

# The Kome-Pla Times



Fukushima Biomass Resin Factory

## Making Rice Resin a Part of Daily Life.

### Establishing a Factory in Namie and Revitalizing Agriculture

“We want to create a world where materials produced in Namie Town are commonplace in everyday life.” Biomass Resin Fukushima, which manufactures biomass plastic “Rice Resin” using locally sourced rice, is gaining attention. Our reporting team visited the new factory in Namie Town for coverage.

#### Biomass Resin Fukushima



Rice Resin “Pellets” used in plastic products

“Rice Resin” refers to biomass plastic made from non-edible rice, and it is widely used in various plastic products such as garbage bags and toys.

Biomass Resin Fukushima completed its factory construction in Namie Town in 2022 and commenced producing Rice Resin. The company aims to achieve an annual production of 3,000 tons.

The rice the company uses is sourced in Fukushima Prefecture, purchasing “broken” or “discarded” rice that cannot be marketed. The process blends up to 70% rice with petroleum-based plastic, significantly reducing the amount of petroleum-based plastic used.

Namie Town is located in the “Soso District” and suffered significant damage from the Great East Japan Earthquake. It faced the earthquake, tsunami, and the aftermath of the accident at Fukushima Daiichi Nuclear Power Station. Currently, the town continues to grapple with the stigma of “harmful rumors.” The population, which was 21,000 before the disaster,

had only recovered to 1,932, or 10% of the pre-disaster level as of October 2022. Moreover, only about 20% of the original 1,900 hectares of farmland have been re-cultivated, with the remaining 80% left fallow. The town is still in the process of recovery.

In the rice fields reclaimed from abandoned farmland, a special variety of rice dedicated to Rice Resin production is being cultivated. The company “Chi-no” in Namie Town is providing the rice, which serves as the raw material for Biomass Resin Fukushima.

The rice produced by “Chi-no” prioritizes quantity and production efficiency rather than taste and quality, as it is intended for non-edible purposes. The company employs a double cropping system called “repeated cropping,” harvesting twice a year from the same field. They cultivate a high-efficiency variety called “Kitagenki.” Additionally, they are advancing smart farming practices by using drones for tasks such as fertilization, aiming for agricultural automation that minimizes the need for manual labor.

### Dispelling Unfounded Rumors

#### Mr. Takemitsu Imazu, from Biomass Resin Fukushima

The team interviewed Mr. Takemitsu Imazu (41), the President of Biomass Resin Fukushima, to hear his thoughts

Q: Why did you choose to use rice?

A: Biomass plastic can be made from materials like charcoal or wood, but a stable supply of materials is necessary. Considering what can be done domestically, we preferred something that is carefully managed. In Japan, rice fits those criteria. Additionally, in Japan, there's a decreasing trend in rice consumption. We are also addressing the issue of “food loss,” where harvested rice is discarded once it becomes old. We aim to solve such challenges.

Q: How do you feel about taking on this challenge from a disaster-stricken area?

A: Namie Town is still facing various challenges due to the impact of the disaster. We want to dispel the unfounded rumors about Japan and Fukushima and convey that Fukushima is doing its best to overcome these difficulties, both nationally and globally.

Q: What is your vision for the future?

A: We want people to know that there is such a wonderful company and factory here. We are working hard to make Namie a place where people want to work and live. Just because we are gaining attention for using rice-based plastic doesn't mean we've achieved everything. We need to make biomass plastic a part of everyday life, even if it's not actively noticed. We aspire to create a world where biomass plastic is made as a matter of course in Fukushima, where you all live.



Mr. Imazu expresses a desire to dispel the unfounded reputational damage of the disaster-affected areas.

### The Use of Locally Produced Rice as a “Plastic Reduction” Material.

Biomass plastic is created by combining plant-derived components with petroleum-based plastic. For example, replacing a portion of the components of plastic bags with plant-derived sources such as corn, sugarcane, or rice can reduce the use of petroleum and decrease carbon dioxide emissions.

This contributes to the creation of a sustainable environment and climate change mitigation in line with the SDGs. Biomass plastic represents a crucial first step in addressing the significant global issue of global warming.

Rice Resin is produced by blending rice and petroleum-based plastic using adhesive. Rice, being in a solid state, is instantly cooked. Taking advantage of its property to stretch when heated, softened rice is mixed with plastic to create a pasta-like form. The cooled mixture is then cut into pellet shapes. These “pellets” are sold as raw materials and are transformed into processed products by other companies.

There are approximately 800 products made with Rice Resin, primarily well-suited for disposable items such as shopping bags and garbage bags. It is also used in hotel amenities like toothbrushes and combs. Additionally, it finds application in items like building blocks toys and clear files.



Heat-stretched Rice Resin before cutting



Dishes and toys made from Rice Resin

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