

FLOWERS

GLADIOLUS

Soil:- Gladulous cultivation can be done successfully in good drainage soil of sandy loam structure and having PH between 6-8 variety yellow flower variety.

Variety:-

Yellow colour variety	Appollo, Aaldibaren, topaz, samar sunshine, top brass, vincos glori, yellow stone.
White colour variety	Friendship, summer pearl, true love, morning kiss, amarsamdram, sincere
Red and Pink	Oscar, Candyman, Titonia, Red Majesty
Blue and Violet colour	Mayur, Har majesty, blue lily, blue sky

Propagation:- By Corn

Time of planting of Corn: - The right time of planting of corn is Ist week of October to 2nd week of November. Before sowing the corn the corn should be treated with 2% solution with the Captan and dipping the combs in the solution for about half hours can do this practice. After that these corns should be sown to attain the good length of flowering spice (4-5 cm.) 4-5cm dia con should be planted on the ridge and the depth should be kept 5-7 cm. and distance plant to plant 15 cm. and row to row 50 cm.

Manuring:-

FYM Well Rotten- 20 ton per acre.

Urea - 2.5 quintal per acre.

Single superphosphate- 1.52 quintal. per acre

Muriate of Potash:- 0.64 quintal per acre

Full dose of well rotten FYM, half dose of Nitrogen, full dose of Phosphorus and potash should apply in the month of September before sowing the corn. Half of balance nitrogen should apply at the time of initiation of flower.

Irrigation:- Irrigation should be given after the germination of the corn. Subsequent irrigation should be given at the interval of 10-15 days.

Hoing and Intercultural:- When the plant attained the height of 20cm. and earthing should be done at the height of 10-15cm. After initiation of the flowering the plant should be tied with the flowering spice.

Harvesting of flower:- For distant market harvesting should be done when the first bud flower at the turning stage of colour and starts opening. For a closure market when the first bud flower starts open and flower spice should be cut. The flower spice should be treated with 400 PPM (400 mg. per liter of water) 8Hos + 3% sugar solution and these spice dipped for three hours. For sending to the market the bundles of the flowering spice should be packed in the card board boxes.

Marketing of Corn:- When the plants become pale and starts drying the small and the bigger corn should be harvested and these corn should be treated with benelete or 0.2% cap tan solution and dry these corn in the shade before transferring to the cold storage. Old storage or on the layer of the sand in the shade corn can be stored. In the cold storage corn can be stored from 4 degree centigrade to 6 degree centigrade temperature for long duration without any loss in the corn quality.

Disease & their control	Disease & their control
<p>Corn Rot:- The affected plant of this disease shows symptoms of yellowing of leaves and it also affects on the growth of the plant and growth is arrested.</p> <div data-bbox="332 1119 620 1192" style="border: 1px solid black; width: 177px; height: 35px; margin: 10px auto; text-align: center;">Photo</div> <p>Control:- The drenching of the ridges should be treated with the solution of 0.2% captan or bavistin</p>	<p>Scorching Disease of Leaves:- A deep brown colour spot appeared on the margin of the leaf.</p> <div data-bbox="857 1073 1216 1146" style="border: 1px solid black; width: 221px; height: 35px; margin: 10px auto; text-align: center;">Photo</div> <p>Control:- To control of this disease is to spray the crop with the chemical diathion M 45 (0.2%) at the interval of one week and repeat this spray 2-3 times.</p>

Marigold

Soil:- For cultivation of marigold sandy soil with PH of 7-7.5 is very suitable.

Variety:- 1. African Marigold:- African giant orange, Africangiant yellow, African gian lemmon yellow, Cracker Jack, Titonia Memoth, Goldsmith

French:- Rusty red, water scotch, Red bracketed and local

Seed Rate:- 160-240grams per acre.

Time of raising nursery:-Sowing of the seed in the raised bed of 10cm. raised bed of the size of 1x2mtr. size of the bed sow the seed from July- September. After sowing the seed covered the

seed with thin layer of well rotten sieved with FYM and covered the bed with dry grass or leaves.

Method of Planting and planting distance:- When the plants attained 6-8 leaves or after about 8-10 cm. height these plants are ready for transplanting. Transplanting is done at the distance of 30x40 cm. and irrigates the soil.

Manuring:-

Well Rotten FYM - 16 ton per acre.

Urea - 540 kilogram per acre.

Single Superphosphate:- 500 kg. per acre.

Muriate of Potash:- 64 kilogram.

If DAP to be applied the quantity of DAP should be reduced to the 1/3rd of the single superphosphate and in case of urea the nitrogen is reduce to 1/5th of the Nitrogen.

Full well rotten FYM and Phosphorus , Potash and 1/3rd doze of Nitrogen should be applied at the time of before transplanting of the seedling in the mid October. Balance 2/3 rddose of Nitrogen should apply after five weeks of transplanting.

Irrigation:- Irrigation should be done in winter at 10-15 days interval and in summer 5-7 days interval.

Pinching:- Pinching should be done after 25-30 days of transplanting so that the growth can be restricted which resulted into more number of branches and flowers.

Plucking of the flowers:- The full bloom flowers should be harvested after the irrigation in the morning and evening. These plucking flowers should be packed in the polythene bags, baskets or bamboo basket and gunny bags and sent immediately to the marketing in the market.

Yield:- The yield of this flower is 7.2 to 8 ton per acre.

Disease and their control	
<p>Damping of Disease: This disease is observed in the nursery beds while raising the nursery.</p> <div data-bbox="261 1656 644 1730" style="border: 1px solid black; width: fit-content; margin: 10px auto; text-align: center;">Photo</div> <p>Control:- To control this disease drenching of the seed bed should be done with 0.2% of the solution captan.</p>	<p>Scorching & Spot Disease of the leaf:- The primary symptom of this disease is light brown spot is appeared on the lower surface of the leaves and gradually the growth of the plants is restricted.</p> <div data-bbox="930 1749 1193 1822" style="border: 1px solid black; width: fit-content; margin: 10px auto; text-align: center;">Photo</div> <p>Control:- A spray of Diathion M-45 @</p>

0.2% (2 gm. in one liter of water) should spray at the 15 days interval.
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CARNATION

Carnation is of two types.

Standard Type: - Scania, William Sim, Leena, Harvest Moon, Red Diamond, Yellow Dusty, Diamond, Red Corso, Yellow Dusty, Diamond, Dusty Pink

Spray Type: - Vermilon, Peach, Delight, Height Lila, Poudh Delite, Medina, Gold Lock, Twinkle.

Method of propagation of the Plant: -Cutting should be collected in the month of September from a healthy plants and the cutting should be pencil thickness of size 8x10cm. long and the lower bud 1-2 leaves should be cut the lower portion of the cutting should be treated with 0.2% bavistin + 0.15% -Diathion M -45 and dip the cutting in the solution for five minutes. After this these cutting lower edge should be dip in 1000-PPM (100 mg. per liter) NAA solution for 5 seconds and then these cutting should be planted in Yamuna side or Badarpur which is filled in the pods or plant these cuttings in the bed. In poly houses water should be sprinkled again and again for the sake of mist. By this way cutting will develop roots within 25-30 days and the plants are ready for planting in the month of October-November. PAU has developed the protocol to propagate the plant through tissue culture. The plants, which are raised through tissue culture, are disease resistant to the type and of a bear very good quality flower.

Time of Planting:- In the month of October and November root cutting are planted on the ridge. The ridges are made 1.2 mtr. Wide. The difference between 2ridge is kept 75cm. and plant-to-plant distance 30cm.

Manure:- Well Rotten FYM 20 ton per acre.

Urea - 320 kg. per acre

Single superphosphate 500 kg. Per acre.

Muriate of Potash:- 64 kg.

Half Nitrogen, Phosphorus and Potash should apply in the beds before planting of the plant. Balance half dose should apply after one month.


Pinching of Branches:-When the branches bears 5-6 leaves about 30-35 days after planting then the top of the branches should be pinched so that the branches equally and profusely sprouted. To harvest early crop one pinching is required. But the varieties especially which gives flowers for the long period such varieties to have more flower from many times. The branches, which sprout from the main branch (when the length of these branches attained the length of about the length of the main stem) pinch the top. By this way there will be more production of the flowers so long duration bearing flowers variety should be pinched two times of the branches. In first pinching, pinching is done in the main branch and second time pinching is done from the

branches which sprouted from the main branch. To have good size of the flower in carnation the unwanted branches (which are less than 2-3 cm. long) and buds which are less than 15cm. in size) to be cut and thinning should be done.

Flowering time: - February to April.

Harvesting of flowers: - Before sending to the market half opened flowers, which are having stock length of about 45-50 cm., should cut and keep in the buckets which are filled by water.

Packing:- First the flowers are graded in different grades and bundles are made of 25 flowers are packed in the card board boxes which are of the size of 30 height and 150 cm. width and 122 cm. length. Inside the boxes edge to edge a lining of thin film of plastic lining is given.

Disease and their control
<p>Leaf Spot:- This disease is caused by fungus, fungus developed spots on the upper surface of the leaves and branches starts rotting.</p> <div data-bbox="643 856 930 953" style="text-align: center;"><p>Photo</p></div>
<p>Control:- To control this disease a spray of 0.2% zenab or captan solution should be done.</p>

Tuberose

Variety: - Single, Double Rajnigandha.

Climate:- Normal climatic conditions where neither the high temperature nor the very low temperature is prevailing. It is very suitable for the cultivation of the tuberose.

Soil:- Sandy loam soil which is having pH 6.5 to 7.5.

Plant Propagation:- The bulbs are used for development of the plants.

Time and Method of sowing of bulb:- Sowing of the bulb is done from April to May and the distance between plant to plant and line to line is kept 20cm.x20cm. The bulbs are sown at the depth of 5cm. and first irrigation should be given after sprouting of the bulb.

Manure: - Well rotten- FYM 20 ton per acre

Urea: - 160 kg. per acre

Single superphosphate: - 150 kg. per acre

Muriate of Potash:- 44.5 kg.

Full dose of FYM, full phosphorus, potash and half dose of nitrogen should apply before sowing. Balance dose of Nitrogen should apply after 45 days of sowing.

Irrigation: - In winter 15-20 days interval and in summer every week irrigation should be given.

Harvesting of Spike: - When the lower flower on the spike is fully opened then the spike should be harvested by sharp knives or sketcher in early morning or late evening. These cut spikes should be kept in the water bucket. The cut portion of the spike should be dipped in the water.

Packing:- The spike bundles of 20 spikes are made and these bundles are tied and wrapped with the sheet of newspaper and it should be put in the card board box and sent to the market.

Harvesting of Bulb and storage:- When the growth of the plants become stopped and leaves starts drying then the harvesting should be done and bulb should be removed from the soil and kept in the dry place and sometimes do the turning so that there should be no contamination of fungus and other micro organism. To plant the bulb for the next season crop these bulbs are kept in shade and dry place.

BOUGAINVILLEA

The Bougainvillea grown widely throughout the Haryana as it is easy to grow, is colorful and its varieties. The bougainvillea can be divided into following groups:-

Standard Varieties:- Marry Pamar, Mahatama Gandhi, Subra, Lady Mary Bearing, Delite, Beghum Sikander, Roojwalt, Mahara.

Potted Varieties:- Cherry Blossoms, Shrimati H.C.Bak, Garnate, Glori, Dheema, Dr. Rav, Jawahar Lal Nehru, H.B.Singh, Shole, Usha

Bush type varieties:- Alok, Mahara, Partha, Meera, Gopal, Anidarnalcaster.

Creeper type varieties:- Mary Pamar, Shrimati H.C.Bak, Partha, Pultony, Subra, Maharaja of Mysore, Trinidad

Hedge type varieties:- Partha, Lady Mary Vieray, Anid, Lacanster, Mubra

Multibracketed :- Mahara, Cherry Blossom Mohan, Alok, Roojwelt, Delite

Manure & Fertilizer:- At the end of winter Ammonium Sulphate, Single Superphosphate and Pottasium Sulphate, should add in the soil in the ratio of 1:3:2 and 250 gram mixture of these fertilizer per plant. For potted plant FYM and other fertilizer mixture should be added during rainy season in the form of small-small quantity.

Training & Pruning:- Specially training and pruning is required for potted plants. To retain 22-40cm. long and 4-5 branches and the rest should be cut.

Propagation:- The propagation is done through cutting and the cutting of bougainvillea 12-15 cm. long should be treated with 2000 PPM, IBA solution for 10 seconds and should be planted in the 2nd week of February in polythene bags, pots or beds. These cutting developed roots within 30-35 days.