

# Shared Online Learning Community Connecting Farmers and Non-Farmers in Japan

**Gabriel Alonzo Rusk**  
*Chukyo University, Japan*  
gabe.lon.rusk@gmail.com

## Abstract

Japan currently faces a low food self-sufficiency rate, and rapidly aging and decreasing farming population. People not directly connected to farming have few chances to learn about how the products they consume are created. I propose to create a learning community of professional farmers, new farmers and laborers, customers, learners, and at-home farmers, connected with each other through a website, social media, and social outreach. This community allows non-farmers to be more directly involved in the farming process, providing tools and opportunities with which they may better understand farming. By investigating how the members of the different groups interact with each other, and working directly with new and professional farmers in Toyota, I will discover how sharing and learning can bridge the gap between these groups.

## Introduction

In 2020, Japan matched its lowest calorie-based food self-sufficiency rate at 37%. The average age of people whose main occupation is farming increased to 67.8% and their overall population declined by 396,000 to 1.361 million between 2015 and 2020, according to the 2020 Census of Agriculture and Forestry. The population of the countryside is also currently in decline, with many people moving to cities. Therefore, the general population is unlikely to see and learn about what goes into the process of making the food they consume. A community where professional farmers, new farmers, customers and learners directly engage with and learn from each other has many benefits.

This community could benefit the local and global environment, and bring new individuals into farming professionally and at home. Awareness of current farming practices can help push positive trends in farming. Usage of chemical pesticides and fertilizers, agriculture machinery, destruction of forests for farmland, tilling soil, transportation and refrigeration of food, and food waste are all contributing to greenhouse gas emissions and have health detriments to humans, animals, and important insects as well. Small, local farms that practice multi-crop biodiversity can more easily adopt environmental friendly standards and require less machinery, making them a better choice for the online learning community compared to large farms. Small, commercial farms also currently make up more than 80% of the farms in Japan with an average size of 1.6 ha, not including Hokkaido. These small farms make for a more powerful and accessible learning tool than large farms. They are not too overwhelming in scope for those learning about farming, and much more affordable for those who want to get into farming. Many of the practices on a small farm can also be easily brought to the land of schools, suburban homes, and community farms. These places would allow those outside farming to use the practices they learned online or through participating at a small farm, and produce could be used in cafeterias and by the greater local community. Professional and new farmers would benefit from these connections as well.

Current farmers would have easier access to educational tools on farming practices, gain a stronger customer base, and create close connections with other farmers and part time workers in the learning community. Better educated farmers can utilize practices that reduce waste and spending, and are better for the environment. New practices can also give farmers better options for their area, climate, and changing climates. An online community provides better visibility and makes farms more than just the place where the food comes from by providing a face and story behind the food. Customers may feel better connected to their local farmers, and therefore more likely to stay loyal to those farmers' products. Many of the people who visit the farms could become customers or part time workers. Experience through part time work can allow many to transition into becoming farmers themselves. Greater access and connections to farms could make farming a more visible and even desirable career path than it currently is to many people in urban areas. The online community could help address the many people who rely on commercial products through which they cannot connect with the people and resources that support their lives, by giving them a strong, well-connected community to be part of.

## Research

Toyota is the largest city in the Aichi prefecture by land mass. Its land encompasses the city proper, the surrounding flats mostly made up of suburban neighborhoods, factories, and farm fields, and a greater mountainous area with many small villages and farms. Like much of Japan, the population in the countryside has been on the decline and abandoned farmland is on the rise. However, since Toyota is much less urbanized compared to other cities in Japan, it provides more opportunities to get locals directly involved with farming. The general population lives much closer to farm areas, so it is easier to grow connections between them and the farming community.

One of the more prominent farming groups in the area is Yume Note, a local farm group made up of young professional farmers, ages ranging from around 27 to 47. This group includes a diverse collection of different farms: producing a wide variety of vegetables and fruits, rice, wheat, tea, milk, eggs, chickens, pigs, and cows. While most members have fields in only one area, several members have fields both in the flats and in the mountains. Some members use different farming techniques for the same crops. Most members seem very interested in discussing techniques with each other, and going to member farms or outside farms to study different techniques. Several members mentioned wanting to study more techniques, but not having the time to do so. These members would directly benefit from having easily accessible learning tools and better connections with other farms. One member owns a small grocery store which mostly sells local and Yume Note member products, has several permanent food stands, often invites local food trucks, and hosts some community events. Members in the group often participate in farmers markets and similar events within Toyota and the greater Aichi prefecture. This group is a great example of a well connected learning community of pro farmers, and could grow by creating more interactions with learners in the greater community.

One Yume Note member, Mr. T, spent the last 4 years growing tomatoes as his main summer crop and has worked a total of 12 years as a farmer. He started out farming working with his father in law, who is most likely to fully retire from professional farming in the next few years. Mr. T's laborers are mostly mothers and high schoolers from the surrounding area. He is hiring 2 foreign Technical Trainees from a country in mainland Asia through the NGO OISCA. He plans on employing new Technical Trainees for the length of a year, every year, for at least the next three years. Mr. T engages in community outreach by having a class from a local elementary school visit his farm. Mr.

T has visited farms to learn different growing techniques for tomatoes, and he would like to invest more time into studying new techniques. However, he says that it's difficult to spend a lot of extra time looking up new techniques. He needs a resource that would make looking up new techniques less of a hassle.

The shorter than usual rainy season in the summer of 2022 badly damaged most tomato crops across Japan, including Mr. T's. By the time he found a way to avert the worst effects, it was already too late for much of the tomato crop. With extreme climate events becoming the usual, an active online forum and easily accessible resources addressing these events would be extremely beneficial to farmers. A greater dialog and connection with local customers could also help groups like a rice farm who started selling onigiri (rice balls) because customers aren't buying their rice. While there are government incentives in the form of subsidies to push farmers to grow in demand crops, these subsidies don't ensure that the crops will sell. In a well-connected local community it is easier to gauge what the customers will buy.

New farmers would also really benefit from data on an established community. A member of Oiden Sanson Center, a group that helps people buy abandoned land and adjust to life in the mountain villages of Toyota, mentioned that new residents have a challenging time selling their produce. The Center created a website showcasing some residents and their produce in an attempt to help, but they haven't regularly updated the website. There is an obvious need for an online presence and resources expressed by this group. An online and social media presence could also connect learners with farming.

Students interviewed at Chukyo University were often entirely removed from farming, or connected to it only through their grandparents. Eight students who live in the urban part of Nagoya city mention having no family connections to farming and almost no awareness of farming practices. Three students have grandparents who practice subsistence farming, but they are unaware of their farm and farming in general. On the other hand, Ms. A's family, who's hometown is in the country-side, regularly visit and help her grandparents with big tasks like planting rice by hand on their mostly subsistence farm. She plans to take a job in a city within an hour of her hometown so she can continue helping in the future. In an extremely rare case, graduate Ms. K mostly became interested in farming after making a trip to Africa, and decided to work at an organic farm nearby Toyota to learn their methods. For the summer of 2022, she is traveling and visiting farms in Africa. During the spring semester of 2022, students of a seminar are working on a project taking compost from the campus cafeteria and turning it into compost with a handmade barrel turner. They plan to grow vegetables on nearby abandoned land with the compost. By investing their time and skills into this project, they have created a stronger connection with the issue and members of society connected with that issue. Being part of long form projects like this forces the learners to directly engage and become involved with the subject matter. Involvement in a project like this followed by continued reinforcement and interaction through social media and an online form could form a strong community of continued learners.

## Website Design

Sections of website design plan:

- Farmers (pages for the accounts of all farmers with information about what they grow, they're background, if they're looking for part time employees, and so on)

- Businesses using farmers products
- Products (able to search farmers by products)
- Research (link to research papers, videos, and articles)
- Farming practices (links to videos and other learning tools)
- Form (posts, comments, and interactions between community members)
  - Section/sorting just for recipes, at-home farming, etc.
  - Requires making an account and will include options for different membership for farmers, business etc.
- Data collection willingly given by members of the site (benefits to farmers)
- Events (farm visits, farmers markets, etc.)
- Links to other websites with community events
- Connected Instagram

The main goals of the website are to give farmers and groups engaging with those farmers a more visible presence, make learning less of a hassle by gathering learning materials, provide better data on the local community, create a form for members to share discoveries and experiences, increase attendance of community events, pull in social media users on Instagram, and increase engagement between members of the community online and offline. By also taking into account the needs and motivations of members within the community, the community could grow and better connect groups with each other. Most vitally, this website should be a stepping stone for real, physical interactions between groups.

## Conclusion

An online learning community of professional farmers, new farmers, customers, learners, and at-home farmers would benefit everyone involved. Professional farmers could gain new part-time employees, become better connected within their customer base, and easily learn new techniques from provided links and a pool of community knowledge. New farmers would see even more benefits from the pool of knowledge, and could create important connections with other farmers and new customers. Customers would be able to more easily access and learn about local produce, and may become learners. Providing information for these learners could grow and strengthen at-home farmers. Since most of the population lives in urban areas, most of these learners have little room to grow plants and vegetables. Providing information on community farms would provide the best place for the skills they learned to be used. However, there may not always be a community farm to use. In this case, easy options can include growing things like sprouts and herbs within living spaces. Engagement through the website will allow sharing of innovative at-home farming practices. By growing the community online, a strong local community will be able to flourish as well.

## References

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