

EXTENSION SERIES - 1

*TEAK SEED
COLLECTION
AND USE*



PLUS TREE HARDA DN.

I N T R O D U C T I O N

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

side agencies •

Teak seed is a precious commodity. Properly graded and registered seed is likely to sell at Rs. 10/-² Kg. No one can afford to waste it now.

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

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

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*File
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Guide Lines for economic utilisation of Teak
Seeds in Nurseries

Collection of Teak Seeds

Teak Seeds from superior teak stands and seed production Areas should be collected in January to March. Seeds should be sieved to remove twigs, bark, stones, soil and immature small seeds. Source of seeds giving comp'tt. No., Range, Division etc. should be recorded and mentioned in nursery and plantation journals. Dry and cleaned seeds collected during the season should be stored in gunny bags till onset of monsoons.

Pretreatment of Seeds - Weathering

Teak Seed Collected. In January to March is spread out uniformly on the treatment platform in first week of August. The ground is cleaned and rammed after murrum spreading to form gently sloping and hard surface of the treatment platform. It would be better to construct a Cemented Platform in the nursery for this purpose. The thickness of the layer of seeds on platform should be about 10 cms. During the months of August and September the seed is constantly turned up and down by raking so that excessive weathering is avoided and the embryo is not activated due to heat and humidity.

Natural soaking and drying during August and September is considered as 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. Turning of seeds is continued uninterrupted. In the first fortnight of October, seed is gathered in small heaps and beaten with wooden mallets to loosen weathered coat of seeds.

Storage

During October weathered seed is dried, sieved and kept in gunny bags or in big bamboo baskets sealed with mud and cowdung plaster till sowing time. It is stored properly in seed godowns.

Preparation of beds

Area should be ploughed in November-December.

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

Drainage lines should be provided to ensure proper drainage within the plot. Beds are prepared during January-March.

Side supports are provided to beds to check washing off the soil & Seeds during heavy rains.

Sowing in nurseries

Germination tests should be carried out before the seed is sown in the beds. About 2 Kg. of weathered 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 cms. apart. Seed is sown close to each other in lines with a thin layer of soil.

Seed weight

Untreated seeds 2000 to 2500 per Kg.

Treated seeds 3000 to 3500 per Kg.

Weathering losses - 40 to 45%

Germination

With the onset of monsoon the seeds germinate within 10 to 15 days. Plantable seedlings are 700 to 800 per bed. Germination percent is 20 to 30 and and plant percent is 12 to 15.

Irrigation

Irrigation should be continued till the period of leafshed i.e. ~~the~~ week of February. Seedlings should be allowed to remain dormant and leafless without any watering to have storage of food to be utilized in field after planting.

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 suppression and root competition.

Manuring

Soil samples should be ~~be~~ got analysed during February and on the basis of soil analysis report optimum doses of chemical fertilizers should be applied in split doses. First dose during ^{middle} of July and Second in middle of August.

Insecticides

BHC 50% wettable powder 400 gms in 50 litre of water is sufficient for one bed. It is applied during

Second week of July when the white grub damage in nursery plants is noticed. Drenching of emulsion is done in furrows between the teak lines in beds.

Fungus attack is sometimes noticed. Copper fungicide is used for controlling this fungus attack.

BHC 10% dust is sprayed to control damage of teak defoliator and skeletoniser. 30 gms. of dust is sufficient for one bed.

Planning for plantation

Seeds should be collected one year in advance. In no case current year seeds should be sown in nurseries. For example seeds collected in January to March 1980 should be sown in nursery beds in June, July 81.

If we have to tackle 800 ha of teak plantation every year, we should raise planting stock for atleast 1,000 ha. This will include stock for casualties replacement of last 3 years plantations.

Calculation for seed

In normal condition, for one hectare of Planting, 4 nursery beds (10 M X 1 M size) are enough to provide plantable sumps. Using 2 Kg seed per bed, 8 Kg of weathered seeds is needed for raising one hectare plantation. For getting 8 Kg of ~~tror~~ted seeds about 12 Kg of fresh teak seed is required assuming 30 to 35 percent weathering losses. Total requirement of teak seed for raising 1000 hectares of teak plantations will be 12,000 Kg or 120 Quintals.

TEAK SEED COLLECTION

APPENDIX No. II

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

S.No.	Name of Division	Name of Project Division	Quantity of Teak seeds collected in quintals.	Remarks
1.	BALASOHAL	LAMTA PROJECT	775	
2.	NORTH RAIPUR	BARNWAPARA PROJECT	400	
3.	UMARIA	UMARIA PROJECT	300	
4.	HOSHANGABAD	KESLA PROJECT	405	
5.	BETUL	RAMPUR BHATODI	1000	
6.	DURG	AN TAGARH	--	
7.	RAJNANDGAON	PANABARAS	--	
			2880	