

A Visit to the Home of CSA

Teikei Farms in Japan



Shiganori Hayashi's farm in Chiba uses hoops and netting as trellises for various crops, in this case, peas, which are coming up through holes in the plastic.

by Elizabeth Henderson

Much to my surprise, one afternoon at the IFOAM conference in Victoria, I found myself surrounded by a group from the Japanese Organic Agriculture Association (JOAA). They wanted me to come to Japan. They were familiar with the book I wrote with Robyn Van En, *Sharing the Harvest: A Guide to Community Supported Agriculture*, and wanted someone who could talk about CSA for a training in alternative marketing they were organizing for farmers from other parts of Asia. They made me an offer I couldn't refuse — a 10-day trip to Japan with all expenses paid to give presentations on CSA, visit farms, and meet with Teikei (the Japanese version of CSA) farmers and members.

First, a little background. In 1971, a small group of women who wanted chemical-free food for their families joined with agricultural researchers and farmers to form JOAA. Sawako Ariyoshi, the Japanese Rachel Carson, had alerted them

to the dangers of the chemicals used in agriculture. The first Teikei group began that year when a few farmers in the Kobe area started to experiment in organic farming with a crop of pumpkins grown without chemical fertilizer for a group of local housewives. Within a few years, the Kobe consumer group grew to 1,300 members who felt so passionate about supporting local organic farmers that they were willing to help with the farm work and distribution of the food. The history of JOAA and Teikei are closely intertwined. Front-and-center for JOAA has been the urgent need to develop organic farming systems producing for local consumption.

After 20 hours in airplanes and airports, I was greeted at Narita by two farmers, Katsumi Yamada and Shiganori Hayashi. They drove me to the Hayashi farm in Chiba. The next morning, Shiganori gave us a tour of his farm, one of the few I saw that was all in one piece. He inherited the two hectare farm (about

five acres) from his father. Hayashi was unhappy with his father's use of chemicals, so he spent a year studying organic farming with Yoshinori Kaneko, one of the pioneers of Teikei, and in 1980 converted the home farm to organic.

His methods sound very familiar — building healthy soils by using compost and crop rotations; relying on crop diversity for risk management and pest control. The rotations are simple, moving blocks of crop up the field in successive years to avoid repeated plantings of the same family. They make compost by layering rice hulls, tree prunings and chicken manure, which they turn four to five times at 10-week intervals. The manure amounts to only 5 percent of the mix. In addition to growing 70 to 80 different vegetables, the Hayashi farm also raises 150 chickens, fed with 100 percent domestic feed to avoid imported grains that may contain GMOs. Hayashi does on-farm processing of miso and pickles and has storage facilities for root crops. For pest control, he uses a milk spray against aphids (whole milk or diluted 1-to-3 in water), garlic spray, loquat seed tea and bug juice.

At the time of my visit — late November — I saw growing a variety of greens (mizuna, komatsuna, bok choy, shungiku, lettuce, Chinese cabbage, spinach), carrots, green onions, daikon radishes, burdock, broccoli and cauliflower. This mix of crops was typical of the Teikei farms I visited during my 10-day tour. Black soy beans and adzuki beans and peanuts were still in the field drying in their pods. Onions, potatoes for eating, seed potatoes, sweet potatoes, taro and ginger were in the storehouse. Rice from the farm paddy had been hulled and bagged. Seedlings of snow peas and wheat were just breaking through the ground. The same series of hoops and netting that had trellised cucumbers would support the peas. The crew of five, Shiganori, his father and three trainees, was busy setting out onion plants. I was impressed to learn that salaries for the trainees came from the local government; if they did not go into farming, they would have to pay this money back.

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The Hayashi farm supplies vegetables, rice, dried beans, wheat berries, processed foods and eggs to 60 households in the local prefecture (county) once a week, year-round, and also sells to restaurants. Three times a week, the farmers drive their small flatbed truck to deliver to members' homes. For the restaurants, the farm employs a professional delivery service. Most members pay monthly and place orders for the mix of produce they want. The pricing is by item or by box size. The farm does not wash or grade the vegetables. Once a month, a farm newsletter accompanies the produce. Twice a year, spring and fall, members visit the farm for a tour, a meal, and discussions about farming. Recruiting is by word of mouth, though good news coverage by the local press helps.

Shiganori plays an important role in JOAA, as the board member responsible for their seed saving network. On the farm, he maintains a freezer where the seed bank is stored. Farmers who contribute can withdraw seed from the bank. The seed network emphasizes preserving and improving locally adapted varieties.

After a day in Tokyo where I participated in a public seminar on alternative marketing, Shinji Hashimoto, whom I had met at the IFOAM conference in Argentina, and I traveled by high-speed train to Kobe. Two of Shinji's interns gave us a ride to his farmhouse in the village of Ichijima, Hyogo Prefecture, where his wife, a former city-dweller, and two little sons greeted us. Before farming, Shinji was produce manager for the consumer co-op in Kobe, which has a million members. Courses in environmental studies with Professor Shigeru Yasuda, one of the leading spirits of the Japanese organic movement and author of the *Ten Principles of Teikei*, inspired him to try farming. Fifteen years ago, he moved to the village, where he took over one of the original Teikei groups from a farmer who was retiring.

Like Chiba Prefecture, Hyogo pays the salaries of Shinji's interns on condition that they farm in the area. Shinji has his interns work only three days a week on his farm and helps them find land nearby where they can work the rest of the week getting started on their own. Since he is certified organic at a cost of 50,000 yen a year, the Prefecture pays Shinji a subsidy of 400,000 yen per year (50,000 yen per 0.1 hectare). The local government also

subsidized the construction of his greenhouse and provides compost at a reasonable price from its composting factory, where rice hulls from the local sake plant and coffee bean hulls from a local processor are combined with cow manure.

Shinji's farm consists of five separate fields, three of which he owns. With the help of one part-time intern, Shinji does the field work, and his wife does the bunching and packing. She told me that she prefers this division of jobs. Like Hayashi, Shinji had just planted his onions, and I saw the same mix of crops in his fields. Because his ground is heavy clay in wet conditions, Shinji uses raised beds. He works the soil with a rototiller pulled by a small Kubota tractor, with disks to form the beds. Without additional tillage, he replants the beds with a succeeding crop, such as beans and cabbage after peppers. During the winter, he makes raised beds in his rice paddy for planting vegetables.

Very much influenced by the teachings of Masanobu Fukuoka, Shinji does no soil testing and no active pest control. He does fertilize with compost and bokashi, which he makes himself from rice bran, chicken manure, oilseed cake, oyster shells, molasses, EM (effective microorganisms) and water. He mixes these ingredients in a vat similar to the one he uses for chicken feed, then stores it in paper sacks for two to three weeks while it ferments. The final product smells like yeast. The chicken manure comes from the 300 chickens he keeps in fairly spacious houses. Though not caged, the chickens never venture outside. Shinji laments that they simply do not have enough land for the chicken-tractor approach. Unlike Hayashi, Shinji purchases some imported grains for the mix he feeds to his chickens.

Together with five other farmers, Shinji belongs to the Ichijima Organic Agriculture Association, which sells all of his produce to four consumer groups with a total of 300 member households. Each group has a slightly different share system. One group prefers to have a specific farmer responsible for supplying a group of members. Another group has a paid coordinator and buys from other farmers

as well. For three of the groups, all six farmers contribute to the share each week. Twice a year, farmers and consumers get together and negotiate prices for each item. The farmers juggle combinations of vegetables to reach the agreed-upon weekly value, which consumers pay by the month.

Shinji showed me their remarkably complex paperwork and admitted that the three older farmers pay the three younger farmers to handle the math for them. All six farmers pay 8000 yen a month to their association to cover co-op expenses, truck repairs, warehouse fees, containers, egg trays, etc. Four times a week, farmers take turns making up the shares and loading them on the co-op truck for delivery. For a warehouse, they use the back room of the village "Farmers' Market," a store with a small staff where all local farmers can sell their produce on a consignment basis. On the consumer end, each group has an elected board. The members take responsibility for different areas: accounting, distribution, the newsletter, meat, purchases of processed foods, and an anti-GMO project.

The archaic Japanese word for farmer, *hyakusho*, combining the characters for "100" and "jobs," applies particularly well to Yoshinori and Tomoko Kaneko, the owners of Shimosato Farm in Ogawa Prefecture, northeast of Tokyo. They have two cows, 200 chickens and 15 ducks who weed their three acres of rice, 40 or so different vegetables, shiitake mushrooms, a hoop house devoted to strawberries, fruit trees, bamboo, wheat, barley and soy beans, which they process into miso and soy sauce. As on the other farms I visited, the chickens do not leave their coops.

The Kanekos produce their own compost from tree prunings, cow manure and food wastes, and make charcoaled rice-hull and bamboo fertilizer. The cow manure also fuels their bio-gas digester, which produces enough methane to cook much of their food. Cow manure slurry, a byproduct of the methane production, also serves as fertilizer. A solar collector provides electricity to run a pump. To fuel their Kubota tractor, they use biodiesel made from waste vegetable oil. For equipment, they have two small tractors, one with a loader, a rototiller, a mechanical rice planter and harvester, and a mower.

Their way of life is a fascinating mixture of tradition and innovation. Shimosato Farm is an outstanding demon-



Yoshinori Kaneko demonstrates his bio-diesel fueled tractor. The fumes smell like french fries.

stration of self-sufficient, resource-conserving organic farming. The 17 younger organic farmers in Ogawa, as well as farmers all over Japan, like Hayashi, have learned from the Kaneko's example and generous sharing of information and know-how.

Back in 1971, Yoshinori came to the realization that his family farm, besides providing for the subsistence of his own family, could also supply other people. He calculated that the farm produced enough rice for 10 more families. To recruit local housewives, he invited them to join a reading circle, where they discussed such themes as "Oneness of Body and Environment," the value of whole foods, and the healthfulness of the traditional Japanese diet.

After four years of "education and communication," he made an agreement in 1975 with 10 families to supply them with rice, wheat and vegetables in return for some money and labor. In his book *A Farm with a Future: Living With the Blessings of Sun and Soil*, Yoshinori recounts the difficulties of this first attempt at Teikei, which foundered in misunderstandings. His second try went better. He made farmwork voluntary and left the payment amount entirely up to the consumers. When his vegetable yields outgrew the needs of the 10 families, he added 40 more, and began selling to a local school. His intense involvement in local affairs has led to his recent election to the town board.

In the evening after visiting the Kanekos, eight of the local organic farm

families gathered for a potluck dinner at the farmhouse, which serves as their regular meeting place. Yoshinori and an engineer described a bio-gas project they are doing with the local government. They have constructed a methane digester big enough to process the food wastes of 65 families. The money that the government saves by not having to landfill that waste is returned to those families as coupons that they can only spend on local organic produce.

My final farm visit was to the Uozumi family — Michio, Michiko and their two sons, Masataka and Teruyuki — who live about an hour's drive to the northwest of Tokyo. Michiko is one of the liveliest, most energetic people I have ever had the pleasure to meet. To make time to show me around, Michio switched their main Teikei delivery day so they only had 10 shares to prepare during my visit. I donned borrowed work clothes to help them, but was too busy taking photos to be of much use. I was delighted with their two-toed boots, which they told me are traditional Japanese farmer boots.

With 20 years of farming under their belts, Michio and Michiko are still considered "new" farmers since they do not come from farm families. They met at the university and eventually settled down to farm together. Recently, Masataka finished college and decided to farm with his parents. When I asked how they divided up the work and made decisions, both men agreed that Michiko is the boss.

The Uozumis moved to their present land 15 years ago when a golf course

bought the land they had been renting. Their various separate fields add up to three hectares (about eight acres), one owned and two rented. Their soils are rich dark-brown loams that need no irrigation. While the Uozumis harvest all the vegetables by hand, their farm was the most mechanized of those I saw. They have three tractors, including a 65-horsepower International, a Kubota with a front-end loader, a mower, a rototiller, a manure spreader, a small combine for wheat, a rice harvester, a rice huller, and a drier for their grains. I had not seen two of their implements before — a special digger for burdock, two long, curved blades on a three-point hitch, and a trenching machine, a cross between a mulchator and a trenching plow, which they use for making raised beds and for cultivating potatoes.

In the Uozumi fields, I observed the same crops I had seen elsewhere, but the quality was exceptionally high, with almost no weeds and few signs of pest damage. When I asked what he would do about the caterpillars munching away at some of the broccoli plants, Michio said he would wait until the plants outgrew the damage. He takes the same low-work approach to green manures, turning under weeds instead of planting cover crops. "Natural is good," says Michio.

To grow tomatoes, which are not natural to Japan, they use one of their 100-foot hoop houses. In another, they create a hot bed for starting tomatoes and eggplants. Every year, with the help of customers, they collect leaves to mix with chicken droppings, rice bran and water to make a worm bed. The mixture ferments, heating the hoop house enough to keep tender plants from freezing. The following season, they use the cooled-down mix in their potting soil, combining it with rotted tree materials from the forest. They set the seeded flats over the hot bed.

As on the other farms I saw, the Uozumis' 600 chickens live in spacious coops. To avoid GMOs, feed is a mix of number 2 wheat, oyster shells, sake waste, rice bran and fermented salmon waste. They build fertility in their soils by spreading compost made from the clean-

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ings from their chicken coops mixed with rice hulls, and like Shinji, they make bokashi, though without the addition of EM. Previously, Michio said they used a lot of composted cow manure from conventional neighbors, but now he fears GMOs in the cows' feed.

Year-round, the Uozumis provide weekly shares to 150 households, setting the price themselves. Consumers pay weekly or monthly. The farm splits the cost of a hired driver with the 80 households in one consumer group. The 10 shares they were picking on the day of my visit were to travel by delivery truck to Tokyo. They offer boxes of two sizes, including their own vegetables, eggs, noodles made from the farm's wheat, rice, and chestnuts, pork, oranges, apples and tea from other farms. The Uozumis do not wash most of the vegetables.

Before dinner, Michio took me for a quick trip to the local "home store," where he bought me a present: a pair of two-toed boots with socks to match!

Husband, wife and son cooked together to make me a memorable dinner of charcoal-broiled red snapper, nabe, a tra-

ditional winter soup with chicken, fish and tofu, their own rice, and pickled ginger. Like the Kanekos, the Uozumis have surrounded themselves with a community of younger organic farmers whom they have helped to train.

After 30 years of Teikei, Japanese farms are having trouble recruiting new members from the younger generation. Wherever I traveled, Teikei farmers and veteran members asked me how CSA farms in the United States manage to attract people under 30 and families with children. I did my best to give them a realistic picture of the CSA movement and to explain how we organize. It is a great challenge to our struggling CSA farms and does great honor to what we have accomplished that these Japanese veterans of organic agriculture can look to us for renewed inspiration.

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