

ベトナム国北部におけるイネ遺伝資源の共同調査と収集

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Collaborative Exploration for Rice Germplasm in Two Provinces of Northern Vietnam

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Summary

This exploration mission was undertaken to collect rice germplasm in the two provinces, Thanh Hoa and Nghe An of northern Vietnam from November 5 to December 4 in 1996. A total of 154 seed samples were collected. Most of them are glutinous landraces of upland rice. Landraces cultivated in irrigated fields have been replaced by improved cultivars, CR203 and IR17494 and hybrid rice from China, even in mountainous regions. Arable lands of upland rice have decreased in these two provinces because of a shift to other crops.

KEY WORDS : Vietnam, Thanh Hoa, Nghe An, upland rice, glutinous landraces, germplasm collection

1. 目的

ベトナム社会主義共和国（以下、ベトナムと略す）は、栽培イネの遺伝的多様性が大きい地域とされている。これまで継続的に行われてきた、ベトナム中南部、北西部及び北東部での調査でもベトナム北部のイネが多様性に富んでいることが明らかにされている^{1).2).3).4).5)}

1994年より農林水産ジーンバンク事業及びIPGRIによる計画に基づいた、植物遺伝資源に関

するベトナムと日本との共同調査が行われている。しかし、道路事情等の理由により、遺伝的多様性の高い地域に限定しても、くまなく調査することは難しい。ベトナム北部にはこれまでに3隊が調査に入ったが、Thanh Hoa省及びNghe An省は未調査地域であった。

今回、農林水産ジーンバンク事業の一環として、Thanh Hoa省及びNghe An省におけるイネ遺伝資源の現存状況を把握し、可能な場合は種粒を収集することを目的として、ベトナム農業科学研究所との共同調査を行った。

2. 調査方法

1996年11月5日～12月4日の30日間、ベトナムに滞在した。

Ha Noiにあるベトナム農業科学研究所で探索に関する打ち合わせを行った後、11月7日から15日までThanh Hoa省を、17日から29日までNghe An省を調査した。

各地での移動は自動車で行なった。ベトナム側からは、3名の研究者が参加した。各地区の責任者を介して調査地域を決定し、農家を訪問してイネ遺伝資源に関する情報を得た。可能な場合は種子を分譲してもらった。12月2日から3日までは種子の精選を行った。

Table 1 に日程を、Fig. 1 に探索ルート及び収集地点を示した。

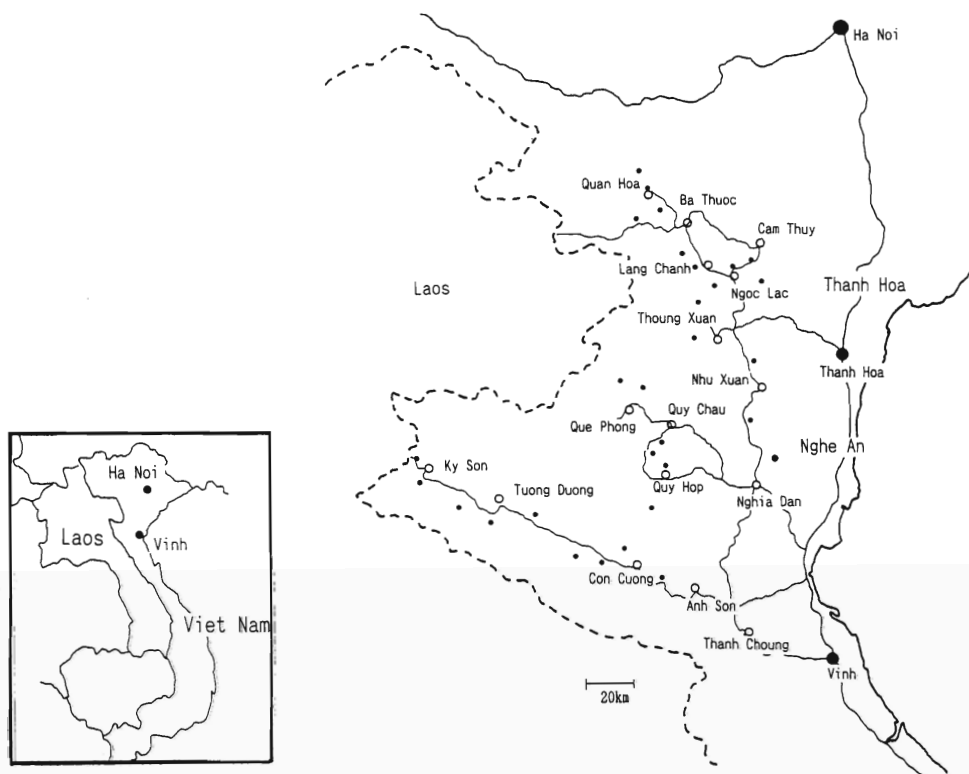


Fig. 1 Exploration route for rice in Thanh Hoa and Nghe An provinces of northern Vietnam
Thanh Hoa省及びNghe An省におけるイネ遺伝資源探索ルート

●：収集地点，○：地域の中心地，●：省都

Table 1 Itinerary of collaborative exploration in northern Vietnam, Thanh Hoa and Nghe An provinces

ベトナム北部(Thanh Hoa省及びNghe An省)における共同探索の日程

日付	(曜日)	内 容	収集品
Nov.	5th	(Tue) 成田発 Ha Noi 着	
	6th	(Wed) Ha Noi ベトナム側との打ち合わせ	
	7th	(Thu) 移動: Ha Noi - Thanh Hoa - Ngoc Lac	
	8th	(Fri) 探索: Ngoc Lac - Lang Chanh	Collection No. 1 ~ 12
	9th	(Sat) 探索: Lang Chanh - Cam Thuy - Ba Thuoc	Collection No.13~15
	10th	(Sun) 探索: Ba Thuoc	Collection No.16~32
	11th	(Mon) 探索: Ba Thuoc - Quan Hoa	Collection No.33~40
	12th	(Tue) 探索: Quan Hoa - Ngoc Lac	Collection No.41~48
	13th	(Wed) 探索: Ngoc Lac - Thong Xuan	Collection No.49~58
	14th	(Thu) 探索: Thang Xuan - Nhu Xuan	Collection No.59~65
	15th	(Fri) 探索: Nhu Xuan	Collection No.66~73
	16th	(Sat) 移動: Nhu Xuan - Vinh	
	17th	(Sun) 探索: Vinh - Thanh Chung	
	18th	(Mon) 探索: Thanh Chung - Anh Son	Collection No.74~75
	19th	(Tue) 探索 Anh Son - Con Cuong	Collection No.76~89
	20th	(Wed) 探索 Con Cuong - Tuong Duong	Collection No.90~107
	21st	(Thu) 探索: Tuong Duong - Ky Son	Collection No.108~115
	22nd	(Fri) 探索: Ky Son	Collection No.116~125
	23rd	(Sat) 移動: Ky Son - Nghia Dan	
	24th	(Sun) 探索: Nghia Dan	Collection No.126~132
	25th	(Mon) 探索: Nghia Dan - Quy Chau	Collection No.133~141
	26th	(Tue) 探索: Quy Chau - Que Phong	Collection No.142~146
	27th	(Wed) 探索: Que Phong	Collection No.147~150
	28th	(Thu) 探索: Que Phong - Quy Hop	Collection No.151
	29th	(Fri) 探索: Quy Hop	Collection No.152~153
	30th	(Sat) 移動: Quy Hop - Thanh Hoa	
Dec.	1st	(Sun) 移動: Thanh Hoa - Ha Noi	
	2nd	(Mon) Ha Noi 種子調整	
	3rd	(Tue) Ha Noi 種子調整	
	4th	(Wed) Ha Noi 発 成田着	

3. 調査内容

(1) 全体の概要

調査対象区域の Thanh Hoa 省および Nghe An 省は、ハノイから約100km南に位置し、地形的に似ている。東部の海岸沿いは低地が広がっているが、西に進むほど山がちになり、西端はラオスと国境を接している。低地水田に在来種がほとんど残っていないことは前年度までの調査で示唆されており、また事前情報でも確認されたので、中部から西部の山間部を中心に調査を行った。これらの地域の標高は100～600m程度であり、高いところで1,000m程度である。

中部から西部の山間部においても、灌漑田では中国や IRRI から導入した改良種が栽培されており、在来種はほとんど見られなかった。陸稲の在来種を主に、モチ品種123点とウルチ品種30点の合計153点を収集した (Table 2)。名前はウルチであるが性質は sticky であるというものが11点あり、今後アミロース含量を測定して確認する予定である。

Table 2 Number of collected rice samples in northern Vietnam, Thanh Hoa and Nghe An provinces

ベトナム北部 (Thanh Hoa 省, Nghe An 省) において収集したイネ在来種の内訳

	焼畑 (点播)	天水田 (直播) 焼畑 (点播)	天水田 (移植) 焼畑 (点播)	天水田 (移植)	合 計
モチ品種	113	5	3	2	123
ウルチ品種	27		3		30
合 計	140	5	6	2	153

栽培方法についてみると、2品種は天水田での移植栽培に用いられており、6品種は天水田での移植もしくは焼畑での点播、5品種は天水田での直播もしくは焼畑での点播、その他の140点は焼畑での点播のみであった。焼畑では1ヶ所に5～10粒の籾を播種するということがあったが、1株あたり4～5本の穂しか出ていなかった。収量は場所や品種により異なるが、80～240kg/10aである。

なお、今回は収集できなかったが、昨年 IRRI の調査隊がベトナム中南部に野生稲の調査に入っており、その過程で Thanh Hoa 省や Nghe An 省にも野生稲が分布することがわかっている。

(2) Thanh Hoa 省

Thanh Hoa 省は Ha Noi から100～150km南に下る。少数民族は Thai 族, Muong 族, H'mong 族などが住んでいる。中部から西部にかけての7地区で調査を行った。訪れた少数民族は Thai 族, Muong 族, Dao 族であった。

水田で栽培されている改良種は、CR203やハイブリッドライスが多く、それ以前には Bao

Thai や Moc Tuyen などが栽培されていた。昨年、探索が行われたベトナム北東部においては、逆に CR203 がまず導入され、近年 Bao Thai に替わり始めた³⁾。

陸稲については在来種が残っており、73 点を収集することができた。しかし、省の中部～南部では焼畑の陸稲栽培そのものが減りつつあった。例えば、Nhu Xuan 地区では、数年前まで 2,000ha あった陸稲がサトウキビ、ゴム、キャッサバ等に置き換わり、今年は 500ha にまで減少した。

(3) Nghe An 省

Nghe An 省は Thanh Hoa 省に南接している。Thai 族が少数民族の大部分を占めているが、その他に H'mong 族などが住んでいる。9 地区で調査を行い、Thai 族、H'mong 族、Kho Mu 族、Man 族、Tho 族、Thanh 族の 6 民族の村を訪れた。

低地では、調査を行ったどの地域においても改良種が栽培されており、早いところでは 1960 年から改良種への置換が始まったらしい。CR203、ハイブリッドライス、IR17494 が多く栽培されていたが、CR203 は 1985 年ごろから、ハイブリッドライスは 1994 年ごろから作り始めた。それ以前には Thanh Hoa 省同様、Bao Thai や Moc Tuyen を栽培しており、昔から伝わってきた在来種はみられなかった。

傾斜地における焼畑栽培では在来種が残っており、80 点を収集した。この地域は Thanh Hoa 以北に比べ 1 ヶ月程度作期が遅く、収穫中の品種や、まだ収穫に到らない品種があった。近年、焼畑での稲栽培から高収入作物への切り替え、森林への転換が積極的に進められており、東部から順次、焼畑が減少しつつある。1,500ha あった焼畑の面積がこの 2 年で 300ha に減少した地区もあった。

北部で栽培されている在来種には、境を接している Thanh Hoa 省南部で栽培されている品種と共通の名前が多かった。

(4) 収集品の取り扱い

収集した 153 点のイネ在来種は、ベトナム農業科学研究所と分割した。日本に導入した分については、来年度、農業生物資源研究所の隔離温室で栽培し無毒化するとともに一次特性を調査する。十分な量が増殖できれば、農業生物資源研究遺伝資源管理情報科に移管する予定である。

4. 所感

今回の調査では雨季が 11 月上旬まで延びたため、当初は道路事情に悩まされた。しかし、低地の水田だけでなく傾斜地における陸稲についても立毛状態をみることができ、結果的にはこの時期でよかった。

この地域はベトナムでも貧しいそうだが、稲から換金作物への切り替えに力を入れている様子が感じられた。現在はまだバナナやオレンジの間に間作的に陸稲を栽培しているところ

もあるが、確認しただけでも10数品種がこの2、3年間でなくなっており、焼畑での陸稲栽培が減少するに従って在来種も消滅すると考えられる。その点で、今回調査に入ったことの意味があると思われる。

Thanh Hoa省南部とNghe An省の北部、中部と南部とでは、農家の手持ちの品種に、同名で見た目も似ているものが見られた。調査地域は主として幹線道路の近くだったため、種子のやり取りがかなり行われているのかもしれない。各農家の持っている品種数もあまり多くなく、Ky SonやQue Phongの西部のような山奥の村に行かなければ、この地域ではこれ以上新たな在来種を得る可能性は低い。収集した品種では、少数民族によって呼称が異なるものの名前の意味が同じものが含まれており、実際の遺伝的多様性の程度を判断するには、今後、形質調査を継続的に行う必要がある。

5. 謝辞

今回ベトナム国における調査の実施にあたってご尽力いただいた、ベトナム国農業農村振興省科学技術食品局、同農業科学研究所、農林水産技術会議事務局連絡調整課、農業生物資源研究所の関係者の方々に心から感謝の意を表したい。

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List of rice landraces collected in northern Vietnam, Thanh Hoa and Nghe An, 1996

Collection No.	Date	Species Name	Cultivar or local name	Sample P/In	Status ²⁾	Locality(Prov.,Dist.,Commune,Village) & Alt.	Crop season	Cultural practice	Topogr-aphy ³⁾	Site ⁴⁾	Drain-age ⁵⁾	Characteristics	Ethnic group
001	8/Nov.	<i>Oryza sativa</i>	NEP CAM	P	3	Thanh Hoa, Ngoc Lac Ngoc Khe, Cao Xuan, 2.5km NW of Ngoc Khe, Alt.110m	6-10	Upland	6	2	3	glutinous, purple pericarp, brown hull	Muong
002	"	"	VANG ME	P	3	Thanh Hoa, Ngoc Lac Ngoc Khe, Cao Xuan, 2.5km NW of Ngoc Khe, Alt.110m	6-10	Upland	6	2	3	glutinous, apiculus purple	Muong
003	"	"	LUA SONG	P	3	Thanh Hoa, Ngoc Lac Ngoc Khe, Cao Xuan, 2.5km NW of Ngoc Khe, Alt.110m	6-10	Upland	6	2	3	glutinous, apiculus purple, sterile lemma colored, short duration	Muong
004	"	"	NEP HAT CAU	P	3	Thanh Hoa, Ngoc Lac Ngoc Khe, Cao Hoa, 2km SE of Ngoc Khe, Alt.170m	5-10, 6-11	Rainfed and lowland	3	1	2	glutinous	Muong
005	"	"	VANG SON	P	3	Thanh Hoa, Lang Chanh, Dong Luong, Quyen, 5km W of Lang Chanh, Alt.200m	5-10	Upland	6	2	3	glutinous, striped brown hull	Muong
006	"	"	NEP ECH	P	3	Thanh Hoa, Lang Chanh, Dong Luong, Quyen, 5km W of Lang Chanh, Alt.200m	5-10	Upland	6	2	3	glutinous, striped brown hull, apiculus purple, sterile lemma purple, aromatic	Muong
007	"	"	NEP CAM VANG	P	3	Thanh Hoa, Lang Chanh, Dong Luong, Quyen, 5km W of Lang Chanh, Alt.200m	5-10	Upland	6	2	3	glutinous, purple pericarp, brown hull	Muong
008	"	"	NEP TRUONG	P	3	Thanh Hoa, Lang Chanh, Dong Luong, Quyen, 5km W of Lang Chanh, Alt.200m	5-10	Upland	6	2	3	glutinous, apiculus purple	Muong
009	"	"	CHOM SOONG	P	3	Thanh Hoa, Lang Chanh, Tan Phuc Mong, 6km NW of Lang Chanh, Alt.175m	5-10	Upland	6	2	3	non-glutinous	Muong
010	"	"	NEP TRON	P	3	Thanh Hoa, Lang Chanh, Tan Phuc Mong, 6km NW of Lang Chanh, Alt.175m	5-10	Upland	6	2	3	glutinous, apiculus purple, sterile lemma purple	Muong
011	"	"	NEP CAI LONG	P	3	Thanh Hoa, Lang Chanh, Tan Phuc Mong, 6km NW of Lang Chanh, Alt.175m	5-10	Upland	6	2	3	glutinous, medium awn	Muong
012	"	"	NEP CAI CAN	P	3	Thanh Hoa, Lang Chanh, Tan Phuc Mong, 6km NW of Lang Chanh, Alt.175m	5-10	Upland	6	2	3	glutinous, apiculus purple, very aromatic	Muong
013	9/Nov.	"	LUA DAM (LUA XONG)	P	3	Thanh Hoa, Com Thuy, Com Chan, Phu Son, 8km S of Com Thuy, Alt.165m	5-10	Upland	6	2	3	glutinous, aromatic	Dao

Collection No.	Date	Species Name	Cultivar or local name	Sample P/In	Status ²⁾	Locality(Prov.,Dist.,Commune,Village) & Alt.	Crop season	Cultural practice	Topogr-aphy ³⁾	Site ⁴⁾	Drain-age ⁵⁾	Characteristics	Ethnic group
014	9/Nov.	<i>Oryza sativa</i>	BUT VEENG	P	3	Thanh Hoa, Com Thuy, Com Chan, Phu Son, 8km S of Com Thuy, Alt.165m	5-10	Upland	6	2	3	glutinous	Dao
015	"	"	BUT KIA	P	3	Thanh Hoa, Com Thuy, Com Chan, Phu Son, 8km S of Com Thuy, Alt.165m	5-10	Upland	6	2	3	glutinous, purple pericarp, brown hull	Dao
016	10/Nov.	"	NEP CAM DEN	P	3	Thanh Hoa, Ba Tuoc Ky Tan, Buoc, 14km S of Ba Tuoc Alt.450m	4-9	Upland	6	2	3	glutinous, purple pericarp, brown hull	Thai
017	"	"	NEP CAM	P	3	Thanh Hoa, Ba Tuoc Ky Tan, Buoc, 14km S of Ba Tuoc Alt.450m	4-9	Upland	6	2	3	glutinous, red pericarp, striped brown hull, apiculus purple	Thai
018	"	"	TE MUN	P	3	Thanh Hoa, Ba Tuoc Ky Tan, Buoc, 14km S of Ba Tuoc Alt.450m	4-9	Upland	6	2	3	non-glutinous, red pericarp, striped brown hull	Thai
019	"	"	NEP THUONG (LUOT)	P	3	Thanh Hoa, Ba Tuoc Ky Tan, Buoc, 14km S of Ba Tuoc Alt.450m	5-10	Upland	6	2	3	glutinous, apiculus purple, sterile lemma purple, aromatic	Thai
020	"	"	TE NUONG (VONG DOI)	P	3	Thanh Hoa, Ba Tuoc Ky Tan, Buoc, 14km S of Ba Tuoc Alt.450m	4-9	Upland	6	2	3	non-glutinous, apiculus purple, partially short awn, early maturity	Thai
021	"	"	NANG CHAM	P	3	Thanh Hoa, Ba Tuoc Thiet Ke, Lang Tra, 6km W of Ba Tuoc Alt.180m	5,6-9,10	Upland	6	2	3	non-glutinous, red pericarp, light brown hull, apiculus purple	Muong
022	"	"	XOONG TE	P	3	Thanh Hoa, Ba Tuoc Thiet Ke, Lang Tra, 6km W of Ba Tuoc Alt.180m	5,6-9,10	Upland	6	2	3	non-glutinous	Muong
023	"	"	GIANG NEP	P	3	Thanh Hoa, Ba Tuoc Thiet Ke, Lang Tra, 6km W of Ba Tuoc Alt.180m	5-10	Upland	6	2	3	glutinous, reddish brown hull	Muong
024	"	"	VANG ME	P	3	Thanh Hoa, Ba Tuoc Thiet Ke, Lang Tra, 6km W of Ba Tuoc Alt.180m	5-10	Upland	6	2	3	glutinous, golden furrow	Muong
025	"	"	NEP BOONG DOI	P	3	Thanh Hoa, Ba Tuoc Thiet Ke, Lang Tra, 6km W of Ba Tuoc Alt.180m	5-10	Upland	6	2	3	glutinous, red pericarp, dark brown hull	Muong
026	"	"	VANG LAO	P	3	Thanh Hoa, Ba Tuoc Thiet Ke, Lang Tra, 6km W of Ba Tuoc Alt.180m	5-10	Upland	6	2	3	glutinous, golden furrow	Muong
027	"	"	XOONG NEP	P	3	Thanh Hoa, Ba Tuoc Thiet Ke, Lang Tra, 6km W of Ba Tuoc Alt.180m	5-10	Upland	6	2	3	glutinous	Muong
028	"	"	NEP KHEN	P	3	Thanh Hoa, Ba Tuoc Thiet Ke, Lang Tra, 6km W of Ba Tuoc Alt.180m	5-10	Upland	6	2	3	glutinous, apiculus purple, sterile lemma purple, aromatic	Muong
029	"	"	GIOI NUONG	P	3	Thanh Hoa, Ba Tuoc Thiet Ong, Chung, 6km S of Ba Tuoc Alt.210m	5-9	Upland	6	2	3	glutinous, apiculus purple	Muong
030	"	"	NEP UNG	P	3	Thanh Hoa, Ba Tuoc Thiet Ong, Chung, 6km S of Ba Tuoc Alt.210m	5-10	Upland	6	2	3	glutinous, brown hull	Muong
031	"	"	CHAM CHAU	P	3	Thanh Hoa, Ba Tuoc Thiet Ong, Chung, 6km S of Ba Tuoc Alt.210m	5-10	Upland	6	2	3	non-glutinous, purple pericarp, brown hull	Muong
032	"	"	NEP MUN	P	3	Thanh Hoa, Ba Tuoc Thiet Ong, Chung, 1km N of Ba Tuoc Alt.220m	5-10	Upland	4	1	2	glutinous, red pericarp, apiculus purple, long duration	Muong

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033	11/Nov.	<i>Oryza sativa</i>	KHAU CHAM XE	P	3	Thanh Hoa, Quan Hoa, Hoi Xuan, Ban Kham, Alt.180m	5-11	Upland	6	2	3	non-glutinous, apiculus purple, long awn	Thai
034	"	"	CHAM DUOC	P	3	Thanh Hoa, Quan Hoa, Hoi Xuan, Ban Kham, Alt.180m	5-11	Upland	6	2	3	non-glutinous, striped dark hull, apiculus purple, sterile lemma purple, aromatic	Thai
035	"	"	CHAM XONG	P	3	Thanh Hoa, Quan Hoa, Hoi Xuan, Ban Kham, Alt.180m	5-9	Upland	6	2	3	non-glutinous, red long awn	Thai
036	"	"	KHAU HANG NGUA	P	3	Thanh Hoa, Quan Hoa, Hoi Xuan, Ban Kham, Alt.180m	5-11	Upland	6	2	3	glutinous, striped dark, apiculus purple, sterile lemma purple, red long awn	Thai
037	"	"	CAM PANH	P	3	Thanh Hoa, Quan Hoa, Hoi Xuan, Ban Kham, Alt.180m	5-11	Upland	6	2	3	glutinous, purple pericarp, brown hull, apiculus purple	Thai
038	"	"	KHAU LUONG	P	3	Thanh Hoa, Quan Hoa, Hoi Xuan, Ban Kham, Alt.180m	5-10	Upland	6	2	3	glutinous, golden furrow	Thai
039	"	"	KHAU PEN COP	P	3	Thanh Hoa, Quan Hoa, Hoi Xuan, Ban Kham, Alt.180m	5-11	Upland	6	2	3	glutinous, striped dark hull, apiculus purple, aromatic	Thai
040	"	"	KHAU NON	P	3	Thanh Hoa, Quan Hoa, Hoi Xuan, Ban Kham, Alt.180m	5-11	Upland	6	2	3	glutinous	Thai
041	12/Nov.	"	KHAU PHAO	P	3	Thanh Hoa, Quan Hoa, Hoi Xuan, Ban Kham, Alt.180m	5-11	Upland	6	2	3	glutinous, brown hull, apiculus purple, sterile lemma purple	Thai
042	"	"	KHAU XAY KHON	P	3	Thanh Hoa, Quan Hoa, Hoi Xuan, Ban Kham, Alt.180m	5-11	Upland	6	2	3	glutinous, purple pericarp, brown hull, apiculus purple	Thai
043	"	"	KHAU HUYEN	P	3	Thanh Hoa, Quan Hoa, Hoi Xuan, Muop, 7km NW of Ban Kham, Alt.205m	5-10	Upland	6	2	3	glutinous, apiculus purple, sterile lemma purple	Thai
044	"	"	KHAU MONG CHAU	P	3	Thanh Hoa, Quan Hoa, Hoi Xuan, Muop, 7km NW of Ban Kham, Alt.205m	4-9	Upland	6	2	3	glutinous, apiculus purple, long awn, early maturity	Thai
045	"	"	KHAU MAC CO	P	3	Thanh Hoa, Quan Hoa, Hoi Xuan, Muop, 7km NW of Ban Kham, Alt.205m	6-11	Upland	6	2	3	glutinous, apiculus purple, sterile lemma purple	Thai
046	"	"	KHAU PUONG	P	3	Thanh Hoa, Quan Hoa, Hoi Xuan, Muop, 7km NW of Ban Kham, Alt.205m	5-10	Upland	6	2	3	glutinous, striped brown hull, apiculus purple	Thai
047	"	"	KHAU MAC MAU	P	3	Thanh Hoa, Quan Hoa, Hoi Xuan, Muop, 7km NW of Ban Kham, Alt.205m	5-11	Upland	6	2	3	glutinous, apiculus purple, sterile lemma purple	Thai
048	"	"	KHAU MAC BAI	P	3	Thanh Hoa, Quan Hoa, Hoi Xuan, Muop, 7km NW of Ban Kham, Alt.205m	5-11	Upland	6	2	3	glutinous, apiculus purple, sterile lemma purple	Thai

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049	13/Nov.	<i>Oryza sativa</i>	LO CANG	P	3	Thanh Hoa, Quan Hoa, Xuan Phu, Coi, Alt.120m	5-10	Upland	6	2	3	glutinous, dark hull, apiculus purple	Muong
050	"	"	LO SO	P	3	Thanh Hoa, Quan Hoa, Xuan Phu, Coi, Alt.120m	4-8	Upland	6	2	3	glutinous, apiculus purple, long awn	Muong
051	"	"	LO CAM	P	3	Thanh Hoa, Ngoc Lac Ngoc Son, Lang Bai, Alt.110m	4-9	Upland	4,5	1	3	non-glutinous, red pericarp, striped brown hull	Muong
052	"	"	NEP CU DAT	P	3	Thanh Hoa, Ngoc Lac Ngoc Son, Lang Bai, Alt.110m	5,6-10	Rainfed	4,5	1	3	glutinous, brown hull, aromatic	Muong
053	"	"	CU MAN	P	3	Thanh Hoa, Ngoc Lac Ngoc Son, Lang Bai, Alt.110m	4,5-10	Rainfed	4,5	1	3	glutinous, aromatic	Muong
054	"	"	NEP DO CANH	P	3	Thanh Hoa, Ngoc Lac Ngoc Son, Lang Bai, Alt.110m	5-10	Upland	4,5	1	3	glutinous	Muong
055	"	"	NEP TRUNG NHAI	P	3	Thanh Hoa, Ngoc Lac Ngoc Son, Lang Bai, Alt.110m	5-10	Upland	4,5	1	3	glutinous	Muong
056	"	"	NEP MAU	P	3	Thanh Hoa, Thong Xuan, Xuan Cam, Kien Son, Alt.125m	4,5-10	Upland	6	2,3	4	glutinous	Thai
057	"	"	KHAU MUT PHA	P	3	Thanh Hoa, Thong Xuan, Xuan Cam, Kien Son, Alt.125m	5-10	Upland	6	2,3	4	glutinous, red pericarp, brown hull	Thai
058	"	"	KHAU CAI HOC	P	3	Thanh Hoa, Thong Xuan, Xuan Cam, Kien Son, Alt.125m	5-10	Upland	6	2,3	4	glutinous, slightly striped brown hull, apiculus colored	Thai
059	14/Nov.	"	CHAM CHAO	P	3	Thanh Hoa, Thong Xuan, Ngoc Hun, Xuan Tanh, Alt.165m	5-10	Upland	6	2,3	4	non-glutinous but sticky	Muong
060	"	"	CHAM BUOI	P	3	Thanh Hoa, Thong Xuan, Ngoc Hun, Xuan Tanh, Alt.165m	5-10	Upland	6	2,3	4	non-glutinous but sticky	Muong
061	"	"	DEP VANG	P	3	Thanh Hoa, Thong Xuan, Ngoc Hun, Xuan Tanh, Alt.165m	5-10	Upland	6	2,3	4	glutinous, golden furrow, apiculus colored, sterile lemma colored	Muong
062	"	"	XANG CHU	P	3	Thanh Hoa, Thong Xuan, Ngoc Hun, Xuan Tanh, Alt.165m	5-10	Upland	6	2,3	4	glutinous, striped dark hull, apiculus colored	Muong
063	"	"	BO GUIA	P	3	Thanh Hoa, Thong Xuan, Ngoc Hun, Xuan Tanh, Alt.165m	5-10	Upland	6	2,3	4	glutinous, red pericarp, apiculus colored, sterile lemma colored	Muong
064	"	"	BOACH BO	P	3	Thanh Hoa, Thong Xuan, Ngoc Hun, Xuan Tanh, Alt.165m	5-10	Upland	6	2,3	4	glutinous	Muong
065	"	"	NEP MAN	P	3	Thanh Hoa, Thong Xuan, Ngoc Hun, Xuan Tanh, Alt.165m	5-10	Upland	6	2,3	4	glutinous, striped brown hull, apiculus colored, aromatic	Muong
066	15/Nov.	"	LUOT CAI	P	3	Thanh Hoa, Nhu Xuan, Xuan Qui, Chuoi, Alt.115m	4,5-10,11	Upland	5,6	2,3	4	glutinous, reddish brown hull, sterile lemma colored	Thai
067	"	"	KHAU CHAM LUONG	P	3	Thanh Hoa, Nhu Xuan, Xuan Qui, Chuoi, Alt.115m	4,5-10,11	Upland	5,6	2,3	4	non-glutinous but sticky, golden furrow	Thai
068	"	"	KHAU CHAM KEN	P	3	Thanh Hoa, Nhu Xuan, Xuan Qui, Chuoi, Alt.115m	4,5-10,11	Upland	5,6	2,3	4	non-glutinous but sticky, apiculus purple, partially short awn	Thai
069	"	"	MU TUN	P	3	Thanh Hoa, Nhu Xuan, Xuan Qui, Chuoi, Alt.115m	4,5-10,11	Upland	5,6	2,3	4	glutinous, light brown hull, apiculus purple, aromatic	Thai

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070	15/Nov.	<i>Oryza sativa</i>	KHAU HUONG	P	3	Thanh Hoa, Nhu Xuan, Xuan Qui, Chuoi, Alt.115m	4,5-10,11	Upland	5,6	2,3	4	glutinous, apiculus purple	Thai
071	"	"	CU KHOI	P	3	Thanh Hoa, Nhu Xuan, Xuan Qui, Chuoi, Alt.115m	4,5-10,11	Upland	5,6	2,3	4	glutinous, apiculus purple, sterile lemma purple	Thai
072	"	"	MOOC CAM	P	3	Thanh Hoa, Nhu Xuan, Thuong Ninh, Dong Xuan, Alt.95m	4,5-10,11	Upland and Rainfed	5,6 3,4	2,3 1,2	4 2	glutinous, striped brown hull	Muong
073	"	"	CHAM CAM	P	3	Thanh Hoa, Nhu Xuan, Thuong Ninh, Dong Xuan, Alt.95m	4,5-10,11	Upland and Rainfed	5,6 3,4	2,3 1,2	4 2	non-glutinous, red pericarp, striped brown hull	Muong
074	18/Nov.	"	KHAU LUONG SET	P	3	Nghe An, Anh Son, Cam Son, Xe May, 4km S of Cam Son, Alt.35m	5-10,11	Upland	5,6	2,3	3	glutinous, golden furrow, aromatic	Man
075	"	"	KHAU CHAO DEN	P	3	Nghe An, Anh Son, Cam Son, Xe May, 4km S of Cam Son, Alt.35m	6-11	Upland	5,6	2,3	3	glutinous, striped brown hull	Man
076	19/Nov.	"	KHAU CHO LONG	P	3	Nghe An, Con Cuong, Chau Khe, Chau Dinh, 5km SE of Chau Khe, Alt.85m	5,6-11	Upland	6	2,3	4	glutinous, apiculus purple	Thai
077	"	"	KHAU CAM PANH	P	3	Nghe An, Con Cuong, Chau Khe, Chau Dinh, 5km SE of Chau Khe, Alt.85m	5,6-11	Upland	6	2,3	4	glutinous, purple pericarp, apiculus purple, partially short awn	Thai
078	"	"	KHAU MA GIANG	P	3	Nghe An, Con Cuong, Chau Khe, Chau Dinh, 5km SE of Chau Khe, Alt.85m	5-11	Upland	6	2,3	4	glutinous, apiculus purple, sterile lemma purple	Thai
079	"	"	KHAU NON	P	3	Nghe An, Con Cuong, Chau Khe, Chau Dinh, 5km SE of Chau Khe, Alt.85m	5-11	Upland	6	2,3	4	glutinous, apiculus purple	Thai
080	"	"	KHAU HIN	P	3	Nghe An, Con Cuong, Chau Khe, Chau Dinh, 5km SE of Chau Khe, Alt.85m	5-11	Upland	6	2,3	4	glutinous, apiculus purple, sterile lemma purple	Thai
081	"	"	KHAU SET	P	3	Nghe An, Con Cuong, Chau Khe, Chau Dinh, 5km SE of Chau Khe, Alt.85m	5-11	Upland	5,6	2,3	4	glutinous, golden furrow	Thai
082	"	"	KHAU VAI NIEU	P	3	Nghe An, Con Cuong, Chau Khe, Chau Dinh, 5km SE of Chau Khe, Alt.85m	5-11	Upland	5,6	2,3	4	glutinous, apiculus purple, sterile lemma purple, partially short awn	Thai
083	"	"	KHAU CHAM LUONG	P	3	Nghe An, Con Cuong, Chau Khe, Chau Dinh, 5km SE of Chau Khe, Alt.85m	5,6-11	Upland	5,6	2,3	4	non-glutinous, apiculus purple	Thai
084	"	"	KHAU PUNG	P	3	Nghe An, Con Cuong, Chau Khe, Chau Dinh, 5km SE of Chau Khe, Alt.85m	5-11	Upland	5,6	2,3	4	glutinous, reddish brown hull, apiculus purple, aromatic	Thai

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085	19/Nov.	<i>Oryza sativa</i>	KHAU CHAO DEN	P	3	Nghe An, Con Cuong, Chi Khe, Tran nan, 6km S of Chau Khe, Alt.75m	5-11	Upland	6	2,3	4	glutinous, red pericarp	Thai
086	"	"	KHAU MOONG MO	P	3	Nghe An, Con Cuong, Chi Khe, Tran nan, 6km S of Chau Khe, Alt.75m	5-11	Upland	6	2,3	4	glutinous, brown hull	Thai
087	"	"	KHAU TRAO DEN	P	3	Nghe An, Con Cuong, Lang Khe, Boong, Alt.95m	5-11	Upland	6	2,3	4	glutinous, red pericarp, striped brown hull, aromatic	Thai
088	"	"	KHAU CHAM CAM	P	3	Nghe An, Con Cuong, Lang Khe, Boong, Alt.95m	5-11	Upland	6	2,3	4	non-glutinous but sticky, striped dark hull, bad taste	Thai
089	"	"	KHAU LUONG	P	3	Nghe An, Con Cuong, Lang Khe, Boong, Alt.95m	5-11	Upland	5,6	2,3	4	glutinous, apiculus purple	Thai
090	20/Nov.	"	CHAO LUU	P	3	Nghe An, Tuong Duong, Thoch Gian, Thanh Hoa, Alt.90m	5,6-10,11	Upland	5,6	2,3	4	non-glutinous but sticky, golden furrow	Thai
091	"	"	KHAU LUONG CON	P	3	Nghe An, Tuong Duong, Thoch Gian, Thanh Hoa, Alt.90m	5,6-10,11	Upland	5,6	2,3	4	glutinous, aromatic	Thai
092	"	"	KHAU GIOI (HO HE)	P	3	Nghe An, Tuong Duong, Thoch Gian, Thanh Hoa, Alt.90m	5,6-10	Upland	5,6	2,3	4	glutinous, red pericarp, apiculus purple, sterile lemma purple, aromatic	Thai
093	"	"	KHAU SAN	P	3	Nghe An, Tuong Duong, Thoch Gian, Thanh Hoa, Alt.90m	5-10	Upland	5,6	2,3	4	glutinous, apiculus purple, aromatic	Thai
094	"	"	KHAU VAI DO	P	3	Nghe An, Tuong Duong, Thoch Gian, Thanh Hoa, Alt.90m	5-10	Upland	5,6	2,3	4	glutinous, apiculus purple, aromatic	Thai
095	"	"	KHAU DO DON	P	3	Nghe An, Tuong Duong, Thoch Gian, Thanh Hoa, Alt.90m	5-9	Upland	5,6	2,3	4	glutinous, apiculus purple, short duration	Thai
096	"	"	KHAU LUONG LAI	P	3	Nghe An, Tuong Duong, Thoch Gian, Thanh Hoa, Alt.90m	5,6-10,11	Upland	5,6	2,3	4	glutinous, apiculus purple, aromatic	Thai
097	"	"	KHAU PUNG	P	3	Nghe An, Tuong Duong, Thoch Gian, Thanh Hoa, Alt.90m	5-11	Upland	5,6	2,3	4	glutinous, reddish brown hull, apiculus purple, aromatic	Thai
098	"	"	KHAU QUANG	P	3	Nghe An, Tuong Duong, Thoch Gian, Thanh Hoa, Alt.90m	6-11	Upland	5,6	2,3	4	glutinous, red pericarp, apiculus purple, aromatic	Thai
099	"	"	KHAU KHUOC	P	3	Nghe An, Tuong Duong, Thoch Gian, Thanh Hoa, Alt.90m	5-11	Upland	5,6	2,3	4	glutinous, aromatic	Thai
100	"	"	KHAU BOI GIANG	P	3	Nghe An, Tuong Duong, Thoch Gian, Khe Chi, 1km W of Thanh Hoa, Alt.90m	6-11	Upland	5,6	2,3	4	glutinous, golden furrow, apiculus purple, sterile lemma purple	Thai
101	"	"	KHAU GIOI CA	P	3	Nghe An, Tuong Duong, Luu Kien, Khe Kien, Alt.125m	7,8-11	Upland	5,6	2,3	4	glutinous, apiculus purple, sterile lemma purple, aromatic	Thai
102	"	"	KHAU DANH DAN	P	3	Nghe An, Tuong Duong, Luu Kien, Khe Kien, 4km E of Khe Kien, Alt.220m	6-10,11	Upland	5,6	2,3	4	glutinous, reddish brown hull, aromatic	Thai

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103	20/Nov.	<i>Oryza sativa</i>	KHAU CAM PANH	P	3	Nghe An, Tuong Duong, Luu Kien, Khe Kien, 4km E of Khe Kien, Alt.220m	6,7-11	Upland	5,6	2,3	4	glutinous, purple pericarp	Thai
104	"	"	KHAU DAC	P	3	Nghe An, Tuong Duong, Luu Kien, Khe Kien, 4km E of Khe Kien, Alt.220m	6-10,11	Upland	5,6	2,3	4	glutinous, apiculus purple	Thai
105	"	"	CHAO MEO (CHAO DANH)	P	3	Nghe An, Tuong Duong, Luu Kien, Khe Kien, 4km E of Khe Kien, Alt.220m	7-11	Upland	5,6	2,3	4	non-glutinous, but sticky, apiculus purple	Thai
106	"	"	KHAU OAN	P	3	Nghe An, Tuong Duong, Thoch Gian, Thanh Hoa, Alt.90m	5-11	Upland	5,6	2,3	4	glutinous, apiculus purple, aromatic	Thai
107	"	"	KHAU LUONG NGOA	P	3	Nghe An, Tuong Duong, Thoch Gian, Thanh Hoa, Alt.90m	5-11	Upland	5,6	2,3	4	glutinous, striped brown hull, apiculus purple, sterile lemma purple, aromatic	Thai
108	21/Nov.	"	BLE SOC CU	P	3	Nghe An, Ky Son, Ta Ca, Son Ha, 1km S of Ky Son, Alt.265m	6-10,11	Upland	5,6	2,3	4	glutinous, aromatic, non-shattering	H'mong
109	"	"	BLE PO CU	P	3	Nghe An, Ky Son, Ta Ca, Son Ha, 1km S of Ky Son, Alt.265m	6-11	Upland	5,6	2,3	4	glutinous, partially short awn	H'mong
110	"	"	BLE BLAU CHAY	P	3	Nghe An, Ky Son, Ta Ca, Son Ha, 1km S of Ky Son, Alt.265m	5,6-10	Upland	5,6	2,3	4	glutinous, apiculus purple, sterile lemma purple, aromatic	H'mong
111	"	"	BLE BLAU XA	P	3	Nghe An, Ky Son, Ta Ca, Son Ha, 1km S of Ky Son, Alt.265m	6-11	Upland	5,6	2,3	4	glutinous, purple pericarp, brown hull	H'mong
112	"	"	BLE CHAU	P	3	Nghe An, Ky Son, Ta Ca, Son Ha, 1km S of Ky Son, Alt.265m	5,6-9,10	Upland	5,6	2,3	4	non-glutinous, apiculus purple, aromatic	H'mong
113	"	"	BLE CHAU DU	P	3	Nghe An, Ky Son, Ta Ca, Son Ha, 1km S of Ky Son, Alt.265m	5,6-9,10	Upland	5,6	2,3	4	non-glutinous, but sticky	H'mong
114	"	"	BLE KHAU XI	P	3	Nghe An, Ky Son, Ta Ca, Son Ha, 1km S of Ky Son, Alt.265m	6,7-11	Upland	5,6	2,3	4	non-glutinous, apiculus purple, sterile lemma purple, adapted to high mountainous area	H'mong
115	"	"	BLE BLAU CHAU	P	3	Nghe An, Ky Son, Ta Ca, Son Ha, 1km S of Ky Son, Alt.265m	5,6-10	Upland	5,6	2,3	4	glutinous, striped brown hull, apiculus purple, aromatic	H'mong
116	22/Nov.	"	NGOON BRAI	P	3	Nghe An, Ky Son, Nam Cam, Khanh Thanh, 16km NW of Ky Son, Alt.820m	7-11	Upland	6	2,3	4	glutinous, aromatic	Kho' Mu'
117	"	"	NGOON VAI	P	3	Nghe An, Ky Son, Nam Cam, Khanh Thanh, 16km NW of Ky Son, Alt.820m	6,7-11	Upland	6	2,3	4	glutinous, apiculus purple, sterile lemma purple	Kho' Mu'
118	"	"	NGOON VIEN CHAN	P	3	Nghe An, Ky Son, Nam Cam, Khanh Thanh, 18km NW of Ky Son, Alt.880m	6-10	Upland	6	2,3	4	glutinous, white pericarp, apiculus purple, sterile lemma purple	Kho' Mu'

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119	22/Nov.	<i>Oryza sativa</i>	NGOON MOI	P	3	Nghe An, Ky Son, Nam Cam, Khanh Thanh, 18km NW of Ky Son, Alt.880m	6-11	Upland	6	2,3	4	glutinous, reddish brown hull	Kho' Mu'
120	"	"	NGOON NAC	P	3	Nghe An, Ky Son, Nam Cam, Khanh Thanh, 19km W of Ky Son, Alt.910m	6-11	Upland	6	2,3	4	glutinous, yellow hull	Kho' Mu'
121	"	"	KHAU CHAO VAI	P	3	Nghe An, Ky Son, Huu Kien, Na Luong, Alt.180m	5,6-11	Upland	5,6	2,3	4	non-glutinous, but sticky, apiculus purple	Thai
122	"	"	KHAU CHAO HEM	P	3	Nghe An, Ky Son, Huu Kien, Na Luong, Alt.185m	5,6-11	Upland	5,6	2,3	4	non-glutinous, but sticky, apiculus purple, aromatic	Thai
123	"	"	KHAU DO SANG	P	3	Nghe An, Ky Son, Huu Kien, Na Luong, Alt.185m	5-11	Upland	5,6	2,3	4	glutinous, striped brown hull, apiculus purple, sterile lemma purple, aromatic	Thai
124	"	"	KHAU PA PAN	P	3	Nghe An, Ky Son, Huu Kien, Na Luong, Alt.185m	5-11	Upland	5,6	2,3	4	glutinous, striped brown hull, apiculus purple, sterile lemma	Thai
125	"	"	KHAU LUONG PAN	P	3	Nghe An, Ky Son, Huu Kien, Na Luong, Alt.190m	5-11	Upland	5,6	2,3	4	glutinous, golden furrow, aromatic	Thai
126	24/Nov.	"	NEP LAU	P	3	Nghe An, Nghia Dan, Nghia Tho, Trong, Alt.145m	5-11	Upland and Rainfed	5	1,2	3,4	glutinous, apiculus purple	Tho
127	"	"	NEP RANG TRAU	P	3	Nghe An, Nghia Dan, Nghia Tho, Trong, Alt.145m	5-11	Upland and Rainfed	5	1,2	3,4	glutinous, striped dark hull, apiculus purple	Tho
128	"	"	NEP MAM	P	3	Nghe An, Nghia Dan, Nghia Tho, Trong, Alt.145m	5-11	Upland and Rainfed	5	1,2	3,4	glutinous, apiculus purple, sterile lemma purple	Tho
129	"	"	NAP THAI	P	3	Nghe An, Nghia Dan, Nghia Tho, Trong, Alt.145m	5-11	Upland and Rainfed	5	1,2	3,4	glutinous	Tho
130	"	"	NEP CHAT RAT	P	3	Nghe An, Nghia Dan, Nghia Tho, Trong, Alt.145m	5-11	Upland and Rainfed	5	1,2	3,4	glutinous, apiculus purple, sterile lemma purple	Tho
131	"	"	TE CHAO	P	3	Nghe An, Nghia Dan, Nghia Tho, Trong, Alt.145m	5-11	Upland and Rainfed	4,5	1,2	3,4	non-glutinous, yellow hull	Tho
132	"	"	TE CAM	P	3	Nghe An, Nghia Dan, Nghia Tho, Trong, Alt.145m	5-11	Upland and Rainfed	4,5	1,2	3,4	non-glutinous, red pericarp, striped brown hull	Tho
133	25/Nov.	"	KHAU DOT	P	3	Nghe An, Quy Chau, Chau Hanh, Ta Soi, Alt.135m	6-10	Upland	5,6	2	4	glutinous, yellow hull, aromatic	Thai
134	"	"	KHAU LAC	P	3	Nghe An, Quy Chau, Chau Hanh, Ta Soi, Alt.135m	6-10	Upland	5,6	2	4	glutinous, aromatic	Thai
135	"	"	KHAU CU	P	3	Nghe An, Quy Chau, Chau Hanh, Ta Soi, Alt.135m	6-10	Upland	5,6	2	4	glutinous, apiculus purple, sterile lemma purple, aromatic	Thai
136	"	"	KHAU PE LANH	P	3	Nghe An, Quy Chau, Chau Hanh, Ta Soi, Alt.135m	6-10	Upland	5,6	2	4	glutinous, red pericarp	Thai
137	"	"	CHAM NANH	P	3	Nghe An, Quy Chau, Chau Hanh, Ta Soi, Alt.135m	6-10	Upland	5,6	2	4	glutinous, aromatic	Thai

Collection No.	Date	Species Name	Cultivar or local name	Sample P/In	Status ²⁾	Locality(Prov.,Dist.,Commune,Village) & Alt.	Crop season	Cultural practice	Topogr-aphy ³⁾	Site ⁴⁾	Drain-age ⁵⁾	Characteristics	Ethnic group
137	25/Nov.	<i>Oryza sativa</i>	CHAM NOI	P	3	Nghe An, Quy Chau, Chau Hanh, Ta Soi, Alt.135m	6-10	Upland	5,6	2	4	glutinous, apiculus purple	Thai
138	"	"	KHAU CA MONG	P	3	Nghe An, Quy Chau, Chau Hanh, Na Xen, Alt.230m	6-11	Upland	5,6	2,3	4	non-glutinous, long awn, aromatic	Thai
139	"	"	KHAU DANG	P	3	Nghe An, Quy Chau, Chau Hanh, Na Xen, Alt.230m	6-11	Upland	5,6	2,3	4	glutinous, red pericarp, striped brown hull, apiculus purple	Thai
140	"	"	KHAU HUOT HET	P	3	Nghe An, Quy Chau, Chau Hanh, Na Xen, Alt.230m	5-11	Upland	5,6	2,3	4	glutinous, reddish brown hull, apiculus purple, sterile lemma	Thai
141	"	"	KHAU MA CAY	P	3	Nghe An, Quy Chau, Chau Hanh, Na Xen, Alt.230m	6-11	Upland	5,6	2,3	4	glutinous, striped brown hull, apiculus purple, aromatic	Thai
142	26/Nov.	"	KHAU TAO	P	3	Nghe An, Que Phong, Tien Phong, Na Kheu, Alt.205m	6-11	Upland	5,6	1,2	4	glutinous, striped dark, apiculus purple, sterile lemma purple,	Thai
143	"	"	LEP MUOI	P	3	Nghe An, Que Phong, Tien Phong, Na Nhang, Alt.205m	6-11	Upland	5,6	1,2	4	glutinous, brown hull, apiculus purple, sterile lemma purple,	Thai
144	"	"	KNON	P	3	Nghe An, Que Phong, Tien Phong, Na Nhang, Alt.205m	6-11	Upland	5,6	1,2	4	glutinous, apiculus purple	Thai
145	"	"	CU HON	P	3	Nghe An, Que Phong, Tien Phong, Na Nhang, Alt.205m	6-11	Upland	5,6	1,2	4	glutinous, apiculus purple	Thai
146	"	"	NHAN PUNG	P	3	Nghe An, Que Phong, Tien Phong, Na Nhang, Alt.205m	6-11	Upland	5,6	1,2	4	glutinous, red pericarp, striped brown hull, apiculus purple, sterile lemma purple	Thai
147	27/Nov.	"	KHAU CAI	P	3	Nghe An, Que Phong, Hanh Dich, Chien, Alt.220m	6-10	Upland	5,6	1,2	4	glutinous, apiculus purple, aromatic	Thai
148	"	"	KHAU CHAM	P	3	Nghe An, Que Phong, Hanh Dich, Chien, Alt.220m	6-10	Upland	5,6	2,3	4	non-glutinous	Thai
149	"	"	KHAU HANG NGUA	P	3	Nghe An, Que Phong, Hanh Dich, Chien, Alt.225m	5,6-10,11	Upland	5,6	2,3	4	glutinous, apiculus purple	Thai
150	"	"	KHAU PHAO	P	3	Nghe An, Que Phong, Hanh Dich, Chien, Alt.220m	6-11	Upland	5,6	2,3	4	glutinous, striped brown hull, apiculus purple, sterile lemma	Thai
151	28/Nov.	"	NEP ONG CU	P	3	Nghe An, Quy Hop, Tam Hop, Bac Son, Alt.160m	6-11	Upland	3	1	3	glutinous, white pericarp, striped brown hull, aromatic	Kinh
152	29/Nov.	"	KHAU DAC	P	3	Nghe An, Quy Hop, Chau Tien, Chieng, Alt.320m	5-11	Upland	5,6	2,3	4	glutinous, short awn, aromatic	Thai
153	"	"	KHAU CHAM LIENG	P	3	Nghe An, Quy Hop, Chau Tien, Chieng, Alt.320m	6-11	Upland	5,6	2,3	4	non-glutinous, but sticky, yellow hull, aromatic	Thai

1) Sample:P(population) In(individual) 2)Status:①wild ②weedy ③landrace ④improved 3)Topography:①swamp ②flood plain ③plain level ④undulating ⑤hilly ⑥mountains ⑦others 4)Site:①level ②slope ③summit ④depression 5)Drainage:①poor ②moderate ③good ④excessive