

CULTIVATION OF BANANA AS AN INTERCROP OF RUBBER PLANTATIONS

By

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Banana is one of the most popular fruit crops in Sri Lanka. There is a ready market for it throughout the year. A good income can be obtained with this crop, when grown as an intercrop during the immature period in a rubber plantation. However, to obtain an economical return, good cultural practices should be adopted. This article discusses some of the cultural aspects that are not been given much attention by most growers.

Studies done in countries where banana cultivation is done extensively have shown that there can be major losses due to the following causes.

1. The choice of unsuitable land with inadequate drainage.
2. Extended dry period where no irrigation is done.
3. The use of unsuitable planting material.
4. Various cultural malpractices such as failure to suppress grasses and other competitive weeds and wrong pruning practices.

Banana can be grown in various types of soils but it should be well drained. Banana grown in poorly drained soils are subjected to fungal diseases. The growth becomes stunted, the leaves have a flagging and wilted appearance. Water logging leads to poor aeration of the soil and this interferes with the beneficial effects of soil bacteria and the normal development and functioning of roots.

Compaction of soil leads to rapid decline of initial growth. This exposes the root bearing zone and results in destruction of newly emerged roots due to desiccation. Deep planting and mulching around the base of the plants may help to overcome this problem.

Banana thrives well in soils with adequate moisture. If there is not sufficient soil moisture, it quickly shows the effect of adverse water relationships. Water is one of the most important factors affecting growth, whether it be root, rhizome, sucker, leaf or bunch showing quickly the effect of inadequate supply of water. The fruit size can be drastically reduced. Therefore during drought periods, it is essential to provide supplementary irrigation. It is also beneficial to mulch around plants.

Badly selected planting materials may also give a disappointing uneven stand of plants. The kind of plant that develops & its initial rate of growth depends to a large extent on the nutritional state of the sucker. Sword suckers removed from vigorous mature clumps should be chosen for planting. These with large swollen bases have a good supply of storage material. They grow readily and form new roots abundantly and becomes established soon as a new plant.

The planting material should be free of disease and pests. The most important disease affecting banana is Bunchy Top, viral disease, spread by an aphid. The principal pest is Banana Weevil which bores its way into the plant to lay eggs and the larvae that develop severely damage the plant.

Weed control is also of great importance in banana cultivation. When plants are slow growing, grasses and other weeds if left uncontrolled, quickly take possession of the interrow space and a thick mat of vegetation can exercise an adverse effect on the banana. Mulching may also be used as a means of weed control. In rubber plantations the leguminous ground cover will smother the grass and other weeds and is beneficial in supplying nitrogenous fertilizer as well.

Unless the banana is growing vigorously, untimely digging of larger suckers for use as planting materials can cause serious losses in production. When the new plants are beginning to bear fruit, removal of suckers can be disastrous, the bearing plant is disturbed and loses a part of its root system at a critical stage. This results in a reduction in size and number of bunches and a slow rate of filling up of fruit.

Eventhough it is difficult to control the emergence of suckers, it is essential to keep the number of suckers at any time to be not more than two per clump. This is usually done by allowing the first sucker that develops to remain and removing others until flowering, when another sucker is allowed to develop. Then at each harvesting a new sucker is allowed to develop. This gives three plants per clump at a given time.

Attention to propping up of stem should be made eventhough this will not prevent damage due to strong winds. There are many instances of lesser wind effects where good and timely propping can help in preventing wind damage.

Bagging of bunches indeed can give effective protection from sun scald or scorching and pest attacks including insects, birds and rodents. By reducing the evapotranspiration from the bunch, it also leads to an increase in size and weight of fingers.

Removal of terminal bud of the inflorescence after shooting of the bunch reduces the period of fruit development from shooting to harvesting and increases fruit weight.

If economic crops are to be obtained, it is important to adopt correct cultural practices.