

**Supplementary Table 1.** The thirty-one rice varieties and their ecotype, categories and origin/parents.

Entries	Varieties	Ecotype	Categories	Origin/ Parents
U-1	RD45	Deep water	Improved rice	PCRB83012-267-5 / Khao Dawk Mali 105
U-2	Prachinburi 2	Deep water	Improved rice	BKNFR80086/HTAFR80038
U-3	RD19	Deep water	Improved rice	IR262/Pin Gaew 56
U-4	Plai Ngahm Prachinburi	Floating Rice	Landrace rice	Prachantakham District Prachinburi Province
U-5	Pin Gaew 56	Floating Rice	Improved rice	Bang Pla Ma District, Suphanburi Province
U-6	Gaen Jan	Lowland rice	Landrace rice	Mueang District, Sukhothai Province
U-7	Niaw Dam	Lowland rice	Landrace rice	Wang Thong District, Phitsanulok Province
U-8	Niew San Pah Tawng	Lowland rice	Landrace rice	Omkoi District, Chiang Mai Province
U-9	Khi Tom Gamnan	Lowland rice	Landrace rice	Yang Talat District, Kalasin Province
U-10	RD6	Lowland rice	Improved rice	Khao Dawk Mali 105 matant using Gamma ray 20 krad
U-11	Chum Phae 60	Lowland rice	Improved rice	Gam Pai 41/Leuang Tawng 78
U-12	Mahk Nam	Lowland rice	Landrace rice	Na Noi District, Nan Province
U-13	RD14	Lowland rice	Improved rice	IR54883-8-2-3/RD6//IR54883-8-2-3/Khao Dawk Mali 105
U-14	RD-Maijo 2	Lowland rice	Improved rice	Pathum Thani 1/RD6
U-15	Khao Dawk Mali 105	Lowland rice	Improved rice	Bang Kla District, Chachoengsao Province
U-16	Hawm	Lowland rice	Landrace rice	Mueang District, Trat Province
U-17	RD8	Lowland rice	Improved rice	Niew San Pah Tawng/IR262
U-18	Khao Pahn Luang	Lowland rice	Landrace rice	Taphan Hin District, Phichit Province
U-19	Plawng Aew	Lowland rice	Landrace rice	Mahachanachai District, Yasothon Province
U-20	Pinkaset 3	Lowland rice	Improved rice	Pinkaset 1/IR71501
U-21	Pahn Tawng	Lowland rice	Landrace rice	Lat Krabang District, Bangkok
U-22	Chai Nat 1	Lowland rice	Improved rice	IR13146-158-1/IR15314-43-2-3-3//BKN6995-16-1-1-2
U-23	Hahng Yi 71	Lowland rice	Improved rice	Mueang District, Sakon Nakhon Province
U-24	TS 2	Lowland rice	Elite rice line	Thanyasirin/Pinkaset 1
U-25	Homwarin	Lowland rice	Improved rice	Khao Dawk Mali 105/IR57514
U-26	Gai Noi Leuang	Upland rice	Landrace rice	Laos
U-27	Muey Nawng 62 M	Upland rice	Improved rice	Mae Chaem District, Chiang Mai Province
U-28	Goo Meuang Luang	Upland rice	Landrace rice	Mueang District, Phatthalung Province
U-29	Beu PaTaw	Upland rice	Landrace rice	Chom Thong District, Chiang Mai Province
U-30	Beu Saw Mi	Upland rice	Landrace rice	Galyani Vadhana District, Chiang Mai Province
U-31	Hawm Bao Rai	Upland rice	Landrace rice	Chawang District, Nakhon Si Thammarat Province