

WASTE NOT

A university and an insightful associate professor team up with regional industry and local government to create new value using agricultural products that were once discarded, as well as handle everything from product development to promotions.

MADOKA NOMOTO

MATSUMOTO University is situated in a tranquil rural landscape in the middle of Nagano Prefecture. It has earned wide praise for backing the sixth industrialization (see HJ Feb, 2018, pp 10-11) and promoting the efficient use of natural resources. The university is close to Azumino, a region famous for producing soba and wasabi. Along with the Nagano Prefecture Central Shinano Area Sixth Industrialization Promotion Council, the university earned the Minister of Agriculture, Forestry and Fisheries Prize, the highest award at the Fourth Food Industry Mottainai (wastefulness reduction) Awards in 2016 for its work in reducing food loss and promoting waste recycling.

Any buckwheat flour left over after the soba-making process is normally discarded. For example, out of 22 kilograms of brown soba, 9 kilograms would be extracted to make buckwheat flour, while the rest would be discarded as waste. And wasabi leaves, which are edible if processed properly, were being discarded as well.

The university suggested producing roasted buckwheat flour, and turning wasabi leaves



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- 1 Arukuma Soba made using buckwheat flour that is usually discarded
- 2 A pork bun flavored with the processed wasabi leaves
- 3 The Fourth Food Industry Mottainai Awards
- 4 Croquettes made with the processed wasabi leaves
- 5 Paste made from wasabi leaves

into a new product called wasabi leaf paste. In cooperation with a local food manufacturer, the university used roasted buckwheat flour to develop Arukuma soba, which became a hit product that sold over 5.5 million packages and brought in more than ¥100 million (about US\$ 913,000).

The university's revitalization work was a positive example of cooperation between industry, government and academia, and led to products that took advantage of the region's characteristics.

Organizing booths with companies from various industries and municipalities at events in the Tokyo metropolitan area also attracted tourists through sightseeing bus tours.

Associate professor Kazuhiro Yanai at Matsumoto University's Department of Health and Nutritional Science, Faculty of Human Health Science, started a project four years ago based on his award-winning endeavor to create valuable Azumino brand goods out of materials normally discarded. He and his students sought out partners such as Azumino City, the Azumino Society of Commerce and Industry, Saito Farms, Azumino Shokuhin (a food processing company and secondary industry producer), vendors in tertiary industries and tourism operators such as JR East Nagano and Alpico Kotsu. In the end, the partnerships encompassed everything from developing products to promotional activities.

Sixth industrialization businesses generally involve a primary industry practitioner taking on secondary and tertiary industry roles to gain more income. Yanai's model, however, which he calls the Matsumoto University Regional Revitalization Model, is a project managed from start to finish with players involved in all aspects of production, tourism, and marketing and sales. It also links primary, secondary and tertiary industries, with a university or government body serving as its hub.

"In the end, as the saying goes, every man knows his own business best," Yanai explains. "By collaborating with specialists at each stage, we can create products that are sure to sell. And distributing the earnings among everyone allows for more peace of mind and leads to better products."

Yanai adds that one-shot cooperative efforts between industry, government and academia to develop new products should no longer be considered an achievement or successful contribution. "I'd like to create more successful cases like this that are not limited to just selling a product, but also examine how they can change society and study the economic results they generate."

Yanai plans to apply his model to various other Azumino agricultural products, including apples and strawberries, not only soba and wasabi. His ultimate goal is to help local regions thrive, including boosting farm income, providing support for childcare, creating new job opportunities (such as hiring workers with disabilities) and attracting tourism. 7