGC
33	RM - 475	CCTCACGATTTTCTCCAAC	ACGGTGGGATTAGACTGTGC
34	RM - 341	CAAGAAACCTCAATCCGAGC	CTCCTCCCGATCCCAATC
35	RM - 221	ACATGTCAGCATGCCACATC	TGCAAGAATCTGACCCGG
36	HvSSR 3-6	AGATGAGCTTCAGTGCTAGG	TTCACCACAAAGTTCACAAA
37	HvSSR 3-9	TGTATTCAAGGAGGGCTAGA	CAACTGTTTCTGGAATGAT
38	HvSSR 3-35	TTGATTACGTGAATAGCTCG	CATAGCTAACTTGTGCGTTG
39	HvSSR 3-40	CGAGAGGTTTCAGAGAGAATG	GCATTACCCTAAGGATACA
40	HvSSR 3-41	ATGCAATTAATGTTGCCTT	AAGTTCTGAACAACCACCAC
41	RM - 231	CCAGATTATTTCTGAGGTC	CACTTGCATAGTTCTGCATTG
42	HvSSR 3-56	GCCTATCAGGCTATCATCAC	GTGATCGACATTGAGGAGTT
43	HvSSR 3-71	CACACCAACTCACTCTTGAA	CCGTTTCGTCTATGTTTATT

44	HvSSR 3-85	GCAAACGACACAAGTCATTA	ATAGTGCCCTTTCTTTCACA
45	RM - 517	GGCTTACTGGCTTCGATTG	CGTCTCCTTTGGTTAGTGCC
46	RM - 7	TTCGCCATGAAGTCTCTCG	CCTCCCATCATTTTCGTTGTT
47	RM - 232	CCGGTATCCTTCGATATTGC	CCGACTTTTCTCCTGACG
48	RM - 411	ACACCAACTCTTGCCTGCAT	TGAAGCAAAAACATGGCTAGG
49	RM - 135	CTCTGTCTCCTCCCCGCGTCG	TCAGCTTCTGGCCGGCCTCCTC
50	RM - 55	CCGTCGCCGTAGTAGAGAAG	TCCCGGTTATTTAAGGCG
51	RM - 85	CCAAAGATGAAACCTGGATTG	GCACAAGGTGAGCAGTCC
52	RM - 307	GTACTACCGACCTACCGTTCAC	CTGCTATGCATGAAGTCTC
53	HvSSR 4-26	GAGGAATTCATTCATCATGC	ATTTTCGTTATTTGCATTGGT
54	HvSSR 4-35	ACCAACCTAATACCGATGTG	CGCGAGTGTTGTAACTTAAC
55	HvSSR 4-38	CCAAGCACCTCTTAACTTGA	CCGTTCTTATTAGGTTGTGG
56	HvSSR 4-39	CAAATAAGATCGCTGAAACC	TTCGGAGTAAATTGGACATC
57	HvSSR 4-42	GATGGTGAATCTCGGTCTAA	TGTCCCATCATCACAACATA
58	RM - 564	CATGGCCTTGTGTATGCATC	ATGCAGAGGATTGGCTTGAG
59	RM - 273	GAAGCCGTCGTGAAGTTACC	GTTTCCTACCTGATCGCGAC
60	RM - 348	CCGCTACTAATAGCAGAGAG	GGAGCTTTGTTCTTGCGAAC
61	RM - 317	CATACTTACCAGTTCACCGCC	CTGGAGAGTGTGAGCTAGTTGA
62	RM - 559	ACGTACACTTGGCCCTATGC	ATGGGTGTCAGTTTGCTTCC
63	HvSSR 5-13	TCCTCTACAGTTGTCTGCCT	CATTCCTCTCCACTTTCTTG
64	HvSSR 5-23	GCAGCCATCTATCATCTAGC	CTAGCTGCACCAGTTTGATT
65	HvSSR 5-31	TGGAGCTGTGTTGTTGATTA	ATTGTGACATGCTGATGTTG
66	HvSSR 5-39	TGAGAGGATACTTGGGACTG	CCAGCATGCAACTGTAACATA
67	HvSSR 5-48	GAATTGAAGGTGGGACATAA	GAAGATGGCATGTAAACGAT
68	HvSSR 5-51	CCATGAAATAGTTCTAGGGAA	TAATTAATGCCTTCGTGGAT
69	HvSSR 5-52	GCTTAGTACTTGC GGCTAAA	CCATCTTACATGTCCTCACC
70	HvSSR 5-56	AAACTATCCGCTTGTGAAAT	CCGGTTAAGGACTCCTATCT
71	HvSSR 5-65	ATTAACGCACACTGGAAGT	AAACGGAGGGAGTAGTTAGC
72	HvSSR 5-66	GTTATGCGCTTCTGCTTATT	AGTTGGCTTCTGGATTACAA
73	RM - 163	ATCCATGTGCGCCTTTATGAGGA	CGCTACCTCCTTCACTTACTAGT
74	RM - 440	CATGCAACAACGTCACCTTC	ATGGTTGGTAGGCACCAAAG
75	RM - 459	CTGCAATGCTGCATGACC	CACTTTCTCTGCAGCACCAG
76	RM - 188	TCCGCCTCTCCTCTCGCTTCCC	GCAACGCACAACCGAACCAGC
77	RM - 421	AGCTCAGGTGAAACATCCAC	ATCCAGAATCCATTGACCCC
78	RM - 178	TCGCGTGAAAGATAAGCGGGCGC	GATCACCGTTCCTCCGCTGC
79	RM - 26	GAGTCGACGAGCGGCAGA	CTGCGAGCGACGGTAACA
80	RM - 274	CCTCGCTTATGAGAGCTTCG	CTTCTCCATCACTCCCATGG
81	RM - 87	CCTCTCCGATACACCGTATG	GCGAAGGTACGAAAGGAAAG
82	HvSSR 6-35	GAAAGGAAATCAGGTTGTGA	CCCATTAGACATTTCCGATA
83	HvSSR 6-44	GGAGCATCCATCACAATATC	GTAATTTTCAGTCAGCCAAGC
84	HvSSR 6-56	AGCATTTGTGTGTGCAATAG	ATGCTTGCCTCATCAGTAGT
85	RM - 225	TGCCCATATGGTCTGGATG	GAAAGTGGATCAGGAAGGC
86	HvSSR 6-65	GTGTGGCAATTTAACATCCT	TTGTTGCTTGTTCCTCACTG
87	RM - 217	ATCGCAGCAATGCCTCGT	GGGTGTGAACAAAGACAC
88	RM - 136	GAGAGCTCAGCTGCTGCCTCTAGC	GAGGAGCGCCACGGTGTACGCC
89	RM - 340	GGTAAATGGACAATCCTATGGC	GACAAATATAAGGGCAGTGTGC
90	RM - 400	ACACCAGGCTACCCAAACTC	CGGAGAGATCTGACATGTGG
91	RM - 481	TAGCTAGCCGATTGAATGGC	CTCCACCTCCTATGTTGTTG
92	HvSSR 7-40	GATTTACTCGCAAGTTACCG	TGTTTCAGGTTTCGTCTATCC
93	HvSSR 7-43	CAACTCAGTTCCAATCCCTA	TTGTGTGTTTCATATACGGC
94	HvSSR 7-46	ACAGCTGTAGAGGATGAGGA	TCCCTAATTCGAATCACAAC
95	RM - 125	ATCAGCAGCCATGGCAGCGACC	AGGGGATCATGTGCCGAAGGCC
96	HvSSR 7-53	CGAGCATGTCTGTCAAGTAA	GTTTCAATGTAATGTTGGCT
97	RM - 2	ACGTGTCACCGCTTCT	ATGTCCGGGATCTCATCG
98	RM - 11	TCTCCTTCCCCCGATC	ATAGCGGGCGAGGCTTAG
99	RM - 234	ACAGTATCCAAGGCCCTGG	CACGTGAGACAAAGACGGAG
100	RM - 248	TCCTTGTGAAATCTGGTCCC	GTAGCCTAGCATGGTGCATG
101	RM - 337	GTAGGAAAGGAAGGGCAGAG	CGATAGATAGCTAGATGTGGCC

102	RM - 152	GAAACCACCACACCTCACCG	CCGTAGACCTTCTTGAAGTAG
103	HvSSR 8-29	AACTGAGAGGCTGCTTGTAT	TAAAGGGTTCACTCATGGAC
104	RM - 310	CCAAAACATTTAAAATATCATG	GCTTGTTGGTCATTACCATTC
105	RM - 44	ACGGGCAATCCGAACAACC	TCGGGAAAACCTACCCTACC
106	RM - 483	CTTCCACCATAAAAACCGGAG	ACACCGGTGATCTTGTAGCC
107	RM - 72	CCGGCGATAAAAACAATGAG	GCATCGGTCTTAATAAGGG
108	RM - 515	TAGGACGACCAAAGGGTGAG	TGGCCTGCTCTCTCTCTCTC
109	RM - 256	GACAGGGAGTGATTGAAGGC	GTTGATTTGCGCAAGGGC
110	RM - 230	GCCAGACCGTGGATGTTC	CACCGCAGTCACTTTTCAAG
111	RM - 433	TGCGCTGAACTAAACACAGC	AGACAAACCTGGCCATTAC
112	RM - 281	ACCAAGCATCCAGTGACCAG	GTTCTTCATACAGTCCACATG
113	HvSSR 9-5	GAACGGAGGGAGGTTGTT	AAAGTGTCTTAAAGCCAAGTC
114	RM - 444	GCTCCACCTGCTTAAGCATC	TGAAGACCATGTTCTGCAGG
115	HvSSR 9-7	CATCTCAGCAAACAAGAACA	GTAAAGACTCCAGCTTTCTCC
116	HvSSR 9-19	TCGAATTTAGTCCAGGGTAA	GGTGAGAGATCTTGAGTTCG
117	HvSSR 9-25	GATCGATCTCATCATCACCT	TAGCTTCTACTGGGAGTGA
118	HvSSR 9-27	TGGGCATCTGGTACTATCTT	AGCTCATTCCACAGGTTAGA
119	HvSSR 9-37	AATCTCAACTGCTCGGATTA	TTGATTGATTGATTGAACGA
120	HvSSR 9-57	GGAGGTTGTTGTTACGTTGT	GGGAGGGTAATTCAGGTAAG
121	RM - 296	CACATGGCACCAACCTCC	GCCAAGTCATTCACTACTCTGG
122	RM - 434	GCCTCATCCCTCTAACCCCTC	CAAGAAAGATCAGTGCGTGG
123	RM - 410	GCTCAACGTTTCGTTCCCTG	GAAGATGCGTAAAGTGAACGG
124	RM - 108	TCTCTTGC GCGCACACTGGCAC	CGTGCACCACCACCACCACCAC
125	RM - 242	GGCCAACGTGTGTATGTCTC	TATATGCCAAGACGGATGGG
126	RM - 288	CCGGTCAGTTCAAGCTCTG	ACGTACGGACGTGACGAC
127	RM - 553	AACTCCACATGATTCCACCC	GAGAAGGTGGTTGCAGAAGC
128	RM - 278	GTAGTGAGCCTAACATAATC	TCAACTCAGCATCTCTGTCC
129	RM - 201	CTCGTTTATTACCTACAGTACC	CTACCTCCTTTCTAGACCGATA
130	RM - 245	ATGCCGCCAGTGAATAGC	CTGAGAATCCAATTATCTGGGG
131	HvSSR 10-1	ATGTATCGCTCGACAGATTT	CCGATTCATTGATGATTTCT
132	HvSSR 10-5	TCTCGCTCACTACCAGACTT	AATTTGCTTTCACATCACTT
133	HvSSR 10-17	CGTCTTGAATCAATTTCCAT	GATTGCCCGTAGAACTATTG
134	RM - 222	CTTAAATGGGCCACATGCG	CAAAGCTTCCGGCCAAAAG
135	HvSSR 10-34	TAGACCGAGGAATTGAAAGA	TTTGGGCTTATTGTGAGTTT
136	RM - 171	AACGCGAGGACACGTACTTAC	ACGAGATACGTACGCCTTTG
137	RM - 228	CTGGCCATTAGTCCTTGG	GCTTGCGGCTCTGCTTAC
138	RM - 484	TCTCCCTCCTCACCATTGTC	TGCTGCCCTCTCTCTCTCTC
139	HvSSR 11-1	TGTGTGTCCGCATACTTAAA	ATGTCAAAGTCCGAAAGTGT
140	HvSSR 11-2	TAGATTGGGTGATGGATAGC	CTACTTGATCCAGGGAAATG
141	HvSSR 11-3	GGTTGACACCGTTAACATTT	TGGAACCTACCTAGCCA
142	HvSSR 11-13	TGAAACCACAATGAGTCAA	GCCCTAAACCCAAATAGAAG
143	RM - 202	CAGATTGGAGATGAAGTCTCC	CCAGCAAGCATGTCAATGTA
144	RM - 229	CACTCACACGAACGACTGAC	CGCAGGTTCTTGTGAAATGT
145	RM - 21	ACAGTATTCCGTAGGCACGG	GCTCCATGAGGGTGGTAGAG
146	RM - 26334	GACTCCCTACTAGTGGTTCTGATTCCG	CCTTTGACGATTGTGATGCTACG
147	RM - 206	CCCATGCGTTTAACTATTCT	CGTTCATCGATCCGTATGG
148	RM - 254	AGCCCCGAATAAATCCACCT	CTGGAGGAGCATTGGTAGC
149	RM - 224	ATCGATCGATCTTACGAGG	TGCTATAAAAGGCATTCCGGG
150	RM - 20	ATCTTGTCCCTGCAGGTCAT	GAAACAGAGGCACATTTTATTG
151	HvSSR 12-35	ATGACCATAATCCCAACAAA	GTCGTGGTGTATTCTTGGT
152	HvSSR 12-36	ATCAGCGACTAAGGATCTCA	CTAATGTTGCCACATACGAA
153	HvSSR 12-40	ATCTAACAACAACAATCCCG	CATCTTCATCCCTCGTGTAT
154	HvSSR 12-48	AAACTCGATCAGACTTAGAGAAG	TCTCTGATGGCAATACAACA
155	HvSSR 12-51	AATCATCATATTGCCGAAAG	ATCACCATCTATCATTGCAC
156	RM - 277	CGGTCAAATCATCACCTGAC	CAAGGCTTGCAAGGGAAG
157	RM - 511	CTTCGATCCGGTGACGAC	AACGAAAGCGAAGCTGTCTC
158	RM - 260	ACTCCACTATGACCCAGAG	GAACAATCCCTTCTACGATCG
159	RM - 519	AGAGAGCCCCTAAATTTCCG	AGGTACGCTCACCTGTGGAC

160	RM - 28305	GTCATCTTCGCAAATGGTGATGG	GGTCGTCGTGGTGTTATTCTTGG
161	RM - 270	GGCCGTTGGTTCTAAAATC	TGCGCAGTATCATCGGCGAG
162	RM - 17	TGCCCTGTTATTTCTTCTCTC	GGTGATCCTTCCCATTTCA