

Planting Material, Nursery Technique and Field Planting of Pepper By Paulus Amin det

In the third article on pepper, we were looking at the various pepper varieties that have been planted by farmers in Sarawak. In this article, we look at how planting material is prepared, nurseried and planted out in the field.

Preparation of Planting Material

Pepper is propagated by vegetative cuttings taken from orthotropic or terminal shoots. A five-node cutting is recommended.

(a) Selection of parent plants

When selecting a parent plant from which the cuttings are to be taken for planting, the following criteria must be considered:

- The plant must be a recommended cultivar
- It must be healthy and vigorously growing
- It must be free from pests, diseases and nutritional disorders
- It is preferably a young plant of 1-2 years old.



Five-node pepper cutting



Taking 5-node cutting from a vine

(b) Preparation of cuttings

Before taking the cuttings from mother plants, the top 4-6 nodes are pruned off to accelerate the growth of the axillary buds. After 10-14 days, the shoot is cut and the cutting is carefully removed from the support with the blunt edge of a pruning knife.

(c) Nursery management

Pepper cuttings can be field planted directly during the wet season but for better

results, they are often rooted in the nursery for 4-8 weeks. Before rooting, the cuttings are dipped in a solution of carbofuran and benomyl (0.1%) for ten minutes.

Plant Spacing

The recommended planting distances are:

- (a) 1.8 m x 2.4 m or 2.1 m x 2.1 m if pepper is planted on flat land or gentle slope with no cover crop.
- (b) 2.0 m x 3.0 m with a strip of about 1.5 m width in the inter-row of pepper vines planted with *Centrosema pubescens* as ground cover.
- (c) 2.0 m x 2.4 m or 2.4 m x 2.4 m with planting of *Arachis pintoi* as ground cover.



Inter-row planting of *Arachis*



Strip planting with *Centrosema*

Field Planting

The best months for field planting are around October to December that coincide with the wet season. If planting is delayed to the end of the wet season (February and March), early mortality rate would be much higher.

Before planting, mounds of loose soil of about 20 cm high and 50 cm wide at the base are prepared. Dolomite, at the rate of 1 kg, is then broadcasted on each mound. After three weeks, field planting is carried out. The three lower nodes of the 5-node cutting are buried in the soil at an angle of 20-35° while the fourth node is placed at the ground level. It is advisable to orientate all cuttings in one direction so as to make fertilizer application an easier task later on. Newly planted cuttings must be shaded immediately as they are very sensitive to moisture stress and sun scorching. Fern fronds (*Nephrolepis* sp. and *Gleichenia linearis*) or lallang leaves are usually used to provide shade.



Preparation of mound.



Dolomite application.



Field planting and shading.

Planting and Maintenance of Ground Covers

A complete eradication of weeds should be carried out before planting of cover crop to reduce tedious selective weeding later on. This can be done by laying down black plastic in the inter-rows and making circular holes through the plastic at regular intervals for planting the cover crop.

- (a) Planting of *Centro* – 3-4 seeds are placed in each hole at a depth of about 2.5 cm by using a dibbling stick. The hole is covered up after seed placement. The holes are placed 10 cm apart within each planting row. Two parallel rows are planted within the 3.0 m inter-row area of pepper. These rows should run along the contour of the slope and about 1.3 m away from the rows of vines.
- (b) Planting of *A. pintoii* – Cuttings of about 15 cm are planted in the inter-rows of pepper.