Taro
*(Colocasia esculenta L.)*

Nutritious underutilized species
Botanical framework

Family: Araceae
Subfamily: Aroideae
Genus: Colocasia
Scientific name: *Colocasia esculenta* L.

Common names

Taro, cocoyam, dasheen, elephant ears, macabo, mukhi kochu, inname, yǔtōu, wuh táu, Rukau, satoimo, kolokass, colocasia, dalo, kikass, ala, gabi, toran, aroei, khoai môn, ô-ă.

Brief introduction to the species

*Colocasia esculenta*, commonly known as Taro, is a staple vegetable crop that has been used as food for over 9,000 years, making it one of the world’s oldest food crops. It is used as a source of protein, starch, and vitamins. It is toxic when raw but edible when cooked. It can also be used for medicinal purposes.

It can be found in Southeast Asia but now has spread throughout the world, becoming a very important crop in Asia, Pacific, Africa, and the Caribbean. As a crop, it remains mostly under the control of local communities, rarely being traded on a global scale.

It has edible underground stems called corms, which are wrapped in scale-like leaves and have bud-like smaller corms, called cormels, coming off of them. Above ground, there are other leaves which can also be eaten.

Main use and benefits

How is it generally consumed?

The main use of *Colocasia esculenta* is as a vegetable and when the leaves or corms (underground stems) are eaten after baking, roasting, or boiling them. Its leaves and petioles can be dried and preserved and eaten in times of food scarcity. It is highly nutritious as well.

Nutritional value

What is its nutritional value?

Taro root is rich in complex carbohydrates and is a primary source of starch. The nutritional value of taro root is similar to potatoes. Taro root has very little fat. One cup serving has 7 g of dietary fiber which is about 27% of the daily recommended amount.

What are neglected and underutilized species?

The term ‘NUS’ – standing for neglected and underutilized species – refers to a category of non-commodity cultivated and wild species, which are part of a large agrobiodiversity portfolio today falling into disuse for a variety of agronomic, genetic, economic, social and cultural factors. NUS are traditionally grown by farmers in their centres of diversity, where they support nutrition security and other livelihood goals of local communities while contributing to meet their socio-cultural needs and traditional uses. Until recently these species have been largely ignored by research and development, becoming less competitive than well established major crops and losing gradually their diversity and associated traditional knowledge.
One cup serving has 11% of the vitamin C daily value, 19% of vitamin E and 22% of vitamin B6 (all critically important for the immune system). One cup serving also has 10% of the daily value of magnesium and phosphorus, 13% of copper, 18% of potassium and 30% of manganese.

**Growing and harvesting**

### How easy is it to grow? How is it harvested?

Taro grows easily without many fungicides or pesticides because it naturally contains several natural phytochemicals to defend itself. These also act as defenses against grazing animals by giving it an acrid taste when raw. It can also be grown in diverse environments. It will grow either in water or on land. It is one of the first crops to grow on soil that has been fallow for a long period of time.

About 48 days after planting, there is a period of rapid growth for about 100 days, but corm growth continues for even longer. If too much time passes after planting before harvesting, the corms can start to rot and lose dry mass. Because there is so much variability in taro, there is no real specification with respect to time about when to harvest it. However, depending on the definition of crop maturity used, plants can be harvested between 5 and 13 months after planting, and in certain parts of the world where taro is grown regularly, it is harvested between 9 and 11 months after planting. Harvesting is generally done by uprooting the plant to retrieve the important corms.

**Productivity**

### How much will it produce?

Under farm conditions, taro productivity is low. Its productivity only ranges from 1.4-6 t/ha. However, at certain research stations, yields of 50-75 t/ha can be attained. Corm dry matter yield has been shown to yield 6.5 t/ha.

World production of taro in 2007 was almost 12 million metric tonnes. 9.5 million tonnes of that were produced in Africa, and 2 million were produced in Asia.
Preserving and processing

Can it be preserved, keeping its value?

Postharvest storage rot of taro can cause losses as high as 85% after only 2 weeks of storage. Corms can easily be infected, but storing it in cool temperatures seems to help for a certain amount of time on pathogen-resistant varieties.

After harvest, taro corms are cleaned by water and hand scrapers. Drying the skin of the corms increases shelf-and storage-life.

Other uses

What else can be done with it?

Aside from being cooked and eaten like a potato, taro can be made into a baker’s flour used for decoration. It is added into poi, a traditional edible paste from Hawaii. It can be grated into pudding and eaten that way as well.

Because taro varieties can be different colors, some of them are used for different symbolic purposes. For example, one, that bears the same color pattern as a particular type of fish, is sometimes used as an offering in place of that fish in ceremonies.

Culture

Are there any specific taboos, specific cultural adaptations, historical perspective?

Because taro has been around for such a long time, it has been used by many cultures all over the world. The Hawaiians use it as a ceremonial offering. The Japanese adopted it quickly because it is easy to grow, and some say that it influenced their later culinary tastes, like sticky rice. Some cultures believe taro to be an ancestor of the current indigenous people.