

A CROP PRODUCTION TECHNICAL GUIDE



EDDOES

(Colocasia esculenta var antiquorum)

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Introduction

Origin

The Eddoe, *Colocasia esculenta var antiquorum* (a variety of the taro or dasheen), belongs to the Araceae family. It is a native of India and South East Asia. It is believed to have been first recorded by the Chinese 2000 years ago and is now grown throughout the humid tropics.

Growth Habit

The crop is considered a perennial but is cultivated as an annual for its edible tubers. In the case of eddoes, the central tuber is surrounded by a cluster of smaller tubers which are harvested. The dasheen on the other hand has a single tuber. The flesh of the eddoe is usually white but can be yellow, pink or orange.

The taste is reported to be similar to the potato but with a nutty flavour. All tubers are said to contain calcium oxalate crystals and eddoes should always be cooked before eating. The starch molecules in the tubers are among the smallest in the plant kingdom making them easy to digest.

Planting Material

The non-marketable corm is usually used as planting material. The bigger corm shows high early vigour, competes well against weeds and can effectively use fertilizer. The corm is usually dipped in a fungicidal mix for ten minutes before planting. Figure 1 illustrates cormels that are commonly used as planting material attached to the corm.



Figure 1: Cormels used for planting attached to corm

Recommended varieties

There are commonly two varieties, Black Eddoes which is less slippery and with a firm skin and is preferred by the extra-regional market. The other variety is White Eddoes which is more slippery and sells best on the local market.

Land Preparation and Planting

Eddoes thrive best in full sunlight. Cormel development and consequently yields are adversely affected by shade. The area to be planted should first be cleared of all brush. Chemicals can be used to kill weeds.

If planting on a slope, form banks along the contour. Ridges are also formed on flat land before planting. Spacing between the ridges is 60-75 cm and 30-40 cm along the row. This gives a plant density of 45,000 plants/ha.

Eddoes also grow best in moist soils. Optimal rainfall is between 1,800-3,000 mm/annum. A dry period is however important to assist in maturity of cormels and to prevent sprouting of cormels in field. Figure 2 shows a typical field of Eddoes cultivated in the Windward Islands.

The heads have proven to be better than the cormels for establishing the crop. They should be treated with a nematicide/insecticide before planting.

Eddoes can be grown all year round but usually October to March is the peak period.



Figure 2: Field of eddoes

Plant Nutrition

Fertilizer is applied at the rate of 1.6 t/ha. The application is split and applied at planting, and at 6 and 12 weeks after planting which is equivalent to first and second moulding. The fertilizer recommended is 16 8 24 or the banana fertilizer.

Pests and diseases

Various pests affect the leaves of the eddoe plant, groundnut and melon aphids, (*Aphis craccivora* (Koch), *Aphis gossypii* (Glover)) mealybug, (*Pseudococcus adonidum* (L)) whitefly, (*Tetraleurodes ursorum* (CKII)) and red spider mite (*Tetranychus spp.*). These however are not considered pests of economic importance. The pest which damages the distal ends of the corms and cormels and can make them unmarketable is the white grub, *Phyllophaga spp.*

Some control can be effected with the use of chemicals e.g. Actara and Pronto sprayed onto the soil before planting.

Weed Control

Controlling the weeds in the eddoe crop is important. Weeding is usually done at 6 and 12 weeks after planting at which time moulding and fertilizing are also done.

Harvesting and Post harvest

The eddoe crop can be harvested after 6-8 months. The corms and cormels are lifted from the soil using a fork. Corms are then separated from the cormels, roots are trimmed and dead scar leaves removed. Yield usually averages 20-30 t/ha. Figure 3 shows harvested corms ready for market.

Post harvest treatment includes washing the cormels in a 2% bleach solution and dipping in Ridomil.



Figure 3: Corms ready for market

BIBLIOGRAPHY

CARDI research activities 1991-1994