

Growing Gladiolus

The gladiolus is an easy-to-grow flower, especially valued for use in floral arrangements and as a fresh cut flower. Gladioli produce tall spikes of large blossoms, in a rainbow of colours. Only black is missing. White, pink, red, purple, yellow, orange, salmon, and even green gladioli are available along with many bi-colours.

Glads grow from corms (bulb-like structures) that are not winter hardy in Canada. They must be dug in September and stored until planting time the following May, or replaced annually. Some gladiolus experts recommend treating them as annuals because you are more likely to get large healthy flowers each year that way and you don't have to fuss with sorting them. It also ensures a healthy planting stock.

Planting Layout

If you are growing glads primarily for cut flowers, you may want to plant them in rows, as you would vegetables. It is easier to prepare the area and tend the plants if they are planted in neat rows.

Glads can also be used to provide colour in annual beds and borders, though they are stiff and a bit awkward to work with. They do however create interest even after the bloom is spent and removed as a grass-

like or yucca type foliage plant. Plant the gladioli in groups of seven or more corms of the same variety for best effect.

Site

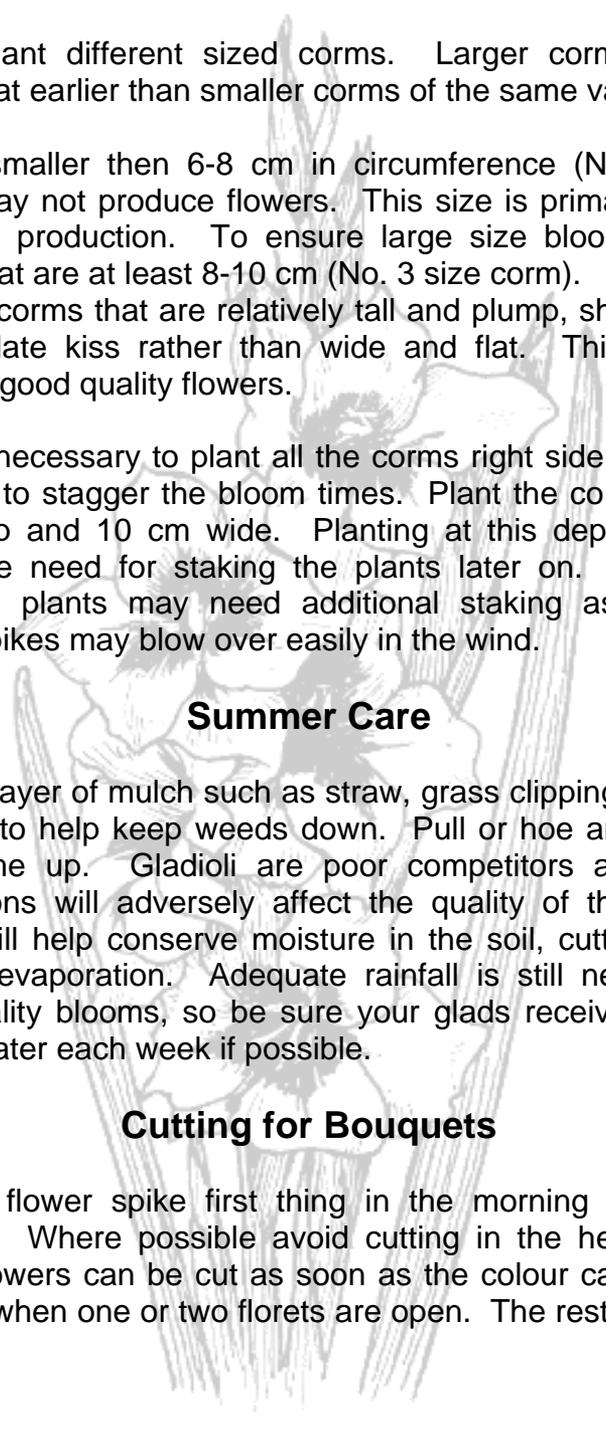
Choose a location in full sunlight. Planting in full sun results in larger and brighter blooms and stalks will be sturdier than in partial shade. The glads will also be able to store more energy in the following year's bloom, which is critical if you plan to reuse your corms.

Well-drained soil is essential for successful gladiolus growing. If your soil is too heavy or tends to be wet, create raised beds for your glads as you would most other annuals, perennials, and bulbs. Whether you garden in raised beds or in rows, work the soil to a depth of 25-30 cm (10-12").

Fertilize as necessary according to recommendations based on a soil test. The cost of obtaining correct analysis specific to your planting area is minimal and will provide you with the nutrient requirements for optimal soil fertility needed for good plant growth. Without a soil sample a general balanced pre-plant fertilizer recommendation would be 56 kg per hectare (50 lbs per acre) each of nitrogen and phosphorus and 115 kg per hectare (100 lbs per acre) of potassium.

Planting

Start planting in early May, then again every two weeks through mid June. This schedule will keep the flowers coming from Mid July through August. You could also choose early, mid, and late season flowering varieties, plant them all in May and still enjoy continuous bloom for much of the summer. The final strategy to extend bloom time would



be to plant different sized corms. Larger corms bloom somewhat earlier than smaller corms of the same variety.

Corms smaller than 6-8 cm in circumference (No. 4 size corm) may not produce flowers. This size is primarily used for corm production. To ensure large size blooms, plant corms that are at least 8-10 cm (No. 3 size corm).

Choose corms that are relatively tall and plump, shaped like a chocolate kiss rather than wide and flat. Thick corms produce good quality flowers.

It is not necessary to plant all the corms right side up. This will help to stagger the bloom times. Plant the corm 10 cm (4") deep and 10 cm wide. Planting at this depth should avoid the need for staking the plants later on. In windy locations plants may need additional staking as the tall flower spikes may blow over easily in the wind.

Summer Care

Apply a layer of mulch such as straw, grass clippings or pine needles to help keep weeds down. Pull or hoe any weeds that come up. Gladioli are poor competitors and weed infestations will adversely affect the quality of the flower. Mulch will help conserve moisture in the soil, cutting down surface evaporation. Adequate rainfall is still needed for best quality blooms, so be sure your glads receive 2.5 cm (1") of water each week if possible.

Cutting for Bouquets

Cut the flower spike first thing in the morning or in the evening. Where possible avoid cutting in the heat of the day. Flowers can be cut as soon as the colour can be first seen or when one or two florets are open. The rest will open

in order up the spike. Allow at least four leaves to remain on the plant if you wish to reuse the corm.

Cut diagonally through the stock and place in water immediately. Once you have collected all the glads you want cut, place them in a cooler or cool location for a few hours so the blooms “harden off”. Flowers should always be stored upright. An old refrigerator with its shelving removed is an inexpensive way to store glads. They can be kept in water or even dry if a longer cold storage period is necessary.

Use floral preservative in the vase water before arranging the glads. As lower flowers fade, nip them off. Cut about an inch of the stem off the bottom of each spike every few days.

Storage

Dig gladiolus corms once the foliage has been killed by frost. Shake off excess soil and sort the corms by variety. Cut the stem off just above each corm. “Cure” corms for about three weeks in a warm, dry, airy place. At this point, the corms you planted in the spring will easily break off the bottoms of the new corms that developed over the summer growing season. Discard the old, spent corms and save the new ones. Leave their husks intact. Discard any corms that appear diseased or insect infested.

Place the new corms in paper bags, cloth sacks, or nylon pantyhose legs. Store them in a well-ventilated place that’s dark, dry, and cool. Storage temperature should range from 2°C to 7°C (35°F–45°F), the cooler the better, as long as they will not freeze.

When you dig the corms, you’ll notice a number of miniature corms attached to the main one. These are called cormels.

They should be able to bloom in two or three years if you save them and replant them each spring. Save the largest ones, at least half inch in diameter. Plan to plant them about 1.5 to 2 inches deep.

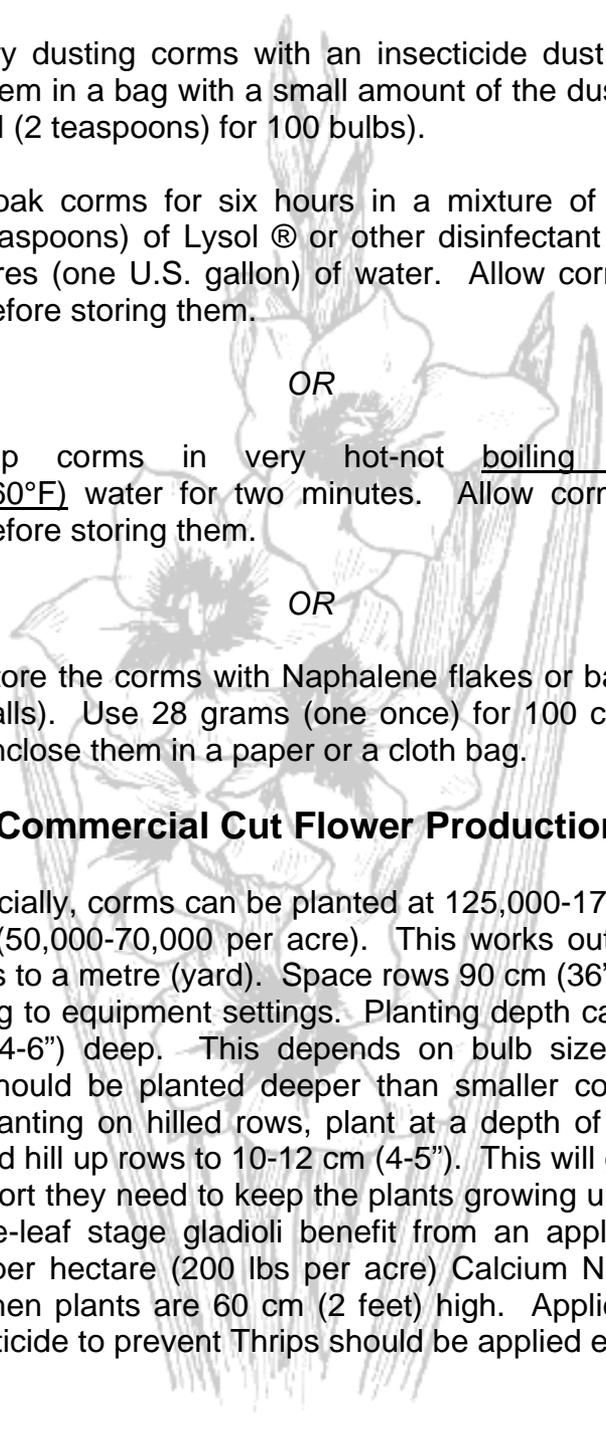
Pests

Glads are susceptible to a number of diseases and are prey to insects as well. To minimize the chance of disease or insect problems, always start with sound corms. Toss any that look odd or feel soft or crumbly. Practice “crop rotation” if possible, planting glads in different locations from one year to the next. If the plants are yellow or stunted assume the worst virus infection, for which there is no cure and destroy them.

If the leaves appear streaky, if the flowers fail to open or are misshapen, streaked and discoloured, the problem is likely caused by Thrips. Thrips are tiny insects that use rasping mouthparts to feed on foliage and flowers, often when the flower is still in the bud. Damage from Thrips can result in complete crop failure. It is recommended to begin spraying for this insect at the two to three leaf-stage using an insecticide registered on the label for their control. Repeat applications as directed. Your local garden centre or chemical supplier can help you with insecticide select

Thrips can over-winter in corms once they are harvested. The best way to control them is to treat the corms as they go into storage. There are several methods you can try, including keeping the corms cool enough. At temperatures between 2°C and 4°C (35°F–40°F), Thrips will not survive.

OR

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- Try dusting corms with an insecticide dust. Shaking them in a bag with a small amount of the dust (just 10 ml (2 teaspoons) for 100 bulbs).
 - Soak corms for six hours in a mixture of 40 ml (4 teaspoons) of Lysol ® or other disinfectant and 3.79 litres (one U.S. gallon) of water. Allow corms to dry before storing them.

OR

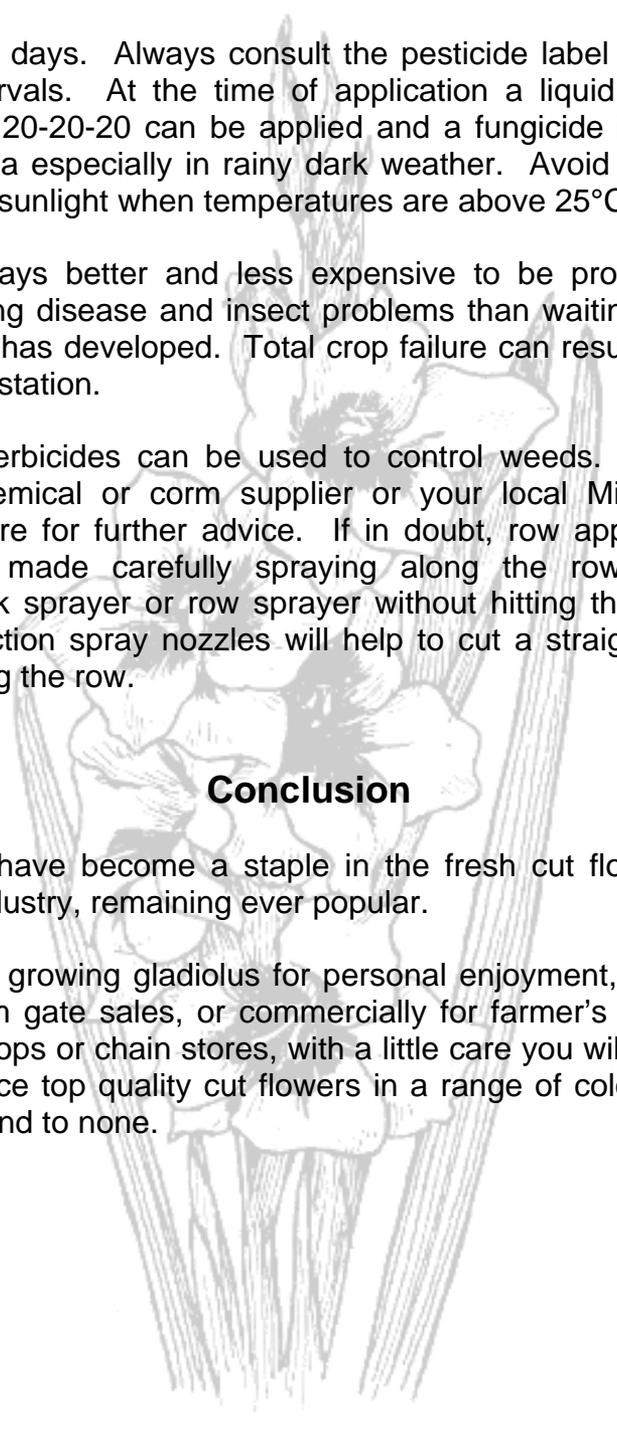
- Dip corms in very hot-hot boiling (70° C-160°F) water for two minutes. Allow corms to dry before storing them.

OR

- Store the corms with Naphalene flakes or balls (moth balls). Use 28 grams (one ounce) for 100 corms and enclose them in a paper or a cloth bag.

Commercial Cut Flower Production

Commercially, corms can be planted at 125,000-175,000 per hectare (50,000-70,000 per acre). This works out to 12 or 13 corms to a metre (yard). Space rows 90 cm (36") apart or according to equipment settings. Planting depth can be 10–15 cm (4-6") deep. This depends on bulb size. Larger corms should be planted deeper than smaller corm sizes. When planting on hilled rows, plant at a depth of 2.5-5 cm (1-2") and hill up rows to 10-12 cm (4-5"). This will give them the support they need to keep the plants growing upright. At the three-leaf stage gladioli benefit from an application of 227 kg per hectare (200 lbs per acre) Calcium Nitrate and again when plants are 60 cm (2 feet) high. Applications of an insecticide to prevent Thrips should be applied every



10 to 14 days. Always consult the pesticide label for rates and intervals. At the time of application a liquid fertilizer such as 20-20-20 can be applied and a fungicide is also a good idea especially in rainy dark weather. Avoid spraying in bright sunlight when temperatures are above 25°C (76°F).

It is always better and less expensive to be proactive in preventing disease and insect problems than waiting until a problem has developed. Total crop failure can result from a thrip infestation.

Some herbicides can be used to control weeds. Consult your chemical or corm supplier or your local Ministry of Agriculture for further advice. If in doubt, row applications can be made carefully spraying along the row with a backpack sprayer or row sprayer without hitting the plants. Air induction spray nozzles will help to cut a straight spray line along the row.

Conclusion

Gladioli have become a staple in the fresh cut flower and florist industry, remaining ever popular.

Whether growing gladiolus for personal enjoyment, for road side farm gate sales, or commercially for farmer's markets, florist shops or chain stores, with a little care you will be able to produce top quality cut flowers in a range of colours that are second to none.

Disclaimer

This is a brief guideline about growing gladiolus. They are recommendations only and the authors cannot be held liable for the information printed here. Please contact your corm supplier, chemical supplier or your local Ministry of Agriculture for further advice on recommendations specific to your growing area.





L.M. Bolle & Sons

813083 Base Line, Norwich, ON N0J 1P0

TEL: 519-468-2090 FAX: 519-468-2099

E: Imbolle@execulink.com