

BUSH PEPPER



Black pepper of commerce are the dried berries of the perennial vine *Piper nigrum*. Black pepper vines are usually cultivated by allowing them to climb on either living (on trees) or non-living (RCC posts, granite pillars, teak poles, etc.) supports. Black pepper vines while climbing on these supports put forth fruiting branches called laterals which produce flowers and fruits.

The normal way of producing planting material of black pepper is to use rooted cuttings (single or 3 noded) of runner shoots or climbing shoots. This ensures that the plant turns into a vine after climbing on a support and produces fruiting branches all around the support. But when the laterals are used as planting material, the resultant plants grow like a bush. These plants produce numerous laterals throughout the year, unlike the vines.

Bush pepper starts flowering during the same year of planting. They continue to flower during all seasons of the year if properly watered and manured. They can be grown either in large pots or in the field at a spacing of 2 m x 2 m. Bush pepper can be grown in situations where land is a limiting factor such as in apartments and in non-traditional areas where black pepper is not generally cultivated.

Varieties

All black pepper cultivars/varieties can be grown as bush pepper. However, Karimunda, Panniyur-1, Kuthiravally, Kalluvally, Aimpiriyar and Kottanadan are more attractive and suitable.

Propagation of bush pepper

An easy method of rooting of laterals for propagation of bush pepper has been standardized at the institute.

Materials required

Planting material, sharp blade, polythene bag (45 cm x 30 cm, 200 gauge), moist coirdust, coir thread and rooting hormone (Ceradix-B or Keradix).

Selection of lateral branches

It is important to select healthy lateral branches (1 year old) with 2–3 leaves preferably with dormant buds. Too young and too old branches may be avoided.

Preparation of material

Young healthy lateral branches from high yielding vines are collected in a bucket of water, as a precaution against drying. In the nursery these laterals are dipped in copper oxychloride 0.2% solution for 20–30 minutes and pruned to 2–4 nodes. All the leaves except the flag leaf are removed. A sharp slanting cut is made at the basal portion and dipped in rooting hormone powder. After removing the excess powder these laterals are planted in a polythene bag with moist coirdust. About 3–4 laterals may be placed in each bag. The mouth of the bags are to be tightly tied with coir thread to avoid moisture loss and kept under shade. These bags act as 'humid chamber' for better rooting and survival. In about 35–50 days the laterals produce 5–6 roots. The bags are then opened for hardening the cuttings. The cuttings are carefully removed, planted in polybags with nursery mixture (forest soil, sand and farm yard manure in equal proportion) and kept in shade (with filtered light) for 1–2 months for establishment. After establishment, these laterals are transplanted either to the field or in pots (large size). Application of *Trichoderma harziannum* (10 grams/bush) and VAM inoculum

(100 cc/bush) to the potting mixture is recommended to prevent root rot. The best season for rooting of laterals is September–January during which a success of about 90% is obtained.

Manuring

Bush pepper in pots

Farm yard manure (FYM) or NPK can be used for manuring bush pepper. NPK @ 1, 0.5, 2 grams/pot of 10 kg soil respectively, should be applied once in 2 months. The fertilizers can be substituted with neem cake (30 grams/pot) or groundnut cake (15 grams/pot), leaf or vermin compost (1 kg/pot) once in 2 months. FYM @ 200 grams /pot can be applied once in a year. Fertilizers such as garden mixture can also be given after mixing in water (about 10 grams in 10 litres @ 1 to 2 litres/pot).

Bush pepper in the field

NPK can be applied @ 10, 5, 20 grams/bush respectively, at 3 month intervals. FYM can be applied @ 5 kg/bush at yearly intervals.

Plant protection

Pre and post monsoon spray with Bordeaux mixture 1% and drenching with copper oxychloride 0.2% or a spray and drench with potassium phosphonate @ 3 ml/litre is affective against *Phytophthora* foot rot. Alternatively, application of *Trichoderma harziannum* @ 10 grams/pot in the soil and spraying potassium phosphonate @ 3 ml/litre on the bush during May/June and August/September is also effective against the disease.

If foliar yellowing is seen, phorate @ 5 grams/pot may be applied during May/June and August/September.

A spray with monocrotophos 0.05% or dimethoate 0.05% is effective against thrips, mealybugs, scales and leaf feeding caterpillars.

Yield

An yield of up to 1 kg green berries/bush would be obtained during the second year of planting. The yield increases during subsequent years and about 2–3 kg green berries/bush can be obtained during the fourth year of planting.

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