

Nile T-18 tested in bid to unleash drone tech for aging farmers in Japan

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Japan's attention to aging includes trying to find the best models and solutions to cope with the social and economic impact of an aging population.

Agriculture is one sector where planners are confronted with older farmers and labor shortfalls. Declining birthrates have been made the picture all the more complicated, with the migration of younger people to urban areas.

A report from Nippon in July said, "Since 1985 Japan's farming population has shrunk by around 60% while the average age of farmers has steadily increased. Against this backdrop, the agricultural sector now faces a severe labor shortage." The report commented how the statistics chart looked like a descending [staircase](#). An article in *The Japan Times* in June said [6](#) in 10 farmers in Japan were over the age of 65.

[Case](#) in point: In Tome, farmers are an average 67-68 years old, said Reuters, and facing a shortage of labor as young people leave for the cities. The Tome region has supplied rice to Tokyo since the 17th century.

But now a [drone](#) company can hold out a supportive helping hand for agriculture. Techies are joining hands with farmers in Japan's northeast to forge ahead with [farmer](#) support from drones. A widely quoted Reuters report had the story. Namely, the drone in the news is the Nile-T18 from the company Nileworks.

In a recent demo, the company's drone flew over rice plants. It sprayed pesticide and it diagnosed the growth of individual rice stalks. Reuters carried the photo. That kind of behavior indicated how much faster and easier farm work could be, as it was able to check out how much pesticide or fertilizer was needed. Here are some numbers for the tasks when done by a drone. Applying pesticides and fertilizer to a rice field takes over an hour by hand. It takes a drone 15 minutes. As for the heavy lifting of tanks, the drone eliminates that labor.

Reuters said the next generation of farm helpers in an aging rural

heartland could be drones

In October last year, in a news release on the topic of raising capital, Nileworks described itself as "pursuing 'Precision Agriculture from the Air.' The concept involved "agricultural drones autonomously flying 30cm above fields to carry out growth diagnosis and agrochemical spraying automatically."

What's next? Next year will be a big year for the company. Reuters said Nileworks plans to start selling the drone in May, with an annual target of 100 units in year one and 4,000 in five years.

The *Daily Mail* carried a price, \$36,000 (£28,000) on the Nile-T18. If you balk at that number, the *Daily Mail* noted that larger radio-controlled mini-helicopters cost around \$136,000 (£105,000) with [spray](#) equipment.

There will be a companion iPad app.

AgFunder News back in October spoke of the company raising \$7.12 million financing round to for its drones. "The Tokyo-based company, founded in 2015, will target rice farmers in Japan when the product goes on [sale](#) in 2019 but says it will move on to other rice-producing countries in Asia in 2020. The company plans to sell the hardware itself, as the drones are automated and do not require operators. Each drone can carry up to one liter of pesticide at a time and fly for 20 minutes, covering 1 hectare."

In the bigger picture and moving to a US perspective, drones have been poised for takeoff. A report earlier this year in *PhysOrg* by Zeke Barlow of Virginia Tech said, "Agriculture is one of the industries where drones will make a big impact in the coming years. A report from PricewaterhouseCoopers found that the potential market for agricultural

drones is \$32.4 billion because high-tech systems with the ability to monitor crops or livestock can reduce human errors and save time and [money](#)."

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