



MEMORANDUM

FOR : The Regional Directors
Regions 2, 3, 4A, 5, 6, 9, 12, 13, NCR and NIP

FROM : The Director

SUBJECT : **FMB TECHNICAL BULLETIN NO. 22-J, PROPER USE AND HANDLING OF PLASTIC SEEDING TRAYS**

DATE : MAY 10 2017



I. This Technical Bulletin

This Technical Bulletin deals with the proper use and handling of plastic seeding trays to prevent breakages or damages and prolong the usable life of said trays. These initial tray handling guidelines can be adopted or adapted in each particular MMFN site and may be reviewed and periodically evaluated as new knowledge or system becomes available.

II. Users of the Technical Bulletin

The users of the Technical Bulletin are the Nursery Managers, Growers, Assistant Growers, Peoples Organizations, private entities or individuals and readers who plan to start and operate a container tree nursery for native plants as well as exotic plants in the tropics using plastic seeding trays.

III. Introduction

In container tree forest nursery, the use of plastic seeding trays has become extensive. Most forest nurseries use high density polyethylene virgin resin (HDPE) as raw materials for the manufacture of seeding trays for a longer usable life from 10 to 15 years. HDPE has the following physical characteristics:

1. It is lightweight yet super-strong;
2. It is impact resistant from -40°C to 90°C;
3. It is long lasting and weather resistant;
4. Good chemical resistance;
5. It resists mold, mildew, rotting, and insects; and
6. It is easily moulded into nearly any shape, providing one of the primary benefits of most plastics: malleability.

IV. Guidelines for Proper Use and Handling of Seeding Trays

Although these plastic seeding trays are made of durable materials such as HDPE, the following initial guidelines can be used in the proper care and handling of trays to prolong their intended usable life.

1. Trays should be kept under cover or shade during storage. This will slow down the breakdown of the UV resistance in the tray by the sun. If a permanent shed is not available, a 70-80% sunlight reduction woven polyethylene shade net as temporary shed is acceptable.
2. Storage areas used for trays should preferably be with concrete floor to keep trays out of mud and dirt.
3. Trays should be stacked not higher than 1.8 meters. This will reduce pressure to the bottom trays in the stack. It will also make it easier for workers to reach the higher trays in the stack.
4. Trays must always be stacked upside down when in storage. The top part of the tray has additional reinforcing that makes it stronger to support the weight of the tray stack.
5. Trays in stacks should not be pulled or pushed around. This will cause damage to the bottom tray. Remove trays manually from the stack and move to the production line when they are to be used.
6. Trays should be handled with care, not thrown or dropped. Stepping or walking on trays is strictly prohibited.
7. When the plants are ready for harvesting, the best procedure is to pack plants in transport boxes for deliveries to the out-planting sites. This will ensure that trays remain in the protected nursery environment and reduce wear and tear in the field. Seedling extraction for packing is preferably done by using seedling or plug extractor either manual or pneumatic.
8. If it is not possible to pack plants into transport boxes or totes, trays should be transported in trucks fitted with shelves. The trays should be loaded and unloaded by hand. Throwing of trays is not allowed.
9. Plants to be extracted at the roadside should be packed into planting boxes or totes. Trays should remain at roadside and stacked 20 units high for transport back to nursery. Keep trays out of mud.

10. Keep trays clean by washing and, if possible, sanitize them. The best way of sanitizing is to submerge the trays in a bleach solution of 1 part Clorox liquid bleach (5.25% sodium hypochlorite) to 4 parts water (i.e. 1 liter of Clorox plus 4 liters of water). This will also ensure that the trays are free from pathogens and reduce risk of diseases in the nursery.

V. Growing (Soilless) Media

To ensure the quality of the planting stock, contractors (peoples organizations, private individuals, communities, etc.) who will be raising seedlings using DENR trays should follow the prescribed manner of growing seedlings. Another option is to seed the trays using the mechanized seeding line, then the trays can be delivered to the contractors site for propagation.

VI. Benches

To encourage air pruning of the roots, contractors should construct benches to elevate the seeding trays. If trays are placed on the ground, the roots will grow into the soil and this would not encourage root pruning and seedling extraction would be difficult. Contractors can construct benches made of bamboos or screen mesh.

FOR INFORMATION AND GUIDANCE.


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