

CULTIVATION PRACTICES OF CASUARINA

Description:

Casuarina is a fast growing, light demanding species. It is very sensitive to excess soil moisture, fire and frost. It comes very well under well drained sandy soil and grows poorly in heavy soils and does not tolerate clay. In general it does not coppice. Rare instances of natural regeneration and root suckers are noticed. It improves soil fertility by virtue of its vigorous root nodulation with nitrifying bacteria.

Plantation Establishment and Maintenance Plan:

Plan of activities	Activities to be followed
Selection of Clones/Seedlings	- Site specific Clones/Seedlings based on soil analysis
Site development	- Bush clearing, Disc ploughing or deep ripping on compact sites / cultivator ploughing for felled sites and land levelling
Espacement	- 1.5m X 1.5m
Planting Season	- June to September & Dec to Jan
Pit size	- 30 cm x 30 cm x30 cm
Manuring	- 250g of Vermicompost or 500g FYM per pit
Irrigation	- For once in every 10-15 days or Drip irrigation
Ploughing	- One rotavator ploughing to suppress weed growth
Weeding	- 1 hand weeding and soil working after ploughing
Fertiliser management	- 40 -50 kg/ ha of nitrogen can be applied in 4 equal splits. - Super Phosphate @ 150 kg / ha and Muriate of Potash @ 100 kg / ha can be applied in four to five equal splits.
Causality replacement	- Causality replacement within one month after planting
Pruning	- Branches are pruned flush to the stem of up to 1/3rd of the stem height 6 months after planting.
II year maintenance	- Branches are pruned flush to the stem of up to 1/3rd of the stem height - Application of Super Phosphate @ 150 kg / Ha and Muriate of Potash @ 100 kg /Ha can be applied in four to five equal splits.
III year maintenance	- Application of Super Phosphate @ 150 kg / Ha and Muriate of Potash @ 100 kg /Ha can be applied in four to five equal splits
Intercropping	- Agricultural crops like Sesame, Ground nut, etc., can be cultivated as intercrop during the first year

Pest and Disease management	
a) Bark feeding caterpillar	- Remove the feeding galleries and apply insecticide soaked cotton (15ml of dichlorvos) in the bore holes
b) Termite	- Application for neem based pesticides 2 ml/ litre
c) Wilt disease	- Remove the infected trees immediately - Digging the trenches around the infected tree. Scrap the infected portion and spray with copper oxy chloride @ 0.25 %
d) Die back	- Removal of infected plant parts and spray with mancozeb or copper oxy chloride @ 0.25 %

Silvicultural and Management System:

Clear-Felling System:

The Clear-felling system is defined as a silvicultural system in which equal or equi-productive areas of mature crop are successively clear-felled in one operation to be regenerated, most frequently, artificially but sometimes naturally also. The clear-felled coupes will be regenerated by planting of seedlings or clones. After planting the tending operations like Thinning, Pruning, Fertiliser application, Pest and Disease management, etc., will be carried out for better growth of plantation.

Yield:

The average yield per ha in 3years rotation is vary from 75MT to 100MT for clonal plantations as compared to seedlings origin plantation i.e., 50MT to 65MT. However the yield may vary based on the site conditions and management of plantations.

