〔AREIPGR Vol. 41: 82-92, 2025〕
doi:10.24514/0002001688

Expedition and Collection for Vegetable Genetic Resources in Uzbekistan, 2024

Kenji IRIE [1)], Satoshi FUJITO [2)], Akiko BABA-KASAI [3)], Ravza MAVLYANOVA [4)], Rustam NIZOMOV [4)]

1) *Faculty of International Agriculture and Food Studies, Tokyo University of Agriculture*, 1-1-1 Sakuragaoka, Setagaya, Tokyo 156-8502, Japan
2) *Institute of Vegetable and Floriculture Science, National Agriculture and Food Research Organization (NARO),* 360 Kusawa, Ano, Tsu, Mie 514-2392, Japan
3) *Research Center of Genetic Resources, National Agriculture and Food Research Organization (NARO)*, 2-1-2 Kannondai, Tsukuba, Ibaraki 305-8620, Japan
4) *Scientific Research Institute of Vegetables Crops, Melons and Potatoes*, Tashkent region, Tashkent district, Kuksaroy communication department, Keles street, Tashkent 111106

Summary

A collaborative research between the Scientific Research Institute of Vegetable, Melon Crops and Potato of the Uzbekistan and members of Plant Genetic Resources in Asia Project (PGRAsia) consisting of Tokyo University of Agriculture (TUA), Institute of Vegetable and Floriculture Science, NARO and Research Center of Genetic Resources, NARO was started in 2024 under the Plant Genetic Resources in Asia Project to survey vegetable genetic resources in Uzbekistan. From the 14 to 23 of September 2024, the expeditions to collect vegetable seeds in the three regions, Andijan, Namangan and Fergana, of Fergana Valley was conducted as part of this collaborative research. A total of 77 genetic resources, including 76 samples belonging to 29 species in 22 genera and 11 families and one unidentified plant from farmlands, farm storage, seed store in markets, and regional research institute, were collected. The collected seeds were equally divided into two sets, one of which was stored in the Uzbekistan Genebank, and one of which will be transferred to the Research Center of Genetic Resources, NARO, under a standard material transfer agreement.

KEY WORDS: Plant genetic resources, Vegetables, Market, Uzbekistan

Introduction

The Republic of Uzbekistan is located in Central Asia and has rich potential of cultivated plant genetic resources and their wild relatives. Uzbekistan occupies the territory of 448.84 thousand km^2 and on natural climatic and soil conditions it is divided into 3 zones: Northern, Central and Southern. Agriculture is the main branch of the republic. Varieties of the most important for the region crops are developed in the republic and widely grown in agricultural production and in farms. All this promoted development of agriculture and increase in food products. Different crop plants occupy area about 44,457.9 thousand ha, there are: Total agricultural area – 27,667.4 thousand ha, arable land – 4,486.0 thousand ha, grassland – 109.6 thousand ha, pastureland – 22,532.2 thousand ha (Institute of Genetics and Plant Experimental Biology of Academy of Science of Republic of Uzbekistan 2004).

In 2024, an expedition was carried out under collaborative research project between Japan and Uzbekistan in the Fergana Valley of Uzbekistan. The Fergana Valley is located in the east of Uzbekistan and the south of Kyrgyzstan and is surrounded by mountain ranges: Chatkal in the north, Kuramin in the northwest, Fergana in the east, Alai and Turkestan in the south. It is known that 5–6 thousand years ago agriculture was

already developed here. A rich diversity of local varieties and forms of agricultural crops has formed here.

The work plan of joint research project was formulated within the context of the joint research agreement (JRA) on characterization and evaluation of plant genetic resources for food and agriculture (April 1, 2024–March 31, 2026) signed between National Agriculture and Food Research Organization (NARO), Japan and the Research Institute of Vegetable, Melon Crops and Potato (SRIVMCP,) Uzbekistan in 2024. As a part of this project, the expedition in the Fergana Valley was conducted by a group of scientists from Japan and Uzbekistan. The territory of the Fergana Valley of Uzbekistan, including the Andijan, Namangan and Fergana regions, was surveyed and the collection of local and cultivated varieties and forms of vegetable and melon crops (radishes, carrots, beets, onions, tomatoes, peppers, melon, cucumber, pumpkin, coriander, and others) was carried out.

Methods

From the 14 to 23 of September 2024, the Scientific Research Institute of Vegetable, Melon Crops and Potato (SRIVMCP) and members of Plant Genetic Resources in Asia Project (PGRAsia) consisting of Tokyo University of Agriculture (TUA), Institute of Vegetable and Floriculture Science, NARO and Research Center of Genetic Resources, NARO conducted a joint expedition to collect vegetable genetic resources mainly in the three regions, Andijan, Namangan and Fergana, of Fergana Valley in Uzbekistan (Fig. 1 and Table 1). During the expedition, vegetable genetic resources were collected from farmlands, farm storage, seed store in markets, and regional research institute, along with information regarding crop uses and cultivation.

Results

We visited the natural area, farmer's and dekhans' fields, greenhouses and the vegetable markets, and got acquainted with the range of local varieties there. We collected the seeds of local varieties of various vegetable and melon crops we needed. As a result, a total 77 samples of 29 species of Solanaceae, root, green, and melon crops, leguminous and other crops were collected as well as wild species of carrot, Brassicaceae and amaranth (Table 2). We collected a total of 22 genus samples, including 11 samples of the genus *Cucumis*, nine samples of the genus *Raphanus*, seven samples each from the genera *Allium* and *Daucus*, six samples of the genus *Capsicum*, five samples each from the genera *Brassica*, *Cicer*, and *Solanam*, three samples each from the genera *Beta* and *Cucurbita*, two samples each from the genera *Anethum*, *Spinacia* and *Vigna*, one samples each from the genera *Amaranthus*, *Apium*, *Citrullus*, *Coriandrum*, *Lactuca*, *Linum*, *Petroselinum*, *Rumex*, *Sorghum*, and one unidentified plant (Table 2). A description of the surveyed areas was carried out and primary characteristics of samples of vegetable and melon crops was collected (Table 3). Seeds from collected samples were submitted to local quarantine authorities for verification. The collected local varieties and samples of vegetable and melon crops were stored for subsequent preservation in the gene banks.

Discussion

Uzbekistan are known as a primary center of

Table 1. Itinerary of the field survey in Fergana Valley (September 13 to 24, 2024)

Date	Itinerary	Stay
2024/9/12	Tsukuba/Tokyo -- Narita Airport 11:05 -- (HY528) -- Tashkent Airport 16:10 -- Stay at Tashkent	Tashkent
2024/9/13	Travel to Andijan from Tashikent by train. Tashkent Station 7:55 -- (train) -- Andijan Station 14:20 -- Visit to the local vegetable market.	Andijan
2024/9/14	Expedition in the Andijan region. Visit the Andijan Experimental Station of SPEKITI.	Andijan
2024/9/15	Travel to Namangan from Andijan by car. Visit to the local vegetable market.	Namangan
2024/9/16	Expedition in the Namangan region.	Namangan
2024/9/17	Travel to Fergana from Namangan by car. Visit to the local vegetable market.	Fergana
2024/9/18	Expedition in the Fergana region. Travel to Andijan from Fergana by car.	Andijan
2024/9/19	Delivery of collected seed samples to the Andijan Quarantine Inspectorate. Travel to Tashiken from Andijan by train. Andijan Station 15:53 -- (train) -- Tashkent Station 21:39	Tashkent
2024/9/20	Discussion of the results of the expedition	Tashkent
2024/9/21	Seed cleaning/Sample list preparation	Tashkent
2024/9/22	Visit the Research Institute of Vegetable, Melon Crops and Potato, Uzbekistan and meet with scientists until evening; Tashkent Airport 22:05 -- (HY527) --	flying overnight
2024/9/23	(HY527) -- Narita Airport 09:40 -- Tsukuba/Tokyo	

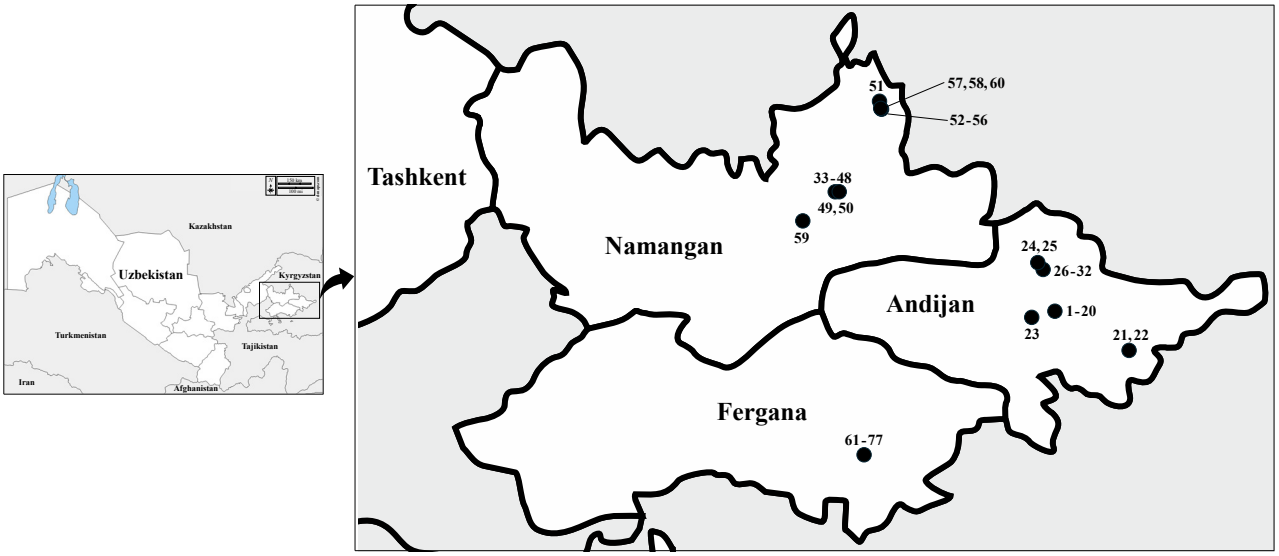

Fig. 1. Collection sites in Fergana Valley in Uzbekistan. 12 collection sites are indicated by circle with accession numbers.

Table 2. A summary of collected samples in Fergana Valley

Family	Genus	Species	Collected number
Amaranthaceae	*Amarantus*	*Amarantus* sp.	1
	Beta	*Beta vulgaris* L.	2
		Beta vulgaris ssp. *vulgaris*	1
	Spinacia	*Spinacia oleracea*	2
Amaryllidaceae	*Allium*	*Allium cepa* L.	5
		Allium chinense G. Don	1
		Allium sativum L.	1
Apiaceae	*Anethum*	*Anethum graveolens* L.	2
	Apium	*Apium graveolens* var.*dulce* (Mill) Pers.	1
	Coriandrum	*Coriandrum sativum* L.	1
	Daucus	*Daucus carota* L.	7
	Petroselinum	*Petroselinum crispum* (Mill) Fus.	1
Asteraceae	*Lectuca*	*Lectuca sativa* L.	1
Brassicaceae	*Brassica*	*Brassica rapa* L.	4
		Brassica sp.	1
	Raphanus	*Raphanus sativus* L.	9
Cucurbitaceae	*Citrullus*	*Citrullus vulgaris* Schrad.	1
	Cucumis	*Cucumis melo* L.	8
		Cucumis sativus L.	3
	Cucurbita	*Cucurbita maxima* L.	3
Fabaceae	*Cicer*	*Cicer arietinum* L.	5
	Vigna	*Vigna radiata* (L.) R.Wilczek	1
		Vigna unguiculata (L.) Walpers cv-gr. Sesquipedalis E.	1
Linaceae	*Linum*	*Linum usitatissimum* L.	1
Poaceae	*Sorghum*	*Sorghum bicolor* var. *hoki*	1
Polygonaceae	*Rumex*	*Rumex* sp.	1
Solanaceae	*Capsicum*	*Capsicum annuum* L.	6
	Solanum	*Solanum lycopersicum* L.	4
		Solanum melongena L.	1
unidentified	unidentified	unidentified	1
Total			77

origin for *Daucus carota* L., *Brassica rapa* var. *rapa* L, *Allium cepa* L. (sensu lato), *Allium. sativum* L., *Spinacia oleracea* L., and *Ocimum basilicum* L., and a secondary center for *Cucumis melo* L, *Lagenaria vulgaris* Ser, *Raphanus sativus* L., and *Portulaca oleracea* L.. In this survey, many farmers continue to grow local varieties and realize their production in local markets. In this way, the distribution of local disappearing varieties is supported. There is also an increasing tendency of cultivation of new crop varieties. We also concluded that other areas of Uzbekistan should be systematically explored for additional genetic resources of these vegetables as soon as possible, as economic changes, urbanization and lifestyle changes may facilitate the rapid genetic erosion of traditional vegetable varieties.

Acknowledgment

This work was supported by MAFF commissioned project study on "A Collaborative Research Project on Characterization and Evaluation of Plant Genetic Resources for Food and Agriculture (PGRAsia)" Grant Number JPJ009843.

References

Institute of Genetics and Plant Experimental Biology of Academy of Science of Republic of Uzbekistan (2004) Country Report on The State of Plant Genetic Resources for Food and Agriculture, Uzbekistan. Food and Agriculture Organization of the United Nations (FAO), 27 p. [https://www.fao.org/4/i1500e/Uzbekistan.pdf]

ウズベキスタンにおける野菜遺伝資源の共同探索，2024 年

入江 憲治[1)]・藤戸 聡史[2)]・馬場（笠井）晶子[3)]・
Ravza MAVLYANOVA[4)]・Rustam NIZOMOV[4)]

1) 東京農業大学 国際食料情報学部
2) 農業・食品産業技術総合研究機構 野菜花き研究部門
3) 農業・食品産業技術総合研究機構 基盤技術研究本部 遺伝資源研究センター
4) ウズベキスタン野菜・メロン・バレイショ研究所

和文摘要

ウズベキスタンウズベキスタン野菜・メロン・バレイショ研究所と国立研究開発法人農業・食品産業技術研究機構（NARO）は，PGRAsia（Plant Genetic Resources in Asia）プロジェクトの一環として，ウズベキスタン国内における野菜遺伝資源の共同研究を 2024 年から開始した．この共同研究の一環として，2024 年 9 月 14 日から 23 日にアンディジャン，ナマンガンおよびフェルガナ地域において野菜類種子の探索および収集を実施した．その結果，各地の自生地，マーケット，農家および地方の研究所等から 11 科 22 属 29 種に属する遺伝資源 76 点および未同定の植物遺伝資源 1 点の合計 77 点を収集することができた．収集した種子は 2 等分し，半分はウズベキスタンジーンバンクで保存している．残りの半分は SMTA（標準材料移転契約）により NARO 遺伝資源研究センターに移送する予定である．

Table 3. A passport information of collected samples

JP No.	Col. No	Scientific name	Crop name in English	Local name of the crop	Official name of the sample	Other local name of the sample	和名	Col. Date	Status	Collection Site	Latitude	Longitude	Altitude (m)	Seed	Remarks
293402	001	*Raphanus sativus* L.	Spring radish	Rediska	Dunganskiy 12/8	Dungan	ハツカダイコン	14 Sep, 2024	cultivar	Central Farmers' Market, Andijan	40.758	72.353	508	bulk	
293403	002	*Raphanus sativus* L.	Spring radish	Rediska	Mayskiy mestniy	Mayskiy	ハツカダイコン	14 Sep, 2024	cultivar	Central Farmers' Market, Andijan	40.758	72.353	508	bulk	
293404	003	*Raphanus sativus* L.	Spring radish	Rediska	Lola		ハツカダイコン	14 Sep, 2024	cultivar	Central Farmers' Market, Andijan	40.758	72.353	508	bulk	
293405	004	*Raphanus sativus* L.	Winter radish	Turp	Margilanskaya	Margilon	ダイコン	14 Sep, 2024	cultivar	Central Farmers' Market, Andijan	40.758	72.353	508	bulk	
293406	005	*Raphanus sativus* L.	Winter radish	Turp	Andijanskaya 9	Andijon	ダイコン	14 Sep, 2024	cultivar	Central Farmers' Market, Andijan	40.758	72.353	508	bulk	
293407	006	*Beta vulgaris* L.	Red table beet	Lavlagi	Diyor		テーブルビート	14 Sep, 2024	cultivar	Central Farmers' Market, Andijan	40.758	72.353	508	bulk	
293408	007	*Cucumis sativus* L.	Cucumber	Bodring	Ranniy 645	Ertaki	キュウリ	14 Sep, 2024	cultivar	Central Farmers' Market, Andijan	40.758	72.353	508	bulk	
293409	008	*Cucumis sativus* L.	Cucumber	Bodring	Uzbekskiy 740	Uzbekiston	キュウリ	14 Sep, 2024	cultivar	Central Farmers' Market, Andijan	40.758	72.353	508	bulk	
293410	009	*Brassica rapa* L.	Turnip	Sholg'om	Namanganskaya belaya	Namangan makhaliy	ヨーロッパ系カブ	14 Sep, 2024	cultivar	Central Farmers' Market, Andijan	40.758	72.353	508	bulk	
293411	010	*Daucus carota* L.	Carrot	Sabzi	Mirzoi jeltaya 304	Mirzoyi sariq	ニンジン	14 Sep, 2024	cultivar	Central Farmers' Market, Andijan	40.758	72.353	508	bulk	
293412	011	*Daucus carota* L.	Carrot	Sabzi	Mshak 195	Besh barg	ニンジン	14 Sep, 2024	cultivar	Central Farmers' Market, Andijan	40.758	72.353	508	bulk	
293413	012	*Daucus carota* L.	Carrot	Sabzi	Mirzoi krasnaya	irzoyi qizil makhaliy	ニンジン	14 Sep, 2024	cultivar	Central Farmers' Market, Andijan	40.758	72.353	508	bulk	
293414	013	*Allium cepa* L.	Onion	Piyoz	Karatalskiy	Karatal	タマネギ	14 Sep, 2024	cultivar	Central Farmers' Market, Andijan	40.758	72.353	508	bulk	
293415	014	*Allium cepa* L.	Onion	Piyoz	Margilanskiy udlineniy	Andijaon oq piyoz	タマネギ	14 Sep, 2024	cultivar	Central Farmers' Market, Andijan	40.758	72.353	508	bulk	
293416	015	*Allium chinense* G. Don	Scallion	Jusay	No name	Jusai onion / Chinese fragrant onion	ラッキョウ	14 Sep, 2024	cultivar	Central Farmers' Market, Andijan	40.758	72.353	508	bulk	
293417	016	*Cucumis melo* L.	Melon	Qovun	Obi-novvot		メロン	14 Sep, 2024	cultivar	Central Farmers' Market, Andijan	40.758	72.353	508	bulk	
293418	017	*Spinacia oleracea*	Spinacih	Shpinat	Khosildor		ホウレンソウ	14 Sep, 2024	cultivar	Central Farmers' Market, Andijan	40.758	72.353	508	bulk	
293419	018	*Cicer arietinum* L.	Chickpea	Nohot	No name		ヒヨコマメ	14 Sep, 2024	cultivar	Central Farmers' Market, Andijan	40.758	72.353	508	bulk	Small size
293420	019	*Cicer arietinum* L.	Chickpea	Nohot	No name		ヒヨコマメ	14 Sep, 2024	cultivar	Central Farmers' Market, Andijan	40.758	72.353	508	bulk	Bigger size
293421	020	*Vigna radiata* (L.) R.Wilczek	Mung bean	Mosh	No name		ケツルアズキ	14 Sep, 2024	cultivar	Central Farmers' Market, Andijan	40.758	72.353	508	bulk	Local
293422	021	*Daukus carota* L.	Carrot wild	Yovoiy sabzi	No name		野生ニンジン	15 Sep, 2024	Wild	Khodjaobod, Nabigul village	40.602	72.595	716	bulk	
293423	022	*Brassica* sp.	*Brassica* sp.	Yovoiy turp	No name		野生ナタネ	15 Sep, 2024	Wild	Khodjaobod, Nabigul village	40.602	72.595	716	bulk	

Table 3. (Continued).

JP No.	Col. No	Scientific name	Crop name in English	Local name of the crop	Official name of the sample	Other local name of the sample	和名	Col. Date	Status	Collection Site	Latitude	Longitude	Altitude (m)	Seed	Remarks
293424	023	*Capsicum annuum* L.	Hot pepper	Achiq qalampir	No name		トウガラシ	15 Sep, 2024	cultivar	Khodjaobod	40.742	72.312	486	bulk	
293425	024	*Amarantus* sp.			No name		アマランサス	15 Sep, 2024	Wild	Khodjaobod	40.869	72.324	455	bulk	
293426	025	*Capsicum annuum* L.	Hot pepper	Achiq qalampir	Margilanskiy 330		トウガラシ	15 Sep, 2024	cultivar	Andijan Experimental Station of RIVMCP	40.869	72.324	455	bulk	
293427	026	*Raphanus sativus* L.	Winter radish	Turp	Andijanskaya 9		ダイコン	15 Sep, 2024	cultivar	Andijan Experimental Station of RIVMCP	40.860	72.325	455	bulk	
293428	027	*Cucumis melo* L.	Melon	Qovun	Kok magiz		メロン	15 Sep, 2024	cultivar	Andijan Experimental Station of RIVMCP	40.860	72.325	455	bulk	
293429	028	*Cucumis melo* L.	Melon	Qovun	Kichkintoy		メロン	15 Sep, 2024	cultivar	Andijan Experimental Station of RIVMCP	40.860	72.325	455	bulk	
293430	029	*Citrullus vulgaris* Schrad.	Watermelon	Tarvuz	Shirin		スイカ	15 Sep, 2024	cultivar	Andijan Experimental Station of RIVMCP	40.860	72.325	455	bulk	
293431	030	*Raphanus sativus* L.	Spring radish	Rediska	Lola		ハツカダイコン	15 Sep, 2024	cultivar	Andijan Experimental Station of RIVMCP	40.860	72.325	455	bulk	
293432	031	*Allium cepa* L.	Onion	Piyoz	Malla		タマネギ	15 Sep, 2024	cultivar	Andijan Experimental Station of RIVMCP	40.860	72.325	455	bulk	
293433	032	*Capsicum annuum* L.	Sweet pepper	Shirin qalampir	Dar Tashkenta		パプリカ	15 Sep, 2024	cultivar	Andijan Experimental Station of RIVMCP	40.860	72.325	455	bulk	
293434	033	*Cucurbita maxima* L.	Pumpkin	Osh qovoq	Ispanskaya 73		カボチャ	16 Sep, 2024	cultivar	Central Farmers' Market, Namangan	41.001	71.679	425	bulk	
293435	034	*Cucurbita maxima* L.	Pumpkin	Osh qovoq	Palov kadu		カボチャ	16 Sep, 2024	cultivar	Central Farmers' Market, Namangan	41.001	71.679	425	bulk	
293436	035	*Raphanus sativus* L.	Spring radish	Rediska	Rubin		ハツカダイコン	16 Sep, 2024	cultivar	Central Farmers' Market, Namangan	41.001	71.679	425	bulk	ロシア産種子
293437	036	*Anethum graveolens* L.	Dill	Ukrop	Orom		ディル	16 Sep, 2024	cultivar	Central Farmers' Market, Namangan	41.001	71.679	425	bulk	
293438	037	*Rumex* sp.	Rumex sp.	Shovul	No name		スイバ	16 Sep, 2024	cultivar	Central Farmers' Market, Namangan	41.001	71.679	425	bulk	
293439	038	*Spinacia oleracea*	Spinacih	Shpinat	Nafis		ホウレンソウ	16 Sep, 2024	cultivar	Central Farmers' Market, Namangan	41.001	71.679	425	bulk	
293440	039	*Lectuca sativa* L.	Lettuce	Brag salat	Kok shokh		レタス	16 Sep, 2024	cultivar	Central Farmers' Market, Namangan	41.001	71.679	425	bulk	
293441	040	*Allium cepa* L.	Onion	Piyoz	Sumbula		タマネギ	16 Sep, 2024	cultivar	Central Farmers' Market, Namangan	41.001	71.679	425	bulk	
293442	041	*Daucus carota* L.	Carrot	Sabzi	G'aloka qizil		ニンジン	16 Sep, 2024	cultivar	Central Farmers' Market, Namangan	41.001	71.679	425	bulk	Red type
293443	042	*Solanam lycopersicum* L.	Tomato	Pomidor	UzMASh		トマト	16 Sep, 2024	cultivar	Central Farmers' Market, Namangan	41.001	71.679	425	bulk	
293444	043	*Brassica rapa* L.	Turnip	Sholg'om	Petrovskaya		ヨーロッパ系カブ	16 Sep, 2024	cultivar	Central Farmers' Market, Namangan	41.001	71.679	425	bulk	ロシア産種子
293445	044	*Petroselinum crispum* (Mill) Fus.	Parsley	Petrushka	No name		パセリ	16 Sep, 2024	cultivar	Central Farmers' Market, Namangan	41.001	71.679	425	bulk	
293446	045	*Linum usitatissimum* L.	Flax	Zigir	No name		アマ	16 Sep, 2024	cultivar	Central Farmers' Market, Namangan	41.001	71.679	425	bulk	

Table 3. (Continued).

JP No.	Col. No	Scientific name	Crop name in English	Local name of the crop	Official name of the sample	Other local name of the sample	和名	Col. Date	Status	Collection Site	Latitude	Longitude	Altitude (m)	Seed	Remarks
293447	046	*Cicer arietinum* L.	Chickpea	Nohot	No name		ヒヨコマメ	16 Sep, 2024	cultivar	Central Farmers' Market, Namangan	41.001	71.679	425	bulk	
293448	047	*Cicer arietinum* L.	Chickpea	Nohot	No name		ヒヨコマメ	16 Sep, 2024	cultivar	Central Farmers' Market, Namangan	41.001	71.679	425	bulk	
293449	048	*Cicer arietinum* L.	Chickpea	Nohot	No name		ヒヨコマメ	16 Sep, 2024	cultivar	Central Farmers' Market, Namangan	41.001	71.679	425	bulk	
293450	049	*Allium sativum* L.	Garlic	Sarimsoq	Makhaliy		ニンニク	16 Sep, 2024	cultivar	Central Farmers' Market, Namangan	41.001	71.680	408	bulk	
293451	050	*Capsicum annuum* L.	Hot pepper	Achiq qalampir	No name		トウガラシ	16 Sep, 2024	cultivar	Central Farmers' Market, Namangan	41.001	71.680	427	bulk	
293452	051	*Capsicum annuum* L.	Sweet pepper	Shirin qalampir	No name		パプリカ	17 Sep, 2024	cultivar	Farmer's Field, Namangan	41.245	71.819	802	bulk	
293453	052	*Cucumis melo* L.	Melon	Qovun			メロン	17 Sep, 2024	cultivar	Farmer's Field, Namangan	41.240	71.820	797	bulk	
293454	053	*Cucumis melo* L.	Melon	Qovun			メロン	17 Sep, 2024	cultivar	Farmer's Field, Namangan	41.240	71.820	797	bulk	
293455	054	*Cucumis melo* L.	Melon	Qovun			メロン	17 Sep, 2024	cultivar	Farmer's Field, Namangan	41.240	71.820	797	bulk	
293456	055	*Cucumis melo* L.	Melon	Qovun			メロン	17 Sep, 2024	cultivar	Farmer's Field, Namangan	41.240	71.820	797	bulk	
293457	056	*Cucumis melo* L.	Melon	Qovun			メロン	17 Sep, 2024	cultivar	Farmer's Field, Namangan	41.240	71.820	797	bulk	
293458	057	*Solanam lycopersicum* L.	Tomato	Pomidor			トマト	17 Sep, 2024	cultivar	Farmer's Field, Namangan	41.241	71.820	793	bulk	
293459	058	*Solanam lycopersicum* L.	Tomato	Pomidor			トマト	17 Sep, 2024	cultivar	Farmer's Field, Namangan	41.241	71.820	793	bulk	
293460	059	*Sorghum bicolor* var. *hoki*	Bloom corn	Tariq			ブルーム・ソルガム	17 Sep, 2024	cultivar	Farmer's Field, Namangan	40.968	71.582	436	bulk	
293461	060	*Solanam lycopersicum* L.	Tomato	Pomidor			トマト	17 Sep, 2024	cultivar	Farmer's Field, Namangan	41.241	71.820	793	bulk	
293462	061	*Cucurbita maxima* L.	Pumpkin	Osh qovoq	Makhalliy		カボチャ	18 Sep, 2024	cultivar	Central Farmers' Market, Fergana	40.391	71.789	568	bulk	
293463	062	*Coriandrum sativum* L.	Coriander	Coriander	Makhalliy		コリアンダー	18 Sep, 2024	cultivar	Central Farmers' Market, Fergana	40.391	71.789	568	bulk	
293464	063	*Allium cepa* L.	Onion	Piyoz	Makhalliy oq		タマネギ	18 Sep, 2024	cultivar	Central Farmers' Market, Fergana	40.391	71.789	568	bulk	
293465	064	*Daucus carota* L.	Carrot	Sabzi	Makhalliy sariq		ニンジン	18 Sep, 2024	cultivar	Central Farmers' Market, Fergana	40.391	71.789	568	bulk	
293466	065	*Anethum graveolens* L.	Dill	Ukrop	Uzbekskiy 234		ディル	18 Sep, 2024	cultivar	Central Farmers' Market, Fergana	40.391	71.789	568	bulk	
293467	066	*Beta vulgaris* ssp. *vulgaris*	Sugar beet	Oq lavlagi	Makhalliy		テンサイ	18 Sep, 2024	cultivar	Central Farmers' Market, Fergana	40.391	71.789	568	bulk	
293468	067	*Beta vulgaris* L.	Red table beet	Qizil lavlagi	Yagona		テーブルビート	18 Sep, 2024	cultivar	Central Farmers' Market, Fergana	40.391	71.789	568	bulk	

Table 3. (Continued).

JP No.	Col. No	Scientific name	Crop name in English	Local name of the crop	Official name of the sample	Other local name of the sample	和名	Col. Date	Status	Collection Site	Latitude	Longitude	Altitude (m)	Seed	Remarks
293469	068	*Raphanus sativus* L.	Winter radish	Turp	Makhalliy		ダイコン	18 Sep, 2024	cultivar	Central Farmers' Market, Fergana	40.391	71.789	568	bulk	
293470	069	*Brassica rapa* L.	Turnip	Sholg'om	Samarquand qizil		ヨーロッパ系カブ	18 Sep, 2024	cultivar	Central Farmers' Market, Fergana	40.391	71.789	568	bulk	
293471	070	*Solanum melongena* L.	Egg plant	Baklajon	Avrota		ナス	18 Sep, 2024	cultivar	Central Farmers' Market, Fergana	40.391	71.789	568	bulk	
293472	071	*Cucumis sativus* L.	Cucumber	Bodring	Makhalliy Olti ariq		キュウリ	18 Sep, 2024	cultivar	Central Farmers' Market, Fergana	40.391	71.789	566	bulk	
293473	072	unidentified	unidentified	Jambul	Makhalliy		未同定	18 Sep, 2024	cultivar	Central Farmers' Market, Fergana	40.391	71.789	566	bulk	
293474	073	*Apium graveolens* var.*dulce* (Mill) Pers.	Celery	Selderey	Makhalliy		セロリ	18 Sep, 2024	cultivar	Central Farmers' Market, Fergana	40.391	71.789	566	bulk	
293475	074	*Brassica rapa* L.	Turnip	Sholg'om	Sariq		ヨーロッパ系カブ	18 Sep, 2024	cultivar	Central Farmers' Market, Fergana	40.391	71.789	566	bulk	
293476	075	*Daucus carota* L.	Carrot	Sabzi	Makhalliy surkh		ニンジン	18 Sep, 2024	cultivar	Central Farmers' Market, Fergana	40.391	71.789	566	bulk	
293477	076	*Vigna unguiculata* (L.) Walpers cv-gr. Sesquipedalis E. Westphal	Yard-long bean	Janduq	Makhalliy		ジュウロクササゲ	18 Sep, 2024	cultivar	Central Farmers' Market, Fergana	40.391	71.789	566	bulk	
293478	077	*Capsicum annuum* L.	Hot pepper	Achiq qalampir	Makhalliy		トウガラシ	18 Sep, 2024	cultivar	Central Farmers' Market, Fergana	40.391	71.789	561	bulk	

Photo 1. Collecting wild *Brassicaceae* plants.

Photo 2. Turnip cultivation by local farmer.

Photo 3. Turnip genetic resources from farmers' field.

Photo 4. Tomato genetic resources from farmer's field.

Photo 5. Onion genetic resources from farmer's field.

Photo 6. Melon genetic resources from farmer's field.

Photo 7. The variation in meron fruits collected in this survey.

Photo 9. Seeds for crops and vegetable at seed stores.

Photo 8. Crop and vegetable seeds sold in the market.