GROWING VEGETALBES IN MOSQUITO NETS

Production of vegetable crops requires skillful management of growth conditions (e.g. soil, nutrients, and water) and the control of yield-reducing diseases and pests. Insect pests are of particular economic importance in the tropics because of conducive conditions for reproduction and crop attack.

Management of insect pests in horticulture has relied largely on the use of pesticides. When appropriately used, this is an effective tool in maintaining high crop yields. However, when their use is improper, pesticide use can result in vegetables contaminated with pesticide residues, rendering them unsafe for consumption. Further, over- and injudicious use of pesticides also results in pollution of the environment (e.g. groundwater and waterways), and health issues for the farmers themselves through exposure.

Nethouse

As a way of avoiding the use of pesticides in vegetable production, in 1994, the Department of Agriculture developed a technique of vegetable cultivation within netted enclosures called "nethouses". In this form of cultivation a large area of vegetable production is enclosed within a permanent high-density polyethylene mesh which effectively works as a mosquito net. By excluding insect pests from their target vegetables, pesticides do not need to be applied to rid the crop of any infestation. Thus, vegetables produced in nethouses can be pesticide-free.

Advantages

The nethouse method does not require the farmer to change his method of cultivation – the same horticultural practices are used in a nethouse system. However, it is said that nethouse produced vegetables are of better quality in terms of appearance, colour, size, succulence and tenderness. It has also been found that vegetables can grow faster in a nethouse compared to an open system. Damage by heavy rain and wind is less in a nethouse due to partial shielding afforded by the netting.

Vegetables

All leafy vegetables can be cultivated in a nethouse. Some fruits can be produced using this system. Just about all beans including longbean, French bean, soya bean, lima bean and some fruit vegetables like ladies' finger and tomato can be grown successfully without any assisted pollination. Members of the Solanum family like chilli and brinjal, and cucurbits like cucumber and gourd will need hand-assisted pollination for economic yield. Bees and house-flies may help in getting better fruit harvest.

The "All-or-none" method

Vegetable production using nethouses follows the practice of either growing a crop or none at all. It is also not growing different crops all at different growth stages. The all-or-none method allows for "rest" periods between crops after harvest (minimum of two weeks) to help break up the life cycle of pests and diseases. The avoidance of having crops in different growth stages reduces the build up of insect pests whose different life stages may favour different plant growth stages. In addition to these practices, reduction of plant debris in the nethouse, rotation of vegetable crops and following good agriculture guidelines will provide for good crop yields.

Since its introduction, the nethouse method has provided for the production and marketing of wholesome, quality vegetables safe not only for consumers but also for their producers, the farmers through the ability to avoid using pesticides.

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Nethouse – An alternative way of growing vegetables

Good looking and wholesome longbean

Many crops of similar maturity periods – All-or-None System

Nursery of young seedlings








Vegetables suitable for netting