



POPLAR

GENERAL INFORMATION

Poplar is deciduous tree and belongs to family of Salicaceae. These are fastest growing tree under ideal climatic conditions. Poplars wood and bark are used for making plywood, boards, matchsticks, also for making sports good and pencil. In India, plant can grow upto height of 85 feet or above with in life span of 5 to 7 years. Major poplar producing states in India are Haryana, Punjab, Uttarakhand, Uttar Pradesh, Himachal Pradesh, Jammu & Kashmir, Arunachal Pradesh and West Bengal.

CLIMATE

Temperature

20-30°C

Sowing Temperature

18-20°C

Harvesting Temperature

10-45°C

Rainfall

750-800mm

SOIL

Avoid alkaline and saline soils for poplar cultivation. It gives best result when grown on fertile loamy soils rich in organic matter. For poplar cultivation Ideal pH of soil should be between 5.8 to 8.5.

POPULAR VARIETIES WITH THEIR YIELD

G 48: Popular variety mostly grown in plains of Punjab, Haryana and UP.

W 22: Suitable for cultivation in Himachal Pradesh, Pathankot and Jammu.

Other States variety

Other varieties of Poplar: Udai, W 32, W 39, A 26, S 7, C 15, S 7, C 8.

LAND PREPARATION

Plough land for two three times and bring soil to fine tilth. To overcome Zinc deficiency, apply Zinc Sulphate@10kg/acre at time of land preparation.

SOWING

Time of sowing

January and February is best time for transplanting of poplar seedling. Also planting can be done from from 15th Feb to 10th March.

Spacing

Use spacing of 5 x 5 m (Plant population 182 plant/acre) or 5 m x 4 m or 6 m x 2 m (396 plant/acre) or 5 m x 2 m (476 plants/acre).

Sowing Depth

For planting, dug one meter pit and then plant seedling in pit. Top soil should be mixed with well decomposed cow dung@ 2 kg, MOP@25gm and SSP@50gm.

Method of sowing

It is sown by direct sowing or by transplanting method.

SEED

Seed Rate

Use spacing of 5 x 5 m (Plant population 182 plant/acre) or 5 m x 4 m or 6 m x 2 m (396 plant/acre) or 5 m x 2 m (476 plants/acre).

Intercropping: For first two years, intercrops can be done. It will help farmer to earn income during initial years of poplar cultivation. Crops like sugarcane, turmeric and ginger can be taken as intercrops.

Seed Treatment

To protect seedling from pest and disease attack, before planting young plant should be treated with fungicide. Pruned thick and damaged roots of seedling before treatment. Treat seedling with Chlorpyrifos@250ml/100Ltrs of water for 10 to 15 min. After this, place seedling in Emisan 6@200gm/100Ltr for 20 minutes.

Fungicide name	Quantity (per 100 ltr water)
Chlorpyrifos	250 ml
Emisan 6	200 gm

FERTILIZER

Fertilizer Requirement (gm/plant)

Age of crop (Year)	Well decomposed cow dung (kg)	Urea + SSP(gm)
First year	8	50
Second year	10	80
Third year	15	150
Fourth year and above	15	200

In 1st year, apply well decomposed cowdung@8kg along with Urea+SSP@50gm per plant. During 2nd and 3rd year, apply well decomposed cowdung@10kg and 15kg, Urea+SSP@80gm and 150gm per plant respectively. In Fourth year and onward, apply Cowdung@15kg and Urea+SSP@200gm per plant.

Apply fertilizer in month of June, July and August of every Year.

WEED CONTROL

Removes weed during initial years of crop. Once tree is developed, minimum weeds developed under shade.

When crop become two to three year old, carry out pruning operation in lower 1/3rd portion of tree. For 4 to 5 year plant, pruning of 1/2 portion tree is taken. Complete pruning operation in winter season. After pruning, apply bordeaux paste on pruned parts. In first year if plant show no sign of bud opening, then on such tree debudding in lower 1/3rd portion of tree is carried out. At time of de-budding remove co-leader also. Repeat the same procedure in second year also.

IRRIGATION

In nursery, apply irrigation immediately after planting. Apply remaining irrigation at intervals of 7 to 10 days depending upon soil type and climate. Along with irrigations, drainage facility should be provided in nursery to prevent from lodging and collar rot. Apply light irrigation for 7-10 days before

transplantation.

During first year, apply light and frequent irrigation with interval of 7 days till onset of monsoon. In October-December month apply two irrigation per month. In second year, in winter season apply irrigation at interval of 15-20 days and in summer apply irrigation at interval of 7 days. In third year and onwards, in summer apply two irrigation per month.

PLANT PROTECTION



- **Pest and their control:**

Termites: If infestation is observed, to control apply Chlorpyrifos@1.5 Litre per acre.



Stem Borer: If infestation is observed, to control apply Phorate 10G@5kg/acre upto second year of plantation or inject Kerosene@2 to 5ml per hole.



Mites: If infestation is observed, to control take spray of Metasystox@2ml/Ltr of water. Repeat the spray with interval of 15 days.



Leaf Defoliators: Its infestation is observed in July month. To control take spray of Chlorpyrifos 200 ml + Cypermethrin@80 ml per acre.

- **Disease and their control:**

Collar rot: As preventive measure, treat seedlings root with Emisan 6@4 to 5gm/plant.



Blight: Its infestation is seen in month of August and September. If infestation is observed, to control spray crop with Carbendazim@2gm/Ltr of water.

Wilt: If infestation is observed in month of May and June. To control take spray of wettable Sulphur powder@500gm per acre.

HARVESTING

For obtaining good market price, harvesting at proper time is important. Example, poplar plant having girth of more than 24 inch of 1 qtl fetches price of 900 rs for one quintals. Whereas poplar plant of 10-18 inch girth, weight of 1.5 qtl fetches price of Rs 725.

REFERENCES

- 1.Punjab Agricultural University Ludhiana
- 2.Department of Agriculture
- 3.Indian Agricultural Research Institute, New Delhi
- 4.Indian Institute of Wheat and Barley Research
- 5.Ministry of Agriculture & Farmers Welfare