

Sri Lankan curry and tea

Curry and Ceylon tea are synonymous with Sri Lanka. I would like to discuss curry and tea based on my 1.5-month stay in Sri Lanka since February 2016.

Story of Sri Lankan curry

“There is no way out because everything is very spicy!” “I damaged my stomach by eating hot food for one month.” “I have had many different types of food but Sri Lankan curry was the hottest.” When my assignment in Sri Lanka was confirmed, these are what people told me of their experiences in Sri Lanka. However, Sri Lankan curry is not that hot. When one orders rice and curry in Sri Lanka, they serve 4-5 different kinds of vegetable curry dishes such as lentil, French bean, potato and gourd. These are not so hot. So, what is hot are the additional meat or fish curry you order. These are extremely hot! At first you feel gentle sweetness, then the heat goes through your brain and sweat pours out of your pores. Then a mixed sensation of pain and heat overtake the entire mouth. The curry dishes that are “as hot as the devil” are called “Devil” in Sri Lanka. I am not sure who named them but it is spot on. People mix the hot devil and mild vegetable curry dishes by hand, making them the right level of spiciness before eating. Once used to it, intricate mixing of spices becomes addictive and one does not get bored with the dishes even if eating them every day.



Many small bowls of different types of curries. Apart from devil, we can request additional small bowls.



Sri Lankan curry serviced on a plate. This side on the right is the chicken devil.

Story of Sri Lankan tea

In Sri Lanka, milk tea called “Kiri tee” is favored. The tea is extremely sweet. When I was offered the tea for the first time at a farmer’s house, I could drink only half. Tea leaves are divided into different grades depending on their size. In Japan, Orange Peko, which comes with large leaves, is popular. In Sri Lanka, however, people use fine tea leaves called “Dust” and make tea by boiling them. The water becomes very dark brown rather than orange. It is too bitter to drink as it is. People add milk to the strong tea and make it mild by whipping it to make Kiri tee. In some shops, they sometimes taste a little bit like cocoa. I heard later on that some people add Milo to Kiri tee. “Nestlé Milo” is a cocoa-based drink which I also used to drink as a child mixing it with

milk. I felt a little nostalgic with the mysterious cocoa-flavored tea.

By the way, Sri Lanka has a custom called “bed tea”. In the upper-class households, house maids (and mothers in normal households) make Kiri tee in the morning for family, and bring a cup to the bedside. What a graceful custom! Sweet tea as soon as you wake up. Luxurious! I asked my friend “Does the custom still exist?” The answer was yes. At home his wife, and at his parents’ home his mother, would bring tea to his bedroom every morning. Wonderful! Another person told me with a bitter smile, “Yes, for the first years of marriage my wife brought tea to the bedroom, but now I make my own.” It seems to vary from household to household. I researched this custom further and it seems that this is originally a British custom. House maids would make tea for their masters, or husbands would make tea for their beloved wives. When I mentioned this to my friend, he said with a smile “Let’s not tell that to my wife.”



Nuwara Eliya – a famous tea producing area. Wherever you look, tea estates spread.



Sri Lankan milk tea called Kiri Tee. Extra mild and frothy!

After the stay

Before leaving for Sri Lanka, with warnings from my seniors, I was worried how I could survive with the country’s food. But of course, it is easier to do something than worry about it. I ate curry dishes every day. I eventually had 2-3 cups of the sweet tea every day, and began to think it is delicious. I greatly enjoyed curry and tea during my stay in Sri Lanka.

After returning home

I used to be a coffee person, and after coming home, I stopped drinking tea every day. However, whenever I see tea on sale, I tend to look at the label. I was surprised to see an ingredient description “using Nuwara Eliya tea leaves” when I picked up packages from large tea brand companies. I also found tea from Kandy and Dimbula. I didn’t know in the past but these are all tea growing areas in Sri Lanka. I became happy finding Sri Lanka closely in Japan. Even if you are a coffee person, why not try tea from time to time. Your tea is likely to be Ceylon tea.

(By Sawada, April 2016)

Improvement of vegetable cultivation course: AAI's effort to link abroad experience and training in Japan <Part 3>

Crop production and irrigation technologies

Water is essential for plant growth. Plants absorb much of the nutrition necessary for growth through their roots together with water. Irrigation which provides water to crops artificially is an important technology for cultivation. What is necessary in irrigation is to judge the timing and amount of watering - i.e. when and how much water to provide. In this lecture, we dealt with a wide range of issues from soil to climate related to water movements for plant growth. After the lecture and practice, the participants should have enhanced understanding on the basics of water amount (crop water requirements) and timing (readily available moisture).

The lecture and practice was for one day. Morning was in the classroom and there was a practice in the afternoon. It started with explanation of soils. Soil consists of clay, silt and sand. Depending on the percentage of each component, soil type and its ability to retain water are determined. These are important determinants for irrigation timing. Although participants have the knowledge of the classification of soils such as sand, silt and loam, they seldom understand what kind of soil is sand or other categories. Therefore, in this lecture, we prepared samples of different types of soil so that participants can touch and feel the differences. In addition, using soil from the fields in the JICA Tsukuba, we introduced simple soil classification methods with mixing of soil and water so that they can use the method in their own country.

After the lecture on soil, we had a lecture on climate. Necessary water amount for crops is heavily influenced by climatic conditions such as temperature, humidity, wind speed and intensity of solar radiation. Participants know these things from their own experience. However, in the lecture, we explained in detail about functions of stomas on leaves and the correlation between solar radiation intensity and amount of water absorption. Through the lecture, we tried to link what they knew with actual experience.

This course was participated in from all over the world including South and South-East Asia, Oceania, Central America, the Middle East and North Africa. Every year before the lectures, we check monthly average temperatures of participants' countries and make graphs so that they can see them and compare during the lectures. After finishing a range of talks about climate, we compare climates of different countries. This makes the session very lively each time as each participant starts passionately talking about their own country's climate

and related issues. It is a good opportunity for them to learn about situations in other countries. For participants from Oceania with high precipitation and steady average temperature throughout the year, and for participants from arid Middle East or North Africa, exchanging their stories is just like learning about unknown worlds. The training session provides precious opportunities for people who grow up in very different environments to learn together.

After the discussion on climate, we started talking about irrigation water amount. We introduced the FAO recommended Penman-Monteith method. This method uses climate data and enables easy estimation of water demands. Participants are asked to calculate estimated water needs for different crops using calculators. This is the climax of the lecture and it is also the part which is most difficult for us to explain. Every year, we witness participants who understand the method first explaining to those who do not understand yet. This is a good team work and We wait patiently until everybody can do their own calculation. After that, we finish the lecture by establishing an irrigation schedule, based on crop water requirements and readily available moisture determined by soil characteristics.

In the afternoon, we all go to the paddy fields at the JICA Tsukuba to conduct a practice to measure discharge amount in the irrigation channel. This is done by floating a leaf on the water surface and measuring flow speed with a stop watch, and estimating the discharge amount by multiplying with the channel's cross-section area size. It is a fun exercise in which participants cooperate and repeat the exercise, dividing their roles such as a person who lets a leaf go at the upstream, a person measuring the speed with a stop watch and a person who confirms the timing of the leaf reaching the goal. After the practice, they go back to the classroom and work on the calculation to determine the discharge amount of the channel, and apply the figures to devise the potential area size for irrigation with this channel. Although there is a significant gap in speed of understanding among the participants, by the end of the session, everybody becomes able to conduct the calculations on their own. It is only one day a year, but I enjoy the lecture session working with the participants.



Measuring the water flow speed



Calculating the discharge amount

Market-oriented agriculture in Palestine <Part 3>

Production and use of grafted seedlings

In the Jordan River Rift Valley, we have been introducing grafting techniques through the Project for Strengthening Support System Focusing on Sustainable Agriculture in the Jordan River Rift Valley (ASAP) and the Project on Improved Extension for Value-added Agriculture in the Jordan River Rift Valley (EVAP), as part of the measures to manage soil-borne diseases to achieve high quality and steady production of vegetables. Actual activities were divided into establishment of nurseries, quality improvement of grafted seedlings, and verification test of grafting in experimental station.

We supported grafted seedling supply systems for large-volume and steady production through introduction of incubators, and improved nurseries to facilitate efficiency and technology extension. The target organizations were seedling companies and farmers' groups that were already producing vegetable seedlings. In the case of the seedling companies, although they had the capacity to produce a large quantity of seedlings, there were some problems such as quality control, contamination of different varieties, bacterial infection, and delays in shipment. As a result, there were some instances of losing the trust of farmers. Therefore, in addition to increasing quality of their grafted seedlings, improvement of the management system emerged as an important task. On the other hand, grafted seedlings produced by farmers' groups, which are available more cheaply, are extremely attractive to growers, and selling and trading of grafted seedlings between farmers' groups is promoted.

operation using root stock and scion. By repeating the lectures and practices, we could enhance quality of grafted seedling production techniques in various nurseries, achieving quality improvement of grafted seedlings.

For the selected farmers' groups, we conducted grafting verification test. To extend good practices to other farmers, we also conducted field days and training sessions. The verification test made clear the following;

- There was no clear difference in yields between grafted and non-grafted seedlings in the tomato cultivation with soil disinfection using solar heat. Effects of grafting was verified in soil-borne disease infected soil.
- While we could not confirm superiority of grafting for cucumber cultivation in summer. For cucumber cultivation in winter, we could confirm improved resistance to soil-borne disease, low temperature tolerance and extended yield period when using grafted seedlings.
- For watermelon cultivation, grafting effect was clearly demonstrated in terms of soil-borne disease resistance, plant vigor and yield, showing excellent results. This was widely reported in the local media, as it indicated the revival of watermelon production after the crop was decimated by soil-borne disease 20 odd years ago.



Introducing incubators



Grafting training

To improve quality of grafted seedlings, we conducted grafting technology workshops targeting farmers' groups. In these workshops, we explained in detail the advantages and benefits of using grafted seedlings, different kinds of grafting techniques, grafted seedling management using incubators, and cultivation techniques using grafted seedlings in fields. Moreover, we conducted practices to teach actual grafting



Grafted tomato



Grafted cucumber



Grafted watermelon



Field day

Furthermore, we summarized effect and profitability of cultivation using grafted seedlings as crop budgets. However, we have not been able to generalize the results due to the lack and dispersion of data. In future, we hope that grafted seedling use will be introduced more widely and effectively to enhance accurate understanding of benefits of using grafted seedlings by extension agents and farmers and to increase profitability of their production.

Mini series

Facts about dry land vegetation <Part 6>

Za'atar

This series has been on hold for some time, but this today as part 6, I would like to introduce za'atar which is a very familiar herb in the Middle East. Za'atar is Arabic and in English it is thyme, one of the most famous herbs. It is the thyme which appears in Simon and Garfunkel's song Scarborough Fair - parsley, sage, rosemary and thyme. Za'atar is a wild thyme and has a similar smell to oregano. In Palestine, they use za'atar for both thyme as well as for the herb salt which is made by mixing the dried herb with sesame, sumac, lemon grass and salt. Sumac is the dried and powdered seeds of a plant in the *Anacardiaceae*. It is a very commonly used spice in the Middle East and is used on varieties of occasions. It is sprinkled over hummus and muttabal which I introduced in part 4 of this series, and also over vegetable salads. In the Middle East, one is served za'atar, and zahrat which is a herb tea which means 'flower' in Arabic with the main ingredient being lemon balm. Yellowish brown tea is za'atar and more vivid yellow is zahrat.

I first encountered za'atar was when I was invited to breakfast at my Palestinian friend's house in UAE while I was working there. As usual, Arabian bread called khubz is served on the table first. Then the herb salt (za'atar) and olive oil appear. Tearing bread, dipping in olive oil and then dipping in za'atar and eating is rather good and one does not get tired of it and therefore one tends to overeat. It is a typical breakfast in Palestine.



Za'atar is on the bottom left

I often encountered za'atar in Syria, too. What I often ate was a baked bread with olive oil and za'atar on it. As seen in the photo, people add cheese to it too. In Palestine, people knead cheese and za'atar in bread dough. This is called zybune za'atar. Zybune means 'cheese' in Arabic. Therefore, zybune za'atar means cheese thyme. It is simple but very delicious. My lunch in the Middle East is usually zybune za'atar. In Aleppo markets, za'atar is displayed in various patterns. Mountains of soaps and the za'atar patterns make me realize that I am in a souk in Aleppo.



Zybune za'atar



Patterns seen in souks in Aleppo

The agricultural extension project in the Jordan River Rift Valley, which I was involved with in Palestine until recently, there was an effort to promote za'atar cultivation. Za'atar is hardy and is not very difficult to cultivate. It is a perennial crop and once it is planted there is not much one has to do. Therefore, it is suitable for small scale cultivation like family vegetable gardens tended by village women. It is also easy to add value by drying and processing after harvesting. This makes the crop extremely compatible with the objectives of gender focused agricultural projects that aim to add value to agricultural products. In the project, we introduced za'atar dealers to women's cooperatives and started trial cultivation. We hope this will lead to vitalization of women's cooperatives' activities.



Trial cultivation by women's cooperative and za'atar grown