



JASMINE

GENERAL INFORMATION

It is an important flower crop which is grown throughout India on commercial scale. It attains the height of 10-15 feet. It has evergreen leaves which are two and a half inches long, green and slender stems and it bears white color flowers. The flowers mainly bloom in the month of March to June. It is mainly used for making garland, for floral decoration and to worship god. Because of its strong and scented fragrance, it is also used to make perfumes and to add fragrances in soaps, creams, oil, shampoo and washing detergents. Punjab, Andhra Pradesh, Tamil Nadu and Hyderabad are the major growing states in India.

SOIL

It is grown in variety of soil types ranging from well drained clayey soil to sandy loam soils which is rich in organic matter. However it gives best result when grown in rich sandy loam soil having good drainage system. For best results mix FYM in the soil in adequate quantity. For better plantation, soil pH must not be more than 6.5.

POPULAR VARIETIES WITH THEIR YIELD

CO 1 (Jui): This variety has long corolla tubes and is easy to harvest. It gives an average yield of 35qtl/acre.

CO 2 (Jui): This variety has bold flower buds and long corolla tubes. It gives an average yield of 46qtl/acre. It is resistant to phyllody disease.

CO-1 (Chameli): The variety is developed by TNAU (Tamil Nadu Agricultural University). It gives an average yield of 42qtl/acre. It is suitable for loose flower production and oil extraction.

CO-2 (Chameli): This variety has bold pink color buds and has long corolla tube. It gives an average yield of 48qtl/acre.

Gundumalli: It has round shaped flowers having good fragrance. It gives an average yield of 29-33qtl/acre.

Ramban and Madanban: It has long sized flower buds.

Double Mogra: It has flowers having 8-10 whorls of petals. The flowers fragrance is similar to the white rose.

Other state varieties:

Arka Surabhi: This variety is also known as pink pin. The variety is released by IIHR, Bangalore. It gives an average yield of 41qtl/acre.

LAND PREPARATION

To bring the soil to the fine tilth, firstly make the field weed free. To make field weed free one-two initial ploughings are required. After ploughing pits are prepared at a size of 30cm³ before one month

of the planting and are exposed to sunlight. At the time of land preparation FYM (Farm Yard Manure) @10kg is mixed with the soil.

SOWING

Time of sowing:

Sowing is done in the month of June to November.

Spacing:

Different varieties are planted at different spacing's.

- For Mogra, it requires spacing of 75cm x 1m or 1.2m x 1.2m or 2m x 2m.
- For Jai Jui variety, it requires spacing of 1.8m x 1.8m.
- For Kunda variety, it requires spacing of 1.8m x 1.8m.

Sowing depth:

Planting is done at the depth of 15cm.

Method of sowing:

It can be propagated by cutting, layering, sucker, grafting, budding and tissue culture.

SEED

Seed rate:

Viable plants are planted one in each pit.

Seed treatment:

Seed treatment is not necessary for the jasmine flowers because it is grown by propagation method.

PROPAGATION

Well prepared land having good drainage system, proper irrigation facilities and having sunny conditions are required.

Before one month of planting pits are dug with convenient measure of 45cm and is exposed to sunlight for few days.

Before planting, these pits are filled with 2 parts of FYM and one part each of fresh earth and coarse sand. After adding, pits are watered for the settling of mixture.

Viable plants are planted one in each pit.

PRUNING AND TRAINING

Pruning and training is basically essential to obtained suitable shape and for desired crop production. Pruning is mainly done by removing old shoots of all past season and by removing diseases and dead branches. Pruning is mainly done in the month of last week of November for better yield and for good quality and quantity of flowers.

FERTILIZER

Nutrient Requirement (kg/acre)

NITROGEN	P ₂ O ₅	K ₂ O
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60	120	120
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Fertilizer Requirement (kg/acre)

UREA	SSP	MOP
130	18	72

At the time of land preparation, apply fertilizer dose in the form of Nitrogen @60gm/plant, K₂O @120 gm/plant and P₂O₅ @120gm/plant. This dose is recommended for commercial cultivation. The fertilizer dose are mixed together and then applied in two equal splits. The first dose is given in the month of the January and then second dose is given in the month of July. Additional organic manures such as groundnut cake, Neem cake etc. is given @100gm/plant.

Spraying of zinc @0.25% and magnesium @0.5% is done to increase the flower yield. To prevent from Fe deficiency, spraying of FeSO₄ @5gm/ltr is done at monthly intervals.

WEED CONTROL

Weeding is necessary for good growth and development of the crop. First weeding should be done after 3-4 weeks of planting and then subsequent weedings is done once in every 2-3 months.

IRRIGATION

Irrigation at proper interval of time is necessary for proper growth and development of the flowers. In summer months, flooded irrigation is done once in a week. After flowering, no irrigation is required till next manuring and pruning.

PLANT PROTECTION



- **Disease and their control:**

Nematode: The symptoms are stunted growth, chlorosis, wilting and then leaf dropping.

Treatment: Spraying of saaf@10 gm/plant is done to get cure from nematode disease.



Root rot: The symptoms are brown color pustules are seen on the lower surface of the leaves and sometimes shown on the stems and flowers.

Treatment: Drenching of soil with copper oxychloride @2.5gm/ltr is done to get cure from root rot disease.



- **Pest and their control:**

Bud worm: They are the moth caterpillars which destroys the plant by feeding themselves on new leaves, shoots and flowers.

Treatment: Spraying of monocrotophos 36 WSC @2 ml/ltr is done to get cure from bud worm.



Blossom midge: The symptoms are early blossoming and bears more flower than a healthy plant.

Treatment: Spraying of monocrotophos 36 WSC @2 ml/ltr is done to get cure from blossom midge.



Red spider mite: The symptoms are mottling on the upper surface of the leaves. Leaves start losing their color and finally fall off.

Treatment: Spraying of sulphur 50% WP @2 gm/ltr is given to get cure from red spider mite.



Stick bugs: It destroys the plant by feeding themselves on leaves, tender shoots and flower buds.

Treatment: Spraying of Malathion @0.05% is done to cure stick bugs.

HARVESTING

Plants get mature within 6 months after planting and harvesting is done by hand picking of unopened buds. Harvesting is mainly done in the early morning. The yield will increase year after year i.e. in first year the average yield is 800 kg/acre, in second year the average yield is 1600 kg/acre, in third the average yield is 2,600 kg/acre, in fourth year the average yield is 3,600 kg/acre and so on.