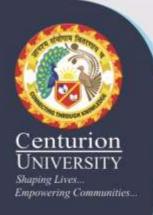


Center for Smart Agriculture Protected floriculture



Module 3: Production technologies followed for Protected cultivation of different flowers Session 21: Protected cultivation of gladiolus



INTRODUCTION

Common name: Gladiolus, Sword Lily

Other name: queen of bulbous flowers

Family: Iridaceae



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Large flowered Hybrids

 Strong and erect flower spike grows with the height of 120 to 150 cm and florets of 10 to 15 cm

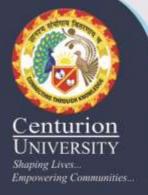
Primulunus

Types

• Small flowers with funnelshaped are grows in mid-season with a height of 100 cm and florets of 5 to 10 cm

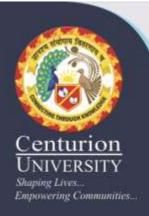
Miniatures

This is an early types of flowers and good for cutting with spike height is 60 to 100 cm and florets of 5 to 7.5 cm



Soil & climate

- A fertile, sandy-loam soil enriched with organic manure is perfect for growing this crop and soil pH should be under neutral to slightly acidic in nature.
- prefers sunny conditions
- requires at least 80 % of total sunlight for proper growth and flowering.
- Gladioli likes cold weather with 15 to 25°C in day and 5 to 10°C in night.
- The flowers are affected by dry air and high temperature.



Bed preparation

Spacing: 25-30 cm X 15 cm





Methods of Propagation

Crom and cornel

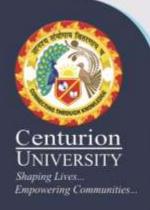
The corm should be 4-5 cm diameter and about 50-60





Crom Treatment

- Gibberellic acid for braking the dormancy.
- *Tricoderma viride* @8 g/liter water
- Dithen M-45 @2.5 g/liter or Bavistin @0.5 g/liter



Sowing

15th August to 15th December is the main sowing time in Indian plains.

- Gladiolus can be sown with the interval of 15 days form first sowing for getting contineous flowers from plant.
- Gladiolus corm or cormels are soaked with water for one night before 2 to 3 weeks of sowing time.
- Then it placed in a dark shade place & cover with gunny bags for good and quick sprouting.



Irrigation

Flood method: Flood irrigation should be done 3 to 4 days before sowing the gladioli corm.

Furrow method: irrigation can be given two times in a week and during winter season irrigation can be given once in a week.

Drip method: Drip irrigation method is an appropriate solution of irrigation system under poly mulching conditions.

Irrigation should be reduced 4-7 days before harvest of flowers.



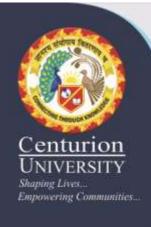
Harvesting & yield

The flowers can be harvested from 60-120 days after sowing of corm.

- The spikes can be picked while still in tight bud stage.
- Lift the corms when leaves turn yellow and start drying after picking of the gladiolus flower.
- Snap off the old corm and new corms are stored in a dry and frost free place.

Yield

• 130000-187000 spikes/hectare



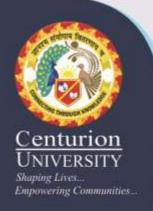
Post-Harvest Handling

Flowers:

The cut spikes of gladiolus should be immediately put

in water upto 30 cm depth for one hour.

Grades	Stem length	Number of flowers
Fancy	> 107 cm	16
Special	> 96 cm upto 107 cm	15
Standard	> 81 cm upto 96 cm	12
Ultility	< 81 cm	10



To prolong the life of the gladiolus flower, cut 1.5 cm of the spike from the base and put again under fresh water on alternate days.

Corms:

- After harvesting, the corms are cleaned and it can be store in cold storage at 4 to 10 degree Celsius temperature and will takes nearly one and half to two months after flowering for the corms to attain maturity and planting out again.
- The corms may be stored after treating them with fungicides.



Thank you