

ラオスにおける野菜遺伝資源の共同探索, 2008 年

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Collaborative Exploration of Vegetable Genetic Resources in Laos, 2008

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Summary

The National Institute of Agrobiological Sciences, Japan, and the Rice and Cash Crop Research Center, National Agriculture and Forestry Research Institute, Lao PDR, have collaborated since 2006 on a survey of plant genetic resources in Laos. A collaborative mission to explore and collect vegetable genetic resources in Laos was conducted from 6 August to 1 September 2008. During this mission, Vientiane, Luang Prabang, Udomxai, Luang Namtha, Muang Sing, Muang Khua, Phonsavan, Sam Nuea, and Muang Khoun were surveyed. A total of 218 seed samples of vegetables and other plants were collected: 108 seed samples of *Cucumis melo*, two of *Cucumis sativus*, 44 of *Solanum melongena*, seven of *Solanum lycopersicum* (*Lycopersicon esculentum*), 15 of *Solanum* spp., 41 of *Capsicum annuum*, and one of *Nicotiana tabacum*.

Introduction

The National Institute of Agrobiological Sciences, Japan, and the Rice and Cash Crop Research Center, National Agriculture and Forestry Research Institute, Lao PDR, have collaborated since 2006 on a survey of plant genetic resources in Laos. This report describes the second survey trip to collect vegetables. The trip report for the 2007 survey has been published

previously¹⁾. The collection and preservation of traditional vegetable cultivars (landraces) and wild relatives, mainly of Solanaceae and Cucurbitaceae, were chief objectives of the survey. In the 2008 field study, we collected fruits of Cucurbitaceae and Solanaceae in northern Laos.

Exploration Methods

We surveyed northern Laos in the areas of Vientiane, Luang Prabang, Udomxai, Luang Namtha, Muang Sing, Muang Khua, Phonsavan, Sam Nuea and Muang Khoun from 6 August to 1 September 2008 (Table 1, Fig. 1). We used rented cars to travel between study areas. At any places where landraces were sold and wild relatives grew, we stopped and surveyed the area. We collected vegetables and information on the collection sites, including the village name, altitude, latitude, longitude and habitat (Table 2).

On 8 August, we visited the Horticulture Research Center (HRC) at Haddokkeo village and received information on their vegetable genetic resources. Next, we visited the Rice and Cash Crop Research Center (RCCRC) and met RCCRC staff members. On 30 August, we revisited the RCCRC and reported the results of our exploration trip to RCCRC members.



Fig. 1. Main cities and villages visited during the survey in Laos, 2008

Table 1. Itinerary of the field survey in Laos, 2008

Date	Day	Itinerary	Stay
6-Aug	Wed	Chubu 10:35 (TG645) -- 14:35 Bangkok 20:00 (TG692) -- 21:10 Vientiane Kanku 11:45 (TG623) -- 15:35 Bangkok	Vientiane
7-Aug	Thu	Vientiane	Vientiane
8-Aug	Fri	Vientiane, visit Horticulture Research Center (HRC) and Rice and Cash Crop Research Center (RCCRC), discuss exploration trip	Vientiane
9-Aug	Sat	Vientiane 11:20 (QV101) -- 12:10 Luang Prabang	Luang Prabang
10-Aug	Sun	Luang Prabang -- B. Kiukacham -- Luang Prabang	Luang Prabang
11-Aug	Mon	Luang Prabang -- Udomxai	Udomxai
12-Aug	Tue	Udomxai -- B. Vangua -- Udomxai	Udomxai
13-Aug	Wed	Udomxai -- Luang Namtha	Luang Namtha
14-Aug	Thu	Luang Namtha -- B. Boten -- Luang Namtha	Luang Namtha
15-Aug	Fri	Luang Namtha -- Muang Sing	Muang Sing
16-Aug	Sat	Muang Sing -- Luang Namtha	Luang Namtha
17-Aug	Sun	Luang Namtha -- Udomxai	Udomxai
18-Aug	Mon	Udomxai -- Muang Khua -- Udomxai	Udomxai
19-Aug	Tue	Udomxai -- Luang Prabang	Luang Prabang
20-Aug	Wed	Luang Prabang	Luang Prabang
21-Aug	Thu	Luang Prabang -- Phonsavan	Phonsavan
22-Aug	Fri	Phonsavan	Phonsavan
23-Aug	Sat	Phonsavan -- Sam Nuea	Sam Nuea
24-Aug	Sun	Sam Nuea -- Namsoi Border -- Sam Nuea	Sam Nuea
25-Aug	Mon	Sam Nuea	Sam Nuea
26-Aug	Tue	Sam Nuea -- Phonsavan	Phonsavan
27-Aug	Wed	Phonsavan -- Muang Khoun -- Phonsavan	Phonsavan
28-Aug	Thu	Phonsavan	Phonsavan
29-Aug	Fri	Phonsavan 14:40 (QV402) -- 15:10 Vientiane	Vientiane
30-Aug	Sat	Vientiane, visit RCCRC, report the result of exploration trip	Vientiane
31-Aug	Sun	Vientiane	Vientiane
1-Sep	Mon	Vientiane 13:50 (TG691) -- 14:55 Bangkok 22:10 (TG640) -- Bangkok 22:40 (TG622) --	on flight
2-Sep	Tue	--6:20 Narita --6:10 Kanku	

Results

Summary of collected accessions

A total of 218 accessions of seeds representing six species, as well as seeds from other species, were collected. Detailed information on each accession is listed in the passport data table (Table 2). We collected 108 seed samples of *Cucumis melo*, two of *Cucumis sativus*, 44 of *Solanum melongena*, seven of *Solanum lycopersicum* (*Lycopersicon esculentum*), 15 of *Solanum* spp., 41 of *Capsicum annuum*, and one of *Nicotiana tabacum* at 69 investigation sites in northern Laos. We split the seed collection equally with the RCCRC (Table 2). Thirty melon fruits (Phonsavan: 15, Sam Neua: 15) were also collected to analyze the fruit characteristics and seed size. In total, 138 *Cucumis melo* were sampled (Table 3).

Area information

1. Vientiane and surrounding area (7–8 August 2008)

In Vientiane (elevation: 168–197 m), we surveyed four commercial markets (Kowrdin, That Luang, Dongmaikhai, Phonsavang), which we had previously surveyed in 2007¹. Commercial markets in Vientiane have an abundance of various vegetables (Photo 1 and 2). In these markets several types of Cucurbitaceae crops are sold, 17 melon samples (Photo 3; Table 2, No. 1–5, 7–15, 17–19) were collected. Of these, 14 had been cultivated in Salavan Province and three in Luang Prabang Province and subsequently transported at least 100 km. These melons weighed between 1.3 and 4.3 kg, and most had orange-colored skin (Tables 2, 3). However, some melons had a white (No. 4, 11, 19) or green (No. 5, 12, 18) skin. When we asked the traders (Lao tribe) about the name of these melons, they called them “makteng lai,” which means “zebra melon” (makteng: cucumber or melon, lai: zebra). Melons are eaten as immature fruits, and fragrant types are preferred (No. 1–4, 7–9) because they are sweeter. However, in 12 of the 17 melons, the Brix values of the fresh juice were less than 6.0% (average: 5.8%) and thus not sweet at all (Table 3). We saw many uniform tomatoes at commercial markets, but they had been imported from Thailand. We also collected an eggplant (No. 16) and a dry chili pepper (No. 6) at a commercial market, but the chili pepper had been imported from Thailand.

2. Luang Prabang and surrounding area (9–11, 19–21 August 2008)

On 9 August, we moved to Luang Prabang by airplane. Luang Prabang (elevation: 293–310 m) has four commercial markets (Phosy, Mittaphab, Muong Nga, Tha heua), which we had surveyed in 2007¹. On 10 August, we surveyed the area of Ban Kiukacham to the southeast of Luang Prabang. Upland rice and soybean are mainly cultivated on slash-and-burn fields (Photo 4). The crops are rotated every year, and after 6 years, banana (Photo 5), pineapple, or rubber trees are planted in the fields, or the fields are abandoned.

Since August is the harvest season, many melons were being sold in these markets. Moreover, there are two villages near the city that specialize in melon production: Ban Hatsoua (859 m, Photo 6) and Kiewtaloune (309–799 m). Many people visit these villages to buy melon juice for themselves or melon products to resell in other cities. In Kiewtaloune, melons were being sold at farm stands near the slash-and-burn fields, so we were able to see how they were cultivated together with corn (Photo 7). We collected 27 melon samples in Luang Prabang

Province (No. 20–21, 23–29, 31–33, 36–46, 48–51). The melons were relatively round, with shape indices (fruit height/fruit diameter) ranging from 0.7 to 2.0 (average: 1.1), as shown in Table 3. The melons differed in appearance, with various skin colors of orange, white (No. 43, 48), yellow (No. 23, 41), and green (No. 26, 39, 42), with or without stripes or ribs (No. 24, 49) on the epicarp (Table 2). Brix values for the fresh juice were rather low, ranging between 3.0 to 8.0% (average: 5.9%). However, three melons (No. 21, 32, 33) had Brix of 8.0% and were sweet and fragrant. The farmers (Lao and Kham tribes) call these melons “makteng lai” and eat the raw fruits. Melon is cultivated in slash-and-burn fields together with upland rice and cucumber, as well as corn, some tuber crops, bean, chili pepper, and eggplant. Melon seeds are sown with upland rice and cucumber seeds after the start of the rainy season. Melons are harvested in August and September. Farmers collect melon seeds from five to six fruits every year and keep them together. They call *Cucumis hystrix* “makteng nou,” meaning “mouse cucumber” (nou: mouse). *Cucumis hystrix* grows naturally in forests and has an appealing, sour-sweet taste. Flowers are yellow, and fruits mature around October. Five small, round, or compressed eggplant fruits (No. 22, 23, 30, 35, 36) were collected at commercial markets. Almost all the eggplants were landraces, but No. 35 was an improved cultivar and No. 36 was a wild variety. Two chili peppers, with long (No. 31) and short (No. 160) fruits were collected at a commercial market and a farm stand.

3. Udomxai and surrounding area (11–13, 17–19 August 2008)

On 11 August, we moved to Udomxai from Luang Prabang by car. We visited Udomxai twice (11 and 17 August) during this exploration. In Udomxai (elevation: around 640 m), there are two markets, a morning market (Nong mengde) and a night market (Vang hai). On 12 August, we surveyed the area around Ban Vangua to the southwest of Udomxai, along the Nam Beng River. Paddy rice and corn are mainly cultivated in this area. On 17 August, we moved to Udomxai by car. On 18 August, we surveyed the area around Muang Khua to the northeast of Udomxai, along the Nam Phak River. Paddy rice and corn are mainly cultivated in this area.

We collected 16 melons (No. 63–64, 126–129, 132, 134–136, 143–144, 147–148, 151–152). Fourteen were collected during our second visit on 17 August since it was still too early for melon harvesting during our first visit. These melons had various skin colors of orange, white, yellow and green, and 14 (87.5%) had stripes on the epicarp (Table 2). Only one melon (No. 63) was fragrant, much lower than the number of fragrant melons in Vientiane and Luang Prabang. The fruit size of Udomxai melons ranged from 10.0 to 20.0 cm (average: 16.4 cm), which is smaller than the melons of Saravan (Table 3). We interviewed farmers (Lao, Kham, Hmong and Phounoi tribes) and learned that melon seeds are sown in June and harvested around September, which means that the cultivation period begins 1 month later than in Luang Prabang Province. The use, place of cultivation, and method of melon seed production are the same as in Luang Prabang Province. A Kham tribe farmer called the white-skinned melon “makteng kao,” meaning “rice melon” (kao: rice). Other types are called “makteng lai” (Photo 8). The local name, habitat, taste, flower color, and harvesting period of *C. hystrix* are the same as in Luang Prabang Province. Eleven round or depressed eggplant fruits (No. 57, 59, 60, 135, 136, 138, 142, 146–148) were collected, mainly from backyards. Three (No. 58, 147, 148) were wild

varieties, which were collected along the roadside. Three *Solanum* relatives, *S. quitoense* (No. 58, 61) and *Solanum* sp. (No. 53), were collected mainly along the roadside. Seven long or short chili pepper fruits (No. 54–56, 143–145, 151) were collected at commercial markets and farm stands. Two tomatoes (No. 152, 153) were collected at a commercial market, but were probably imported from China. We collected seeds of a tobacco plant (No. 156) in a backyard.

4. Luang Namtha and surrounding area (13–17 August 2008)

On 13 August, we moved to Luang Namtha from Udomxai by car. This area was not explored in 2007. While in Luang Namtha (elevation: 540 m), we surveyed three village markets (Provincial, Nateuy, Tongchai). On 14 August, we surveyed the area around Ban Boten, on the border with China, to the northeast of Luang Namtha. The next day, on 15 August, we traveled from Luang Namtha to Muang Sing by car. In Muang Sing (elevation: 640 m), we visited a village market (Muang Sing). Paddy rice is mainly cultivated in this area.

We collected 22 melon samples from Luang Namtha Province, 19 from Luang Namtha (No. 65–68, 70–72, 81, 89–91, 113–115, 121–125), and three from Muang Sing (No. 94–96) (Table 2). Among these samples, 19 had stripes on the epicarp (86.4 %), more than found in Luang Prabang (Table 4). These melons were similar in fruit size to those in Udomxai Province, with a fruit height of 9.0 to 23.5 cm (average: 14.5 cm) and fruit width of 8.0 to 14.5 cm (average: 11.1 cm) (Table 3). A Lao farmer called these melons “makteng lai,” and their place of cultivation, date of sowing, and harvesting time are the same as in Udomxai Province. Cucumbers were either oval with green skin or round with white skin (Photo 9, No. 80). Seeds could not be collected from these cucumbers, but the farmers said that in October it would be possible to buy cucumber fruits with germinable seeds. We collected many Solanaceae vegetables. Sixteen eggplant fruits (No. 75, 76, 83–85, 92, 102, 104, 105, 112, 116, 120, 121, 123–125) were collected from backyards, village markets, and the roadside. The eggplants were small round (Photo 10; No. 76) or depressed (Photo 11; No. 75). Nine *Solanum* relatives were collected along the roadside and in village markets: *S. integrifolium* (No. 77; Photo 12), *S. quitoense* (No. 68, 78, Photo 13; 101, 103, 122), and *Solanum* spp. (No. 80, 81, 93). Sixteen chili pepper fruits (No. 72–74, 82, 86–88, 97–100, 106, 107, 113–115) were collected in village markets and backyards. A dry chili fruit (No. 99) came from Phong Saly, which was not surveyed during the 2008 field survey. There were chili pepper plants with mature fruits at Ban Pathong. The shape of the peppers was the same as in Udomxai. For tomatoes, we collected pink cherry tomatoes (No. 108–111) that a farmer said was a landrace.

5. Phonsavan and surrounding area (21–23, 26–28 August 2008)

On 21 August, we moved to Phonsavan from Luang Prabang by car. In Phonsavan (elevation: around 1100 m), we surveyed two commercial markets (Kasikam, Nam Neum). Rice and corn are the main crops in this area. On 26 August, we moved to Phonsavan from Sam Neua by car, and on 27 August, we surveyed the area around Muang Khoun to the southeast of Phonsavan. Paddy rice is the main crop in this area.

We visited Phonsavan twice (21 and 26 August), but there were fewer melons in the market than in the other areas visited. According to a Lao or Hmong farmer who sold landrace

melon, melon seeds are sown in June, and fruits are harvested in mid-September; thus it was still too early to collect melons during our visit. The use, place of cultivation, and seed production method for melons are the same as in Luang Prabang Province. A Kham trader who came by car from Kiewtalone in Luang Prabang Province called the orange, white, and green skinned melons “makteng lai,” “makteng kao,” and “makteng meúay” (meúay: mountain), respectively (Photo 8). We collected 22 melon samples (Table 3) and seeds from eight of these (No. 155–156, 161–166). Cucumbers were oval with either green or white skin. Since most cucumbers were immature, we could only collect seeds from one sample (No. 204), but we were told that if we visited in mid-October, we could obtain cucumbers with germinable seeds. Three eggplant fruits (No. 177–179) were collected at commercial markets. Three *Solanum* relatives, *S. intergrifolium* (No. 217) and *Solanum* spp. (No. 168, 180), were collected at commercial markets and roadsides. Seven chili pepper fruits were collected mainly from commercial markets (No. 161, 164–167, 175, 176). There were three types of chili pepper, small (Photo 14 left), long (Photo 14 right), and medium-sized (Photo 14 center) types. The shapes of eggplant and chili pepper were the same as in Udomxai and Luang Namtha.

6. Sam Neua and surrounding area (23–25 August 2008)

On 23 August, we moved to Sam Neua from Phonsavan by car. In Sam Neua (elevation: 950–1339 m), we surveyed two commercial markets (Provincial, Sam Neua). On 24 August, we surveyed the area around Namsoi, on the border with Vietnam, to the east of Sam Neua.

We collected 33 melon samples in Houa Phan Province and 18 seed samples from them (No. 172–175, 177–180, 187–189, 191–197). All melon fruits (No. 191–197) collected in Ban Pounsang (elevation: 562 m) during our trip to the border with Vietnam had different fruit characteristics and morphology. By interviewing Lao, Kham, and Hmong farmers, we learned that the local name, use, place of cultivation, date of sowing, harvesting, and seed production methods are the same as in Udomxai Province. In addition, the local name, habitat, taste, flower color, and date of harvesting of *C. hystrix* are the same as in Luang Prabang Province. A farmer (Kham tribe) living in Ban Phèng Khong (elevation: 657 m) near the border with Xieng Khouang Province reported that *C. hystrix* was currently blooming and that fruits would ripen around October. From our field research in southern Yunnan Province in China, we knew that it can be difficult to collect *C. hystrix* fruits in a short time, since they grow in forests in mountainous areas. We therefore asked the farmer to collect samples of *C. hystrix* for us before our return to her village. This method of collection was suggested by Prof. Kato (Okayama University, Japan). On our way back, she showed us the *C. hystrix*, which could be recognized by the shape of female flowers (Photo 15). We thus confirmed the distribution of *C. hystrix* in Laos. In Ban Phèng Khong, we collected one eggplant (No. 216) and two chili pepper fruits (No. 181, 182), which farmers had cultivated. The cucumbers were oval with green or white skin and had various fruit characteristics. From one white-skinned cucumber (No. 190), we collected seeds that might germinate. One tomato fruit (No. 198) collected at a commercial market was thought to be a landrace. Seven eggplant fruits (No. 187, 194–196, 212, 213, 215) were collected, mainly from commercial markets. Most eggplants were small, round, or depressed, but we also collected a large fruit (Photo 16; No. 196) and a red, egg-shaped fruit (Photo 17; No. 215). Six

chili pepper fruits (No. 192, 193, 197, 199, 200, 214) were collected at commercial markets and farm stands.

Discussion

Although we found a few mature fruits during the early period of this exploration, we saw most mature vegetables after the middle period of our survey. For example, we visited Udomxai markets twice during this field survey and found differences in the products between the two visits.

A characteristic of cultivation in northern Laos is that cash crops, such as rice, wheat, soybean, and corn are mainly cultivated. Vegetables are cultivated only in backyards and around cash crop cultivation areas. Some farmers cultivate vegetables of different sizes and shapes using the same cultivars, so the concept of a cultivar may be different from that in Japan. In this case, we divided and classified cultivars by size and shape, and collected the seeds separately. We will observe and evaluate these seeds carefully.

In Laos, the import of vegetables is prohibited²⁾, but tomatoes sold at commercial markets had been imported from Thailand and China. Imported commercial vegetable seed from China and Thailand was sold at commercial markets (Photo 18). Because the road network has been developed extensively throughout the area, with the support of Asian nations³⁾, the cultivation of landraces in Laos may rapidly decrease.

To collect fruits of Cucurbitaceae during this exploration, we surveyed areas in the rainy season. However, heavy rains had occurred, and many roads were impassable during our survey because of landslides (Photo 19), inundation (photo 20), and mud (Photo 21). Hence, we had to change our plans; we could not survey Phongsaly and instead surveyed the route from Udomxai to Sam Neua. On August 12, the Mekong River overflowed, and Vientiane and Luang Prabang were flooded; despite this difficulty, it was necessary to conduct our research in the rainy season to obtain Cucurbitaceae fruits.

Cucurbitaceae

We gained two impressions from our survey of Cucurbitaceae crops in seven provinces of Laos. First, we noted the diversity of Cucurbitaceae crops in Laos and the many landraces sold in markets and farm stands. Landrace melons of Laos have diverse fruit characteristics, such as fruit length (Table 3, 9.0 to 27.0 cm), skin color (orange, white, yellow, and green), and fruit weight (0.6 to 4.3 kg in 138 samples). Average fruit weight of our samples was 2.1 kg (1.3 to 4.3 kg) in Salavan Province, 1.9 kg (0.8 to 3.9 kg) in Luang Prabang Province, 1.4 kg (0.6 to 2.4 kg) in Udomxai Province, and 1.2 kg (0.6 to 2.1 kg) in Luang Namtha Province, indicating that fruit weight decreases towards the north (Table 3). The percentage of fragrant melons decreased from Salavan to Udomxai provinces. The average shape index also differed among areas, ranging from 1.32 to 1.43 for oval fruits in Salavan, Udomxai, and Luang Namtha provinces; round fruits with an index value of 1.08 were found in Luang Prabang. Therefore, landrace melons in Laos are diverse and have different fruit characteristics in different areas.

Second, the cultivation of melon and cucumber is common, although fruit characteristics differ among areas. Eight tribes (Lao, Lue, Thai Deng, Lao Houay, Khum, Hmong, Lán tén,

Phounoi) cultivate these crops with upland rice and harvest their own seeds. Melon and cucumber seeds are sown with upland rice after the start of the rainy season. Lao farmers adopt the same cultivation methods as observed in field research in eastern India (Mizoram, Meghalaya, Assam State) and southern Yunnan, China, in which Cucurbitaceae are cultivated with upland rice in slash-and-burn fields⁴⁾. According to Chanthanom, a co-author of this report, Muang Sing and southern Yunnan were originally part of the same kingdom. Melon characteristics in southern Yunnan are similar to those in Luang Namtha in terms of having stripes on the epicarp, a fruit length of approximately 24.0 cm, and a Brix value for fresh juice of 6.0% (Table 1, 2, Photo 22a, b)⁴⁾. The cultivation methods and fruit characteristics of Cucurbitaceae crops in South and Southeast Asia provide important information for classifying Cucurbitaceae landraces. Continued exploration of plant genetic resources is necessary to collect seeds and information on cultivation methods and fruit characteristics from local people.

Solanaceae

Most tomatoes found for sale in commercial markets had been imported from Thailand and China. Cherry tomatoes (No. 108–111) collected at Muang Sing and a tomato (No. 198) collected at Sam Neua were thought to be landraces. Eggplant fruits were collected mainly from backyards because they were sold as immature fruits in markets. We collected landraces, improved cultivars, and wild varieties of eggplant during this survey. The eggplants had two fruit shapes: small, round shape (Photo 10) and compressed shape (Photo 11). *Solanum* relatives were *S. intergrifolium* (Photo 12), *S. quitoense* (Photo 13), and *Solanum* spp. Chili pepper fruits were collected mainly from markets and backyards, and only landraces were collected. The samples had three fruit shapes: small (Photo 14 left), long (Photo 14 right), and medium-sized (Photo 14 center). For *Capsicum*, we identified species only by their fruits, and further evaluation will be required. Eggplants, *Solanum* relatives, and chili peppers sold at markets were cultivated near the market, but dry chili peppers were transported from other areas, possibly other districts and countries.

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和文摘要

本報告は、独立行政法人農業生物資源研究所ジーンバンクとラオス農業森林省・稲・商品作物研究センターの間で2006年に締結した協同研究協定(MOU)に基づいて行われたラオス国における野菜遺伝資源の調査報告である。調査は、2008年8月6日～9月1日にかけて行った。今回は、ラオス国北部地域であるビエンチャン、ルアンプラバン、ウドムサイ、ルアンナムタ、ムアンシン、ムアンクア、ポンサワン、サムヌアおよびムアンカムを調査した。218点の野菜ほかの種子、すなわち、メロンを108点、キュウリを2点、ナスを44点、トマトを7点、ナス近縁種を15点、トウガラシを41点 およびタバコを1点収集した。

Table 2. List of collected vegetable material in Laos, 2008

No.	Collection No.	Passport No.	J P No.	Lab ID	Date	Genus & Species	Province/State	District
1	1	30034723	233769	LCJ 2008066	8/7	<i>Cucumis melo</i>	Vientiane Captail	
2	2	30034724	233770	LCJ 2008067	8/7	<i>Cucumis melo</i>	Vientiane Captail	
3	3	30034725	233771	LCJ 2008068	8/7	<i>Cucumis melo</i>	Vientiane Captail	
4	4	30034726	233772	LCJ 2008069	8/7	<i>Cucumis melo</i>	Vientiane Captail	
5	5	30034727	233773	LCJ 2008070	8/7	<i>Cucumis melo</i>	Vientiane Captail	
6	6	30035555	234041	CS361	8/7	<i>Capsicum annuum</i>	Vientiane Captail	
7	7	30034728	233774	LCJ 2008071	8/7	<i>Cucumis melo</i>	Vientiane Captail	
8	8	30034729	233775	LCJ 2008072	8/7	<i>Cucumis melo</i>	Vientiane Captail	
9	9	30034730	233776	LCJ 2008073	8/7	<i>Cucumis melo</i>	Vientiane Captail	
10	10	30034731	233777	LCJ 2008074	8/8	<i>Cucumis melo</i>	Vientiane Captail	
11	11	30034732	233778	LCJ 2008075	8/8	<i>Cucumis melo</i>	Vientiane Captail	
12	12	30034733	233779	LCJ 2008076	8/8	<i>Cucumis melo</i>	Vientiane Captail	
13	13	30034734	233780	LCJ 2008077	8/8	<i>Cucumis melo</i>	Vientiane Captail	
14	14	30034735	233781	LCJ 2008078	8/8	<i>Cucumis melo</i>	Vientiane Captail	
15	15	30034736	233782	LCJ 2008079	8/8	<i>Cucumis melo</i>	Vientiane Captail	
16	16	30035508	233994	ES431	8/8	<i>Solanum melongena</i>	Vientiane Captail	
17	17	30034737	233783	LCJ 2008080	8/8	<i>Cucumis melo</i>	Vientiane Captail	
18	18	30034738	233784	LCJ 2008081	8/8	<i>Cucumis melo</i>	Vientiane Captail	
19	19	30034739	233785	LCJ 2008082	8/8	<i>Cucumis melo</i>	Vientiane Captail	
20	20	30034740	233786	LCJ 2008083	8/9	<i>Cucumis melo</i>	Luang Phabang	
21	21	30034741	233787	LCJ 2008084	8/9	<i>Cucumis melo</i>	Luang Phabang	

Village	North latitude/ East longitude	Height (m)	Source (Market name)	Status	Local name	Fruit characters, etc.
	17-57-46.9/ 102-37-46.9	168	commercial market (Kowrdin)	landrace	Markteng lai	Orange skin color, aroma
	17-57-46.9/ 102-37-46.9	168	commercial market (Kowrdin)	landrace	Markteng lai	Round type, orange skin color with stripe, aroma
	17-57-46.9/ 102-37-46.9	168	commercial market (Kowrdin)	landrace	Markteng lai	Round type, orange skin color with stripe, aroma
	17-57-46.9/ 102-37-46.9	168	commercial market (Kowrdin)	landrace	Markteng lai	White skin color, aroma
	17-57-46.9/ 102-37-46.9	168	commercial market (Kowrdin)	landrace	Markteng lai	Green skin color with stripe
	17-57-46.9/ 102-37-46.9	168	commercial market (Kowrdin)	landrace	Market yai (Prikheng Thai lang)	13-15cm(long), 3cm(wide). From Thailand.
	17-58-28.5/ 102-38-23.5	189	commercial market (That Luang)	landrace	Taeng lai/ Taeng souk	Orange skin color, aroma
	17-58-28.5/ 102-38-23.5	189	commercial market (That Luang)	landrace	Taeng lai/ Taeng souk	Round type, orange skin color with stripe, aroma
	17-58-28.5/ 102-38-23.5	189	commercial market (That Luang)	landrace	Taeng lai/ Taeng souk	Round type, orange skin color with stripe, aroma
Salavanh	18-04-54.7/ 102-46-15.2	175	commercial market (Dong markhai)	landrace	Taeng lai/ Taeng jing	Orange skin color with stripe
Salavanh	18-04-54.7/ 102-46-15.2	175	commercial market (Dong markhai)	landrace	Taeng lai/ Taeng jing	White skin color
Salavanh	18-04-54.7/ 102-46-15.2	175	commercial market (Dong markhai)	landrace	Taeng lai/ Taeng jing	Green skin color with stripe
Salavanh	18-04-54.7/ 102-46-15.2	175	commercial market (Dong markhai)	landrace	Taeng lai/ Taeng jing	Orange skin color
Pakse, Salavanh	18-00-00.0/ 102-37-36.4	197	commercial market (Ponsavang)	landrace	Taeng lai	Orange skin color with stripe
Pakse, Salavanh	18-00-00.0/ 102-37-36.4	197	commercial market (Ponsavang)	landrace	Taeng lai	Orange skin color with stripe
	18-00-00.0/ 102-37-36.4	197	commercial market (Ponsavang)	landrace	Mark erk (Mark keurkhai)	round, 2.5cm(long), 2.5cm(wide).
from Luang Prabang	18-00-00.0/ 102-37-36.4	197	commercial market (Ponsavang)	landrace	Taeng lai/ Taeng souk	Round type, orange skin color with stripe
from Luang Prabang	18-00-00.0/ 102-37-36.4	197	commercial market (Ponsavang)	landrace	Taeng lai/ Taeng souk	Green skin color
from Luang Prabang	18-00-00.0/ 102-37-36.4	197	commercial market (Ponsavang)	landrace	Taeng lai/ Taeng souk	White skin color
Bom fing	19-52-41.2/ 102-07-24.8	293	commercial market (Phosy)	landrace	Teng lay/ Teng souk	Round type, orange skin color, aroma
Bom fing	19-52-41.2/ 102-07-24.8	293	commercial market (Phosy)	landrace	Teng lay/ Teng souk	Round type, orange skin color, aroma

Table 2 (Continued).

No.	Collection No.	Passport No.	JP No.	Lab ID	Date	Genus & Species	Province/State	District
22	22-1	30035509	233995	ES432	8/9	<i>Solanum melongena</i>	Luang Phabang	
23	22-2	30035510	233996	ES433	8/9	<i>Solanum melongena</i>	Luang Phabang	
24	23	30034742	233788	LCJ 2008085	8/9	<i>Cucumis melo</i>	Luang Phabang	
25	24	30034743	233789	LCJ 2008086	8/9	<i>Cucumis melo</i>	Luang Phabang	
26	25	30034744	233790	LCJ 2008087	8/9	<i>Cucumis melo</i>	Luang Phabang	
27	26	30034745	233791	LCJ 2008088	8/9	<i>Cucumis melo</i>	Luang Phabang	
28	27	30034746	233792	LCJ 2008089	8/9	<i>Cucumis melo</i>	Luang Phabang	
29	28	30034747	233793	LCJ 2008090	8/9	<i>Cucumis melo</i>	Luang Phabang	
30	29	30034748	233794	LCJ 2008091	8/9	<i>Cucumis melo</i>	Luang Phabang	
31	30	30035556	234042	CS362	8/9	<i>Capsicum annuum</i>	Luang Phabang	
32	31	30034749	233795	LCJ 2008092	8/9	<i>Cucumis melo</i>	Luang Phabang	
33	32	30034750	233796	LCJ 2008093	8/9	<i>Cucumis melo</i>	Luang Phabang	
34	33	30034751	233797	LCJ 2008094	8/9	<i>Cucumis melo</i>	Luang Phabang	
35	34	30035511	233997	ES434	8/9	<i>Solanum melongena</i>	Luang Phabang	
36	35	30035512	233998	ES435	8/9	<i>Solanum melongena</i>	Luang Phabang	
37	36	30034752	233798	LCJ 2008095	8/10	<i>Cucumis melo</i>	Luang Phabang	
38	37	30034753	233799	LCJ 2008096	8/10	<i>Cucumis melo</i>	Luang Phabang	
39	38	30034754	233800	LCJ 2008097	8/10	<i>Cucumis melo</i>	Luang Phabang	Xieng Ngeune
40	39	30034755	233801	LCJ 2008098	8/10	<i>Cucumis melo</i>	Luang Phabang	Xieng Ngeune
41	40	30034756	233802	LCJ 2008099	8/10	<i>Cucumis melo</i>	Luang Phabang	Xieng Ngeune
42	41	30034757	233803	LCJ 2008100	8/10	<i>Cucumis melo</i>	Luang Phabang	Xieng Ngeune
43	42	30034758	233804	LCJ 2008101	8/10	<i>Cucumis melo</i>	Luang Phabang	Xieng Ngeune
44	43	30034759	233805	LCJ 2008102	8/10	<i>Cucumis melo</i>	Luang Phabang	Xieng Ngeune
45	44	30034760	233806	LCJ 2008103	8/10	<i>Cucumis melo</i>	Luang Phabang	Xieng Ngeune

Village	North latitude/ East longitude	Height (m)	Source (Market name)	Status	Local name	Fruit characters, etc.
B. Long or	19-52-41.2/ 102-07-24.8	293	commercial market (Phosy)	landrace	Kheua pho	round, 2.5cm(long), 2.5cm(wide).
B. Long or	19-52-41.2/ 102-07-24.8	293	commercial market (Phosy)	landrace	Kheua pho	round, 4cm(long), 4cm(wide).
B. Napho	19-52-41.2/ 102-07-24.8	293	commercial market (Phosy)	landrace	Teng lai/ Tengsouk	Round type, yellow skin color, aroma
B. Napho	19-52-41.2/ 102-07-24.8	293	commercial market (Phosy)	landrace	Teng lai/ Tengsouk	Round type, orange skin color
B. Napho	19-52-41.2/ 102-07-24.8	293	commercial market (Phosy)	landrace	Teng lai/ Tengsouk	Round type, orange skin color, aroma
B. Napho	19-52-41.2/ 102-07-24.8	293	commercial market (Phosy)	landrace	Teng lai/ Tengsouk	Round type, green skin color, aroma
B. Napho	19-52-47.2/ 102-08-32.2	285	commercial market (Mittaphab)	landrace	Teng lai/ Tengsouk	Orange skin color
B. Napho	19-52-47.2/ 102-08-32.2	285	commercial market (Mittaphab)	landrace	Teng lai/ Tengsouk	Round type, orange skin color
B. Napho	19-52-47.2/ 102-08-32.2	285	commercial market (Mittaphab)	landrace	Teng lai/ Tengsouk	Round type, orange skin color
	19-52-47.2/ 102-08-32.2	285	commercial market (Mittaphab)	landrace	Marphet	10-12cm(long), 1.5-2cm(wide).
B. Muong Nga	19-52-47.2/ 102-08-32.2	285	commercial market (Mittaphab)	landrace	Teng lai/ Tengsouk	Orange skin color
B. Muong Nga	19-53-16.5/ 102-08-39.9	292	commercial market (Muong Nga)	landrace	Teng lai/ Tengsouk	Orange skin color with stripe, aroma
B. Muong Nga	19-53-16.5/ 102-08-39.9	292	commercial market (Muong Nga)	landrace	Tenglai/ Tengsouk	Orange skin color, aroma
B. Nam Xeuang	19-53-16.5/ 102-08-39.9	292	commercial market (Muong Nga)	cultivar	Makkheao(big)	depressed, 6cm(long), 9cm(wide).
B. Nam Xeuang	19-53-16.5/ 102-08-39.9	292	commercial market (Muong Nga)	wild	Makkheao(kheun)	a little depressed, 3cm(long), 3.5cm(wide).
Ban Hatteu	19-53-28.0/ 102-07-19.4	310	commercial market (Tha heua)	landrace	Tengsouk	Round type, orange skin color with stripe
Ban Hatteu	19-53-28.0/ 102-07-19.4	310	commercial market (Tha heua)	landrace	Tengsouk	Orange skin color
Kiew taloune	19-53-28.1/ 102-07-59.2	309	farm stand	landrace	Tenglai	Orange skin color
Kiew taloune	19-53-28.1/ 102-07-59.2	309	farm stand	landrace	Tenglai	Green skin color with stripe
Kiew taloune	19-53-28.1/ 102-07-59.2	309	farm stand	landrace	Tenglai	Round type, orange skin color
Kiew taloune	19-37-14.3/ 102-12-06.9	799	farm stand	landrace	Tenglai	Yellow skin color
Kiew taloune	19-37-14.3/ 102-12-06.9	799	farm stand	landrace	Tenglai	Green skin color
Kiew taloune	19-37-14.3/ 102-12-06.9	799	farm stand	landrace	Tenglai	White skin color
Kiew taloune	19-37-14.3/ 102-12-06.9	799	farm stand	landrace	Tenglai	Orange skin color

Table 2 (Continued).

No.	Collection No.	Passport No.	JP No.	Lab ID	Date	Genus & Species	Province/State	District
46	45	30034761	233807	LCJ 2008104	8/11	<i>Cucumis melo</i>	Luang Phabang	Pak-ou
47	46	30034762	233808	LCJ 2008105	8/11	<i>Cucumis melo</i>	Luang Phabang	Pak-ou
48	47	30035513	233999	ES436	8/11	<i>Solanum melongena</i>	Luang Phabang	
49	48	30034763	233809	LCJ 2008106	8/11	<i>Cucumis melo</i>	Luang Phabang	
50	49	30034764	233810	LCJ 2008107	8/11	<i>Cucumis melo</i>	Luang Phabang	
51	50	30034765	233811	LCJ 2008108	8/11	<i>Cucumis melo</i>	Luang Phabang	
52	51	30034766	233812	LCJ 2008109	8/11	<i>Cucumis melo</i>	Luang Phabang	
53	53	30035495	233981	ES418	8/11	<i>Solanum</i> sp.	Udomxai	
54	54	30035557	234043	CS363	8/11	<i>Capsicum annuum</i>	Udomxai	
55	56	30035558	234044	CS364	8/11	<i>Capsicum annuum</i>	Udomxai	
56	57	30035559	234045	CS365	8/12	<i>Capsicum annuum</i>	Udomxai	
57	58	30035514	234000	ES437	8/12	<i>Solanum melongena</i>	Udomxai	M. Beng
58	59	30035501	233987	ES424	8/12	<i>Solanum quitoense</i>	Udomxai	
59	60	30035515	234001	ES438	8/13	<i>Solanum melongena</i>	Udomxai	Namo
60	61	30035516	234002	ES439	8/13	<i>Solanum melongena</i>	Udomxai	Namo
61	62	30035507	233993	ES430	8/13	<i>Solanum quitoense</i>	Udomxai	Namo
62	63	30034767	233813	LCJ 2008110	8/13	<i>Cucumis melo</i>	Udomxai	Namo
63	64	30034768	233814	LCJ 2008111	8/13	<i>Cucumis melo</i>	Udomxai	Namo
64	65	30034769	233815	LCJ 2008112	8/13	<i>Cucumis melo</i>	Luang Namtha	Namtha
65	66	30034770	233816	LCJ 2008113	8/13	<i>Cucumis melo</i>	Luang Namtha	Namtha
66	67	30034771	233817	LCJ 2008114	8/13	<i>Cucumis melo</i>	Luang Namtha	Namtha
67	68	30034772	233818	LCJ 2008115	8/13	<i>Cucumis melo</i>	Luang Namtha	Namtha
68	69	30035502	233988	ES425	8/13	<i>Solanum quitoense</i>	Luang Namtha	Namtha
69	70	30034773	233819	LCJ 2008116	8/13	<i>Cucumis melo</i>	Luang Namtha	Namtha
70	71	30034774	233820	LCJ 2008117	8/13	<i>Cucumis melo</i>	Luang Namtha	Namtha
71	72	30034775	233821	LCJ 2008118	8/13	<i>Cucumis melo</i>	Luang Namtha	Namtha
72	73	30035560	234046	CS366	8/13	<i>Capsicum annuum</i>	Luang Namtha	Namtha

Village	North latitude/ East longitude	Height (m)	Source (Market name)	Status	Local name	Fruit characters, etc.
B. Hatsoua	20-12-32.3/ 102-19-48.5	859	farm stand	landrace	Tenglai	Round type, orange skin color
B. Hatsoua	20-12-32.3/ 102-19-48.5	859	farm stand	landrace	Tenglai	Round type, orange skin color
B. Hatsoua	20-12-32.3/ 102-19-48.5	859	backyard	landrace	Kheua kheune	a little depressed, 4cm(long), 4.5cm(wide).
B. Hatsoua	20-12-32.3/ 102-19-48.5	859	farm stand	landrace	Tenglai	Round type, white skin color
B. Hatsoua	20-12-32.3/ 102-19-48.5	859	farm stand	landrace	Tenglai	Round type, orange skin color
B. Hatsoua	20-12-32.3/ 102-19-48.5	859	farm stand	landrace	Tenglai	Orange skin color
B. Hatsoua	20-12-32.3/ 102-19-48.5	859	farm stand	landrace	Teng mi (green)	Round type, orange skin color
B. Kiao hia	20-35-43.7/ 102-04-11.0	1131	wild	wild	Kheu ba	round, 3cm(long), 3cm(wide).
B. Vang hai	20-41-14.6/ 101-58-44.5	646	commercial market (Vang hai)	landrace	Makphet noi	3cm(long), 1cm(wide).
B. Vang hai	20-41-14.6/ 101-58-44.5	646	commercial market (Vang hai)	landrace	Makphet noi	5-6.5cm(long), 1cm(wide).
B. Nong mengde	20-41-16.4/ 101-59-37.1	632	village market (Nong mengde)	landrace	Makphet	6cm(long), 1cm(wide).
B. Houny la	20-17-28.4/ 101-37-38.3	515	wild	wild	Kheua kheune	round, 3cm(long), 4cm(wide).
B. Phiahouanam	20-29-30.9/ 101-51-36.8	612	wild	wild	Makkheng	round, 1cm(long), 1cm(wide).
B. Namxae	20-59-33.7/ 101-45-43.6	614	backyard	landrace	Kheua kheune	round, 3.5cm(long), 3.5cm(wide).
B. Namxae	20-59-33.7/ 101-45-43.6	614	backyard	landrace	Kheua kheune	a little depressed, 3.5cm(long), 4cm(wide).
B. Namxae	20-59-33.7/ 101-45-43.6	614	backyard	landrace	Kheua kheune	round, 1cm(long), 1cm(wide).
B. Pathong	20-58-09.3/ 101-40-51.7	708	farm stand	landrace	Teng lai	Orange skin color with stripe, aroma
B. Pathong	20-58-09.3/ 101-40-51.7	708	farm stand	landrace	Teng lai	Orange skin color with stripe
B. Namdeng Neua	21-02-06.4/ 101-38-51.7	663	farm stand	landrace	Teng lai	Yellow skin color with stripe
B. Namdeng Neua	21-02-06.4/ 101-38-51.7	663	farm stand	landrace	Teng lai (uehite)	White skin color
B. Namdeng Neua	21-02-06.4/ 101-38-51.7	663	farm stand	landrace	Teng lai (Round)	Round type, green skin color with stripe
B. Namdeng Neua	21-02-06.4/ 101-38-51.7	663	farm stand	landrace	Teng lai (Aromand)	Orange skin color with stripe, aroma
B. Namdeng Neua	21-02-06.4/ 101-38-51.7	663	backyard	landrace	Keng Khom	round, 1cm(long), 1cm(wide).
B. Namdeny	20-59-52.2/ 101-24-19.2	540	village market (Provincial)	landrace	Teng lai (green)	Round type, green skin color with stripe, aroma
B. Namdeny	20-59-52.2/ 101-24-19.2	540	village market (Provincial)	landrace	Teng lai (yellow)	Orange skin color with stripe
B. Namdeny	20-59-52.2/ 101-24-19.2	540	village market (Provincial)	landrace	Teng lai	Round type, green skin color with stripe
B. thongdi	20-59-52.2/ 101-24-19.2	540	village market (Provincial)	landrace	Makphet	7cm(long), 1cm(wide).

Table 2 (Continued).

No.	Collection No.	Passport No.	JP No.	Lab ID	Date	Genus & Species	Province/State	District
73	74	30035561	234047	CS367	8/13	<i>Capsicum annuum</i>	Luang Namtha	Namtha
74	75	30035562	234048	CS368	8/13	<i>Capsicum annuum</i>	Luang Namtha	Namtha
75	76	30035517	234003	ES440	8/13	<i>Solanum melongena</i>	Luang Namtha	Namtha
76	77	30035518	234004	ES441	8/13	<i>Solanum melongena</i>	Luang Namtha	Namtha
77	78	30035519	234005	ES442	8/13	<i>Solanum intergrifolium</i>	Luang Namtha	Namtha
78	79	30035503	233989	ES426	8/13	<i>Solanum quitoense</i>	Luang Namtha	Namtha
79	81	30034776	233822	LCJ 2008119	8/13	<i>Cucumis melo</i>	Luang Namtha	Namtha
80	82	30035496	233982	ES419	8/14	<i>Solanum</i> sp.	Luang Namtha	Namtha
81	83	30035497	233983	ES420	8/14	<i>Solanum</i> sp.	Luang Namtha	Namtha
82	84	30035563	234049	CS369	8/14	<i>Capsicum annuum</i>	Luang Namtha	Namtha
83	85	30035520	234006	ES443	8/14	<i>Solanum melongena</i>	Luang Namtha	Namtha
84	86	30035521	234007	ES444	8/14	<i>Solanum melongena</i>	Luang Namtha	Namtha
85	87	30035522	234008	ES445	8/14	<i>Solanum melongena</i>	Luang Namtha	Namtha
86	88-1	30035564	234050	CS370	8/14	<i>Capsicum annuum</i>	Luang Namtha	Namtha
87	88-2	30035565	234051	CS371	8/14	<i>Capsicum annuum</i>	Luang Namtha	Namtha
88	88-3	30035566	234052	CS372	8/14	<i>Capsicum annuum</i>	Luang Namtha	Namtha
89	89	30034777	233823	LCJ 2008120	8/14	<i>Cucumis melo</i>	Luang Namtha	Namtha
90	90	30034778	233824	LCJ 2008121	8/14	<i>Cucumis melo</i>	Luang Namtha	Namtha
91	91	30034779	233825	LCJ 2008122	8/15	<i>Cucumis melo</i>	Luang Namtha	
92	92	30035523	234009	ES446	8/15	<i>Solanum melongena</i>	Luang Namtha	
93	93	30035498	233984	ES421	8/15	<i>Solanum</i> sp.	Luang Namtha	Muang Sing
94	94	30034780	233826	LCJ 2008123	8/15	<i>Cucumis melo</i>	Luang Namtha	Muang Sing
95	95	30034781	233827	LCJ 2008124	8/15	<i>Cucumis melo</i>	Luang Namtha	Muang Sing
96	96	30034782	233828	LCJ 2008125	8/15	<i>Cucumis melo</i>	Luang Namtha	Muang Sing
97	98-1	30035568	234054	CS374	8/15	<i>Capsicum annuum</i>	Luang Namtha	Muang Sing
98	98-2	30035569	234055	CS375	8/15	<i>Capsicum annuum</i>	Luang Namtha	Muang Sing

Village	North latitude/ East longitude	Height (m)	Source (Market name)	Status	Local name	Fruit characters, etc.
B. Namdeny	20-59-52.2/ 101-24-19.2	540	village market (Provincial)	landrace	Makphet	4cm(long), 0.5cm(wide).
B. Namdeny	20-59-52.2/ 101-24-19.2	540	village market (Provincial)	landrace	Phet noi	4cm(long), 1.5cm(wide).
B. Namdeny	20-59-52.2/ 101-24-19.2	540	village market (Provincial)	landrace	Kheua vane	depressed, 3.5cm(long), 6cm(wide).
B. Namdeny	20-59-52.2/ 101-24-19.2	540	village market (Provincial)	landrace	Kheua kheune	round, 3.5cm(long), 3.5cm(wide).
B. Namdeny	20-59-52.2/ 101-24-19.2	540	village market (Provincial)	landrace	Khoua khom	depressed, 2cm(long), 4cm(wide).
B. Namdeny	20-59-52.2/ 101-24-19.2	540	village market (Provincial)	landrace	Khoua khom	round, 0.8cm(long), 0.8cm(wide).
B. Namdeny	20-59-52.2/ 101-24-19.2	540	village market (Provincial)	landrace	Teng lai	Round type, orange skin color
B. Boten	21-09-05.5/ 101-40-24.0	805	wild	wild	Kheua ba	round, 2.5cm(long), 2.5cm(wide).
B. Boten	21-09-05.5/ 101-40-24.0	805	wild	wild	Kheng pa	round, 1.5cm(long), 1.5cm(wide).
B. Boten	21-11-01.2/ 101-40-23.1	849	commercial market (Boten Market)	landrace	Makphet	4cm(long), 1.5cm(wide).
B. Tintok	21-04-14.3/ 101-30-38.2	832	backyard	landrace	Makkheua	a little depressed, 3.5cm(long), 4.5cm(wide).
B. Nateuy	21-03-36.6/ 101-38-40.3	702	village market (Nateuy)	landrace	Kheua Gneu	a little depressed, 4cm(long), 6cm(wide).
B. Nateuy	21-03-36.6/ 101-38-40.3	702	village market (Nateuy)	landrace	Kheua kheune	round, 4cm(long), 4cm(wide).
B. Nateuy	21-03-36.6/ 101-38-40.3	702	village market (Nateuy)	landrace	Makphet	5-6cm(long), 0.8cm(wide).
B. Nateuy	21-03-36.6/ 101-38-40.3	702	village market (Nateuy)	landrace	Makphet	4.5cm(long), 0.5cm(wide).
B. Nateuy	21-03-36.6/ 101-38-40.3	702	village market (Nateuy)	landrace	Makphet	3.5cm(long), 0.8cm(wide).
B. Namdeny	20-59-52.2/ 101-24-19.2	540	village market (Provincial)	landrace	Makteng Lai	Orange skin color with stripe
B. Namdeny	20-59-52.2/ 101-24-19.2	540	village market (Provincial)	landrace	Makteng Lai	Orange skin color with stripe
B. Phin ho	21-04-50.6/ 101-24-16.7	729	farm stand	landrace	Makteng Lai	Round type, orange skin color with stripe
B. Phin ho	21-04-50.6/ 101-24-16.7	729	backyard	landrace	Kheua kheune	a little depressed, 2.5cm(long), 3cm(wide).
B. Nong boua	21-09-56.1/ 101-09-38.2	759	wild	wild	Kheua ba	round, 2cm(long), 2cm(wide).
from Udomxai	21-11-43.4/ 101-08-54.9	621	village market (Muang Sing)	landrace	Teng Lai	Orange skin color with stripe
from Udomxai	21-11-43.4/ 101-08-54.9	621	village market (Muang Sing)	landrace	Teng Lai	Orange skin color with stripe
from Udomxai	21-11-43.4/ 101-08-54.9	621	village market (Muang Sing)	landrace	Teng Lai	Yellow skin color with stripe
	21-11-43.4/ 101-08-54.9	621	village market (Muang Sing)	landrace	Makphet	6cm(long), 1.2cm(wide).
	21-11-43.4/ 101-08-54.9	621	village market (Muang Sing)	landrace	Makphet	4.5cm(long), 1cm(wide).

Table 2 (Continued).

No.	Collection No.	Passport No.	JP No.	Lab ID	Date	Genus & Species	Province/State	District
99	98-3	30035570	234056	CS376	8/15	<i>Capsicum annuum</i>	Luang Namtha	Muang Sing
100	99	30035567	234053	CS373	8/15	<i>Capsicum annuum</i>	Luang Namtha	Muang Sing
101	100	30035504	233990	ES427	8/15	<i>Solanum quitoense</i>	Luang Namtha	Muang Sing
102	101	30035524	234010	ES447	8/15	<i>Solanum melongena</i>	Luang Namtha	Muang Sing
103	102	30035505	233991	ES428	8/15	<i>Solanum quitoense</i>	Luang Namtha	Muang Sing
104	103	30035525	234011	ES448	8/15	<i>Solanum melongena</i>	Luang Namtha	Muang Sing
105	104	30035526	234012	ES449	8/15	<i>Solanum melongena</i>	Luang Namtha	Muang Sing
106	105	30035571	234057	CS377	8/16	<i>Capsicum annuum</i>	Luang Namtha	Muang Sing
107	106	30035572	234058	CS378	8/16	<i>Capsicum annuum</i>	Luang Namtha	Muang Sing
108	107-1	30035488	233974	TS401	8/16	<i>Solanum lycopersicum</i>	Luang Namtha	Muang Sing
109	107-2	30035489	233975	TS402	8/16	<i>Solanum lycopersicum</i>	Luang Namtha	Muang Sing
110	107-3	30035490	233976	TS403	8/16	<i>Solanum lycopersicum</i>	Luang Namtha	Muang Sing
111	108	30035491	233977	TS404	8/16	<i>Solanum lycopersicum</i>	Luang Namtha	Muang Sing
112	109	30035527	234013	ES450	8/16	<i>Solanum melongena</i>	Luang Namtha	Muang Sing
113	110-1	30035573	234059	CS379	8/16	<i>Capsicum annuum</i>	Luang Namtha	Muang Sing
114	110-2	30035574	234060	CS380	8/16	<i>Capsicum annuum</i>	Luang Namtha	Muang Sing
115	111	30035575	234061	CS381	8/16	<i>Capsicum annuum</i>	Luang Namtha	Muang Sing
116	112	30035528	234014	ES451	8/16	<i>Solanum melongena</i>	Luang Namtha	Muang Sing
117	113	30034783	233829	LCJ 2008126	8/16	<i>Cucumis melo</i>	Luang Namtha	
118	114	30034784	233830	LCJ 2008127	8/16	<i>Cucumis melo</i>	Luang Namtha	
119	115	30034785	233831	LCJ 2008128	8/16	<i>Cucumis melo</i>	Luang Namtha	
120	116	30035529	234015	ES452	8/16	<i>Solanum melongena</i>	Luang Namtha	Namtha
121	117	30035530	234016	ES453	8/16	<i>Solanum melongena</i>	Luang Namtha	Namtha
122	118	30035506	233992	ES429	8/16	<i>Solanum quitoense</i>	Luang Namtha	Namtha
123	119	30035531	234017	ES454	8/16	<i>Solanum melongena</i>	Luang Namtha	Namtha

Village	North latitude/ East longitude	Height (m)	Source (Market name)	Status	Local name	Fruit characters, etc.
	21-11-43.4/ 101-08-54.9	621	village market (Muang Sing)	landrace	Makphet	5cm(long), 0.8cm(wide).
from Phongsaly	21-11-43.4/ 101-08-54.9	621	village market (Muang Sing)	landrace	Makphet (Dried)	4cm(long), 1.5cm(wide).
B. Pang hai	21-11-47.7/ 101-14-20.6	783	wild	wild	Kheng khom	round, 1cm(long), 1cm(wide).
B. Na kham	21-10-51.0/ 101-11-05.6	657	wild	wild	Kheua kheyne	round, 3cm(long), 3cm(wide).
B. Na kham	21-10-51.0/ 101-11-05.6	657	wild	wild	Kheng khom	round, 1cm(long), 1cm(wide).
B. Na kham	21-10-51.0/ 101-11-05.6	657	wild	wild	Kheua kheyne	round, 3.5cm(long), 3.5cm(wide).
B. Na kham	21-10-51.0/ 101-11-05.6	657	backyard	landrace	Mak kheua	depressed, 2cm(long), 4cm(wide).
	21-11-43.4/ 101-08-54.9	621	village market (Muang Sing)	landrace	Makphet	8-10cm(long), 1.5-2cm(wide).
	21-11-43.4/ 101-08-54.9	621	village market (Muang Sing)	landrace	Makphet	4.5cm(long), 1cm(wide).
	21-11-43.4/ 101-08-54.9	621	village market (Muang Sing)	landrace	Kheua kheua	a little depressed, 2.5cm(long), 3.5cm(wide).
	21-11-43.4/ 101-08-54.9	621	village market (Muang Sing)	landrace	Kheua kheua	plam shape, 3.5cm(long), 3cm(wide).
	21-11-43.4/ 101-08-54.9	621	village market (Muang Sing)	landrace	Kheua kheua	round, 3cm(long), 3cm(wide).
	21-11-43.4/ 101-08-54.9	621	village market (Muang Sing)	landrace	Kheua kheua	round, 1.5cm(long), 1.5cm(wide).
	21-11-43.4/ 101-08-54.9	621	village market (Muang Sing)	landrace	Mak kheua	depressed, 3.5cm(long), 6cm(wide).
B. Pathong	21-05-07.6/ 101-04-06.2	674	backyard	landrace	Makphet	7-8cm(long), 0.5cm(wide).
B. Pathong	21-05-07.6/ 101-04-06.2	674	backyard	landrace	Makphet	6-7cm(long), 0.8cm(wide).
B. Pathong	21-05-07.6/ 101-04-06.2	674	backyard	landrace	Makphet	3.5cm(long), 1.5cm(wide).
B. Pathong	21-05-07.6/ 101-04-06.2	674	backyard	landrace	Mak kheua	a little depressed, 5cm(long), 4cm(wide).
B. Phin ho	21-04-50.6/ 101-24-16.7	729	farm stand	landrace	Makteng Lai	Yellow skin color with stripe
B. Phin ho	21-04-50.6/ 101-24-16.7	729	farm stand	landrace	Makteng Lai	Orange skin color with stripe
B. Phin ho	21-04-50.6/ 101-24-16.7	729	farm stand	landrace	Makteng Lai	Orange skin color with stripe
B. Pasak	20-56-53.1/ 101-24-30.1	545	wild	landrace	Mak kheua	egg shape, 5.5cm(long), 4.5cm(wide).
B. Pasak	20-56-53.1/ 101-24-30.1	545	wild	landrace	Mak kheua	a little depressed, 2.5cm(long), 3cm(wide).
B. Houay Hok	20-56-34.4/ 101-26-41.7	589	wild	wild	Mak Kheng	round, 1cm(long), 1cm(wide).
B. Houay Hok	20-56-34.4/ 101-26-41.7	589	backyard	landrace	Mak kheua	a little depressed, 2.5cm(long), 3.5cm(wide).

Table 2 (Continued).

No.	Collection No.	Passport No.	JP No.	Lab ID	Date	Genus & Species	Province/State	District
124	120-1	30035532	234018	ES455	8/16	<i>Solanum melongena</i>	Luang Namtha	
125	120-2	30035533	234019	ES456	8/16	<i>Solanum melongena</i>	Luang Namtha	
126	121	30034786	233832	LCJ 2008129	8/17	<i>Cucumis melo</i>	Luang Namtha	Namtha
127	122	30034787	233833	LCJ 2008130	8/17	<i>Cucumis melo</i>	Luang Namtha	Namtha
128	123	30034788	233834	LCJ 2008131	8/17	<i>Cucumis melo</i>	Luang Namtha	Namtha
129	124	30034789	233835	LCJ 2008132	8/17	<i>Cucumis melo</i>	Luang Namtha	Namtha
130	125	30034790	233836	LCJ 2008133	8/17	<i>Cucumis melo</i>	Luang Namtha	Namtha
131	126	30034791	233837	LCJ 2008134	8/17	<i>Cucumis melo</i>	Udomxai	Namo
132	127	30034792	233838	LCJ 2008135	8/17	<i>Cucumis melo</i>	Udomxai	Namo
133	128	30034793	233839	LCJ 2008136	8/17	<i>Cucumis melo</i>	Udomxai	M. Xai
134	129	30034794	233840	LCJ 2008137	8/17	<i>Cucumis melo</i>	Udomxai	Xai
135	130	30035534	234020	ES457	8/17	<i>Solanum melongena</i>	Udomxai	M. Xay
136	131	30035535	234021	ES458	8/17	<i>Solanum melongena</i>	Udomxai	M. Xay
137	132	30034795	233841	LCJ 2008138	8/17	<i>Cucumis melo</i>	Udomxai	Xai
138	133	30035536	234022	ES459	8/17	<i>Solanum melongena</i>	Udomxai	Xai
139	134	30034796	233842	LCJ 2008139	8/18	<i>Cucumis melo</i>	Udomxai	Xai
140	135	30034797	233843	LCJ 2008140	8/18	<i>Cucumis melo</i>	Udomxai	Route to LPB
141	136	30034798	233844	LCJ 2008141	8/18	<i>Cucumis melo</i>	Udomxai	Route to LPB
142	137	30035537	234023	ES460	8/18	<i>Solanum melongena</i>	Udomxai	Muang La
143	138-1	30035576	234062	CS382	8/18	<i>Capsicum annuum</i>	Phongsaly	Khone
144	138-2	30035577	234063	CS383	8/18	<i>Capsicum annuum</i>	Phongsaly	Khone
145	139	30035578	234064	CS384	8/18	<i>Capsicum annuum</i>	Phongsaly	Khone
146	140	30035538	234024	ES461	8/18	<i>Solanum melongena</i>	Phongsaly	Khone
147	141	30035539	234025	ES462	8/18	<i>Solanum melongena</i>	Phongsaly	Khone
148	142	30035540	234026	ES463	8/18	<i>Solanum melongena</i>	Phongsaly	Khone

Village	North latitude/ East longitude	Height (m)	Source (Market name)	Status	Local name	Fruit characters, etc.
B. Tongchai Neua	21-00-45.3/ 101-24-50.3	564	village market (Tongchai)	landrace	Mak kheua	a little depressed, 4.5cm(long), 5.5cm(wide).
B. Tongchai Neua	21-00-45.3/ 101-24-50.3	564	village market (Tongchai)	landrace	Mak kheua	round, 4.5cm(long), 4.5cm(wide).
from D. Namdy	21-00-52.9/ 101-24-32.6	596	farm stand	landrace	Teng Lai	Orange skin color with stripe
from D. Namdy	21-00-52.9/ 101-24-32.6	596	farm stand	landrace	Teng Lai	Round type, orange skin color with stripe
from D. Namdy	21-00-52.9/ 101-24-32.6	596	farm stand	landrace	Teng Lai	Green skin color
from D. Namdy	21-00-52.9/ 101-24-32.6	596	farm stand	landrace	Teng Lai	Orange skin color with stripe
from D. Namdy	21-00-52.9/ 101-24-32.6	596	farm stand	landrace	Teng Lai	Green skin color with stripe
B. Nam Xae	20-54-43.6/ 101-45-37.2	616	village market	landrace	Teng Lai	Orange skin color with stripe
B. Nam Xae	20-54-43.6/ 101-45-37.2	616	village market	landrace	Teng Lai	Green skin color with stripe
B. Kmee	20-47-42.5/ 101-52-47.4	910	farm stand	landrace	Teng Lai	Yellow skin color with stripe
B. Houay ta			farm stand	landrace	Teng Lai	Green skin color with stripe
B. Homxay	20-43-49.4/ 101-57-05.1	650	backyard	landrace	Mak kheua	depressed, 3.5cm(long), 5cm(wide).
B. Homxay	20-43-49.4/ 101-57-05.1	650	backyard	wild	Mak kheua	round, 4cm(long), 4cm(wide).
B. KM22	20-41-32.9/ 101-58-52.8	703	farm stand	landrace	Teng Lai	Yellow skin color
B. Naxam	20-41-26.5/ 101-59-02.7	640	commercial market	landrace	Mak kheua	round, 3.5cm(long), 3.5cm(wide).
km 9 to south	20-41-23.3/ 101-58-45.0	626	commercial market	landrace	Teng Lai	Green skin color with stripe
B. KM32	20-41-32.9/ 101-58-52.8	703	farm stand	landrace	Teng Lai	Yellow skin color with stripe
B. KM32	20-41-32.9/ 101-58-52.8	703	farm stand	landrace	Teng Lai	Round type, orange skin color with stripe
B. Done Sa-at	20-05-47.8/ 102-06-57.4	468	backyard	wild	Mak kheua	a little depressed, 3.5cm(long), 4.5cm(wide).
from B. Salengdai	21-04-54.6/ 102-30-19.6	404	farm stand	landrace	Phet nxai	6-8cm(long), 1-1.5cm(wide).
from B. Salengdai	21-04-54.6/ 102-30-19.6	404	farm stand	landrace	Phet nxai	4cm(long), 1.5cm(wide).
from B. Salengdai	21-04-54.6/ 102-30-19.6	404	farm stand	landrace	Phet noi	3cm(long), 0.5cm(wide).
from B. Salengdai	21-04-54.6/ 102-30-19.6	404	farm stand	landrace	Mak kheua	a little depressed, 3.5cm(long), 4.5cm(wide).
B. salongxai	21-04-46.9/ 102-30-03.1	371	wild	wild	Mak kheua	round, 4cm(long), 4cm(wide).
B. salongxai	21-04-46.9/ 102-30-03.1	371	wild	wild	Mak kheua	a little depressed, 3.5cm(long), 4.5cm(wide).

Table 2 (Continued).

No.	Collection No.	Passport No.	JP No.	Lab ID	Date	Genus & Species	Province/State	District
149	143	30034799	233845	LCJ 2008142	8/19	<i>Cucumis melo</i>	Udomxai	Xai
150	144	30034800	233846	LCJ 2008143	8/19	<i>Cucumis melo</i>	Udomxai	Xai
151	145	30035579	234065	CS385	8/19	<i>Capsicum annuum</i>	Udomxai	Xai
152	146-1	30035492	233978	TS405	8/19	<i>Solanum lycopersicum</i>	Udomxai	Xai
153	146-2	30035493	233979	TS406	8/19	<i>Solanum lycopersicum</i>	Udomxai	Xai
154	147	30034801	233847	LCJ 2008144	8/19	<i>Cucumis melo</i>	Udomxai	Xai
155	148	30034802	233848	LCJ 2008145	8/19	<i>Cucumis melo</i>	Udomxai	Xai
156	149	30035554	234040	OS108	8/19	<i>Solanum tabacum</i>	Udomxai	Xai
157	150	30035541	234027	ES464	8/19	<i>Solanum melongena</i>	Udomxai	Xai
158	151	30034803	233849	LCJ 2008146	8/19	<i>Cucumis melo</i>	Udomxai	Xai
159	152	30034804	233850	LCJ 2008147	8/19	<i>Cucumis melo</i>	Udomxai	Xai
160	153	30035580	234066	CS386	8/21	<i>Capsicum annuum</i>	Luang Phabang	Phoukhone
161	154	30035581	234067	CS387	8/21	<i>Capsicum annuum</i>	Xieng Khouang	Paek
162	155	30034805	233851	LCJ 2008148	8/21	<i>Cucumis melo</i>	Xieng Khouang	Paek
163	156	30034806	233852	LCJ 2008149	8/21	<i>Cucumis melo</i>	Xieng Khouang	Paek
164	157-1	30035582	234068	CS388	8/21	<i>Capsicum annuum</i>	Xieng Khouang	Paek
165	157-2	30035583	234069	CS389	8/21	<i>Capsicum annuum</i>	Xieng Khouang	Paek
166	158	30035584	234070	CS390	8/21	<i>Capsicum annuum</i>	Xieng Khouang	Paek
167	159	30035585	234071	CS391	8/21	<i>Capsicum annuum</i>	Xieng Khouang	Paek
168	160	30035499	233985	ES422	8/21	<i>Solanum</i> sp.	Xieng Khouang	Paek
169	161	30034807	233853	LCJ 2008150	8/22	<i>Cucumis melo</i>	Xieng Khouang	Paek
170	162	30034808	233854	LCJ 2008151	8/22	<i>Cucumis melo</i>	Xieng Khouang	Paek
171	163	30034809	233855	LCJ 2008152	8/22	<i>Cucumis melo</i>	Xieng Khouang	Paek
172	164	30034810	233856	LCJ 2008153	8/23	<i>Cucumis melo</i>	Xieng Khouang	Kham

Village	North latitude/ East longitude	Height (m)	Source (Market name)	Status	Local name	Fruit characters, etc.
from KM32	20-41-32.9/ 101-58-52.8	703	farm stand	landrace	Teng Lai	White skin color
from KM35	20-41-32.9/ 101-58-52.8	703	farm stand	landrace	Teng Lai	Yellow skin color with stripe
from KM15	20-41-23.3/ 101-58-45.0	626	village market	landrace	Makphet	1.5cm(long), 0.5cm(wide).
from B. Pasak	20-41-23.3/ 101-58-45.0	626	village market		Kheua kheua	a little depressed, 4.5cm(long), 5.5cm(wide).
from B. Pasak	20-41-23.3/ 101-58-45.0	626	village market		Kheua kheua	plam shape, 6cm(long), 4.5cm(wide).
KM 32	20-34-36.4/ 102-07-29.3	878	village market	landrace	Teng Lai	Orange skin color with stripe
KM 32	20-34-36.4/ 102-07-29.3	878	village market	landrace	Teng Lai	Green skin color with stripe
KM 32	20-34-36.4/ 102-07-29.3	878	wild	wild	Yasonb	
KM 35	20-34-15.3/ 102-08-21.6	892	wild	wild	Kheua kheune	round, 2cm(long), 2cm(wide).
KM 44	20-34-33.1/ 102-11-30.7	820	farm stand	landrace	Teng Lai	Yellow skin color with stripe
KM 44	20-34-33.1/ 102-11-30.7	820	farm stand	landrace	Teng Lai	Green skin color with stripe
B. Phoukhoun	19-26-17.5/ 102-25-34.3	1143	farm stand	landrace	Makphet	2-3cm(long), 0.5cm(wide).
B. Souy	19-31-58.3/ 102-52-31.8	1159	farm stand	landrace	Makphet	12-14cm(long), 2-3cm(wide).
B. Saya	19-31-58.3/ 102-52-31.8	1159	farm stand	landrace	Teng Lai	Orange skin color, aroma
B. Saya	19-31-58.3/ 102-52-31.8	1159	farm stand	landrace	Teng Lai	Yellow skin color with stripe
	19-26-59.5/ 103-12-50.5	1105	commercial market (Kasikam)	landrace	Makphet	5cm(long), 1.5cm(wide).
	19-26-59.5/ 103-12-50.5	1105	commercial market (Kasikam)	landrace	Makphet	3.5cm(long), 1cm(wide).
	19-26-59.5/ 103-12-50.5	1105	commercial market (Kasikam)	landrace	Phet noi	2cm(long), 0.5cm(wide).
	19-26-59.5/ 103-12-50.5	1105	commercial market (Kasikam)	landrace	Makphet	7-8cm(long), 1cm(wide).
	19-26-59.5/ 103-12-50.5	1105	commercial market (Kasikam)	landrace	Kheng khom	round, 1cm(long), 1cm(wide).
B. Nong het	19-26-59.5/ 103-12-50.5	1105	commercial market (Kasikam)	landrace	Teng Lai	Orange skin color with stripe
B. Nong het	19-26-59.5/ 103-12-50.5	1105	commercial market (Kasikam)	landrace	Teng Lai	Orange skin color with stripe
B. Nong het	19-26-59.5/ 103-12-50.5	1105	commercial market (Kasikam)	landrace	Teng Lai	Green skin color
B. Chomthong	19-37-58.2/ 103-33-28.5	599	commercial market	landrace	Teng Lai	Orange skin color with stripe

Table 2 (Continued).

No.	Collection No.	Passport No.	JP No.	Lab ID	Date	Genus & Species	Province/State	District
173	165	30034811	233857	LCJ 2008154	8/23	<i>Cucumis melo</i>	Xieng Khouang	Kham
174	166	30034812	233858	LCJ 2008155	8/23	<i>Cucumis melo</i>	Xieng Khouang	Kham
175	167-1	30035586	234072	CS392	8/23	<i>Capsicum annuum</i>	Xieng Khouang	Kham
176	167-2	30035587	234073	CS393	8/23	<i>Capsicum annuum</i>	Xieng Khouang	Kham
177	168-1	30035542	234028	ES465	8/23	<i>Solanum melongena</i>	Xieng Khouang	Kham
178	168-2	30035543	234029	ES466	8/23	<i>Solanum melongena</i>	Xieng Khouang	Kham
179	168-3	30035544	234030	ES467	8/23	<i>Solanum melongena</i>	Xieng Khouang	Kham
180	169	30035500	233986	ES423	8/23	<i>Solanum sp.</i>	Xieng Khouang	Kham
181	170	30035588	234074	CS394	8/23	<i>Capsicum annuum</i>	Xieng Khouang	Kham
182	171	30035589	234075	CS395	8/23	<i>Capsicum annuum</i>	Xieng Khouang	Kham
183	172	30034813	233859	LCJ 2008156	8/23	<i>Cucumis melo</i>	Houa phanh	Houa Meuang
184	173	30034814	233860	LCJ 2008157	8/23	<i>Cucumis melo</i>	Houa phanh	Houa Meuang
185	174	30034815	233861	LCJ 2008158	8/23	<i>Cucumis melo</i>	Houa phanh	Houa Meuang
186	175	30034816	233862	LCJ 2008159	8/23	<i>Cucumis melo</i>	Houa phanh	Sam Neua
187	176	30035545	234031	ES468	8/23	<i>Solanum melongena</i>	Houa phanh	Sam Neua
188	177	30034817	233863	LCJ 2008160	8/23	<i>Cucumis melo</i>	Houa phanh	Sam Neua
189	178	30034818	233864	LCJ 2008161	8/23	<i>Cucumis melo</i>	Houa phanh	Sam Neua
190	179	30034819	233865	LCJ 2008162	8/23	<i>Cucumis melo</i>	Houa phanh	Sam Neua
191	180	30034820	233866	LCJ 2008163	8/23	<i>Cucumis melo</i>	Houa phanh	Sam Neua
192	181-1	30035590	234076	CS396	8/23	<i>Capsicum annuum</i>	Houa phanh	Sam Neua
193	181-2	30035591	234077	CS397	8/23	<i>Capsicum annuum</i>	Houa phanh	Sam Neua
194	182-1	30035546	234032	ES469	8/24	<i>Solanum melongena</i>	Houa phanh	Sam Neua
195	182-2	30035547	234033	ES470	8/24	<i>Solanum melongena</i>	Houa phanh	Sam Neua
196	183	30035548	234034	ES471	8/24	<i>Solanum melongena</i>	Houa phanh	Sam Neua

Village	North latitude/ East longitude	Height (m)	Source (Market name)	Status	Local name	Fruit characters, etc.
B. Chomthong	19-37-58.2/ 103-33-28.5	599	commercial market	landrace	Teng Lai	Round type, orange skin color with stripe
B. Chomthong	19-37-58.2/ 103-33-28.5	599	commercial market	landrace	Teng Lai	White skin color, aroma
B. Chomthong	19-37-58.2/ 103-33-28.5	599	commercial market	landrace	Makphet	4cm(long), 1.2cm(wide).
B. Chomthong	19-37-58.2/ 103-33-28.5	599	commercial market	landrace	Makphet	6-8cm(long), 0.8-1cm(wide).
B. Chomthong	19-37-58.2/ 103-33-28.5	599	commercial market	landrace	Kheua kheune	a little depressed, 3cm(long), 4cm(wide).
B. Chomthong	19-37-58.2/ 103-33-28.5	599	commercial market	landrace	Kheua kheune	round, 3cm(long), 3cm(wide).
B. Chomthong	19-37-58.2/ 103-33-28.5	599	commercial market	landrace	Kheua kheune	a little depressed, 3cm(long), 4cm(wide).
	19-52-01.1/ 103-42-17.0	1495	wild	wild	Kheua ba	round, 3cm(long), 3cm(wide).
B. Phieng khong	19-59-43.8/ 103-42-05.8	657	farmland	landrace	Phetpo	4cm(long), 1cm(wide).
B. Phieng khong	19-59-43.8/ 103-42-05.8	657	farmland	landrace	Phetpo	5cm(long), 1cm(wide).
B. Nam Neune 2	20-01-53.7/ 103-42-59.8	515	commercial market (Sob Lao)	landrace	Teng Lai	Orange skin color with stripe, aroma
B. Nam Neune 2	20-01-53.7/ 103-42-59.8	515	commercial market (Sob Lao)	landrace	Teng Lai	White skin color
B. Nam Neune 2	20-01-53.7/ 103-42-59.8	515	commercial market (Sob Lao)	landrace	Teng Lai	Orange skin color with stripe
B. Saleuy	20-13-31.2/ 103-59-14.2	1339	farmland	landrace	Teng Lai	Green skin color with stripe
B. Saleuy	20-13-31.2/ 103-59-14.2	1339	backyard	wild	Kheua kheune	round, 3cm(long), 3cm(wide).
B. KM12	20-21-15.9/ 104-00-12.7	1279	farm stand	landrace	Teng Lai	Orange skin color with stripe
B. KM12	20-21-15.9/ 104-00-12.7	1279	farm stand	landrace	Teng Lai	Orange skin color with stripe
B. KM12	20-21-15.9/ 104-00-12.7	1279	farm stand	landrace	Teng Lai	Orange skin color with stripe
B. KM12	20-21-15.9/ 104-00-12.7	1279	farm stand	landrace	Teng Lai	Green skin color with stripe
B. KM12	20-21-15.9/ 104-00-12.7	1279	farm stand	landrace	Phet noi	8-10cm(long), 1cm(wide).
B. KM12	20-21-15.9/ 104-00-12.7	1279	farm stand	landrace	Phet noi	8-10cm(long), 2cm(wide).
	20-25-01.9/ 104-03-00.2	956	commercial market (Provincial)	landrace	Kheua kheune	pear shape, 6cm(long), 6.5cm(wide).
	20-25-01.9/ 104-03-00.2	956	commercial market (Provincial)	landrace	Kheua kheune	round, 4cm(long), 4cm(wide).
	20-25-01.9/ 104-03-00.2	956	commercial market (Provincial)	landrace	Mak kheune	a little depressed, 6cm(long), 10cm(wide).

Table 2 (Continued).

No.	Collection No.	Passport No.	JP No.	Lab ID	Date	Genus & Species	Province/State	District
197	184	30035592	234078	CS398	8/24	<i>Capsicum annuum</i>	Houa phanh	Sam Neua
198	185	30035494	233980	TS407	8/24	<i>Solanum lycopersicum</i>	Houa phanh	Sam Neua
199	186-1	30035593	234079	CS399	8/24	<i>Capsicum annuum</i>	Houa phanh	Sam Neua
200	186-2	30035594	234080	CS400	8/24	<i>Capsicum annuum</i>	Houa phanh	Sam Neua
201	187	30034821	233867	LCJ 2008164	8/24	<i>Cucumis melo</i>	Houa phanh	Sam Neua
202	188	30034822	233868	LCJ 2008165	8/24	<i>Cucumis melo</i>	Houa phanh	Sam Neua
203	189	30034823	233869	LCJ 2008166	8/24	<i>Cucumis melo</i>	Houa phanh	Sam Neua
204	190	30034831	233877	LCJ 2008174	8/24	<i>Cucumis sativus</i>	Houa phanh	Sam Neua
205	191	30034824	233870	LCJ 2008167	8/24	<i>Cucumis melo</i>	Houa phanh	Vieng Xai
206	192	30034825	233871	LCJ 2008168	8/24	<i>Cucumis melo</i>	Houa phanh	Vieng Xai
207	193	30034826	233872	LCJ 2008169	8/24	<i>Cucumis melo</i>	Houa phanh	Vieng Xai
208	194	30034827	233873	LCJ 2008170	8/24	<i>Cucumis melo</i>	Houa phanh	Vieng Xai
209	195	30034828	233874	LCJ 2008171	8/24	<i>Cucumis melo</i>	Houa phanh	Vieng Xai
210	196	30034829	233875	LCJ 2008172	8/24	<i>Cucumis melo</i>	Houa phanh	Vieng Xai
211	197	30034830	233876	LCJ 2008173	8/24	<i>Cucumis melo</i>	Houa phanh	Vieng Xai
212	198	30035549	234035	ES472	8/24	<i>Solanum melongena</i>	Houa phanh	Vieng Xai
213	199	30035550	234036	ES473	8/24	<i>Solanum melongena</i>	Houa phanh	Vieng Xai
214	200	30035595	234081	CS401	8/24	<i>Capsicum annuum</i>	Houa phanh	Vieng Xai
215	201	30035551	234037	ES474	8/25	<i>Solanum melongena</i>	Houa phanh	Sam Neua
216	202	30035552	234038	ES475	8/26	<i>Solanum melongena</i>	Xieng Khouang	Kham
217	203	30035553	234039	ES476	8/26	<i>Solanum intergrifolium</i>	Xieng Khouang	Kham
218	204	30034832	233878	LCJ 2008175	8/27	<i>Cucumis sativus</i>	Xieng Khouang	Muang Khone

Village	North latitude/ East longitude	Height (m)	Source (Market name)	Status	Local name	Fruit characters, etc.
	20-25-01.9/ 104-03-00.2	956	commercial market (Provincial)	landrace	Makphet	5cm(long), 1.2cm(wide).
	20-25-01.9/ 104-03-00.2	956	commercial market (Provincial)	landrace	Len Noi	round, 2.5cm(long), 2.5cm(wide).
Meuang Xang	20-25-22.2/ 104-02-31.4	977	commercial market (Sam Neua)	landrace	Makphet	10-13cm(long), 1.5cm(wide).
Meuang Xang	20-25-22.2/ 104-02-31.4	977	commercial market (Sam Neua)	landrace	Makphet	8-10cm(long), 2cm(wide).
B.Houa khang	20-26-33.3/ 104-04-56.4	1008	farm stand	landrace	Teng Lai	Orange skin color with stripe
B.Houa khang	20-26-33.3/ 104-04-56.4	1008	farm stand	landrace	Teng Lai	Orange skin color with stripe
B.Houa khang	20-26-33.3/ 104-04-56.4	1008	farm stand	landrace	Teng Lai	White skin color
B.Houa khang	20-26-33.3/ 104-04-56.4	1008	farm stand	landrace	Teng Kin	White skin color
B.Poun sang	20-19-02.2/ 104-28-05.0	562	farm stand	landrace	Teng Lai	Orange skin color with stripe, aroma
B.Poun sang	20-19-02.2/ 104-28-05.0	562	farm stand	landrace	Teng Lai	Orange skin color with stripe
B.Poun sang	20-19-02.2/ 104-28-05.0	562	farm stand	landrace	Teng Lai	Orange skin color
B.Poun sang	20-19-02.2/ 104-28-05.0	562	farm stand	landrace	Teng Lai	Yellow skin color
B.Poun sang	20-19-02.2/ 104-28-05.0	562	farm stand	landrace	Teng Lai	Round type, orange skin color, aroma
B.Poun sang	20-19-02.2/ 104-28-05.0	562	farm stand	landrace	Teng Lai	Round type, white skin color, aroma
B.Poun sang	20-19-02.2/ 104-28-05.0	562	farm stand	landrace	Teng Lai	Green skin color with stripe, aroma
B.Poun sang	20-19-02.2/ 104-28-05.0	562	farm stand	landrace	Kheua kheune	a little depressed, 4cm(long), 4.5cm(wide).
B.Poun sang	20-19-02.2/ 104-28-05.0	562	farm stand	landrace	Kheua kheune	round, 3.5cm(long), 3.5cm(wide).
B.Poun sang	20-19-02.2/ 104-28-05.0	562	farm stand	landrace	Makphet	8-10cm(long), 2.5cm(wide).
	20-25-01.9/ 104-03-00.2	956	commercial market (Provincial)	landrace		pear shape, 5.5cm(long), 4.5cm(wide).
B. Phieng khong	19-59-43.8/ 103-42-05.8	657	farmland	landrace	Makkheua	round, 4cm(long), 5cm(wide).
B. Chomthong	19-37-58.2/ 103-33-28.5	599	commercial market	landrace	Kheng Khom Gnai	depressed, 3cm(long), 5cm(wide).
B. Sakkhin	19-20-00.0/ 103-21-57.8	1068	commercial market (Muang Khone)	landrace	Teng ching	Yello skin color

Table 3. Fruit characteristics of melon collected in six provinces of Laos in 2008

Province	No. of Sample	No. of Site	Fruit weight (kg) ¹⁾				Fruit height (cm) ¹⁾				Fruit diameter (cm) ¹⁾				Shape index ^{1), 2)}			
			Min	Max	Avg	Var	Min	Max	Avg	Var	Min	Max	Avg	Var	Min	Max	Avg	Var
Salavan	17	4	1.3	4.3	2.1	0.77	11.5	26.5	18.6	22.20	11.0	16.0	13.4	1.86	0.9	1.7	1.4	0.09
Luang Phabang	28	8	0.8	3.9	1.9	0.53	9.0	27.0	14.9	18.68	11.0	16.5	13.8	2.06	0.7	2.0	1.1	0.10
Udomxai	16	9	0.6	2.4	1.4	0.23	10.0	20.0	16.4	7.88	9.0	14.5	11.5	1.93	0.9	1.7	1.4	0.04
Luang Namtha	22	7	0.6	2.1	1.2	0.24	9.0	23.5	14.5	11.68	8.0	14.5	11.1	3.24	0.9	1.8	1.3	0.09
Xieng Khouang	22	7	0.8	2.3	1.5	0.19	11.0	20.5	15.5	7.24	10.5	16.5	12.8	2.11	0.8	1.7	1.2	0.07
Houa phanh	33	7	0.7	3.0	1.4	0.24	11.0	21.0	15.3	13.74	10.0	18.0	12.6	2.61	0.8	1.6	1.3	0.03
Total	138	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

1)Min: minimum value, max: maximum value, avg: average value, var: variance

2)Shape index = fruit height/fruit diameter

Table 4. Sugar content, fragrance, and skin characteristics of melons collected in six provinces of Laos in 2008

Province	No. of Sample	No. of Site	Brix (%) ¹⁾				Fragrance ²⁾			Skin stripe ³⁾		
			Min	Max	Avg	Var	+	-	%	+	-	%
Salavan	17	4	4.0	8.0	5.7	1.37	7	10	41.2	10	7	58.8
Luang Phabang	28	8	3.0	8.0	5.9	1.43	7	21	25.0	4	24	14.3
Udomxai	16	9	3.0	7.0	4.2	1.37	1	15	6.3	14	2	87.5
Luang Namtha	22	7	3.0	6.0	4.7	0.59	2	20	9.1	19	3	86.4
Xieng Khouang	22	7	3.0	8.0	5.1	1.63	6	16	27.3	15	7	68.2
Houa phanh	33	7	3.0	9.0	5.1	1.66	7	26	21.2	22	11	66.7
Total	138	42	-	-	-	-	-	-	-	-	-	-

1)Min: minimum value, max: maximum value, avg: average value, var: variance

2)"+", "-"; No. of presence and absence of fragrance in mature fruit. "%" is indicated percentage of "+".

3)"+", "-"; No. of presence and absence of stripe. "%" is indicated percentage of "+".



Photo 1. Various vegetables found at Kowrdin market.



Photo 2. Various vegetables found at That Luang market.



Photo 3. Melon market in Vientiane district. These melons were produced in Salavan Province.



Photo 4. Slash-and-burn field, Luang Prabang Province.



Photo 5. Cultivation of bananas on a slash-and-burn field, Luang Prabang Province.



Photo 6. Farm stand with melon and cucumber in Ban Hatsoua, Luang Prabang Province. Some people traveled to the market by car to buy melons.



Photo 7. Melons cultivated with corn in slash-and-burn fields, Luang Prabang Province. Soybean and papaya were also cultivated in the same fields.



Photo 8. Melon collected around Ponsavan. A: Makteng meúay, B: Makuten kao, other melon: Makteng lai



Photo 9. Cucumbers sold at market in Luang Namtha. Upper: round type with white skin (No. 80). Lower: oval type with green skin.



Photo 10. Typical eggplant (small round shape, No. 76) at Luang Namtha.



Photo 11. Typical eggplant (depressed shape, No. 75) at Luang Namtha.



Photo 12. Fruits of *Solanum intergrifolium* (No.77) at Luang Namtha.



Photo 13. Fruits of *Solanum quitoense* (No. 78) at Luang Namtha.



Photo 14. Fruits of *Capsicum* (left: No. 166, center: No.165, right: No.167) at Phonsavan.



Photo 15. *Cucumis hystrix* collected in Ban Phèng Khong, Houa Phan Province. Note the yellow female flower in the middle of the picture.



Photo 16. A large eggplant fruit (No. 196) at Sam Neua.



Photo 17. A red eggplant fruit (No. 215) at Sam Neua.



Photo 18. Imported commercial vegetable seeds from China and Thailand for sale at Muang Sing market.



Photo 19. A road from Luang Prabang to Udomxai interrupted by a landslide.



Photo 20. A submerged road from Udomxai to Ban Vangua.



Photo 21. A mud-covered road from Udomxai to Luang Prabang.



Photo 22. Melon collected in Luang Namtha, Laos (left: No. 68), and in southern Yunnan, China (right).

