

# A GUIDE TO PRODUCING EDDOES FOR EXPORT

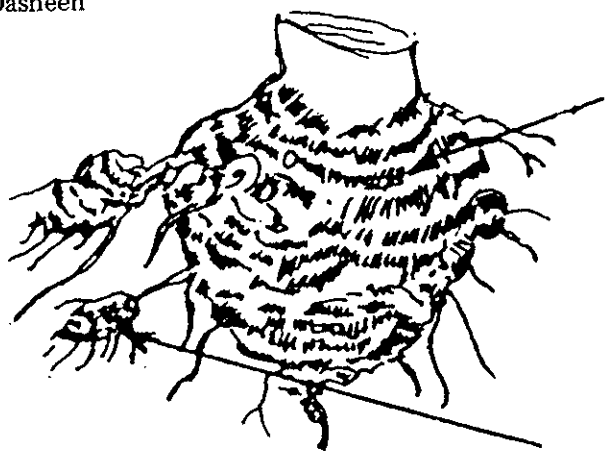
by  
Herman Adams  
CARDI, Dominica

## Introduction

The eddoo is recognised in the CARICOM countries as distinctly different from the dasheen both with respect to its eating qualities and corm morphology. In the literature, both belong to the highly polymorphic species of *Colocasia esculenta* (L.) Schott but the ed-

doe type is classified as *C. esculenta* var. *antiquorum* and the dasheen as *C. esculenta* var. *esculenta*. The dasheen has a well developed central corm and reduced cormels whilst the eddoo has a reduced central corm surrounded by a cluster of well developed cormels (Fig 1).

Dasheen



Eddoe

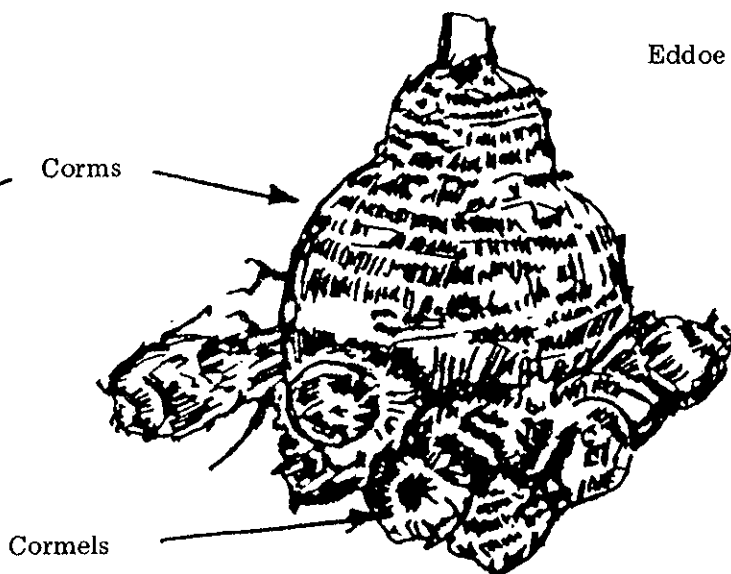


Fig. 1 Relative development of dasheen and eddoo corms and cormels

The eddoe is better known in Guyana, Trinidad, Antigua, St. Vincent, etc. whilst the dasheen is preferred in Dominica and St. Lucia. The more important advantages of the eddoe as an export crop are as follows:

- a) the eddoe matures in 5-6 months (2-3 months earlier than the dasheen)
- b) it stores well for months at ambient conditions without special and costly post-harvest treatments.

## *CULTIVATION*

### *a) Location*

The eddoe can be grown in any location where the fall is more than 70 inches (175 cm) and evenly distributed throughout the growing season. The friable loams in most parts of the islands are suitable. Crop rotation is highly recommended. Planting after a fallow or a non-aroid crop is good practice. Generally, avoid putting root crops on the steeper slopes which are more prone to soil erosion by water, wind, etc.

### *b) Time of Planting*

Unlike dasheen, the eddoe planting should be so timed that maturity takes place in the drier part of the year i.e. in January to March, in the eastern Caribbean. Planting in the months of August to October should ensure harvesting in sunny, drier weather.

The eddoe can be grown in any location where the rainfall is more than 70 inches (175 cm) and evenly distributed throughout the growing season. The friable loams in most parts of the islands are suitable. Crop rotation is highly recommended. Planting after a fallow or a non-aroid crop is good practice. Generally, avoid putting root crops on the steeper slopes which are more prone to soil erosion by water, and wind.

### *c) Planting Material*

The head sett and lateral suckers around 1.5 - 2.5 inches (4 - 6 cm) in diameter at the base, are the best kinds of planting material. In times of shortage it is recommended to set the cormels and bits of corms to sprout in a moist, shaded nursery. The seedlings can be transplanted when they reach the size men-

tioned above. Direct seeding of corm and cormel bits is possible but the rate of growth of the young crop is too slow to keep up with weeds.

Both "Black" petiole and "White petiole cultivars are good in upland cultivations which is suitable for export production. Care must be taken to select planting material from the most healthy and vigorous plants of the preceding crop. The importance of this measure cannot be overemphasized.

Clean the head setts, suckers or seedlings of all roots and dead tissue and immerse in a solution of sodium hypochloride (2% Clorox or commercial bleach) for 15 - 20 minutes to ensure disinfection from the soil borne organisms which should be kept out of the new crop. Insert suckers to a depth of 5 - 6 inches (10 - 15 cm) into soil.

### *d) Soil Preparation*

Land clearing should ensure the removal of stumps and stones from the field. Plant remains and stones should be deposited at intervals in narrow rows along the contours. This is generally beneficial to the soil and to all crops, for soil erosion is reduced and the organic matter returns slowly to the soil during decomposition.

Fork soil to a depth of 15 - 20 inches (38 - 50 cm) and spread evenly about 1 ton (1tonne) of limestone per acre (hectare), once every 2 to 3 years. Leave to heather for about 5 to 6 weeks before planting. Planting on flats, without ridging, is suitable.

### *e) Spacing*

Eddoe for export should be given sufficient room for full cormel development. In upland cultivations, space at 2 - 2.5 ft x 2 - 2.5 ft (60cm x 75 cm) and arrange plants in regular rows along the contours so as to make other postplant operations easier. Pure stands for the export market may have advantages but it does not exclude intercropping. Legume intercrops are beneficial to eddoes and the inter-row spacing would have to be wider.

### *f) Crop Care*

The most costly crop care operation is weed control. An effective weed control programme involves the pre-plant application of Maloran (2.8 kg a.i. per ha) or Gesapax (2.8 kg a.i. per ha). After planting, beans can be planted between the rows to keep down weeds and provide added income. If there is no intercrop and the weeds are mostly grasses then fusilade, 1.3 litre per acre (0.4 kg a.i. per ha) can be sprayed over the entire crop. It will only kill the grasses. Gramoxone, on the other hand, will kill everything including the crop. Therefore it should be sprayed carefully between the rows with a sprayer fitted with a spray shield. Gramoxone, applied at a rate of 1.3 litre per acre (0.56 kg a.i. per ha) gave good post-plant weed control in aroid crops.

Slugs and snails can be a problem in wetter places, Baits are available to reduce their numbers.

Other pests and diseases have, fortunately, not reached significant levels in the Caribbean islands. Leaf sucking insects, mites and moulds sometimes attack crops but they do not destroy too many leaves to cause crop loss. When leaf damage approaches about 10% – 15%, the advise of the Ministry of Agriculture and CARDI should be sought.

### *g) Fertilizer Application*

Eddoes respond to the application of 1.5 oz per plant at planting of the compound fertilizer (NPK) available for bananas in the Eastern Caribbean (43 g per plant). Apply an additional 1 oz per plant (28 g) on

the 2 month-old crop directly after weeding. Dribble the fertilizer in a narrow band along the uphill side of the row about 8 – 10 inches (20 – 25 cm) away from the base of the plant. Work the fertilizer into the soil or the heavy rains will wash it away.

### *h) Harvest*

The first signs of maturity are a faster wilting and dying of the older outer leaves. Dig up a few random plants when this is noticed to make sure the cormels are well developed before fixing a date to harvest. Make sure the buyer is notified a few weeks, at least, before harvest.

The greatest damage to cormels and corms can occur during harvest. Careful lifting and handling will ensure the least damage at this stage.

Also, this is the best time to select planting material for the next crop. Store them in a moist, shaded place and set a seedling nursery using smaller cormels and bits of corms if there is insufficient head sets for the next crop.

Grade, clean and pack cormels and corms into firm, well ventilated containers. Bags are to be avoided. Make sure only the best quality is sold to the exporters.

A good yield of marketable cormels is around 20,000 to 25,000 lb per acre (22,000 – 28,000 kg/ha). The estimated average farmer's yield varies from around 10,000 to 17,000 lb per acre (11,000 – 19,000 kg/ha).

## **DISCLAIMER**

Mention of chemicals does not constitute an endorsement nor does omission constitute an adverse criticism.