

# Cherry Cultivation In Guyana

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## A Guide to chERRY cultivation in guyana

### **INTRODUCTION**

The Cherry or West Indian (WI) Cherry, *Malpighia puniceifolia* is a small bushy tree of the Family *Malpighiaceae* with bright red coloured fruit which contains the highest level of ascorbic acid (vitamin C) for an individual fruit.

In addition to consumption as a local fruit, WI cherry has traditionally been used at the household level for making juices (pure or blended with other fruits), jellies and preserves.

### **CULTIVATION**

#### **Propagation**

A limited amount of Cherry plants are normally available at the NARI Plant Nurseries. However, growers of large areas are encouraged to propagate their own plants.

Seeds should be taken from mature fruits selected from healthy high bearing plants. They are separated from the pulp, washed and dried at room temperature away from direct sunlight. After drying the seed would remain good for about one month if stored in a cool dry place.



Where it is necessary to guarantee the reproduction of selected types, propagation by cuttings in special humidity bins or misting units is usually conducted.

Sweet types are selected for the fresh fruit market, while more acid types are required for the processing industry.

Sowing of the seeds can be done in prepared seedbeds, boxes or plant bags. The seed should be planted about one cm below the surface and covered with a thin layer of soil.

During germination and early growth, the seedlings should be shaded and receive adequate but not excessive water.



## Soils

It is possible to grow West Indian cherries in a wide range of soil types. However, highest yields are obtained from trees growing on well drained soils with more or less neutral reaction i.e. neither acid (sour) or alkaline (sweet). Given that most of the soils in Guyana are acid in reaction, a significant response can be expected from liming, which is the main way of reducing soil acidity. In sandy soils, the plant may be affected by nematodes which live in the soil. The recommended practice to overcome this is treatment of the soil with a nematicide. However, liming and the use of mulches will also be helpful.

Field layout, land shaping, drainage systems, planting hole preparation, plant spacing and time of planting depend on the area where the planting will be done. The characteristics of cultivars to be planted (upright and open or spreading and bushy canopy) and the type of planting material (rooted cuttings or seedlings) are also important considerations.. Wide inter row spacing, narrow cambered beds, deep drains, raised mounds, are some of the possible measures that may be adopted for overcoming adverse field conditions. Planting just before the onset of the rainy season is the recommended practice. It may be possible to plant continuously, if supplementary irrigation is available during the drier seasons.

## Planting

Cherry seedlings are ready for planting out in the field when they are about 46 cm (18 ins) high. Planting should be conducted during the wet season while there is still moisture in the topsoil.

The recommended spacing for pure stand cultivation is 4.5 m x 4.5 m (15' x 15') giving a population of 500 plants per hectare (200 plants per acre). For mixed stands or intercropping systems, a lower plant population may be necessary,

Planting holes are dug to a size to accommodate the plant in the bag but usually around 30 cm (1 ft.) in length, width and depth.

The topsoil removed in digging the plant hole could be mixed with rotted pen manure, compost or some phosphate fertiliser. Some of this mixed soil is then returned to the planting hole before putting the plant.

The plant bags in which plants are usually supplied should be carefully removed so as to keep the root ball intact. The plants are then placed in the holes following which the balance of the topsoil is returned to fill the holes and thoroughly compressed. If conditions are dry the plants should be watered.

As part of their cultivation system, growers need to consider

- Intercropping
- Closer spacing & subsequent thinning out to the required spacing.

### **Fertilising**

Fertiliser needs are directly related to the type and nutrient status of the soil. It is necessary therefore that a soil analysis be conducted to determine these factors for the particular location.

In the absence of a precise soil analysis, a compound fertiliser (normally 12:12:17:2) could be used. It is usually applied twice per year (at the beginning of each wet period) at a rate of 100 gm to 1 kg per plant depending on the size and age of the plant. Alternatively, use can be made of composted material.

### **Weed Control**

The control of weeds is highly desirable to reduce competition for nutrients and the incidence of unwanted pests and diseases.

Manual weed control is usually conducted around the plants, while between the rows weed control is accomplished by the following, singly or in combination:

- Manually
- Chemically
- Mechanically by the use of brush cutters and/or mowers

### **Pruning**

Pruning is the practice of removing existing branches from a tree so as to remove diseased material, improve light penetration and reduce local humidity and to shape and train trees in order to facilitate harvesting and other field practices and stimulate growth.

If not done properly, pruning can cause reductions in yield directly or indirectly. The use of sharp tools and making angled cuts are two of the proper pruning practices but the time of pruning and the selection of the parts to be pruned are also important.

### **Pest and Disease Management**

Apart from nematodes mentioned previously, the major pests of West Indian cherries include: stink bugs, scale insects, aphids, mealy bugs, ants and white flies. These can be controlled using a broad spectrum insecticide. The most common disease is leaf spotting caused by a fungus. This can be controlled by using Kocide at the recommended rate.



## Harvest

The Cherry plant usually comes into fruiting about 2-3 years after transplanting depending on the size of the plants after transplanting.

Rooted cuttings can produce much earlier with the first important crop produced 18 -24 months after planting. Successive annual yields increase, peaking at 4-5 years after planting.

Healthy 6-year old trees have been reported to yield 15 kg per tree per annum.

This soft fruit is harvested by hand picking. However, systems of using tractor hauled hydraulic shakers with fruits being collected on tarpaulin or plastic sheeting spread under the trees have been tried elsewhere. In some large operations, all fruits are picked at the same time. This has several advantages, especially for the management of labour, timing and standardization of field operations; and optimising yield potential by reducing damage to new flowers. It also improves Vitamin C content since green fruits have a higher concentration of ascorbic acid than ripe fruits.



## Post Harvest Handling

High losses are to be expected if sufficient care is not taken when picking and handling. This may be of minor importance if the fruits are to be used shortly after harvesting. If fruits are to be stored for longer periods before use, then refrigeration (for 3-5 days storage) or freezing (for more than 7 days storage) are recommended.

In all cases, it is important to store in the shade because exposure to direct sunlight lowers ascorbic acid content, alters flavour and leads to undesirable colour changes.

Fruits should be stored in open crates or baskets, which provide good ventilation. Bags provide poor ventilation and storage in bags should be avoided.