

FEEDBACK

from the field



AVRDC
The World Vegetable Center

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This bulletin provides feedback to AVRDC - The World Vegetable Center's research groups about local vegetable production and consumption constraints to enable our research to be more pertinent to end users. It is issued quarterly. Please send your trip reports or news of anything urgent from the field to tech_dissemination@worldveg.org. Thank you!

AVRDC-distributed promising lines adopted by farmers in Uzbekistan



Mr. Mahamatali Vahhobov, an Uzbek farmer, grows the newly released hot pepper variety 'Uchkun' and he is pleased with the good fruit quality

Vegetable cultivation increases incomes for farmers and private institutions and it is particularly important in peri-urban areas, especially around the capital city of Tashkent in Uzbekistan. The population in Tashkent is 2.5 million, creating a large market for farmers to sell their vegetables. However, the available cultivars are limited.

'Margilanskiy' is the only local hot pepper variety in Uzbekistan and its harvesting period ends in August. 'Uchkun' is a newly released hot pepper variety developed from AVRDC line 0337-7069. 'Uchkun' is well adapted to high temperature in summer (>40°C) with high yield (27 t/ha), good fruit quality and a long fruit setting period until the first frost comes in the end of October. Its green and red fruits can be sold in the fresh market and they are also suitable for drying and canning. Farmers like to grow this variety nowadays.



Newly released hot pepper variety 'Uchkun' was developed from AVRDC line 0337-7069 and is well-adapted to high temperature conditions in Uzbekistan



Mungbean is a very popular crop and widely consumed in Uzbekistan. The local mungbean varieties have a long vegetative period and a problem with lodging, which makes harvesting more difficult. Two mungbean varieties 'Zilola' and 'Marjon' were developed from AVRDC lines VC 1178 and VC 6492-59, respectively. They were released in Uzbekistan in 2008. Both varieties are early maturing (90-95 days), have large seeds, are lodging-resistant and easy to harvest. Farmers include these varieties in their crop rotation to improve soil fertility, planting them twice a year (spring and summer).



Vegetable soybean is a non-traditional crop in Uzbekistan. Two early maturing vegetable soybean varieties, 'Ilkhom' and 'Universal', released in 2008, grabbed farmers' and processing companies' attention. Most Uzbeks are not aware of the high protein content (42%) of vegetable soybean and the diverse ways it can be cooked. Therefore, 20 recipes were developed by local people to show many ways of cooking nutritious and tasty dishes of vegetable soybean. Seed multiplication is now being conducted on five ha of land.

A Farmers' Day was organized by AVRDC, the Farmers' Association, and the Uzbek Research Institute of Plant Industry on 5 September 2009 to demonstrate the aforementioned varieties. The activities included the introduction of new varieties, pre-sowing treatment of vegetable soybean seeds, bio-fertilizers and crop protection. Extension materials, including production guides, leaflets and booklets were distributed during the farmer's day. More than 70 participants, including farmers, NGO staff, scientists and private sector representatives attended this event. Some farmers were interviewed and this event was widely publicized on TV, and in newspapers and magazines. Most farmers expressed strong interest to grow these new varieties and would like to have the next Farmers' Day held on their farms. Planting areas of these varieties are increasing gradually year by year.



Top: Mungbean variety 'Zilola' was developed from AVRDC line VC 1178 and released in Uzbekistan in 2008

Middle: Early maturing vegetable soybean variety 'Universal' released in 2008 grabbed farmers' and processing companies' attention

Bottom: Dr. Jilyav Alimov from the Uzbek Research Institute of Plant Industry explained the features of vegetable soybean varieties to farmers at the Farmers' Day held at 'Khusanov Durbek' farm, Uzbekistan

Source and photos:

Ravza F. Mavlyanova, AVRDC – The World Vegetable Center, Sub-Regional Office for Central Asia and the Caucasus

Indigenous vegetable gardens promoted in Philippine communities

Considered as healthy and nutritious food, indigenous vegetables in the Philippines are now being revived in local community gardens nationwide. The community gardens are set up to ensure good health and nutrition through community participation and partnership. Initiated by the local government units, the activities are designed to increase production and profit, and secure a steady supply of healthy and nutritious indigenous vegetables locally.

The community gardens are considered to be an impact of the research and development efforts of the Department of Agriculture – Bureau of Agricultural Research (DA-BAR) and AVRDC-The World Vegetable Center from the vegetable exchange program in 2006 on indigenous vegetables in selected regions with the national research centers of the Bureau of Plant Industry in Cordillera – Baguio, Benguet, Los Baños and Davao City.

These gardens are established in a strategic area of the community which

serves as a model farm for backyard gardening, approximately 250-500 m² or depending on the area allocated by the local governmental unit. Land preparation and field management are done by community members. The gardens are normally operated by women and youth groups as a source of alternative livelihood. Vegetable seeds and planting materials are distributed to other members of the community in the following cropping season. During the season, proper fertilization, irrigation, and integrated pest management are provided by DA technicians to obtain quality produce.

The vegetables planted in the gardens include a local bitter melon (mpalaya), luffa (patola), bottle gourd (upo), wild ferns (pako), okra, local tomatoes, Malabar spinach (alugbati), eggplant, hot chili (siling labuyo), jute mallow (saluyot), and drumstick (malunggay). Some varieties of lettuce, cabbage, and bell pepper from local private seed companies are also included.

These gardens are presently expanding to other regions, provinces, and

townships following the same approach of community participation and partnership. Overall, the aim is to enhance the implementation of proper health and nutrition community development programs of local governments and educational institutions for increasing awareness of the nutritional importance of these commodities in the daily lives of families. At the same time, these gardens fit very well into the overall program of the DA, through the Ginintuang Masaganang Ani High Value Commercial Crops, a program of vegetables for the public and schools in partnership with the Department of Education, Clean and Green Program and the Department of Social Welfare and Development – Gawad Kalinga's Bayan-Anihan Program, on food security and the creation of alternative livelihoods for local farmers and families.



Local agricultural technicians visit one of the established community gardens in Diffun, Quirino province, Philippines



Local farmers with Ms. Leonida de Guzman, technical staff from DA-Cagayan Valley Integrated Agriculture Research Center (CVIARC) assigned to the community garden in Diffun, Quirino to assist/guide the community garden members on indigenous vegetable production

Source and photos:

Marlowe U. Aquino, Bureau of Agricultural Research, Department of Agriculture, Philippines

Make your own cost-saving seedling pots from local plant materials

La'a is a local plant which grows everywhere in the Solomon Islands. In rural areas, farmers harvest its leaves and use it for making seedling pots for nursery purposes. It's free and environmentally friendly. Mr. John Sala is a vegetable farmer from Busarata in the highlands of Central Malaita. He shows us the way to make seedling pots through the following four steps.



Fold the fresh leaf in half and then wrap it around a small empty plastic bottle



Fold the leaf under the bottle and wrap it around the other side



Secure with a second leaf, by wrapping it around the first leaf and then threading the stalk through the leaf to hold it in place



Remove the plastic bottle

Farmers in Northern Mindanao, Philippines are using banana leaves as an indigenous and cost-effective method for seedling preparation, which is very adaptable to small-scale vegetable farmers. Mr. Carmelito R. Lapoot is a researcher at the Northern Mindanao Integrated Agricultural Research Center and he shows us how to use banana leaves to make the seedling pots through the following eight steps.



Collect whole banana leaf



Tear banana leaf into pieces



Use thumb and index finger to clip the banana leaf



Wrap around the index and middle fingers



Continue wrapping until all the banana leaf is used, to make a roll



Fill the rolled banana leaf with soil mixture



Fill and slightly compact the moist soil with the palm



Carefully place the banana leaf pots filled with moist soil in a tray or box for sowing



La'a seedling pots are usually made from fresh leaves and used when the leaves are still green, but they dry out pretty quickly



Using banana leaf pots to prepare the seedlings of AVRDC sweet pepper line 0237-7011

Source and photos:

Suz Neave, AVRDC – The World Vegetable Center, Project Office, Solomon Islands; Carmelito R. Lapoot, Northern Mindanao Integrated Agricultural Research Center (NOMIARC), Philippines

AVRDC tomato and pepper lines benefit producers and processors in Armenia



Vegetable production is one of the leading agricultural enterprises in the Republic of Armenia. Half of arable and irrigated lands (about 62,294 ha) in Armenia are for vegetable cultivation. Investing in new vegetable varieties, improving the quality and applying new technologies to increase the production of small-scale farmers are very important issues during the current phase of agricultural development in Armenia.

Tomato and pepper are common and widely cultivated in all the vegetable producing regions of Armenia. However, the prices for these two crops are always fluctuating because of the uncontrolled and unplanned cultivation. Diversifying production is one of the solutions. Our research showed that consumers are willing to pay higher prices for novel types of tomato and pepper in both fresh and processing markets.

From 2005 to 2009, the Scientific Center of Vegetable-Melon and Industrial Crops (SCVIC) collaborated with AVRDC-The World Vegetable Center to efficiently facilitate vegetable varietal selection, during which 233 lines of tomato, eggplant, hot and sweet pepper, pumpkin, and cucumber were evaluated. Special attention was given to the non-traditional types of tomato and pepper lines, and those lines have been submitted to the State Variety Trial, including tomato lines of CLN2413D (local Armenian name is Zhanna), CLN1558B (Rubina), CH154 (Zeytyn), L00085 (Narek), L01448 (Armine); sweet pepper lines of 0137-7041 (Emily), PBC271 (Milly); and hot pepper lines of 0337-7546 (Gita), C02408 (Zspanak), C01803 (Poundj) and C05670 (Kon). Among them, tomato lines Armine, Zeytyn and Rubina are suitable for processing, and Zhanna shows orange fruit color and is high in sugar content. Hot pepper line Zspanak with campanulate fruit shape catches consumers' attention. Due to their novel fruit shape and colors, the prices for those varieties in the markets are 3-4 times higher than traditional ones.



Farmers' Days are organized by SCVIC to demonstrate those novel types of vegetables. Both farmers and producers show strong interest to grow the newly demonstrated varieties, and it leads to closer relationships between scientists, producers and processors for creating new markets for farmers.

SCVIC is ready to provide seeds for interested farmers to plant. In addition, the processing companies offer higher prices for novel types of tomatoes and peppers from farmers. These introduced vegetables benefit both producers and processors in Armenia.



Top left and right: Consumers in Armenia are willing to pay higher prices for novel types of tomato and pepper in both fresh and processing markets

Bottom: Introducing the novel types of vegetables to the growers and processors at a Farmers' Day held by SCVIC, Armenia

Source and photos:

Gayane Martirosyan, Scientific Center of Vegetable-Melon and Industrial Crops

Vegetable and seed production training activities improve local farmers' lives in the Solomon Islands

Mr. Johnson Ladota'a and his family have been farming in Masilana, North Malaita in the Solomon Islands for 23 years. In 2008, with assistance from the Ministry of Agriculture and Livestock (MAL), Johnson started working with AVRDC on conducting observation trials. After attending several training courses held by AVRDC and other organizations, Johnson is now able to save his own vegetable seeds, share with other farmers and train them on nursery management and crop production in the local area. He experiences the benefits from helping other farmers grow vegetables and being able to grow his own crops better.

Masilana is located in the highlands of Northern Malaita, 800 meters above sea level. The remote location is home to Johnson, his wife Helen, and their 10 children as well as other family members. Johnson and his family have a reputation for growing high quality taro and watercress. However, marketing is hindered by a three-hour hike down the mountain, followed by a three-hour truck ride to reach the market. Through MAL and AVRDC's help, Johnson established a nursery, tilled the land, and made raised beds for growing ball cabbage, onion, sweet pepper, tomato, ginger, sweet potato, pak choi, and Chinese cabbage (saladeer).



Mr. Johnson Ladota'a collected the old bark from the trees as part of the materials for making compost that were applied to his vegetable farm

Recently Johnson established a farm in Fuliabu in the coastal area with reasonable road access where he grows cabbages for Auki and Honiara markets. Johnson uses the skills and knowledge he learned from AVRDC training; he is now actively involved with Kastom Gaden Association and Baetolau Farmer Association and visits other farmers regularly to teach them how to grow different crops and save seeds.



Mr. Johnson's farm is located in the highlands and produces high quality taro and watercress

Johnson makes compost and collects the old bark that has been chewed by insects (such as termites and borers) from trees as part of the materials for making compost.



"With the useful training given to me by AVRDC, I am able to help other farmers to save seeds and I am teaching more farmers to grow vegetables," said Mr. Johnson Ladota'a from Masilana, North Malaita, Solomon Islands

Source and photos:

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