

Long Pepper (Pippal)

PIPER LONGUM LINN. FAMILY - PIPERACEAE

Pippal is glabrous under-shrub with erect or sub-scandent nodose stem and slender branches. Leaves are simple, alternate, stipulate and petiolate or nearly sessile. Flowering is nearly through the year; inflorescence is spike; fruit greyish green or darker grey berries.

COMMON NAMES: Peppali, Pipli, Pipal.

DISTRIBUTION:

It is a native of Indo-Malayan region. It grows wild in the tropical rain forests of India.

PART USED: Roots and dried spikes.

CULTIVATION:

SOIL AND CLIMATE

Long pepper can be cultivated successfully in organic matter rich fertile, well drained forest soils. Laterite soils with high organic matter content and moisture holding capacity are also suitable for cultivation. Optimum elevation for its cultivation is between 100 to 1000 m. Higher elevations are not conducive to high yields. It needs partial shade for its ideal growth. Partial shade 20-25 percent shade intensity is found to be the optimum.

LAND PREPARATION

The area should be ploughed two to three times and levelled properly. Raised beds of size 3m x 2.5 m are prepared and pits are dug at a distance of 60 cm x 60 cm and dried cow dung or farm yard manure at the rates of 100 g per pit is applied and mixed with soil. Two rooted cuttings or suckers with roots are planted in each pit. To avoid any water stagnation in beds, channels are laid out to drain excess rain water.

NURSERY RAISING AND PLANTING

It is propagated by suckers or rooted vine cuttings. Vine cuttings and suckers are transplanted soon after the setting in of monsoon rains. The best time for raising nursery is during March and April to avoid mealy-bug attack on roots, 10 percent DP is to be mixed with the potting mixture. Normal irrigation may be given on alternate days. Excess moisture in the nursery can cause *Phytophthora* wilt. By the end of May, the cuttings will be ready for planting.

THINNING AND WEEDING

In first year regular weeding should be done and as when the weed growth is noticed in beds.

MANURES AND FERTILISERS

Long pepper needs heavy manuring. In soils with low fertility, the growth of the plant is very poor. Twenty tonnes of cow-dung or farm yard manure is required for 1 ha. of land. Since the crop will give economic yield for 3 years, the manuring has to be done each year. During the first year organic manure can be applied in pits at the time of field planting. In subsequent years, manuring is done by spreading it in beds and covering with soil. Application of organic manure increases the water holding capacity of the beds.

IRRIGATION

Irrigation once in a week is necessary as an intercrop and if the main crop is irrigated no additional irrigation is necessary for **Piper longum**. When the crop is not irrigated, it is necessary to give a mulch with dry leaves or straw during summer months. If the crop is irrigated during summer, it continues to produce spikes and off-season produce will be available.

HARVESTING/POST HARVESTING OPERATION

The vines start bearing spikes six months after planting. The spikes thus will be ready for harvest after two months since formation of spikes. When the spikes are full grown but hey unripe, they are gathered. If left without picking, they ripe and their pungency is lost to a great extent.

Harvested spikes are repeatedly exposed in the sun for 4 to 5 days until they are perfectly dry. The green spike to dry spike ratio is around 10:1.5. The dried spikes have to be stored in moisture proof containers. Thicker parts of lower stems/roots are cut and dried for producing **Piplamool**. There are three grades of **Piplamool**. The grade I with thick roots and underground stem fetching higher price than grade II and or III which comprises either their roots, stem or broken fragments.

YIELD

The yield of dry spike during first year is around 400/kg/ha., it increases up to 1000 kg/ha in the third year. After third year, the vines become less productive and should be replanted.

ECONOMICS

Net income =Rs.1,00,000/- to 1,50,000/- per hectare/year (YEAR-2001)

Note: Market for medicinal plants is volatile and the economics may vary.

INSTITUTE TO BE CONTACTED:

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