PLUS TREE HARDA DN.

COLLECTION AND USE TEAK SEED

EXTENSION SERIES
Teak Seed has assumed great importance in the country's forestry programme. Thousand of hectares are being planted with Teak all over the country. In Madhya Pradesh also, an area of 25,000 hectares is being raised annually.

It is necessary to plan for teak seed collection in a scientific manner. A seed collection and certification scheme has recently been sanctioned by Government of Madhya Pradesh at State Forest Research Institute. This unit will organise collection and distribution of good quality teak seed not only to meet the requirements of State Forest Department and Corporation but would also supply seed to out
Teak seed is a precious commodity. Properly graded and registered seed is likely to sell at Rs 10/-a Kg. No one can afford to waste it now.

Good seed is the first prerequisite for a successful plantation programme.

I would advise every forester to use seed economically and efficiently. Guide lines given in the note may be followed readily.

No one can afford to waste it now.

Sayed and registered seed is likely to sell at Rs 10/-a Kg. Poor seed is a precious commodity.

References:
GUIDELINES FOR ECONOMIC UTILISATION OF TEAK SEEDS IN NURSERIES

COLLECTION OF TEAK SEEDS

Seeds should be collected in January to March. Dry and cleaned seeds collected during the season should be stored in gunny bags till onset of monsoons. Dry and cleaned seeds collected in nurseries should be recorded and mentioned in nursery records, division etc. Source of seeds, planting camp, etc., should be recorded to trace them back. Should be sieved to remove twigs, bark, stones, soil and immature small seeds. Production areas should be collected in January to March. Seeds from superior teak stands and seed production areas should be collected. Seed production from superior teak stands and seed production areas should be stored in gunny bags till onset of monsoons.
The treatment of seeds - Weathering

The treatment of Seeds - Weathering

- Weathering is not activated due to heat and humidity up and down by taking so that excessive weathering is avoided and the embryo is not activated due to heat and humidity.

Layer of seeds on platform should be about 10 cm. During the months of August and September the seed is constantly turned over in the nursery for this purpose. The thickness of the treatment platform should be adequate to construct a cemented platform. It would be better to construct a cemented spreading to form gently sloping and hard surface of the platform. The ground is cleared and rammed after murram of August. The ground is cleared and rammed after murram is spread out uniformly on the treatment platform in first week of August, seed collected in January to March.
Natural soaking and drying during August and September is considered as the most suitable and adequate period for weathering. If dry spell is unduly long during August and September, water may be sprinkled on spread up seeds after every 3 days.

During October weathered seed is dried, sieved, and beaten with wooden mallets to loosen weathered coat of seeds.

Storage

Properly in seed godowns with mud and cow dung plaster to keep it cool and dry. The seeds are kept in gunny bags or in big bamboo baskets sealed with mud and kept in Gunny bags or in the bazaar baskets sealed with mud. During October weathered seed is dried, sieved, and stored.
Preparation of beds

Area should be ploughed in November-December.

The soil & seeds during heavy rains.

Side supports are provided to beds to check washing off.

Drainage lines should be provided to ensure proper drainage.

Raised beds 10 M X 1 M and of 20 to 25 cms. height should be prepared along contours.

Beds aro prepared during January-March within the plot. Beds are prepared during November-December.

Preparation of beds.
Sowing in nurseries

Germination tests should be carried out before the seed is sown in the beds. About 2 kg. of untreated seed is sown per standard bed of 10 m x 1 m in last week of May and first week of June. The lines are parallel to the width of the bed, about 10 cm apart. Seed is sown close to each other in lines within 2 cm of soil layer. Untreated seeds 2,000 to 2,500 per kg. Treated seeds 2,000 to 3,500 per kg. Weathering losses - 40 to 45% of untreated seeds.
Germination

With the onset of monsoon the seeds germinate within 10 to 15 days. Plantable seedlings are

Germination percent is 30 to 30 and 700 to 800 per bed. Germination percent is 90 to 90 percent.

Irrigation

Irrigation should be continued till the

Irrigation percent is 15 to 15.

and plant percent is 15 to 15.

Seedling are 700 to 800 per bed. Plantable seedlings with the onset of monsoon the seeds

Germination percent is 20 to 20 and plant percent is 12 to 12.

Seedling germinate within 10 to 15 days. Plantable seedlings are

Germination
Weedings

The weeds also come up with the onset or rains. Intensive weeding operations are required from July to September to keep the teak seedlings free from root competition and root competition to September to keep up the teak seedlings free from sup-

Insecticides

Middle of August to

First dose during July and second in

Split doses of chemical fertilizers should be applied in accordance with the results of soil analyses report during February and on the basis of soil analyses report.

Soil samples should be collected and analyzed.

Insecticides

- BHC 50% wettable powder 400 gms in 50 litres of water is sufficient for one bed. It is applied during middle of August to middle of August.

Nutrients

- To strengthen and root competition to September to keep up the teak seedlings free from sup-

Weedings

The weeds also come up with the onset of rains. Intensive weeding operations are required from July to September to keep up the teak seedlings free from root competition and root competition.
March 1980 should be sown in nursery beds in June, July, and August. For example, seeds collected in January to nursery beds should be sown in advance. In no case should current year seeds be sown.

Planning for plantation

- Sufficient for one bed

- Seeds should be collected one year in advance.

BHC 10% dust is sprayed to control damage to the leaf defoliator and skeletonizer. 30 gms. of dust is sufficient for one bed.

- Fungicide is used for controlling this fungus attack.

- Fungus attack is sometimes noticed. Copper sulfate is sometimes noted.

- Between the teak lines in beds, planting is noticed. Drenching or mulching is done in furrows.

Second week of July when the white grub damage in nursery beds is noticed. Drenching of emulsion is done in furrows between the teak lines in beds.
If we have to tackle 800 ha of teak plantation every year, we should raise planting stock for at least 1,000 ha. This will include stock for replacement of teak plantations. Total required planting stock for raising one hectare plantation is 8 Kg of freshly harvested teak seeds and 2 Kg of fresh seeds per bed. Using 2 Kg seed per bed, 8 Kg of weathered seed is needed for raising one hectare plantation. For getting 8 Kg of weathered seeds about 12 Kg of fresh teak seed is required assuming 30 to 35 percent weathering losses. Total requirement of teak seeds for raising 1000 hectares of teak plantations will be 12,000 Kg or 120 quintals.

In normal condition, for one hectare of plantation:

- 4 nursery beds (10 M X 1 M size) are enough to provide the 4 nursery beds
- 20-40 trees in each bed
- 150-200 seeds per tree
- Total of 3000-4000 seeds per hectare
- Total of 12000-16000 seeds for 4000 nursery beds
- Total of 12000-16000 seeds per hectare

Calculation for seed:

12,000 Kg = 120 quintals

Requirement of teak seed for raising 1000 hectares of teak plantations will be 12,000 Kg or 120 quintals.
During the year 1981 by M.P. State Forest Development Corporation Limited.

<table>
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<tr>
<th>S.NO.</th>
<th>Name of Division</th>
<th>Name of Project</th>
<th>Teak Seeds Collected in Quintals.</th>
<th>Remarks</th>
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<tr>
<td>1</td>
<td>BAKHATAN</td>
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<td>3</td>
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<td>KESTA PROJECT</td>
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<td>4</td>
<td>LAMRAA</td>
<td>MIRJA PROJECT</td>
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<td>DURGA</td>
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</table>

In quintals.

Corporation Ltd.

Teak seeds.

Name of Division.

Quantity of Project.

Remarks.

During the Year 1981 by M.P. State Forest Development Corporation Limited.

APPENDIX No.II