

NOTE FOR TREE PLANTERS

ARTIFICIAL REGENERATION OF CHIR PINE – PLANTING VS SOWING

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Since long Forest Departments in the country have been doing artificial regeneration in Chir forests by sowing the seed in pits. Due to increasing biotic pressures it became rather difficult to get satisfactory results from this method. Planting of Chir plants in polythene tubes was started in early seventies and it has now been adopted as the standard practice for artificial regeneration in all Chir pine areas of the country.

To find out the comparative efficacy of seed sowing and the age of the tube stock for survival and growth, a study was planted in July 1977 which was concluded after 5 years. Three treatments, viz. 2-year old tublings, 1-year old tublings and spot sowing of seed were adopted. Planting/sowing was done at a spacing of 2 x 2 meters. In all 6 replications were used, keeping 16 plants/pits per plot. In all 192 plants were planted and 96 pits were sown. Sowing and planting was done in 0.4 cm deep pits.

The study was laid out near Mansehra (Gond) with average annual rainfall of 1200 mm. Private land for this experiment was available with only south-western aspect. Planting and sowing was done on the same day. There was no rain on the day of planting but frequent rains occurred afterwards for 90 days. Data collected during the period of the study are as under:

Survival out of 96

Replication	Two year tubed plants	One year tubed plants	Direct sowing	Total
R 1	13	8	3	24
R 2	12	7	1	20
R 3	14	6	4	24
R 4	13	9	3	25
R 5	12	7	0	19
R 6	13	8	2	23
Total	77	45	13	
Survival %age	80.2	46.8	13.5	

As is indicated from the above, 2-year old tublings gave a survival of 80% while the 1-year old tublings survived upto 45%. The spot sowing results were a poor third with about 13% survival. Although the seed sown in the pits germinated very well within 15 days and the seedlings continued to grow during the monsoon season but there were lot of casualties due to

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prolonged drought in the following autumn. As regards the growth the same phenomena has been observed. The 2-year old plants showed a much better rate of growth as compared to the 1-year old plants and plants from direct seeding.

It is quite clear from the above study that in all the 3 reforestation programmes in the Chir pine zone, only 2-year old Chir pine plants should be used to get the best results.

