



TULIP: A Brief History

by David Trinklein



Perhaps no other flower is as closely associated with a country as the tulip is with the Netherlands. This is understandable, since the tulip is an important part of the economy of this low-lying country located just off the North Sea. Each year, the Netherlands produce over three billion tulip bulbs for export and domestic use. The United States remains the top importer of tulips and receives one billion of them annually from the Dutch. In spite of its close association with the Netherlands, the tulip is not native to that country and has an interesting history.

The word “tulip” is thought to be a corruption of the Persian word *toliban*, or *turban*—the headgear worn by certain Mid-Eastern people. Tulip probably is native to the Tien-Shan and Pamir Alai Mountain Ranges of central Asia near the modern day city of Islamabad, close to the border of Russia and China. From this region tulips spread to the east, west and northwest and were widely grown in the Ottoman (Turkish) Empire by the year 1000 A.D.

A noted botanist by the name of Carolus Clusius is credited with having planted the first tulips in the Netherlands in the year 1593. Clusius was very stingy with his tulips and saw their value only in scientific terms; he refused to give bulbs away or even sell them. Evidently, a group of frustrated would-be buyers paid an *(continued on pg. 2)*

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Tulips, continued.

unannounced visit to Clusius' garden one day and stole a part of his collection. Thus began the Dutch tulip industry.

Tulips became highly sought after in the Netherlands because of their beauty and rarity. Tulip bulbs commanded fantastic prices and only the wealthy could afford them. They quickly became a status symbol and wealthy Dutch and European aristocrats paid huge sums for them. One early 17th century bill of sale recorded the following transaction for a single bulb: "two loads of wheat; four loads of rye; four fat oxen; five swine; twelve sheep; two hogsheads of wine; four barrels of beer; two barrels of butter; 1,000 pounds of cheese; a bed with linens; a suit of clothes; a silver tankard and a sizeable wagon to haul it all away".

What followed was a period of speculation called "tulipmania". Tulip values raised on a daily basis and were quoted like stocks are today. Speculation in tulips ran wild as people purchased bulbs for outrageous sums with the hope of selling them for even more. As a result, many individuals suddenly became wealthy, fanning the flames of speculation even more.

In 1637 the bubble burst and tulip trading crashed. Clearly, the price of tulips had elevated to many, many times their actual value, like an over-valued stock today. Some prudent speculators decided to sell their bulbs and reap the profit, causing prices to start to fall. Tulip prices fell rapidly as everyone tried to sell their tulips for fear of losing even more money and, before long, panic and pandemonium set in. Attempts by the Dutch government to moderate the crash failed and people wealthy because of their tulip holdings one day became paupers the next. Tulipmania is still used today as a classic example of what can happen when speculation goes bad.

Fortunately, one does not have to be aristocratic or wealthy today to enjoy this colorful harbinger of spring which comes in a variety of types and colors. October is an ideal time to plant them for a colorful spring next year. Tulip cultivars usually are categorized into one of 23 different groups depending upon flower morphology. The following is a brief description of some of the more popular groups:

Darwin. This popular late-flowering group bears large oval or egg-shaped flowers usually square at the base with rounded flower segments. Darwins come in a variety of clear, beautiful colors and are borne on graceful, stately plants with straight stems to a height of nearly 30 inches.

Darwin hybrids. This exquisite group of tulips is known for its huge, brilliant flowers borne on stout, two-foot stems. Bloom time varies according to the parentage of the hybrid giving this group an extended bloom period. Flower shape is much like the Darwins.

Triumph. These are tulips derived from crosses between single-flowered early types and late flowering kinds. They bloom earlier than the Darwins and have shorter, heavier stems.

Lily-flowered. This group possesses graceful, lily-shaped blooms with long, pointed flower segments. They combine beautifully with other plants and have a bloom period about the same of that of the Darwin hybrids.

Cottage. This exquisite group can be traced back in parentage to older varieties growing in European countries other than the Netherlands. Their flowers are long, oval or egg-shaped and often have pointed flower segments. They are about the same size and height as the Darwins.

Rembrandt. The flowers of this group closely resemble the Darwins with the exception of the color breaks (streaking) in the flower segments. Now genetic in origin, the first Rembrandts were thought to be streaked because of virus infestation.

Parrot. This group of tulips exhibits the most novel flower form of any of the tulips. Individual blooms are large, long, deeply fringed and ruffled; they also often are striped, feathered and flamed in various colors. Bloom time typically is late.

Double. Sometimes referred to as peony-flowered, this group has large double flowers that bloom late in the season. Individual blooms often measure four inches across and are borne on 6 to 12 inch stems. The group can be further sub-divided into early and late types.

October is an ideal time of the year to plant tulips in Missouri. Whatever the group or cultivar, tulips perform best when grown in full sun and tolerate a wide range of soils, as long as drainage is good. Before planting tulips, the soil should be spaded/tilled to a depth of about 12 inches and amended with organic matter. Bulbs are usually planted 2½ times as deep as they are wide and spaced between 4 and 8 inches apart, depending upon cultivar.

Tulip bulbs appear to be a favorite food of field mice, voles, gophers and other rodents, especially during winter months. To guard against damage some gardeners go to the trouble of planting each bulb in a small mesh cage fashioned from hardware cloth or welded wire.

Unfortunately, tulips do not thrive in hot climates and do not naturalize in Missouri as readily as some of the other spring bulbs (e.g. Narcissus). Therefore, tulips frequently are treated as annuals in our state. They are planted in beds for early spring color with the intent of replacing them with a summer annual for color the remainder of the growing season. Although tulip bulbs may be saved from year-to-year, they usually decline in vigor and bloom quality each year.

Brown Marmorated Stink Bugs in Homes

By Jaime Pinero. Co-authored by Richard Houseman

The Brown Marmorated Stink Bug (BMSB) is a significant agricultural pest of foreign origin. It was first discovered in Missouri in 2013. Since then they have been slowly spreading throughout the state, mostly in the eastern (including St. Louis area) and the southern regions. In addition to causing damage to many types of plants and fruit in the spring and summer, BMSB becomes a nuisance pest both indoors and out when it is attracted to the outside of houses on warm fall days in search of protected, overwintering sites.

High numbers of BMSB result from the release of an aggregation pheromone (a scent that attracts other BMSB to the area). The aggregation pheromone is not the same chemical that causes them to stink. During the winter months BMSB enters a type of hibernation called diapause. During this time they do not feed and do not reproduce. The BMSB is the only stink bug known to congregate inside houses and other buildings the fall.

Mechanical exclusion is the best method to keep BMSB from entering homes and buildings. This also applies to the Multicolored Asian lady beetles, another insect species that is known to congregate in and around homes and buildings in the fall. Placement of screens over windows, doors and vents, removal of window air conditioners and caulking cracks in windows and doorframes will deter the adults from entering. Removal of window air conditioners is important, as numerous BMSB will enter this way. Insecticide foggers or sprays are not recommended for eliminating BMSB indoors. Both live and dead BMSB can be removed from interior areas with the aid of a vacuum cleaner - however, the vacuum may acquire the smell of stink bugs for a period of time.

Virginia Tech researchers developed an easy method to trap BMSB inside homes: (1) place a foil roasting pan filled with some water and a few drops of dish soap, (2) point a light into the pan, and (3) place the pan in an area where BMSB is present. Bugs will be attracted to the light and will fall into the water and drown. Empty the pan and repeat as necessary. See this short video produced by Virginia Tech.

(the link is <https://vimeo.com/92354801>)



The adult BMSB is about 5/8 inch long, and marbled brown. It can be distinguished from other stink bugs of comparable size and color by the following characteristics: the antennae have two white bands, the legs are marbled brown with faint white bands; the membranous parts of the forewings have dark bands at the tip; and a banded abdominal edge is visible to the side of the wings.

Picture credit: Steven Valley, Oregon Department of Agriculture, Bugwood.org.

The Brown Marmorated Stink Bug is not harmful to people, houses, or pets. They do not bite, sting, suck blood, or spread diseases; and they do not eat or bore into wood structures. However, adults emit an offensive odor if disturbed or crushed.

NOVEMBER GARDENING CALENDAR

Category	Week				Activity
	1	2	3	4	
Ornamentals	x	x	x	x	Continue watering evergreens until the ground freezes. Soils must not be dry when winter arrives.
	x	x	x	x	Now is the ideal time to plant trees and shrubs. Before digging the hole, prepare the site by loosening the soil well beyond the drip line of each plant. Plant trees and shrubs at the depth they grew in the nursery and not deeper. Remove all wires, ropes and non-biodegradable materials from roots before back filling. Apply a 2-3 inch mulch layer, but stay several inches away from the trunk. Keep the soil moist, not wet, to the depth of the roots.
	x	x	x	x	Remove the spent flowers and foliage of perennials after they are damaged by frost.
	x	x	x		Newly planted broad-leaf evergreens such as azaleas, boxwood and hollies benefit from a burlap screen for winter wind protection. Set screen stakes in place before the ground freezes.
	x				Now is a good time to observe and choose nursery stock based on fall foliage interest.
	x				Plant tulips now.
			x	x	Mums can be cut back to within several inches of the ground once flowering ends. After the ground freezes, apply a 2 to 3 inch layer of loose mulch such as pine needles, straw or leaves.
			x	x	Mulch flower and bulb beds after the ground freezes, to prevent injury to plants from frost heaving.
			x	x	Roses should be winterized after a heavy frost. Place a 6 to 10-inch deep layer of mulch over each plant. Top soil works best. Prune sparingly, just enough to shorten overly long canes. Climbers should not be pruned at this time.
			x	x	Take steps to prevent garden pools from freezing solid in winter. Covering pools with an insulating material or floating a stock tank water heater in the pond will lessen the chance of ice damage.
Vegetables			x	x	Covering garden pools with bird netting will prevent leaves from fouling the water. Oxygen depletion from rotting organic matter can cause winter kill of pond fish.
	x	x	x	x	Fall tilling the vegetable garden exposes many insect pests to winter cold, reducing their numbers in next year's garden.
	x	x	x	x	Any unused, finished compost is best tilled under to improve garden soils.
	x	x	x	x	To prevent insects or diseases from overwintering in the garden, remove and compost all plant debris.
	x	x	x		Overcrowded or unproductive rhubarb plants can be divided now.
			x	x	Root crops such as carrots, radishes, turnips and Jerusalem artichokes store well outdoors in the ground. Just before the ground freezes, bury these crops under a deep layer of leaves or straw. Harvest as needed during winter by pulling back this protective mulch.

Gardening Calendar supplied by the staff of the William T. Kemper Center for Home Gardening located at the Missouri Botanical Garden in St. Louis, Missouri. (www.GardeningHelp.org)

NOVEMBER GARDENING CALENDAR

Category	Week				Activity
	1	2	3	4	
Fruits				x	For Thanksgiving, weave a holiday wreath of garlic, onions, chili peppers and herbs. It will make a gourmet gift for a lucky friend.
	x	x	x	x	Keep mulches pulled back several inches from the base of fruit trees to prevent bark injury from hungry mice and other rodents.
	x				Harvest pecans when they start to drop from trees. Shake nuts onto tarps laid on the ground.
	x				Fallen, spoiled or mummified fruits should be cleaned up from the garden and destroyed by burying.
			x	x	A dilute whitewash made from equal parts interior white latex paint and water applied to the southwest side of young fruit trees will prevent winter sun scald injury.
			x	x	Commercial tree guards or protective collars made of 18-inch high hardware cloth will prevent trunk injury to fruit trees from gnawing rabbits and rodents.
			x	x	Mulch strawberries for winter with straw. This should be done after several nights near 20 degrees, but before temperatures drop into the teens. Apply straw loosely, but thick enough to hide plants from view.
Miscellaenous	x	x	x	x	Now is a good time to collect soil samples to test for pH and nutritional levels.
	x	x	x	x	Roll up and store garden hoses on a warm, sunny day. It's hard to get a cold hose to coil into a tight loop.
	x	x	x	x	To prevent injury to turf grasses, keep leaves raked up off of the lawn.
	x	x	x	x	Continue mowing lawn grasses as long as they keep growing.
	x	x	x	x	A final fall application of fertilizer can be applied to bluegrass and fescue lawns now.
		x	x	x	Clean house gutters of leaves and fallen debris before cold wet weather sets in.
		x	x	x	Set up bird feeders. Birds appreciate a source of unfrozen drinking water during the winter.
		x	x	x	Be sure to shut off and drain any outdoor water pipes or irrigation systems that may freeze during cold weather.
			x	x	For cyclamen to bloom well indoors, they need cool temperatures in the 50-60 degree range, bright light, evenly moist soils, and regular fertilization.
			x	x	Reduce or eliminate fertilizing of houseplants until spring.