## **Bush Pepper Cultivation A Boon to Konkan Farmers**

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Fig 1 Bush pepper grown in protected structure

Black pepper (Piper nigrum L.) christened as the "King of Spices" is a perennial climbing vine grown for its berries. Generally, black pepper vines are cultivated by trailing either on living (trees) or non living (cement posts, brick poles etc.,) standards. An alternative to climbing vines, the lateral fruiting branches are rooted and grown in pots.

Such plants are bushy in appearance, starts flowering from the same year of planting and continues to flower and yield fruits throughout the year.

The cultivation of bush pepper directly in

field and also under protected environment is gaining popularity in the Konkan region of Maharashtra like Sindhudurga, Ratnagiri, Thane, Palghar and Raigarh. On an average about 500-1000 ha of Konkan region is occupied with bush pepper cultivating fields.

It is noteworthy to mention the role played by the State Agricultural University of Maharashtra, Dr. B. S Konkan Krishi Vidyapeeth (Dr. B.S.K.K.V), Dapoli and All India Coordinated Research Project on Spices (AICRPS) in propagating the cultivation of bush pepper both under open conditions and protected conditions. In Konkan regions of Maharashtra, the black pepper variety Panniyur 1 is generally grown as bush pepper at a spacing of 1x1 m under 50 per cent shade net or using poly house under protected cultivation. Moreover, bush pepper is also cultivated as an intercrop in mango, cashew, star apple (Carambola) and litchi orchards. Also, it is an essential component in kitchen gardening and can be intercropped with vegetables. The additional yield advantage of bush pepper and efficient utilization of the land when intercropped attracts the farmers towards bush pepper cultivation.



Bush pepper intercropped in carambola orchard

Farmyard manure @15-20 kg per bush per year can be used for manuring bush pepper in field. Fertilizer mixture can be given at monthly intervals. Liquid fertilizer, 19-19-19 @ 2% can be applied through fertigation @ 500 ml per plant. NPK may be applied at the rate of 10: 5:20 g per bush respectively at three month

intervals.



Bush pepper intercropped in litchi orchard

Under open conditions or when planted under polyhouse, reusable plastic mulch can be laid in the interspaces of bush pepper. In orchards, when bush pepper is grown as an intercrop, dried leaves of banana, mango, litchi etc., can be used as mulch materials. For training bush pepper, bamboo split or iron structure may be used for holding plants upright. It is advisable to remove the spikes in the first six months as it will hinder bush pepper to develop into proper canopy.

Pre and post monsoon spray of Bordeaux mixture (1%) and drenching copper oxychloride (0.2%) is effective against Phytophthora foot rot. Care should be taken to prevent branches coming in contact with soil and fields should not be water stagnated so as to ward off soil borne diseases.

Spraying quinalphos (0.05%) or dimethoate (0.5%) is effective against thrips, mealy bugs, scales and leaf feeding caterpillars. The economic life span of bush pepper is about 12-15 years. About one kg of green berries per bush will be obtained by second year of planting. The yield increases during the subsequent years and every bush should yield about 2-3 kg of green berries from fourth year of planting onwards.