

**Table S1.** List of whole panel for this study.

ID	Subspecies	Type	Country
RWG-001	Temperate japonica	Bred	KOR
RWG-002	Temperate japonica	Bred	KOR
RWG-003	Indica	Bred	KOR
RWG-004	Temperate japonica	Bred	KOR
RWG-005	Indica	Bred	KOR
RWG-006	Indica	Intro	COL
RWG-007	Admixture	Intro	LKA
RWG-008	Aus	Intro	IRN
RWG-009	Temperate japonica	Weedy	KOR
RWG-010	Indica	Weedy	KOR
RWG-011	Temperate japonica	Weedy	KOR
RWG-012	Temperate japonica	Weedy	KOR
RWG-013	Indica	Weedy	KOR
RWG-014	Temperate japonica	Weedy	KOR
RWG-015	Temperate japonica	Landrace	KOR
RWG-016	Temperate japonica	Landrace	KOR
RWG-017	Temperate japonica	Landrace	KOR
RWG-018	Tropical japonica	Landrace	KOR
RWG-019	Tropical japonica	Landrace	KOR
RWG-020	Temperate japonica	Landrace	KOR
RWG-021	Indica	Landrace	KOR
RWG-022	Indica	Landrace	KOR
RWG-023	Aus	Landrace	KOR
RWG-024	Temperate japonica	Landrace	KOR
RWG-025	Temperate japonica	Landrace	KOR
RWG-026	Temperate japonica	Landrace	KOR
RWG-027	Temperate japonica	Landrace	KOR
RWG-028	Temperate japonica	Landrace	KOR
RWG-029	Temperate japonica	Landrace	KOR
RWG-030	Indica	Landrace	KOR
RWG-031	Aromatic	Landrace	KOR
RWG-032	Tropical japonica	Intro	NGA
RWG-033	Temperate japonica	Intro	BUR
RWG-034	Indica	Intro	IND
RWG-035	Temperate japonica	Intro	EGY
RWG-036	Indica	Intro	VNM
RWG-037	Aus	Intro	SUR
RWG-038	Aus	Intro	IND

RWG-039	Indica	Intro	PHL
RWG-040	Tropical japonica	Intro	USA
RWG-041	Indica	Intro	BGD
RWG-042	Aromatic	Intro	PAK
RWG-043	Aus	Intro	PAK
RWG-044	Indica	Intro	IRN
RWG-045	Tropical japonica	Intro	VNM
RWG-046	Temperate japonica	Intro	ARG
RWG-047	Indica	Intro	TWN
RWG-048	Indica	Intro	TWN
RWG-049	Indica	Intro	USA
RWG-050	Temperate japonica	Intro	PRK
RWG-051	Tropical japonica	Intro	LBR
RWG-052	Temperate japonica	Intro	RUS
RWG-053	Aus	Intro	IND
RWG-054	Indica	Intro	LKA
RWG-055	Tropical japonica	Intro	THA
RWG-056	Indica	Intro	TWN
RWG-057	Tropical japonica	Intro	NGA
RWG-058	Tropical japonica	Intro	USA
RWG-059	Temperate japonica	Intro	TWN
RWG-060	Indica	Intro	TWN
RWG-061	Indica	Intro	PHL
RWG-062	Temperate japonica	Intro	UZB
RWG-063	Temperate japonica	Intro	UZB
RWG-064	Indica	Intro	THA
RWG-065	Temperate japonica	Weedy	KOR
RWG-066	Tropical japonica	Intro	JPN
RWG-067	Indica	Intro	CHN
RWG-068	Indica	Intro	CHN
RWG-069	Temperate japonica	Intro	CHN
RWG-070	Indica	Intro	CHN
RWG-071	Indica	Intro	CHN
RWG-072	Indica	Intro	CHN
RWG-073	Indica	Weedy	KOR
RWG-074	Temperate japonica	Weedy	KOR
RWG-075	Temperate japonica	Weedy	KOR
RWG-076	Temperate japonica	Weedy	KOR
RWG-077	Temperate japonica	Weedy	KOR
RWG-078	Temperate japonica	Weedy	KOR
RWG-079	Temperate japonica	Intro	JPN
RWG-080	Temperate japonica	Intro	CHN
RWG-081	Tropical japonica	Intro	JPN

RWG-082	Temperate japonica	Weedy	KOR
RWG-083	Temperate japonica	Weedy	KOR
RWG-084	Temperate japonica	Weedy	KOR
RWG-085	Indica	Bred	KOR
RWG-086	Indica	Bred	KOR
RWG-087	Temperate japonica	Bred	KOR
RWG-088	Temperate japonica	Bred	KOR
RWG-089	Tropical japonica	Intro	GIN
RWG-090	Tropical japonica	Weedy	KOR
RWG-091	Temperate japonica	Weedy	KOR
RWG-092	Temperate japonica	Weedy	KOR
RWG-093	Temperate japonica	Landrace	KOR
RWG-094	Temperate japonica	Landrace	KOR
RWG-095	Temperate japonica	Landrace	KOR
RWG-096	Temperate japonica	Landrace	KOR
RWG-097	Temperate japonica	Landrace	KOR
RWG-098	Tropical japonica	Landrace	KOR
RWG-099	Temperate japonica	Landrace	KOR
RWG-100	Temperate japonica	Landrace	KOR
RWG-101	Tropical japonica	Landrace	KOR
RWG-102	Tropical japonica	Landrace	KOR
RWG-103	Temperate japonica	Landrace	KOR
RWG-104	Temperate japonica	Landrace	KOR
RWG-105	Admixture	Intro	NGA
RWG-106	Tropical japonica	Intro	HND
RWG-107	Tropical japonica	Intro	USA
RWG-108	Aus	Intro	PRI
RWG-109	Indica	Intro	TWN
RWG-110	Aromatic	Intro	SUN
RWG-111	Temperate japonica	Intro	TWN
RWG-112	Indica	Intro	TWN
RWG-113	Aus	Intro	AFG
RWG-114	Temperate japonica	Intro	JPN
RWG-115	Temperate japonica	Weedy	KOR
RWG-116	Indica	Intro	CHN
RWG-117	Temperate japonica	Intro	CHN
RWG-118	Indica	Intro	CHN
RWG-119	Indica	Intro	CHN
RWG-120	Indica	Intro	CHN
RWG-121	Indica	Weedy	KOR
RWG-122	Indica	Weedy	KOR
RWG-123	Indica	Weedy	KOR
RWG-124	Indica	Weedy	KOR

RWG-125	Indica	Weedy	KOR
RWG-126	Indica	Weedy	KOR
RWG-127	Temperate japonica	Weedy	KOR
RWG-128	Temperate japonica	Weedy	KOR
RWG-129	Temperate japonica	Weedy	KOR
RWG-130	Temperate japonica	Weedy	KOR
RWG-131	Indica	Intro	CHN
RWG-132	Tropical japonica	Intro	CHN
RWG-133	Temperate japonica	Bred	KOR
RWG-134	Temperate japonica	Bred	KOR
RWG-135	Temperate japonica	Bred	KOR
RWG-136	Temperate japonica	Landrace	KOR
RWG-137	Indica	Intro	PHL

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