

CORCHORUS PRODUCTION GUIDE

Introduction

Corchorus (Jews mallow) is a genus within the family Malvaceae. *Corchorus* is an annual herb, or subshrub or shrub. The flowers are yellow. The fruits are superficially similar to those of some crucifers, being elongated dehiscent capsules. *Corchorus olitorius* is widely spread all over Nigeria, and it is a leading leaf vegetable, especially amongst the Yorubas. It is commonly called *ewedu* by the Yorubas and Hausa people call it *rama*.

Varieties

There are numerous cultivars or varieties of *Corchorus* in Nigeria. Some of the available improved varieties are:

- **Amugbadu:** The leaves are oblong in shape
- **Oniyaya:** Is widely branched with broad, deeply serrated leaves
- **Eletieku:** The leaf shape is like the ear of a rat
- **Eletiehoru:** The leaves is like the ear of a hare, oblong and with fine serration

Sources of Seeds

Corchorus seeds can be obtained from different sources such as:

- Research Centres (NIHORT)
- Government agencies (Ministry of Agriculture, ADPs etc)
- Private seed companies
- Agro- dealers

Climate and Soil Requirements

- *Corchorus olitorius* grow in grassland and fallow or abandoned fields, often close to marshes, rivers and lakes, at up to 1250–1750 m altitude.
- It thrives best under hot and humid conditions.
- In the savanna and Sahel zone, it performs best during the hot rainy season.
- It is cultivated where annual rainfall averages 600–2000 mm and optimal temperature of 25–32°C.
- Jew's mallow is a short-day species. In daylength of 12.5 hours caused a much stronger vegetative growth expressed in weight of roots, stems and leaves than a day length of 11.5 hours, but the fruit and seed production was higher at a photoperiod of 11.5 hours.
- Jew's mallow prefers sandy loam soils rich in organic matter and grows poorly on heavy clay.

Land Preparation

- Land to be used should be cleared at least four weeks before planting especially if it is a virgin land. Other operations include stumping, ploughing and harrowing. Field should be harrowed once and bedded where necessary.

Propagation and Sowing Methods

- For a good seed yield of 25 g per plant, a spacing of 50 cm between and within the row is recommended.
- The seed is ripe when all the leaves have dropped.
- Fruits on abandoned plants in the field also still contain viable seed until the next rainy season. These fruits open at the onset of the rains and the seeds spread.
- Well-dried seed keeps a high germination capacity for several years.
- Fresh and sometimes old seed shows dormancy caused by impermeability of the seed coat. This is a major problem for Jew's mallow cultivation. To break the dormancy, it is recommended that the seeds tied in a piece of cotton cloth be immersed for 5 seconds in almost-boiling water before sowing. Another method is scarification with sand.
- **Sowing:** Mix seed with ratio 1 to 10 with sand or dry soil. They are sown by seed drilling method and broadcast methods. *Corchorus* are sowed either by broadcasting or by seed drilling methods.
 - **Seed drilling method:** Shallow furrows are made at the spacing recommended for the crop and the seed drilled along the furrows.
 - **Broadcasting method:** In broadcasting, seeds are spread over the prepared land by throwing small quantities of the seeds into the air close to the surface of the prepared land.

Weed control

- Weeds compete for light, water and nutrients, thereby resulting in reduced crop yield.
- Thorough land preparation is essential for effective initial weed control.
- Weeds may be controlled using a combination of method.

Pest and Disease

Sclerotium rolfsii causing foot rot and wilting is sometimes a problem. *Curvularia* species cause black leaf spots, and *Cercospora* circular leaf spots.

Control: These fungal diseases are kept under control by cultivation on well-drained beds and wide spacing.

Viral disease Virus disease are often transmitted by leaf hoppers, causes leaf deformation and retarded growth. The most damaging pests are grasshoppers (*Zonocerus variegatus*), caterpillars (*Acrea* spp.), army worm (*Spodoptera littoralis*) and flea beetles (*Podagrica* spp.). During the dry season, red spider mites (*Tetranychus cinnabarinus*) often attack the leaves.

Control: By crop rotation, avoiding other crops susceptible to root-knot nematodes for at least one year, and taking care to ensure a high organic matter content of the soil.

Harvesting

- The first harvest commence at 4–6 weeks after planting by cutting the shoots at 20–30cm long. This stimulates the development of side shoots. Subsequently every 2–3 weeks a cutting may take place, in total 2–8 cuttings. In intercropping systems farmers tend to harvest at irregular intervals. A crop planted for jute production is generally harvested 100–120 days after sowing when the plants are in the early fruit stage.

Yield

- Yield of 20–25 kg per 10 m² bed may be expected from 3–9 cuttings of ‘Amugbadu’ during a period of 3–4 months.

Handling after harvest

- Jew’s mallow leaves cannot be kept long. Mostly the product is sold on the harvest day, and it is constantly kept wet. If cooled to 20°C it can be kept for about 1 week, in cold storage for several weeks. If the leaves are dried and made into powder, the product can be kept for at least half a year.



Corchorus olitorius

Corchorus olitorius

horus cultiv

For further information, contact

Office of the Executive Director
National Horticultural Research Institute
PMB 5432, Jericho GRA
Idi-Ishin, Dugbe, Ibadan
info@nihort.gov.ng, nihortinfo@yahoo.com
www.nihort.gov.ng