
Telfairia pedata

Introduction and uses



(/resources/cd4964b8-18dc-46d8-b94f-43b40d72bf9f) *Telfairia pedata* is a perennial climbing plant grown throughout eastern and central Africa, though it is native only to Tanzania and northern Mozambique. (A similar species, *Telfairia occidentalis*, is grown in West Africa.) It is grown for its large (4 cm in diameter) seeds, which resemble oysters and, thus, are known as "oyster nuts."

Oyster nuts are rich in protein ($\approx 30\%$) and oil (over 60%), the oil of which is a good source of fat. Despite their high oil content, they can keep for up to eight years and remain palatable. Eaten roasted, boiled, or raw, their flavor is comparable to that of hazelnut or almond. One popular East African dish includes roasted oyster nuts, pounded into a paste, and cooked with fish in a banana leaf. In traditional Chagga society in Tanzania, oyster nuts are fed to nursing mothers to stimulate lactation and increase the flow of milk. The seeds are also pressed for cooking oil, and the seedcakes left over from this process are excellent as livestock fodder.

Botanical description

T. pedata is not a nut tree, but rather a member of the Cucurbitaceae family. Female plants produce purple-pink fringed flowers, which develop after fertilization into very large ellipsoid gourds that can weigh up to 15 kg. Each of these ribbed gourds contains 100 to 150 flat, oyster-shaped seeds ("nuts"). The seeds are opened in a manner much like shucking an oyster: aftercutting around the edge, one pries open the fibrous shells to extract the kernel. Vines become woody and can grow to 30 m in length with pedately compound leaves arranged spirally.

Cultivation and harvest



(/resources/c04db288-4f03-44b5-928b-928518a94eed)The oyster nut plant thrives in well-drained medium loam soils, and is resistant to drought. Plant the seeds 2.5 cm deep and 60 cm away from the tree trunk which will serve as a trellis. Allow only one or two per large tree, as the weight of the gourds can easily pull down weaker trees. Place some sticks alongside for the plant to climb up as an initial trellis. Seeds germinate within two or three weeks. Because plants are either male or female (dioecious), it is imperative to establish plants of both sexes to ensure fruit production. In one hectare, 10 to 15 males can adequately pollinate nearly 200 females. A local farmer in Tengeru taught us to differentiate the male

and female seeds (the latter should have a larger indentation). Vines can be identified with certainty after flowering commences 1½ to 2 years after germination. Pollination is probably by insects; hand-pollination is challenging given the great heights at which the vines flower.

Time from flowering to ripening is about 4½ months. As the gourds ripen, they fall away from the vine, at which time the nuts embedded in a pulp can be removed and washed clean. If grown for consumption, spread the seeds out in the sun to dry. If you intend to propagate the seeds, note that they cannot survive desiccation and are most viable within two months of harvest. Stem cuttings root in 2 to 3 weeks, and this vegetative propagation can help balance the ratio of male to female vines.

Under good conditions, two harvests per year are possible. Commercial plantations can reach an annual seed yield of 3 to 7 tonnes per hectare. Plants have an economic life of 10 to 20 years.

The bulk of production remains in-country for home use and domestic markets.

Oyster nut is commonly seen in the agroforestry systems of Mount Meru and Mount Kilimanjaro, where it is grown in conjunction with coffee and bananas.

Sources

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