Suggestions to Help Agroforesters Reduce Seedling Losses From Termites.

ECHO Inc.

[Taken from Agroforestry Today, July-Sept. 1990 pp 4-6].

1. Select trees that are resistant to termites. These include species of Cassia, Acacia, Grevillea, Markhamia, and Terminalia.

2. Use plant extracts and minerals as protectants. These include finely chopped leaves of *Euphorbia tirucalli* or wood ash applied to planting holes; leaf or berry extracts of *Aloe graminicola*, *Melia azedarach* [ED: China berry, a freeze tolerant relative of neem] , *Lippia javanica* or *Ocimum sp* (basil).; and leaf mulches of *Cassia siamea* or *Azadirachta indica* (neem).

3. Plant extra seedlings, to allow for termite losses, both in the nursery and after planting out.

4. Use containers of polyethylene tubing. Pots made of banana fibre should not be used for seedlings where termites are a threat. It is of paramount importance at transplanting to remove the plastic sleeve carefully and retain an intact soil-root ball.

5. Use healthy and vigorous planting stock. Any root pruning should be scheduled to allow sufficient recovery and repair of damaged tissues before transplanting.

6. Give nursery stock enough water just before planting out.

7. Plant seedlings on time, soon after the first annual crops are sown or when the soil is wet to a depth of 20-30 cm.

8. Provide substitute sources of food for termites. This could involve leaving as much cleared plant debris as possible on the soil surface when preparing tree planting sites; using organic manure in planting holes whenever possible; ring weeding rather than clear-weeding stands of young seedlings; retaining grass residues as mulch in and around planting holes; and placing a row of cut banana pseudostems along nursery perimeters.

9. Apply spot treatments of a controlled-release granular formulation of carbosulfan (0.3 to 1.0 grams active ingredient per plant). Other non-persistent insecticides such as chlorpyrifos and carbofuran are not recommended due to severe phytotoxic effects.

Research is currently in progress on another, novel, approach to control of subterranean termites [which rely on fungi to make suitable food from decaying vegetation carried into the colony]. This approach is to apply fungicides to deprive them of their major food source by controlling these symbiotic fungi.

Cite as:

ECHO Staff 1994. Suggestions to Help Agroforesters Reduce Seedling Losses From Termites.. *ECHO Development Notes* no. 44

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