



Physalis - Gooseberries

CLIMATE:

The Cape gooseberry is an annual in temperate regions and a perennial in the tropics. In Venezuela, it grows wild in the Andes and the coastal range between 2,500 and 10,000 ft (800-3,000 m). It grows wild in Hawaii at 1,000 to 8,000 ft (300-2,400 m). In northern India, it is not possible to cultivate it above 4,000 ft (1,200 m), but in South India it thrives up to 6,000 ft (1,800 m).

In England, the plants have been undamaged by 3 degrees of frost. In South Africa, plants have been killed to the ground and failed to recover after a temperature drop to 30.5° F (-0.75° C).

The plant needs full sun but protection from strong winds; plenty of rain throughout its growing season, very little when the fruits are maturing.

SOIL:

The Cape gooseberry will grow in any well-drained soil but does best on sandy to gravelly loam. On highly fertile alluvial soil, there is much vegetative growth and the fruits fail to color properly. Very good crops are obtained on rather poor sandy ground. Where drainage is a problem, the plantings should be on gentle slopes or the rows should be mounded. The plants become dormant in drought.

PROPAGATION:

The plant is widely grown from seed.

CULTURE:

It is necessary to determine the time of planting for each area. In India, seeds are broadcast from March through May. In Hong Kong, planting in seedbeds is

done in September/October and again in March/April. In the Bahamas the first seeds planted in late summer of 1952 produced healthy plants and a continuous crop of fruits for 3 months during the following winter. Additional seeds procured from England were planted in April of 1953. The plants started to blossom in mid-July and from September on continued to flower and set fruit, although no fruits remained on the plants to maturity until the cooler months of winter when a good yield was obtained. Seeds were again planted the following November. Thirteen weeks later, the first fruits were ripening, and by mid-May of the following year a heavy crop was harvested. In late June, the plants were still growing and flowering profusely but only a few fruits were being set and these failed to develop to maturity. This condition continued into September, by which time some of the more robust plants had reached 6 ft (1.8 in) in height with much lateral growth.

In Jamaica, the initial planting of cape gooseberries in late January of 1954 made slow growth until June when development accelerated. By mid-August the plants had reached 15 in (37.5 cm) in height with much lateral growth, and were flowering and setting fruit. It would appear that the heat of summer is unfavorable for fruit development and, therefore, the best time to plant the cape gooseberry is in the fall so that fruit can be set during the cooler weather and harvested in late spring or early summer. In California, the plants do not fruit heavily until the second year unless started early in greenhouses.

Some growers have kept plants in production for as long as 4 years by cutting back after each harvest, but these plants have been found more susceptible to pests and diseases.

In India, plants 6 to 8 in (15-20 cm) high are set out 18 in (45 cm) apart in rows 3 ft (0.9 m) apart. Farmers in South Africa space the plants 2 to 3 ft (0.6-0.9 m) apart in rows 4 to 6 ft (1.2-1.8 m) or even 8 ft (2.4 m) apart in very rich soil. They apply 200 to 400 lbs (90-180 kg) of complete fertilizer per acre (approx. = kg/ha) on sandy loam. Foliar spraying of 1% potassium chloride solution before and just after blooming enhances fruit quality.

In dry seasons, irrigation is necessary to keep the Cape gooseberry plant in production.

SEASON:

In parts of India, the fruits ripen in February, but, in the South, the main crop extends from January to May. In Central and southern Africa, the crop extends from the beginning of April to the end of June. In England, plants from seeds sown in spring begin to fruit in August and continue until there is a strong frost.

HARVESTING AND YIELD:

In rainy or dewy weather, the fruit is not picked until the plants are dry. Berries that are already wet need to be lightly dried in the sun. The fruits are usually picked from the plants by hand every 2 to 3 weeks, although some growers prefer to shake the plants and gather the fallen fruits from the ground in order to obtain those of more uniform maturity. At the peak of the season, a worker can pick 2 1/2 bushels (90 litres) a day, but at the beginning and end of the season, when the crop is light, only 1/2 bushel (18 litres).

A single plant may yield 300 fruits. Seedlings set 1,800 to 2,150 to the acre (228-900/ha) yield approximately 3,000 lbs of fruit per acre (approx. = kg/ha). The fruits are usually de-husked before delivery to markets or processors. Manual workers can produce only 10 to 12 lbs. (4.5-5.5 kg) of husked fruits per hour. Therefore, a mechanical husker, 4 to 5 times more efficient, has been designed at the University of Hawaii.

KEEPING QUALITY:

Cape gooseberries are long-lasting. The fresh fruits can be stored in a sealed container and kept in a dry atmosphere for several months. They will still be in good condition. If the fresh fruits are to be shipped, it is best to leave the husk on for protection.

PESTS AND DISEASES:

In South Africa, the most important of the many insect pests that attack the Cape gooseberry are cutworms, in seedbeds; red spider after plants have been established in the field; the potato tuber moth if the Cape gooseberry is in the vicinity of potato fields. Hares damage young plants and birds (francolins) devour the fruits if not repelled. In India, mites may cause defoliation. In Jamaica, the leaves were suddenly riddled by what were apparently flea beetles of the family Chrysomelidae. In the Bahamas, whitefly attacks on the very young plants and flea beetles on the flowering plants required control.

In South Africa, the most troublesome diseases are powdery mildew and soft brown scale. The plants are prone to root rots and viruses if on poorly-drained soil or if carried over to a second year. Therefore, farmers favour biennial plantings. Bacterial leaf spot (*Xanthomonas* spp.) occurs in Queensland. A strain of tobacco mosaic may affect plants in India.

FOOD USES:

In addition to being canned whole and preserved as jam, the Cape gooseberry is made into sauce, used in pies, puddings, chutneys and ice cream, and eaten fresh in fruit salads and fruit cocktails. In Colombia, the fruits are stewed with

honey and eaten as dessert. The British use the husk as a handle for dipping the fruit in icing.

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