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G77-353 Garden Chrysanthemums

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Garden Chrysanthemums

Site selection, soil preparation, planting and care of chrysanthemums are covered here.

Dale T. Lindgren, Extension Horticulturist

Chrysanthemums (mums) are one of the most popular plants for late summer and fall flower gardens in Nebraska. Flower colors include white, yellow, orange, bronze, red, purple and pink. Mums can be classified by several methods, according to flower form and size and plant growth characteristics. Some of the terms used to describe mums are:

- *Incurved* petals of flower head tend to turn upward and inward.
- *Reflexed* petals of flower head turn outward and downward from the center of the flower.
- *Sprays* many flowers on a branched stem instead of having one large bloom to a stem.
- *Anemone-Centered* having a prominent center of disk florets which can be described as having a central "pincushion" effect.
- *Single* daisylike flowers, with a flat, central "eye."
- *Pompon* small, stiff, almost globular flowers.
- *Decorative* large showy flowers, petals incurved, incurving or reflexed.
- *Spoon* petals spoon shaped.
- *Spider* petals long and tubular with hooked ends.
- *Quill* petals straight, long and tubular.

Hundreds of cultivars (varieties) of garden mums are available to choose from, but, because of the various climatic and soil conditions, not all cultivars perform equally well in all locations. Plants tend to bloom earlier and generally are smaller in western than in eastern Nebraska. Visiting garden centers, parks and gardens in your vicinity will give you good information on cultivar selection.

Site Selection

Chrysanthemums generally grow well in any soil capable of producing a good crop of vegetables or turf. They grow in poorer soils if ample nutrients and organic matter are incorporated.

A single-type mum displays a daisy-like central eye. Its petals resemble quills--long, straight, and tubular. (34K JPG)



Mums require well-drained soils because of their relatively shallow root system. In poorly drained soils, soil-borne diseases may injure many plants during wet summer periods, while winter-killing is likely if water stands around crowns during occasional winter thaws. Depressions that might collect water should be leveled.

Winter-kill also can occur if unadapted varieties are grown or if plants desiccate (dry out) during the winter.

Mums develop best where they receive full sun all day. Plants grown in shade or semi-shady locations tend to grow taller (be leggy), have weaker stems and smaller flowers, and bloom later in the fall. Avoid planting in areas where there will be competition with trees for light and water.

Soil Preparation

Spading soil to a depth of eight to 12 inches before planting provides favorable conditions for chrysanthemum growth by improving soil aeration and reducing soil compaction. Adding organic materials such as well-rotted manure, leaf mold or peat moss improves the soil structure and the water holding capacity of the soil.



"Lord Hartington." A decorative mum suitable for cutting. (53K JPG)

It may be necessary to use inorganic (chemical) fertilizers when a particular soil is deficient in some element. Nitrogen is the element most likely to be deficient in Nebraska soils. Some soils may need additional phosphorus.

Plants can be fertilized four weeks after planting and again later in the season if they are not growing vigorously. Excessive fertilizer causes elongated leggy growth and fewer flowers.

Planting

Mums can be started from potted plants, cuttings or divisions. Potted plants and cuttings should be set out in the spring after all danger of killing frosts has passed.

Potted plants should be set with the upper surface of the ball of soil slightly below ground level. Rooted cuttings should be planted two to three inches deep. Most mums are commercially propagated from cuttings. Larger plants in various stages of development may be planted anytime from early spring to early fall. Plants should be spaced 15 to 24 inches apart.



A button mum with sprays of flowers on branched stems. (45K JPG)

Established plants can be divided in the spring when early growth has started and after the danger of a hard freeze is past. The field-grown clump, if left intact, is not desirable planting material because of its large size.

In dividing a plant, lift the clump out of the soil. The clump will be found to consist of one to many rhizomes or "suckers," each connected to the old plant by a fleshy stem. Select the best rooted, most vigorous "suckers" and cut them away from the rest of the clump. Replant the rooted "suckers" at the recommended spacing in newly prepared soil.

Some varieties grow well year after year without resetting. Others should be divided and reset every year to maintain vigor. On the average, resetting plants every other year is a good practice.

Culture

Newly set mum plants should be kept uniformly moist, not wet, during establishment. Do not let established plants suffer from lack of water, but over-watering also should be avoided. One good watering or rain per week, the equivalent of one inch of water, usually is adequate.

Shallow cultivation to keep weeds down and prevent soil baking is desirable. A light cultivation, at least every two weeks, is advisable. Deep cultivation close to the plants is not recommended, since considerable root and rhizome damage may occur.

"Stadium Queen." A decorative football mum benefits from "disbudding" to produce one large terminal flower. (23K JPG)



Pinching or removing the top 1/2 to one inch of terminal growth helps develop well-branched, strong-stemmed, vigorous chrysanthemum plants. Pinching also improves stem length and spray formation of the flowers, and encourages the development of uniform branches and plants.

Pinching should be started when plants are five to six inches high. When the new shoots that develop after pinching are four to five inches long, pinch again. Pinching after approximately June 20 can delay flowering.

Disbudding is a practice that produces one large terminal flower. One bud is allowed to mature on each stem, and others are pinched off. Disbudding works best on large standard and exhibition-type chrysanthemums.

Some chrysanthemums (such as those grown in shade and certain tall cultivars) need support to keep them from lodging, or falling over. Plants can be supported by driving a stake several inches from the plant and loosely tying the plant to the stake with soft twine or similar material.

Late flowering of mums may be caused by using an inappropriate cultivar, insufficient sunlight, excess fertilizer, too much or too little water and late pinching. Root competition from nearby trees, unusually hot weather in August, or insect and/or disease injury also may delay flowering.

Several methods are available to winterize non-hardy cultivars of mums.

- Plants can be dug in the fall and planted in a cold frame in a protected location. Mulch these plants with leaves or straw when temperatures drop below freezing, cover the cold frame with boards or plastic fill, and then cover the entire storage unit with six or more inches of mulch.
- Another method is to remove some rooted "suckers" (rhizomes) from around the base of the plant, place them in pots, and carry them through the winter as house plants. Pinch occasionally to maintain the shape.

Even the so called 'hardy' mums may not consistently over-winter in Nebraska. Loose mulches such as leaves, if applied properly, may increase winter survival. Plants should be mulched late in the fall and the mulch removed early in the spring. Mulches applied and used improperly can suffocate new rhizomes as they emerge.

Chrysanthemums usually have few insect problems. Aphids, leafhoppers, spider mites, grasshoppers and leafminers occasionally may injure plants. Correctly identify any insect before insecticides are applied. Small numbers of insects may not cause enough injury to warrant chemical control.

Mums generally are not susceptible to diseases if they are vigorous and well cared for. Proper cultural practices help prevent diseases.

Remove dead or diseased leaves, stem and flowers, plant in well-drained sunny locations, space plants properly and water in the morning or before nightfall so leaves dry before dark.

Stake tall plants to keep branches off the ground, plant disease-free stock, control aphids and leafhoppers which may transmit virus diseases, and avoid handling diseased plants. Resetting beds yearly or every other year also helps reduce diseases.

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