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CULTURE AND CARE
IN
NORTH DAKOTA

prepared by
Harry A, Graves
Extension Service Horticulturist
Don G, Hoag
Assistant in Horticulture
Experiment Station

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NORTH DAKOTA AGRICULTURAL COLLEGE

Gladiolus.

Culture and Care in North Dakota

Modern breeders have improved the gladioli so that today's gardener has a wide choice of types. Glads are available in giant, medium and miniature types. Although the larger types are the most popular, the miniatures have won favor in recent years. Ruffled kinds are almost standard today. More recent introductions include ragged petalled types and double glads. These are novelty varieties, however, and quite expensive.

SOILS AND SITES

Any good garden soil is suitable for growing gladiolus. Glads like a well drained soil. Though they are not left in the ground over winter, it is important that they be planted where water does not stand during early spring. Glads like sun. Keep them away from vegetation that may cast shade or compete for soil moisture.

Locate glads so they have wind protection. Changing the planting location every other year will reduce chances of disease. Proper treating or dipping of "bulbs" is more important in controlling diseases than any rotation system.

Remember, the more fertile the soil, the better the blooms.

PLANTING

May 1 is the average planting date for glads in North Dakota. A good practice is to make several plantings from Apr. 15 to June 1. Seasonal variations will determine your actual planting dates.

Gladioli corms, or "bulbs" as they are commonly but incorrectly called, should be set 3 to 6 inches deep, depending on their size. The larger the corm, the deeper it should be set.

Leave 28 to 36 inches between rows and set corms 6 inches apart in the row. You may set small corms as close as 3 inches apart.

STAKING AND CULTIVATION

The better modern varieties of glads are self-supporting and do not need stakes.

Cultivate the planting often enough to control weeds and keep the soil in good physical condition. After the plants are well up, shallow cultivation is necessary to avoid damaging the fine feeding roots near the surface.

WHEN TO CUT BLOOMS

For home use, cut blooms when the lowest floret is fully open. This way the cut blooms will look their best for the longest time possible. A sharp-pointed, narrow blade knife is handy for cutting gladiolus blooms.

No more than two leaves should be removed with the spike. Stab the stem to weaken it, then break it off. This avoids destroying leaves.

HARVESTING THE CORMS

When the corms are mature, the leaves begin to turn brown. In most of North Dakota, this usually occurs during the first two weeks in October. The proper stage of browning is difficult to describe. Some of these rules must be supplemented by experience.

In most gardens, a spading fork can be used to loosen corms in the soil. After loosening, pull and pile them carefully. Cut tops as closely as possible. Burn old tops at once for sanitary reasons.

Place topped corms in mesh or burlap bags and store at 70 degrees or above. Curing at this temperature takes about a month. Before storing, remove the old bulb and the roots. Save the bulblets if you wish to carry them on.

Store cured corms in paper bags. Write the variety name on each bag. Leave the bag open to permit circulation of air, and store in a good root cellar. Forty degrees F. is the best storage temperature.

INSECTS AND DISEASES

The most serious pest attacking gladiolus is the gladiolus thrip. This is a very small insect. It is orange colored in the young stage and blackish in the adult stage. Thrips are not over 1/16 inch in length and are seldom seen until their damage becomes conspicuous. Their feeding activities produce a white or silvery streaking condition on the foliage and bud sheaths. These injured areas later turn brown and dry out. Infested flower buds fail to open properly and show streaked discolorations.

CONTROL WITH DDT

On growing plants, thrip infestations can be controlled with DDT dusts or sprays. Start treatments when plants are about 6 inches high and repeat at weekly intervals until the flower spikes appear. Use 5 percent DDT dust, or a spray made with 4 tablespoonsful of 50 percent DDT wettable powder in 1 gallon of watter. During application, agitate the spray to keep it thoroughly mixed.

CONTROL ON CORMS IN STORAGE

Thrips continue to feed on the corms in warm storage, causing corkylike spots on the surface. This injury can be avoided and the infestation eliminated by treating with DDT dust.

When the corms are dry and ready for storage, treat with 5 percent DDT dust at the rate of 1 tablespoonful per 100 corms. Place the corms and DDT in a container and shake thoroughly to spread a thin film of dust over each corm. Store in the usual manner. Allow the DDT to remain on the corms all winter.

CORM DISEASE CONTROL

Several bacterial and fungus diseases attack gladiolus plants, causing leaf spots, neck rots or root decay. Control measures include preplanting chemical treatment, plus the use of new ground each season.

Use Arasan, a seed disinfectant available at most seed stores, for treating. Dust corms with Arasan at the rate of 1 tablespoon per 100 corms, using the method described for DDT. Arasan and DDT may be applied in the same operation. Spergon or Captan may be used instead of Arasan.

VARIETIES

Mother Fischer, Florence Nightingale - white; Columbia, Leif Erickson - cream; Spotlight, Gold - yellow; Spic and Span - salmon-pink; Friendship - light pink; Burma, Edgewood - rose; Dieppe - scarlet; Red Charm, Royal Stewart, Harrisburger - red; Ace of Spades, Dark David - black-red; Purple Burma, King David - purple; Admiral - violet.

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