

Table 1. List of the 157 rice accessions used in the experiment

Accession	Genebank ID	Name	Province	Type	Ecosy	Group	Sub pop
G1	VNPRC_11	TEP HAI PHONG	Hai Phong	TRAD	na	I	Im
G10	VNPRC_216	TAM SON NAM DINH	Nam Dinh	TRAD	na	I	I4
G100	VNPRC_6969	KHAU QUAI DANG 2	TuyenQuang	TRAD	UP	I	J1
G101	VNPRC_7295	DIEO KBIN	Tay Nguyen	TRAD	na	J	J1
G102	VNPRC_7303	TZO KOH DANG 2	ThuaThien Hue	TRAD	na	I	Im
G103	VNPRC_7304	CU PUA DANG 1	ThuaThien Hue	TRAD	na	J	Jm
G104	VNPRC_7305	CU PUA DANG 2	ThuaThien Hue	TRAD	na	I	Im
G105	VNPRC_7312	NEP THAI LAN	Ha Giang	TRAD	na	I	I3
G106	VNPRC_7316	NEP HAI HAU	NinhBinh	TRAD	IR	J	J2
G107	VNPRC_7317	NEP THAI BINH LUN	NinhBinh	TRAD	IR	J	J2
G108	VNPRC_7318	TAM AP BE	NinhBinh	TRAD	IR	m	m
G109	VNPRC_7349	MANH GIE	QuangBinh	TRAD	UP	I	Im
G11	VNPRC_219	TAM TRON HAI DUONG	Hai Duong	TRAD	na	I	I4
G110	VNPRC_7823	RAN TRANG	BinhThuan	TRAD	UP	I	Im
G111	VNPRC_7824	NEP RAY	BinhThuan	TRAD	UP	I	Im
G113	VNPRC_7827	NANG THIET	Vung Tau	TRAD	IR	I	I2
G115	VNPRC_7910	KOI LOI	na	TRAD	na	I	Im
G117	VNPRC_7930	KHAO SANG	Quang Tri	TRAD	UP	J	Jm
G119	VNPRC_9198	L26	na	IMP	na	I	Im
G12	VNPRC_226	TAM CAO VINH PHUC	VinhPhuc	TRAD	na	I	I4
G124	VNPRC_9355	NEP DEN	QuangNinh	TRAD	IR	J	J2
G125	VNPRC_9356	NEP NUONG	QuangNinh	TRAD	na	I	Im
G126	VNPRC_9466	KHAU DAM DOI	Nghe An	TRAD	UP	J	J1
G128	VNPRC_9476	KHAU DAM	Nghe An	TRAD	UP	J	J1
G129	VNPRC_9507	LC93-2	KhanhHoa	TRAD	UP	I	Im
G130	VNPRC_9509	LUA DA BO	KhanhHoa	TRAD	UP	J	J3
G131	VNPRC_9517	PADAI LONG KHANH	KhanhHoa	TRAD	UP	J	J3
G132	VNPRC_9520	PADAI TLIG JUG	KhanhHoa	TRAD	UP	I	Im
G133	VNPRC_9524	A 330	KhanhHoa	IMP	IR	I	I1
G134	VNPRC_9530	PADAI CALOC	KhanhHoa	TRAD	UP	J	Jm
G138	VNPRC_9563	NANG QUAT	Ben Tre	TRAD	RL	I	Im
G14	VNPRC_318	TAM NHO BAC NINH	Bac Ninh	TRAD	na	I	I4
G140	VNPRC_9570	LUA BAY DANH	Ben Tre	TRAD	RL	I	I2
G143	VNPRC_9576	NEP TROI CHO	Ben Tre	TRAD	RL	I	I2
G146	VNPRC_9584	NANG LOAN HAT TRON	Ben Tre	TRAD	RL	I	I2
G147	VNPRC_9585	LUA NANG LOAN HAT DAI	Ben Tre	TRAD	IR	I	I2
G150	VNPRC_9595	NEP DIA PHUONG	Ben Tre	TRAD	IR	I	I2
G152	VNPRC_9871	LOC SOM	Bac Giang	TRAD	na	J	J1
G154	VNPRC_9878	NEP THOM	Ha Tay	TRAD	IR	J	J2
G155	VNPRC_9908	KHAU PE LANH	Son La	TRAD	UP	I	I3
G156	VNPRC_9967	LUA K	na	TRAD	na	I	Im

G157	VNPRC_9984	SO CRIOONG	Sekong	TRAD	na	J	Jm
G158	VNPRC_12049	VA TAI ANA ACU	NinhThuan	TRAD	UP	J	J3
G16	VNPRC_384	NEP VAN RUONG HOA BINH	HoaBinh	TRAD	na	J	J2
G160	VNPRC_12059	JASMINE	An Giang	IMP	UP	I	Im
G161	VNPRC_12066	BN1	An Giang	IMP	IR	I	Im
G165	VNPRC_12083	GIONG 90 NGAY	KienGiang	TRAD	RL	I	I1
G167	VNPRC_12088	THAN NONG MUA	KienGiang	TRAD	RL	I	I2
G168	VNPRC_12101	OM1490	KienGiang	IMP	IR	I	I1
G169	VNPRC_12102	JASMINE 95	KienGiang	IMP	IR	I	I1
G17	VNPRC_394	NEP GA GAY HAI DUONG	Hai Duong	TRAD	na	I	Im
G170	VNPRC_12103	OM 504 JAPAN	KienGiang	IMP	IR	I	I1
G171	VNPRC_12104	NEP THAI	KienGiang	TRAD	IR	I	I1
G172	VNPRC_12105	VND 95-20	KienGiang	IMP	IR	I	I1
G173	VNPRC_12107	TAM THOM TRUNG QUOC	KienGiang	TRAD	IR	I	Im
G177	VNPRC_12563	CHAM HOM	HoaBinh	TRAD	na	J	J1
G178	VNPRC_12573	KHAU CHINH PHU	HoaBinh	TRAD	na	J	J1
G179	VNPRC_12581	BLAO PU LAU	HoaBinh	TRAD	na	J	J1
G18	VNPRC_407	NEP QUYT HAI DUONG	Hai Duong	TRAD	na	I	I4
G181	VNPRC_12970	BLAU PLAN PIENG	Son La	TRAD	UP	I	I6
G182	VNPRC_13008	KHAU MO	Son La	TRAD	UP	I	I6
G183	VNPRC_13076	KHAU PE LANH	Son La	TRAD	UP	I	Im
G186	VNPRC_13309	KHAU NO	Son La	TRAD	UP	I	Im
G187	VNPRC_13320	KHAU DUONG PHUONG	Son La	TRAD	UP	J	J1
G189	VNPRC_13362	KHAU NAM RINH	Dien Bien	TRAD	UP	I	I3
G19	VNPRC_509	ON	na	TRAD	na	I	Im
G190	VNPRC_13363	PLE PHMA CHUA	Dien Bien	TRAD	UP	I	Im
G191	VNPRC_13422	KHAU TAN	Dien Bien	TRAD	RL	J	J2
G192	VNPRC_13423	KHAU BAO THAI	Dien Bien	TRAD	RL	I	Im
G193	VNPRC_13424	BLE PE XA	Dien Bien	TRAD	UP	J	J1
G194	VNPRC_13425	BLE BLAU LIA	Dien Bien	TRAD	UP	J	J1
G195	VNPRC_13426	BLE BDE	Dien Bien	TRAD	UP	J	J1
G196	VNPRC_13427	BLE CO PON	Dien Bien	TRAD	UP	m	m
G2	VNPRC_58	TA CO LAO CAI	Lao Cai	TRAD	na	I	Im
G20	VNPRC_553	TE LE HOA BINH	HoaBinh	TRAD	na	I	I4
G200	VNPRC_13431	CHA FU NU	Lai Chau	TRAD	UP	J	J1
G201	VNPRC_13435	CHA XU PHU LU	Lai Chau	TRAD	UP	I	Im
G202	VNPRC_13442	NONG TO	Lai Chau	TRAD	UP	J	J1
G203	VNPRC_14212	PLAU CA BANH	Dien Bien	TRAD	UP	J	J1
G204	VNPRC_14215	PLE DO	Dien Bien	TRAD	UP	J	J1
G205	VNPRC_14251	BLE BLAU CHO	SON LA	TRAD	UP	I	I3
G206	VNPRC_14252	BLE BLAU DO	Son La	TRAD	UP	J	J1
G207	VNPRC_14278	KHAU LUA	Son La	TRAD	RL	m	m
G208	VNPRC_14279	KHAU BOONG LAM	Son La	TRAD	RL	I	Im
G209	VNPRC_14386	BLE CHO	Lai Chau	TRAD	UP	I	I6

G21	VNPRC_614	GIE TRANG HOA BINH	HoaBinh	TRAD	na	I	I4
G210	VNPRC_14408	KHAU LECH	Lao Cai	TRAD	UP	J	J1
G211	VNPRC_14587	PLAU NGOANG PLAC	Lao Cai	TRAD	UP	I	Im
G212	VNPRC_14589	PLAU BULAT	Lao Cai	TRAD	UP	J	J1
G214	VNPRC_14596	BLE BLAU DO	Lao Cai	TRAD	RL	J	Jm
G216	VNPRC_14607	TOM BEO BUA	Lao Cai	TRAD	RL	J	J1
G217	VNPRC_14615	BLE BLAU SOA	Lao Cai	TRAD	RL	J	J1
G219	VNPRC_14792	KHAU LA LANH	Son La	TRAD	RL	I	Im
G22	VNPRC_760	TRUNG TRANG TUYEN QUANG	na	TRAD	na	I	I4
G220	VNPRC_T5300	PLE LA	na	TRAD	UP	J	J1
G221	VNPRC_T5455	KHAU MAC CO	na	TRAD	UP	J	J1
G222	VNPRC_T6404	PLE MA MU	na	TRAD	UP	J	J1
G223	VNPRC_T6794	BLE BLAU TAN	na	TRAD	UP	J	J1
G24	VNPRC_1048	TAM XOAN HAI HAU	Nam Dinh	TRAD	na	m	m
G25	VNPRC_1058	NEP VANG ONG LAC SON HB	HoaBinh	TRAD	na	J	J2
G26	VNPRC_1325	KHAU CAI NOI	Tay Bac	TRAD	na	J	J1
G299	VNPRC_4806	BLAO SINH SAI	HoaBinh	TRAD	na	J	J1
G3	VNPRC_85	AN TU VO DO	na	TRAD	na	I	I4
G37	VNPRC_1845	NEP CAM	Ha Giang	TRAD	RL	I	Im
G38	VNPRC_1849	NEP NUONG	Ha Giang	TRAD	UP	J	J1
G39	VNPRC_1851	NEP CAM	Ha Giang	TRAD	RL	I	Im
G4	VNPRC_135	NHONG DO HAI DUONG	Hai Duong	TRAD	na	I	I4
G402	IRGC_12731	NIPPONBARE	na	IMP	IR	J	J
G46	VNPRC_2368	NEP BA LAO	Nam Dinh	TRAD	MG	J	J4
G47	VNPRC_2369	NEP ONG LAO	Nam Dinh	TRAD	MG	J	J4
G48	VNPRC_2371	LUA NGOI	Nam Dinh	TRAD	MG	J	J4
G49	VNPRC_2395	DT10	na	IMP	na	I	I1
G5	VNPRC_149	NHONG TRANG HAI PHONG	Hai Phong	TRAD	na	I	I4
G50	VNPRC_3323	LUA NEP BA THANG DANG 1	Quang Nam	TRAD	UP	J	J2
G51	VNPRC_3332	BA TRANG HUONG	Quang Nam	TRAD	UP	I	I5
G52	VNPRC_3334	BA TRANG HUONG	Quang Nam	TRAD	UP	I	I5
G53	VNPRC_3351	LUA CAN DO	na	TRAD	na	I	I6
G54	VNPRC_3360	LUA LOC DO	Quang Nam	TRAD	RL	I	I6
G56	VNPRC_3363	LUA MAN	Quang Nam	TRAD	RL	I	I5
G57	VNPRC_3364	NEP GHIM HUONG	Quang Nam	TRAD	RL	I	Im
G58	VNPRC_3368	NEP HUONG LANG	Quang Nam	TRAD	MG	I	I6
G6	VNPRC_170	SOM GIAI HUNG YEN	na	TRAD	na	I	I4
G61	VNPRC_3402	NEP RAN	QuangBinh	TRAD	na	J	J2
G62	VNPRC_3426	QUANG TRANG	Quang Tri	TRAD	IR	I	I5
G63	VNPRC_3429	CHIEM DO	Quang Tri	TRAD	na	I	I4
G64	VNPRC_3433	VEN DO	Quang Tri	TRAD	IR	I	I5
G65	VNPRC_3443	NUOC MAN DANG 1	Quang Tri	TRAD	RL	I	I5
G67	VNPRC_3485	LUA TRI DO DANG 2	BinhDinh	TRAD	RL	I	Im
G68	VNPRC_3487	NEP 3 THANG	BinhDinh	TRAD	IR	m	m

G69	VNPRC_3488	COC MOI DANG 1	BinhDinh	TRAD	RL	I	I6
G7	VNPRC_172	TE TRANG HOA BINH	HoaBinh	TRAD	na	I	I4
G70	VNPRC_3489	COC MOI DANG 2	BinhDinh	TRAD	RL	I	Im
G72	VNPRC_3494	LUA CANG DANG 1	BinhDinh	TRAD	RL	I	Im
G73	VNPRC_3495	LUA CANG DANG 1	BinhDinh	TRAD	RL	I	I6
G74	VNPRC_3497	NEP QUA CO RAU DANG 2	BinhDinh	TRAD	RL	I	I6
G77	VNPRC_3506	CANG KIEN DANG 1	BinhDinh	TRAD	RL	I	I6
G78	VNPRC_3507	CANG KIEN DANG 2	BinhDinh	TRAD	RL	I	I6
G79	VNPRC_3508	LUA DA DANG 2	BinhDinh	TRAD	RL	I	I6
G8	VNPRC_175	CHON TU 502 HOC VIEN	na	TRAD	na	I	I4
G80	VNPRC_3517	BA KTONG	Quang Ngai	TRAD	UP	J	J3
G81	VNPRC_3519	BA DO DANG 1	Quang Ngai	TRAD	UP	m	m
G83	VNPRC_3522	NEP VANG	Quang Ngai	TRAD	UP	J	Jm
G84	VNPRC_3525	BA CHO KTE	BinhDinh	TRAD	na	J	J3
G85	VNPRC_3550	CHANH CHUI	ThanhHoa	TRAD	MG	J	J4
G86	VNPRC_3588	TAN NGAN	Yen Bai	TRAD	na	J	J2
G87	VNPRC_3886	KHAU PAN PUA	na	TRAD	na	J	J1
G88	VNPRC_3895	BLE MA MUA	na	TRAD	na	J	J1
G89	VNPRC_3947	KHAU BO KHA	na	TRAD	na	J	J1
G9	VNPRC_200	LOC TRANG SOM PLAY CAU	na	TRAD	na	I	I4
G90	VNPRC_4812	BLAO CLIA	HoaBinh	TRAD	UP	J	J1
G91	VNPRC_4815	BLAO CO KEN	HoaBinh	TRAD	UP	J	J1
G92	VNPRC_4820	BLAO CO CAM	HoaBinh	TRAD	UP	J	J1
G93	VNPRC_5034	PO LE PO LAU XA	Nghe An	TRAD	UP	I	I5
G94	VNPRC_5111	LUA DO	ThuaThien Hue	TRAD	UP	I	I5
G95	VNPRC_5127	LUA CHAM	Nam Dinh	TRAD	RL	I	I4
G96	VNPRC_6191	CHIEM RONG	Nam Dinh	TRAD	IR	I	Im
G98	VNPRC_6203	NGOI TIA	Nam Dinh	TRAD	RL	J	J4
G99	VNPRC_6234	LUA CHAM BIEN	NinhBinh	TRAD	RL	I	I4

TRAD: traditional; IMP: improved; na: no data available; IR: irrigated; MG: mangrove; RL: rainfed lowland; UP: upland; I: indica; J: japonica; Sub-pop: sub-populations.