

*N. Dak. 3.4*

UNIVERSITY OF HAWAII  
LIBRARY

# GLADIOLUS

**CULTURE  
and  
CARE  
in  
North Dakota**

EXTENSION SERVICE

NORTH DAKOTA AGRICULTURAL COLLEGE AND U. S. DEPARTMENT OF  
AGRICULTURE COOPERATING

E. J. Haslerud, Director, Fargo, North Dakota

Distributed in furtherance of Acts of Congress of May 8 and June 30,

## VARIETIES

Hundreds of varieties have been named. Here are a dozen that may not be the best but are good enough for a start: SNOW PRINCESS - white, midseason; MAID OF ORLEANS - white, early, midseason; BEACON - pink, late, midseason; PEGGY LOU - pink, early, midseason; PICARDY - pink, late, midseason; SMILING MAESTRO - salmon rose, midseason; HINDENBURG'S MEMORY - red, late; CHIEF MULTNOMAH - smoky, late; RECADO - smoky, late; VAGABOND PRINCE "any other color", late; GOLD DUST - yellow, early, midseason; BLUE BEAUTY - blue , midseason.

## SOILS AND SITES

Any good garden soil is suitable for growing gladiolus. The more fertile the soil, the better the flowers will be.

Even though gladioli are not left in the ground over winter, it is important that they be planted where water does not stand during the early spring. Glads like well-drained soil. They like full sun. Keep them away from trees or shrubs that might shade them or compete for soil moisture.

Locate your glads where they have protection from strong winds. Changing the location of the planting every other year will reduce the possibility of disease infection. Proper treating or dipping of the bulbs, however, is more important in controlling diseases of glads than any system of rotation could be.

## PLANTING

May 1 is a good average date to plant glads in North Dakota. Better still, make several plantings April 15 to June 1. The gardener must be governed by variations in the season.

Plant 28 to 36 inches between rows and set corms 6 inches apart in the row. Small "bulbs" may be set as close as 3 inches in the row.

Glad corms, or "bulbs" as they are commonly but wrongly known, should be set from 3 to 6 inches deep, depending on the size of corm. The larger the corm, the deeper it should be set.

## CULTIVATION

Cultivate the planting often enough to control weeds and keep the soil in good physical condition. Shallow cultivation is necessary after the plants are well up in order to avoid cutting off the fine feeding roots which are near the surface.



## STAKING

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

## WHEN TO CUT BLOOMS

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

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

## HARVESTING THE CORMS

When glad corms are mature, the leaves begin to turn brown. This will probably occur during the first two weeks in October in most of North Dakota. The proper stage of browning is difficult to describe. Some of these rules will have to be supplemented by experience.

A spading fork can be used to loosen the corms in most gardens. After corms have been loosened, pull them carefully and pile. Cut tops as close to bulb as possible. Burn the old tops at once for sanitary reasons.

After the corms are topped, put in mesh or burlap bags and store at 70 degrees or above for curing. Cure them at this temperature for about a month. Remove the old bulb and the roots before storing. Save the bulblets if you wish to carry them on.

Store the cured corms in paper bags and write the name of the variety on each bag. Leave the top of the bag open to permit circulation of air. Store in any good root cellar. Forty degrees F. is the most desirable temperature.

## INSECTS AND DISEASES

The most serious pest attacking gladiolus is the Gladiolus thrip. It is a very small insect, 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 injury becomes conspicuous. Their feeding activities produce a white or silvery streaking condition on the foliage and bud sheaths. These injured areas



GLADIOLUS THRIP  
Greatly Enlarged

later turn brown and dry out. Infested flower buds fail to open properly and show streaked discoloration.

### 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 show. Use 5 percent DDT dust, or a spray made with 4 tablespoonsful of 50 percent DDT wettable powder in 1 gallon of water. Keep the spray thoroughly mixed by agitation while it is being put on.

### CONTROL ON CORMS IN STORAGE

Thrips continue to feed on the corms in warm storage, causing corky-like spots over 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 4 tablespoonsful per bushel of corms. Place the corms and DDT in a paper bag or other container and shake them together thoroughly so as to get a thin film of dust over each corm. Then store in the regular manner, allowing the DDT to remain on them all winter.

### CORM DISEASE CONTROL

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

For treating, use mercury bichloride at 1 to 1000 dilution, which is 1 ounce to 7-1/2 gallons of water. Soak the corms in this solution for at least 5 hours before planting.

REMEMBER, MERCURY BICHLORIDE IS POISONOUS, AND COMPLETE PRECAUTIONS ARE NECESSARY. Use only wooden or crockery containers with this solution.

---

Prepared by Harry A. Graves, Horticulturist in cooperation with F. Gray Butcher, former Extension Service Entomologist.

NOTE: George E. Millen, gladiolus grower of Sheyenne, North Dakota, aided in providing information for this circular.