

COLOCASIA TARO ON POHNPEI ISLAND

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Abstract

Using legends and history, the origin of *Colocasia* taro on Pohnpei is examined, and its importance culturally and nutritionally is summarized. The most common method of growing taro, integration into the traditional agroforestry system, is described, and a summary of future research needs for *Colocasia* taro is presented.

Origin of Taro on Pohnpei

According to Pohnpei legends, the first taro on Pohnpei was not introduced, rather it was found long, long ago in the Municipality of Nett located in the north of Pohnpei. The first people that found this taro named it *Eni seu padok*, meaning planted by ghosts or spirits. Anything that happens in Pohnpei without the presence or consent of humans is always referred to as a spiritual creation. This original taro variety, *Eni seu padok*, was not edible. According to the local anthropologist Ioakim David (whose traditional title is *Kehlak Takaieu*), the ancient Pohnpeians used this plant only for medicinal purposes.

After a few years, another variety of taro was found, this time at Palikir in the Municipality of Sokehs, located in the northwestern part of the island. This variety was named *Sarawihpe*. Since this variety was edible, they gave praise to God before they ate it. In Pohnpeian, the name *Sarawihpe* is a word that means the act of praise or worship of someone higher than you. Since this time, taro has been an important food on Pohnpei. Unfortunately, neither of these two original varieties exists today, so we do not know what they looked like. All the sweet taro varieties planted today are introductions during the post-European contact and colonial periods.

Importance of Sweet Taro on Pohnpei

Sweet taro (*Colocasia*) is cultivated almost everywhere in the Federated States of Micronesia and in the other islands of the Pacific and has its own important values where it is grown. Sweet taro is considered one of the major food crops on Pohnpei Island by local people. They prepare taro in many different ways, especially during special occasions in the community in which all are asked to prepare food. Sweet taro is also a source of medicine

for young boys and girls. During the child's early growth, the parents will often instruct their child to go to a taro patch early in the morning and look in the upright leaves to see if some water remains in them. The children are then asked to drink this water every morning. If a child does this every morning, they predict that the child will be *lolokong* (intelligent) and *marara* (a fast runner).

Another reason for the importance of *Colocasia* taro in Pohnpei is the production length of this crop. This factor is especially important to people that do not have another source of income besides farming. In Pohnpei, the main breadfruit season begins in May and slows down by late July, and the yam season only begins in earnest in December and usually ends in March or April. A good Pohnpeian farmer schedules his planting of taro so that it can be harvested during the gap between the breadfruit and yam seasons. This is why sweet taro is an essential component of the traditional Pohnpei agroforestry system.

Another important aspect of sweet taro is its potential to grow in many soils types on Pohnpei. Sweet taro does not need commercial fertilizer in order to grow well, but only needs compost, green manure, or other local fertilizer at planting time, weeding, desuckering, and hilling-up and mulching. These practices give a farmer enough taro for harvest for family consumption and use for special occasions. Sweet taro is used a lot at parties and other special events because it can be prepared in eight to ten different ways. It can also be stored for a longer time than all other root crops, without much change in quality and taste. The market demand for sweet taro, especially the major varieties, is good, and sweet taro planted in large quantities can be fed to livestock if the market demand is very low at the time of harvest.

Nutritional Value of Taro

Sweet taro is also a nutritional treasure for the islands of Pohnpei. The taro corm and heart-shaped green leaves are packed full of the vitamins and minerals the body needs to stay healthy. The taro corm is an excellent source of energy, which the body needs to stay active. The taro corm also provides fiber which is needed in order for the intestines and other parts of the digestive system to work properly. When eaten in large quantities, taro corms are also a good source

of calcium and iron. Calcium helps to make strong bones and teeth, and iron keeps the blood healthy. Women especially need a lot of iron in their daily diet.

Taro leaves contain Vitamin A which is needed for proper growth, healthy eyes, and protection from disease. Taro leaves are a good source of Vitamin C which keeps the body tissue strong, helps the body use iron, and aids chemical reactions in the body. Taro leaves also contain Vitamin B1 (thiamin) which helps the body use energy foods and Vitamin B2 (riboflavin) which is needed for normal growth and healthy eyes.

Recommended Taro Growing Practices on Pohnpei

According to work carried out by the College of Micronesia Land Grant Programs and other information, the following steps to producing healthy sweet taro in Pohnpei have been suggested (Shresthra 1990):

1. Select good varieties that are suitable to your land area. In Pohnpei: *Pasdora*, *Sawa Toantoal*, and *Sawa Kosrae*.
2. Select planting materials from healthy plants.
3. Before planting, treat planting materials with Malathion insecticide at the rate of 1 1/2 teaspoons per gallon of water.
4. Prepare planting materials with less than 1/2 inch of upper corm and 1 foot of petiole. Pull off outer petioles and cut off all the roots.
5. For planting on the ridge, make a furrow on the ridge, apply compost, and cover with soil. Dig a hole 8 inches deep, place the planting material in the hole and partially fill it with soil.
6. For planting on flat land, dig a hole 1 foot deep, put a 3-inch thick layer of compost at the base, and cover with a 1-inch layer of soil. Place planting material in the hole and partially fill it with soil.
7. If planting is done after harvesting the previous crop, select plants to prepare large head sets. If planting is done before harvest of the previous crop, select large suckers.
8. Mulch the crop with available materials such as grasses, leaves, and sawdust.
9. Apply 1/2 ounce of commercial fertilizer (10-20-20) per plant one week after planting. Dig a hole in between plants in the row, put in the fertilizer, and cover it with soil. If planting is done in scattered fashion, apply fertilizer around the plants.
10. If insect infestation is high, apply Malathion at the rate of 2 tablespoons per gallon of water. Repeat the spraying at an interval of 15 days for good control.
11. To reduce the infection by *Phytophthora* Leaf

Blight, cut off the severely infected leaves.

12. Harvest the crop six to seven months after planting when most of the leaves start to turn yellow.

Future Research Needs

Although taro ranks behind yams, imported rice, and breadfruit as a staple food, there is still much need for future research. The biggest research need is in the control of *Phytophthora* leaf blight, which is the most serious problem to the island's farmers. Pohnpei, where annual average rainfall ranges from 165.1 to 212.4 inches, provides the ideal climate for this serious disease. One possible strategy would be to research planting dates and their effects on leaf blight severity since the disease seems somewhat seasonal. There might also be other techniques to reduce or even eradicate this disease.

References Cited

- Shresthra, P. M. 1990. Twelve steps to growing healthy sweet taro. F.S.M. Agriculture Division, Palikir, Pohnpei. 4 pp.

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