Agriculture and farmers in Kurdish region <Part 3>

Vegetable cultivation and spread of greenhouses

Kurdish people have been cultivating open field vegetables making use of the region's dry climate which has a marked temperature gap between day and night. The main crops are tomato, cucumber, water melon, melon, onion, cabbage and egg plant. Fresh vegetable salads at town restaurants are very tasty. The cultivation period of open field vegetables is largely from May to November. Water is pumped up from channels for the vegetable fields. Farmlands are demarcated in irregular shapes, with different kinds of vegetables grown in small areas adjoining each other.

Open field vegetable cultivation: Farmlands are divided into irregular shapes.

According to farmers, problems of vegetable production in the Kurdish region are the lack of shipping opportunities and the undeveloped distribution business infrastructure. Vegetables need to reach consumers as quickly as possible after being collected, but such a sales and transport business is nonexistent. Farmers talked about the necessity of securing transport routes so that products that have particular harvesting periods can reach large consumer areas while the products are still fresh. Also for vegetable cultivation in the Kurdish region, water saving and product quality improvement are important challenges. They have to compete with the high quality vegetables that are imported from neighboring countries such as Turkey and Iran. Lower quality Kurdish products are in an inferior position. Therefore the Kurdistan Regional Government takes measures such as restricting vegetable imports during the harvesting time when a large volume of Kurdish vegetables are available. Under these circumstances in recent years more intensive farming using greenhouses is being introduced even in the Kurdish region aiming for quality improvement and increased production volume. However they have only a small number of years of experience.

According to a farming equipment shop in the area, it was only in 2007 that the first greenhouse was introduced. Then by 2010, between 4,000 and 4,200 greenhouses were set up mainly in Sulaimania. This farming equipment shop has sold 130 greenhouses in Erbil this year. Although greenhouse cultivation is on the increase, it is still in its early years. Greenhouse materials are mainly from Lebanon and the most often seen size is a 9 m wide and 50 m long facility. They do not have the cooling devices that make use of heat vaporization which are often seen in the Gulf countries. Ventilation is manually operated by opening parts of the plastic walls. With greenhouse cultivation which is sensitive to moisture, disease and pest management is also important.

Greenhouses are increasing rapidly. They open part of the greenhouse for ventilation.

Furthermore, as the ground inside greenhouses is often not properly level, it seems difficult for drip irrigation nozzles to release a set amount of water. It looked to us that it would be possible to increase yields with just easy technological improvements.

Drips are installed on uneven ground within the greenhouse. It is difficult to produce a fixed quantity of water from each nozzle.

The Kurdistan Regional Government is very positive about introduction of greenhouses, and places this as a pillar of its agricultural extension strategy. It provides farmers with greenhouses free of charge to test extension potential, and gives technical support for cultivation. Greenhouse equipment companies are also active in providing technical support and training in the areas of seedling sales, determination of right quantities of water, mixing ratios of liquid fertilizer, cultivation methods and disease and pest control. The local agricultural research institute is also conducting research for improving production and techniques by conducting experiments on greenhouse cultivation.

However, there are many challenges. The agriculture research institute could not even produce data on yields from experimental cultivation when interviewed. Only one farmer among many interviewed, could provide clear precise answers to similar questions. When it comes to farm management, being able to calculate the balance between the investment amount and income (production volume and sales price) is highly important for planning future expansion of facilities. In addition, there is another problem related to adverse effects of continuous cropping. So far, as it has been only so many years since greenhouses were introduced in the area, there is no case of serious adverse effects from continuous cropping. And farmers are not aware about the potential problem. Even a corporate technician who manages dozens of large scale greenhouses proudly responded to us, saying "continuous annual tomato cultivation is suitable here." On the other hand, government researchers show strong concerns about problems from continuous cropping, but have no sufficient knowledge to develop counter measures. They expressed their strong desire to learn about measures to deal with continuous cropping issues as applied in Japan.