

## *Piper nigrum* L.

Common names: Black pepper, Common pepper

Malayalam names: Kurumulaku, Mulakukodi, Nallamulaka

Tamil Names: Milagu, Kurumilagu, Aguttam, Irambivam

Hindi Name: Kali mirch

### Description:

Robust shrubby climber. Leaves alternate, broadly ovate-elliptic, coriaceous and glabrous on both sides, apex acuminate, base almost unequal and oblique, obtuse or cordate sometimes, prominently ribbed, commonly 3 or often 2 pairs of lateral ribs, more conspicuous on the dorsal side; petiole 1.2-2.5 cm long, glabrous and furrowed. Spikes drooping, 5.0-17.0 cm long, peduncle glabrous except for one or two strips of hairs; bracts adnate to rachis, upper part-cup-like, with a decurrent base, hirtellous on the outer side. Flowers more or less distantly distributed, having a single spherical ovary, about  $\pm 0.2$  cm long, with 3-4 papillate stigmatic lobes. Fruit a drupe, spherical, mature one 4-7 mm in diameter, pungent turns red when ripe; seed single, globose with floury endosperm.

Distribution: Native of South West India; widely cultivated in the tropical countries

### Important Uses:

Pepper is largely used in canning, pickling, baking, considering for its preservative value. It has the ability to correct the seasoning of dishes, therefore used as a final dash at the end of cooking to effectively adjust the flavour. It is an essential ingredient of numerous commercial foodstuffs. It is also used as an ingredient in spice mixes. White pepper is used in products like mayonnaise, where black pepper is not liked. Other products in use are pepper oil, oleoresin, micro encapsulated pepper, green pepper in brine, dehydrated green pepper, frozen pepper etc. Black pepper is an essential ingredient in Indian system of medicine. Piperine, the pungent principle in pepper oleoresin helps to enhance bio-availability and therefore used in pharmaceuticals. The major functional properties of pepper are analgesic, anti-pyretic, anti-oxidant and anti-microbial.

Black pepper is used to treat sinus, asthma, and nasal congestion. It also reduces the risk of cancer, and heart and liver ailments. Consumption of pepper increases the hydrochloric acid secretion in the stomach, thereby facilitating digestion. The outer layer of peppercorn assists in the breakdown of fat cells. Therefore, peppery foods are a good way to help you shed weight naturally. Piperine content of pepper can stimulate the skin to produce melanocytes pigment. It has an expectorant property that helps break up the mucus and phlegm depositions in the respiratory tract. A number of studies have shown that black pepper may have beneficial effects on

gastric mucosal damage and peptic ulcers, due to its antioxidant and anti-inflammatory properties.

#### Cultivation:

- Grown in a wide range of soils such as clay loam, red loam, sandy loam and lateritic soils with a pH of 4.5 to 6.0.
- Requires adequate rainfall and humidity.

#### Propagation

- Cuttings raised mainly from the runner shoots.
- Runner shoots are separated from the vine in February-March
- Trimming the leaves, cuttings of 2 to 3 nodes
- Planted in polythene bags filled with fertile soil
- Adequate shade and irrigation
- The cuttings will strike roots and become ready for planting in May-June.

#### Cropping method

- Mono-crop as well as a mixed crop
- Cuttings are to be planted 100 to 120 cm away from the tree trunk

#### Manures and fertilisers:

- About 10 kg of well rotten cattle manure or compost is given in April-May.
- Fertilizers to supply 100g N, 40g P<sub>2</sub>O<sub>5</sub> and 140g K<sub>2</sub>O

#### Harvesting:

- Start yielding usually from the 3rd or 4th year
- Harvesting is done from the November to February

#### Yield:

- One-hectare plantation of 7 to 8 years old gives about 800 to 1000 kg of black pepper.

