

## Sugarcane and potatoes

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Sugarcane comprises over half of the area of agriculture in the Amami Islands, and approximately 30% of the output. However, its status has been declining. Over the past 30 years, the cultivated area of sugarcane has dropped by around 30%, and in its place, forage crops, which serve as food for cattle, and potatoes have increased. Even now, sugarcane is one of the main players in the agriculture of Amami, but it is not the only main player. Consider the role of sugarcane in Amami under such a situation.

As mentioned in “Agriculture, characteristics, and challenges of the Amami Islands” (pp. 53-54), because Amami is an island there are disadvantageous conditions in conducting agriculture compared to the mainland. Because of these conditions, sugarcane farmers and sugar factories on the island have received support from the government in the form of subsidies, which allow them to make a living in agriculture.

However, sugarcane is a crop with low profitability per land area. If the government provides more subsidies to sugarcane farmers, farmer’s incomes will increase, so why aren’t more subsidies being provided? There is, of course, the problem of financial resources, but the following reasons are also present.

If there is a competition among farmers to rent farmland when farming, then theoretically, farmland with better conditions will be borrowed from farmers who grow crops that can pay for lots of rent (high profitability). If the profitability of sugarcane is higher than that of other crops, then sugarcane farmers would drive out other crops and use their farmland. This is problematic if it occurs with crops that are receiving government support, so the subsidies to sugarcane farmers are limited, and the profitability per area is kept low.

Therefore, the cultivated area of sugarcane will increase or decrease depending on the condition of other crops. As an example, if the area of farmland on the island is set as constant, when the price of calves is high, as they currently are, then cattle farmers can pay large amounts to rent farmland, so the area of forage crops that feed cattle would increase, and the area of cultivated sugarcane, which cannot pay the high rent, decreases. In contrast, when items other than sugarcane are not doing well, the cultivated area of sugarcane increases. The fact that sugarcane is decreasing, relative to that in the past, can also be expressed as the promotion and expansion of other items.

Though decreasing, sugarcane still composes a large amount of farmland in Amami even today, signifying that no item can substitute for it. If sugarcane were to disappear, then people would struggle to maintain a large portion of the current farmland as farmland. Sugarcane also has a role in maintaining farmland.

Approximately 80% of the potatoes in Japan are produced in Hokkaido, but many are also grown in Okinoerabujima and Tokunoshima, in the Amami Islands. The potatoes in the Amami Islands are harvested from February to April, when the production areas of Hokkaido

and the mainland are too cold and cannot be cultivated, and these potatoes are shipped to the mainland as “new potatoes.” However, the Amami Islands are islands, so these potatoes cannot be cultivated over a vast space like those in Hokkaido. To meet the stable demand for potatoes, the small production areas cultivate and ship potatoes while alternating over a short period. This system is called relay shipping. When the potato harvest in the Amami Islands ends in April, production areas shift to Nagashima in the north of the prefecture until early May, after which shipping starts in the Shimabara Peninsula in Nagasaki Prefecture.

A common element of these potato-producing areas is that the soil to be cultivated is red. Red soil is generally difficult to cultivate. It is difficult to say that this is fertile soil, but potatoes grown in red soil look more beautiful than potatoes grown in black soil, and they are traded at a higher unit price. Potatoes are a crop suitable for Amami, where the soil and climatic characteristics of the Amami Islands outweigh the disadvantages of transportation.

However, there are challenges. Although not limited to potatoes, prices may decline as a result of reduced demand due to the declining birth rate and aging population, as well as competition with other production areas. Under such circumstances, efforts to increase the price of potatoes are required.

One of these efforts is PR methods. The solution here is not to conduct PR for each small island, but to market red-soil potatoes under one brand for the entirety of the Amami Islands, and possibly Nagashima and Nagasaki Prefectures. Furthermore, the skin of new potatoes more easily peels off, so it is difficult to utilize mechanical harvesting, therefore most of these are harvested manually. A major issue is securing a harvesting labor force, but on the other hand, promoting this “hand-dug” aspect and increasing its added value may also be possible.



**Potatoes harvest at Imura Farm in Okinoerabujima**