



Make sovereign  
With King of Spices

# Pepper



- Cultivation
- Maintenance of Cultivation
- Processing of Harvest

- Develop your land by applying soil and water conservation methods, such as, stone hedges, furrow systems and live hedges before cultivating your land.
- Maintain the cultivation well in an eco-friendly manner applying good agricultural and manufacturing practices to obtain a higher income.



*Piper nigrum (L)*

## Further inquiries

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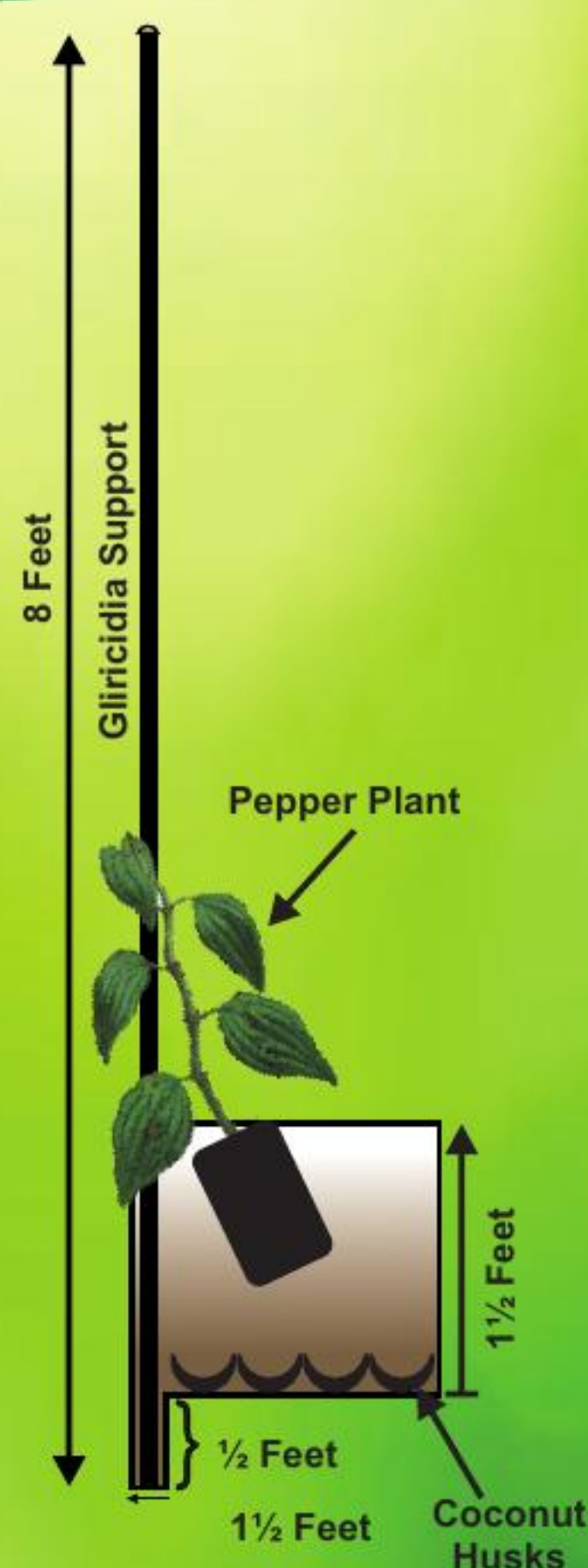


## Introduction

Pepper is known as "The king of spices" and has originated in South India. Sri Lanka is also considered as a sub center of origin of pepper. Wet and intermediate climatic zones are the most appropriate zones for pepper cultivation. It is also recommended to cultivate in the dry zone as well with irrigation facilities. The total extent of pepper in Sri Lanka is about 75,000 acres as present. Mathale, Kandy, Kegalle, Badulla, Rathnapura and Kurunegala districts are the major contributors. At present, the annual global demand of pepper is about 300,000 metric tons. It is essential to practice good agricultural and production practices in order to get a higher income from the industry. Pepper can be cultivated as a mono crop, intercrop or as a mixed crop.

## Planting pepper vines and support trees

Gliricidia sticks of 3cm in diameter and 2.5m (8 feet) in length could be used as the support. It is recommended to plant the supports 06 months before planting of pepper. 08 x 08 feet of spacing is recommended to plant pepper. Planting pits of 1 x 1 x 1 feet should be made and filled with a mixture of one basket of cow dung / compost (12kg) topsoil and 100g of rock phosphate. It is appropriate to plant pepper vines with the onset of rainy season. (Planting should be done as shown in the Temporary shade with leafy branches or coconut leaves should be provided immediately after planting. Moisture can be preserved by application of rotten leaves and coir dust to the base of the pepper plant. The first line of pepper should be planted 5 feet away from the fence boundary. 680-700 pepper plants are required for one acre.



## Maintenance of supports

Gliricidia support should be maintained as a single stem until it reaches a height of 10 feet allowing the terminal shoot arising from the upper portion to grow while pruning the other shoots that sprout on the stake. Then let two terminal shoots to grow up to 2 feet and maintain a minimum height of 12 feet.

Usually, four rounds of pruning of shade trees per year is recommended in the wet zone with the onset of yala and maha rainy seasons and in the middle of the rainy season.

## Maintenance of pepper vines

It is appropriate to let a pepper vine grow with 3 or 4 branches.

If a newly planted vine does not produce plagiotropic (side branches) shoots at the 8-10 nodal stage, the pruning of pepper vine should be done from the terminal leaving 3 nodes.

Then, let the pepper vine grow in a cylindrical shape.

## Fertilizer application

Fertilizer application for pepper vines is important to produce higher yield. First fertilizer application can be done after 6 months of planting fertilizer should be applied around the plant, 15cm away for small plants and 1 foot away for grown plants and then should be mixed to the soil with a hand fork or hoe fork.

## Fertilizer Mixture

Urea, rock phosphate, muriate of potash, kieserite should be mixed according to the weight at the rate of 4:5:3:1

### Fertilizer mixture (grams per plant)

Year	At the onset of tint monsoon rain	At the onset of second monsoon rain
First Year	250	250
Second Year	500	500
Third Year and beyond	700	700

Application of Gliricidia loppings around the vine at the rate of 10 - 15 kg (2.5 - 3.75 kg 4 times) can cut down inorganic fertilizer requirement by 50%.

## Harvesting

When the cultivation matures under well maintained conditions, pepper vines (Local Selection) start yielding in 2 1/2 years. Newly improved hybrid varieties (Dingirala) have the ability to start flowering before this age. 1 - 2.5 kg of dried pepper could be obtained from one pepper vine per year. (1500kg for one acre) Harvest could be obtained twice from one pepper vine per year depending on the zone.

## Pepper Products

### Black Pepper

Black pepper is processed from well matured pepper berries that are not ripen. It is appropriate to harvest pepper for producing black pepper when one or more of the berries start going red and when they are hard to crush.

Then the pepper berries should be separated from spikes and should be cleanly sun dried. Hot water treatment could be practiced for making black pepper of uniform black colour.

Put water in to a barrel and bring it to a boil. Place seeds in a gunny bag and submerge it in boiling water for 1 - 2 minutes. Once removed from water, spread the seeds on a drying floor to dry. The amount of dried pepper that can be produced from raw pepper is 30 - 33%

### White Pepper

White pepper is produced with ripened peppercorns.

You can ripen pepper corns plucked with a few berries ripened by leaving them in a heap for one day. Pepper berries should be put in to gunny bags and left submerged in flowing water for 3-4 days. Tanks also could be used for this purpose if the water can be changed. Skin of the pepper berry could easily be removed through this process.

Then the outer rind has to be removed by rubbing them against a rough surface or by rubbing them with hands. They should be washed properly and dried. Dried pepper should be stored in a clean and dry place.

### Note:-

- Side branches should be pruned up to 1 1/2 feet from the base of the pepper vine when maintaining adult vines.
- Support trees should be pruned to allow the vine to get adequate sunlight.
- Proper hygiene of the pepper vine can be ensured through application of decomposed leaves and pruned branches of support trees 1 1/2 feet away from the base of the pepper vine
- Commercial products such as green pepper, red pepper, sauce, pepper powder, pepper oil can be produced and sold according to the market demand.
- Machines made to separate pepper berries from the spike, grading, processing white pepper and drying are available on the market.