Chief Conservator of Forests, Haryana

Eucalyptus Plantation in Haryana

In this state Eucalyptus plantations are being raised since 3rd Five Year Plan and only species raised successfully are *Eucalyptus hybrid* or *Eucalyptus teriticornes.*

Originally the seed for this plantation was obtained from the Mysore State and now for the last 4 years no seed has been indented from outside the State, as local plantations have started yielding viable and good quality seed. Seed is grown on specially prepared germination beds of the size $10 \times 10 \times 15$ Meters made of soil, sand and farm yard manure well mixed in equal proportions. When the seedlings are 3 to 5 cm. high they are pricked out in polythene bags filled with mixture of soil sand and farmyard manure. The polythene bags are of the size 22×15 cm. and of 150 gauge. These seedlings in polythene bags are regularly irrigated with fine spray of water daily till they attain a height of 15 cm. and subsequently the plants are flood irrigated twice a week. When the plants have reached a height of 45 cm. they are transported for planting out in the field. 120 grams seed is enough for one standard size bed and give about 15000 seedlings of plantable size.

Planting is usually done at a spacing of 3×3 meter. The planting pit is of the size 45 cm. cube. After planting the plant in the planting pit, it is filled with soil free of grass roots etc. leaving a trough of 10 cm depth at the top for itrigation purposes.

Planting is done normally in the beginning of monsoons. In areas liable to floods plantation is taken up after monsoons i.e. September and October. During the 1st year about 6 irrigations are given. In the second year about 3 irrigations are applied during the summer months and after that no irrigation is done.

Eucalyptus being susceptible to supression by weeds it is ensured that in the very first year the plantation area is thoroughly cleared of all the bushes and weeds. Subsequently the area is maintained as thoroughly weeded during the first two years.

In areas infested with heavy grass growth a thorough ploughing and uprooting of grass roots is undertaken with tractors to ensure lesser growth of grass and thus to avoid supression of plants with heavy grass. The use of chemical fertilizer is sometimes done in the nursery stage to grow plant upto plantable size before the monsoons but no fertilizer is applied to the field planting.

In this State Eucalyptus is being prefered for plantation where multiple rows can be planted along Rail, Road and Canal strips. Some of these plantations have given a completely changed look to G.T. Road passing through Haryana as well as portions of Railway Lands and Canal strips.

Originally these plantations were raised at a cost of Rs.500 per Hect. Now on account of increase in labour wages and cost of material being used the cost of plantation has gone upto about Rs. 1000 per Hect. during 1st year and about Rs. 300 in the 2nd year and Rs. 100 in the 3rd year. This cost also includes the cost of fencing which is rather high in case of strip plantations. Area planted with Eucalyptus upto1970-71 is as under:—

Sr. No.	Year	Area in Hectare
1.	1961-62	100
2.	1962-63	125
3.	1963-64	150
4.	1964-65	175
5.	1965-66	200
6.	1966-67	1040
7.	1967-68	1256
8.	1968-69	980
9.	1969-70	500
10.	1970-71	500

In Kalanaur Reserve Forests where plantation was raised from 1962-63 onward, growth data was noted and is given in the enclosed statement.

One Acre plot in this plantation was felled every year departmentally to fixed out the increase of volume. It was noted that after-about eighth years the rate of growth came down considerably. It therefore appears that rotation for felling which was originally tentatively decided to be 10 years may have to be further reduced to eight years.

From this experimental felling in Kalanaur Reserve Forests pertaining to the plantation of 1962-63 for which the growth figures are given in the enclosed statement (Annexure A). The revenue obtained for the sale of Eucalyptus wood in different years

is given below: (Year of formation 1962-63, Area felled each year= one acre

Year of felling	Solid Vol.	Total price obtained
10/67	54.38	2000
3/68	83.04	2300
3/69	134.79	2680
3/70	152.00	3300
9/71	163.26	3950

These figures are from a selected area which has given a very high-yield During 1971-72. This forest has given following yield:

Area in Hectare	Total quantity for stacked Vol.	Solid Volume
34	3146 m³	1888 m³

AVAILABILITY OF EUCALYPTUS WOOD AS RAW-MATERIAL FOR PAPER PULP.

On the bases of above yield figures obtained in Kalanaur Forests, it is expected that Eucalyptus plantation will give following yield in the coming 10 years.

Sr. No.	Year	Yield expected in Cu. m.	Yield expected in Tonnes
1.	1971-72	6200	4000
2.	1972-73	7750	5000
3.	1973-74	9300	6000
4.	1974-75	10850	7000
5.	1975-76	12400	8000
6.	1976-77	64480	41600
7.	1977-78	77872	50240
8.	1978-79	60760	39200
9.	1979-80	31000	20000
10.	1980-81	31000	20000

ANNEXURE—A

Sr. No.	Year of planting	Year of felling	Area in acres	Age	No. of trees	Diameter (Av) in cm.	Height (Average) in metres	Felled volume in Cu. m.
1.	2	3	4	5	6	7	8	9
1.	1962-63	October, 1967	1	5 years	1088	9.17	9.85	54.38
2.	,,	March, 1968	1	5½ ,,	1080	9.26	10.01	83.4
3.	,,	March, 1969	1	6½ ,,	1102	9.34	10.56	134.79
4.	,,	March, 1970	1	7½ ,,	964	12.8	11.90	152.00
5.	,,	Aug./Sep. 1971	1	9 ,,	994	13.4	12.27	163.26