

# Regional Branding Through the Release of Storks into the Wild

## Toyooka City



### Background

Storks, which once lived all over Japan, were last seen in Toyooka in 1971, after which they disappeared from Japanese skies. Hyogo Prefecture and Toyooka City have been working on the artificial breeding of storks since 1965 and succeeded with the first release into nature in 2005. Toyooka City has been promoting environmentally-friendly agriculture to create a natural environment where storks can live, feeding in fields such as rice paddies. Today, more than a hundred storks from Toyooka fly over Japan.

For storks to return, an enriched natural and cultural environment that supports them – a special natural monument to the wild – must be regenerated. By creating and preserving a natural and cultural environment in which storks thrive, Toyooka City aims to become a city where the environment and the economy complement each other.

The stork is a large bird with a length of about 1.1 meters and a two-meter wingspan. Weighing in at 4 to 5 kilograms, this magnificent bird is a meat eater, feeding on fish, frogs, snakes, grasshoppers and other small animals. In captivity, it eats about 500

grams of food a day.

### Purposes of Project

- 1 Realise the release of storks into the wild
- 2 Achieve a balance between the environment and the economy
- 3 Improve the income of producers
- 4 Create an abundant natural environment

### Outline of Project

As the core of Toyooka City's Environmentally-creative Farming Strategy, we aim to promote the "Stork Natural Rice" brand as well as sustainable farming recognised by the market economy. Toyooka City promotes "stork-friendly farming," focusing on a culture, community and environment where storks can live, while cultivating delicious rice and nurturing a variety of creatures.

### Requirements of stork-friendly farming

1. Pesticide-free or a decrease in the use of pesticides (80% reduced) and no use of chemical fertilisers during the cultivation period
- The enemies of rice production are weeds and pests. Pesticide is normally used as a

countermeasure against pests, and chemical fertiliser is also used to make delicious rice. However, using these products results in a reduction in the number of small creatures such as tubifex in the rice paddies, so the number of rice paddies with a lower population of these beneficial creatures is increasing.

In rice paddy fields that observe stork-friendly farming, there are a lot of these creatures. The creatures eat the rice plant pests, and storks in turn eat them. In this way, a food chain is created, which results in an active lifecycle with a variety of birds including storks landing in the paddy seeking food.

Producers who are committed to stork-friendly farming have a clear purpose; to produce safe and delicious rice without relying on agricultural chemicals and chemical fertiliser, and thus allowing many creatures to thrive.

## 2. Water management

A major difference between stork-friendly farming and the general method of cultivating rice is water management. The impounding period for stork-friendly farming is significantly longer than the general way of cultivating rice. Stork-friendly farming encourages the growth of a lot of small, beneficial creatures, which become a year-round food source for the storks and suppresses weeds at the same time.



Stork Natural Rice, pesticide-free 5kg

- (a) Stork-friendly rice production begins in autumn when the previous work has finished. Organic materials such as cow dung and rice bran are scattered, not only to improve the soil, but also to feed the creatures living in rice paddies.
- (b) During the winter, rice paddies are filled with water to attract a wide variety of wildlife, and simultaneously, the dung of tubifex in the rice paddies forms a layer of soft soil. This has the effect of suppressing the growth of weeds, so that pesticide-free rice or low chemical fertiliser rice can be produced.
- (c) In stork-friendly farming, rice paddies are filled with water one month before rice planting to nurture the growth of a lot of creatures, which serve as food for storks. (The general method of cultivating rice requires rice paddies to be filled with water only one week

before the planting of rice.)

- (d) To suppress weeds and nurture a variety of creatures, the water level after planting is gradually raised. It is maintained at about 8 cm and managed for about 40 days.
- (e) To secure the paddies as a feeding area for storks, the mid-term drainage is delayed approximately one month, until it has been confirmed that the tadpoles have turned into frogs. (Mid-term drainage refers to the release of all the water from the rice paddy at once. It prevents the rice stalks from collapsing by solidifying the soil while diffusing oxygen through to the soil and roots, which prevents moss from growing. In addition, when a paddy is filled back up with water, a lot of nutrients are absorbed by the soil which promotes healthy rice growth.)



Rice paddy field and a stork

Stork-friendly farming began with a mere 0.7 ha of area in 2003 as part of the project

to release storks into the wild. The enthusiasm of the producers has broadened the circle of the initiative, and the land area expanded to 407.1 ha by 2017, with about 240 producers dedicated to stork-friendly rice production. These efforts are supported by major retail giants and department stores nationwide, and the consumers who purchase this rice. It has a good reputation among local consumers. Stork Natural Rice is now also being exported to the United States and Hong Kong.

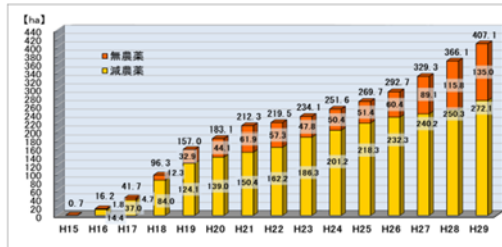
### **Progress and Achievements**

The key feature of this project is that the private sector and the government cooperate with each other in every aspect, from the production to the building of the distribution structure. The entire community has made an effort to build a system for the vibrant “coexistence of the environment and the economy” from a long-term perspective, rather than by taking a transient approach. Producers, processors, government, distribution and retail operators, etc., are working together to support the purchasing of Stork Natural Rice by consumers.

### **Effects of Project**

◇ Rice acreage of stork-friendly farming  
Stork-friendly farming, which began in 2003 with just 0.7 ha of acreage, has been steadily expanding in area after the first release of storks to nature in 2005.

## 407.1 ha (135.0 ha - pesticide-free, 272.1 ha – reduced amount of pesticides)



### ◇ Stores selling Stork Natural Rice

In Japan: More than 500 stores mainly in Tokyo metropolitan, the Kansai area and Okinawa Prefecture

Foreign countries: The United States (New York and Los Angeles) and Hong Kong

### Problems and Responses

While the rice acreage of stork-friendly farming has been steadily growing, the development of sales channels presents a challenge. Stork Natural Rice is a high-end product because it requires more labour to grow it pesticide-free or with less chemical fertiliser, so the retail price is higher. For this reason, Stork Natural Rice is not likely to be an everyday purchase for middle-income consumers, who make up most of the customer base.

In Toyooka City, we are making an effort to inform consumers of the production background (value) of Stork Natural Rice through retailers' promotional events and environmental studies at schools etc., to promote the increase of repeat customers. These efforts are beginning to produce

results, as the number of repeat customers is increasing steadily.

### Outlook

Stork Natural Rice is marketed as a high-end product, so the development of sales channels in Japan presents a challenge. In addition, the consumption of rice in Japan is decreasing every year. To address this situation, we will actively engage in satisfying and growing the demand in foreign countries. In particular, we will continue our export policy of focusing on entry into the markets in Western countries that have a high interest in environmental conservation and biological protection, as well as in Asian countries where rice is still a staple food.

### Reference URL

<http://www.city.toyooka.lg.jp/hp/genre/agriculture/farming/index.html>

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