



Toronto Master Gardeners
Toronto Master Gardeners are trained volunteers dedicated to providing horticultural information to the public.

For answers to horticultural questions contact the Toronto Master Gardeners' Info Line at the Toronto Botanical Garden (416) 397-1345 (Mon. to Fri. 10 a.m. to 1 p.m. and Sat., Sun. and Holidays noon to 3 p.m.) or our website, www.questions.torontomastergardeners.ca.

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Toronto Botanical Garden
Toronto Botanical Garden is a volunteer-based, charitable organization whose purpose is to inspire passion, respect and understanding of gardening, horticulture, the natural landscape and a healthy environment.

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TULIPS

Growing Tulips

A tulip is a true bulb. A true bulb is a structure containing a modified stem in the form of a basal plate, scales or rings, a shoot and a protective tunic. In short, it is a miniature plant containing all the necessary food to protect it during winter dormancy and to support flower production in the spring.

Originating in Asia Minor (Persia and Turkey), tulips were introduced to Europe in the 16th century and have been grown there ever since. Cultivated varieties, referred to as 'Dutch tulips,' originated in the Netherlands.

The name tulip comes from the Turkish word for gauze or muslin, *tülband* (from the Persian *dulband*), with which turbans were wrapped. The name was given by the Europeans, reflecting on the turban-like appearance of the flower.

Getting to Know Tulips

Modern tulip divisions were established in 1917 and revised in 1996. These divisions group tulips more by shape and bloom time rather than by strict botanical or genetic distinctions (Source: The Amsterdam Tulip Museum, Netherlands). Accordingly, there are 15 divisions:

- Single Early Tulips
- Double Early Tulips
- Triumph Tulips (mid-season)
- Darwin Hybrid Tulips
- Single Late Tulips
- Lily-Flowered Tulips
- Fringed Tulips
- Viridiflora Tulips
- Rembrandt Tulips
- Parrot Tulips
- Double Late Tulips
- Kaufmanniana Tulips
- Fosteriana Tulips
- Greigii Tulips
- Species Tulips (also appear as mini-botanical tulips)

Catalogs also list Multiflowering tulips. These do not have a class on their own as they are hybrids derived from some of the above classes with the particular characteristic of having 3-7 flowers per bulb.

Planting and Cultivation

Planting bulbs in the fall is an exciting and easy activity that reaps rewards each spring. Tulips are very easy to plant and cultivate. In order to guaranty success, you just need to follow a few basic principles:

Selection: As a rule of thumb, in the world of tulips, you get in quality what you pay for in price. If ordering from a catalogue, ensure that the provider is a well-established and reliable supplier. If purchasing in person, chose firm bulbs, free of mold, blemishes and soft spots. They should not feel too light or dried up.

Timing: In Toronto, you can plant tulips from mid-September until just before the ground freezes, generally the end of November. If you can- not plant them right away, store them in a cool, dark place in a paper bag. Do not store them in a plastic bag as they need to breathe.

Location: Plant tulips in well-drained, sunny area. Tulips adapt to many types of soils as long as they have good drainage. If your soil is too sandy or heavy clay, amend the soil by adding organic matter such as compost. This will improve the soil structure and add porosity.

Planting: Tulips are generally planted at a depth three times their diameter. This depth will protect the bulb from frost, dryness and animals. They should also be planted 8 centimeters (3 inches) apart. Tulips create a more impressive effect when they are planted in groups of 5-10 bulbs. When planting, add a handful of bone meal at the bottom of the hole and place the bulb with the point up and the flat base down. Cover with soil, eliminating any air pockets, water well and add some blood meal on the soil surface to discourage squirrels. Mulching is sometimes suggested in our climate to prevent the damage caused by alternate ground freezing and thawing.

Blooming Season

Native to the northern temperate zone, tulips require a period of cool dormancy during the winter months. The blooming season in southern Ontario begins about the end of April into the beginning of June, depending on the type of tulip and where it has been planted.

In order to extend the blooming period, plant several varieties of tulips in one area. For example, plant early, mid and late season tulips together. Alternatively, if planting a variety of spring bulbs in a bed, you can layer them according to bloom time. Plant the bulbs that bloom last at the deepest level, with the earlier ones on top. This is referred as the 'Lasagna Method'.

Care and Maintenance

In the spring, once the flowering period ends, cut the developing seed heads below the bloom, however leave as much of the flowering stem on the plant as possible. This allows energy to be channeled back into the bulb instead of into seed production. The leaves are also important in the production and storage of energy for the bulb's next year bloom. Therefore, leave the foliage on the plant until it turns yellow (approximately 6 weeks). Fertilize the bulbs soon after flowering with compost or 20-20-20 fertilizer.

Diseases and Pests

In general, tulips are very disease resistant. They can, however, be prone to a few fungal infections and pests:

Tulip Fire is caused by the *Botrytis tulipae* fungi. It affects stems and leaves of plants which become deformed and stunted. Later they will display brown patches. If this occurs bulbs should be dug up and destroyed.

Tulip Grey bulb rot caused by the fungus *Rhizoctonia tuliparum* will dry the planted bulb and produce distorted shoots that will wither and die. Dig up the affected bulb and destroy it.

Squirrels seem to be very attracted to tulips. If possible, cover the planted area with chicken wire. Tulips will grow through it in the spring. Also, make sure you do not leave any of the papery tunics on the ground, as they attract squirrels and encourage them to dig. Sprinkling blood meal on the surface of the planting area is another deterrent. Lastly, planting species tulips or interspersing tulips with daffodils or fritillarias, may also discourage squirrels.

References

<http://www.amsterdamtulipmuseum.com/index.php5?mode=timeline>

Horton, Alvin; McNair, James. *All About Bulbs*. San Ramon, CA.: Ortho Books, 1986.

The City of Toronto adopted a new municipal by-law (spring 2009) that restricts the use of pesticides. For details about the by-law visit the Pesticide by-law page on Toronto Public Health's Web site at www.city.toronto.on.ca/pesticides or www.toronto.ca/health. Questions may be e-mailed to pesticide@toronto.ca.

The Weston Family Library at the Toronto Botanical Garden is an excellent source of information on all aspects of horticulture. The book and periodical catalogue can be accessed from the website: <http://www.torontobotanicalgarden.ca/library/search.htm>

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