PLANT FACT SHEET

Dioscorea bulbifera L.

GENUS *Dioscorea* **FAMILY** Dioscoreaceae

COMMON NAMES Potato yam

EDIBLE PARTS AND USES

Edible parts: Tuber, Root, Vegetable

The tubers are cooked and eaten. More commonly the aerial bulbils are eaten after cooking. Often the cooking water is changed a couple of times to remove bitterness.
Some kinds are bitter and inedible or at least require special processing and cooking.
Some varieties are poisonous. Some can cause actions as contraceptives.

DESCRIPTION

A yam with a long smooth stemmed vine, round in cross section. It winds to the left. It does not have spines. The vine can climb up into trees and grow to long lengths. The leaves are large and round. They are pointed at the tip and round at the base. About 7 veins arise from the tip of the leaf stalk. Leaves can be 14-30 cm across and slightly longer than wide. This yam produces bulbils (potatoes) in the angles of the leaves along the vine. These are often flattened and can be grey brown or purple. Under the ground it has a smaller tuber normally covered with roots. The flowers are large. The male flowers are in spikes up to 20 cm long. The female spikes are usually in pairs. The fruit are winged and about 2.5 cm long by 1.5 cm across. The seeds have wings. The bulbils normally have few fibres through the tissue compared to some yams tubers. The flesh of many varieties is yellow.

HABITAT

A tropical plant. It will grow from the coast up to about 1700 m altitude in equatorial zones. It is common near the edge of grassland and forest at mid altitudes. It grows in savannah woodland. Both wild and cultivated forms occur. It is common in the Philippines, Solomon Islands and Papua New Guinea near secondary forest at low and medium altitudes. It is cultivated in Africa and the West Indies. In Nepal it grows to 2100 m altitude. It suits hardiness zones 9-12. In Yunnan.

PRODUCTION

Cultivation

Either the bulbils off the vine, or the underground tubers are planted. Because the vines are long, training them up trees is convenient. The bulbils have to be stored for a period of time before they will sprout. The plant is annual and leaves die off for 1-4 months each year before re-sprouting from the tuber. Bulbils only grow shoots from one end unless the bulbil is cut into pieces. If the larger bulbils are cut, the cut surfaces should be dried and healed in a shady place for 2-3 days before planting. Bulbils are planted 8-12 cm below the surface and

spacing can be 100 cm by 100 cm or variations of this. Normally nitrogen and potassium fertilisers give greater responses than phosphorus.
Friable well drained soils are most suitable. Often very little cultivation or mounding is done. A high level of organic matter improves yield. Staking is normally required but often trees or living stakes are used. Branched stakes 2 m high are suitable. They need to be strongly erected as vine and tuber growth can be extensive and heavy.

Harvesting and Seed Production

Bulbils or aerial yams are produced as soon as leaves begin to unfold and continue until the plant reaches maturity. These aerial tubers often fall from the plant. Harvesting can start 3 months after planting but immature tubers have less starch. Underground tubers are normally not harvested until the leaves die back. Wounds and damage to the tuber surface normally heals naturally given dry aerated conditions. Some varieties have aerial tubers which are seasonally dormant and only grow after an extended period of storage. Others germinate relatively quickly.

NOTES

There are about 650 species of Dioscorea. It can be invasive.

PICTURES



Credit: Food Plants International (Bruce French)



Credit: Food Plants International (Bruce French)



Credit: Food Plants International (Bruce French)



Credit: Food Plants International (Bruce French)

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French, B.R. & Maynard, A.R. Food Plants International Database. Food Plants International

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