

The majestic mums of today have undergone many changes. First, their nomenclature is now botanically known as Dendranthema grandiflora. Next, their hardiness and blooming times have been greatly improved for North Dakota gardeners. They come through the winter with greater success and their flowering can often be enjoyed as much as two weeks sooner than in the past. To achieve this dependable blooming and winter hardiness, mums must be grown in a way that assures full sunlight, ample water, well-drained soil and proper fertilization.



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NDSII I IRRARIES

Mums offer a great diversity in plant habit, flower color, and form. This makes them excellent candidates for both landscaping and cut flower purposes. Many of the cultivars introduced over the past 10 to 25 years were selected for mounded form, called cushion mums. These are more compact and densely self-branching, and provide a great showing of flowers. In the autumn garden, these bright, fresh splashes of color are unrivaled. They may be used to advantage in landscape and foundation plantings, or in the garden. On public grounds, such as parks, mass plantings are very effective and showy.

Cultural Practices

Well rooted cuttings or vigorous divisions of overwintered clumps qualify as acceptable planting stock. Spring blooming mums from garden centers or florist shops that are typically popular around Mother's Day make poor selections for permanent garden plantings that will be productive in the fall.

Mums are best planted after Mother's Day in the southern half of North Dakota, and after Memorial Day in the rest of the state. Be sure the plants purchased have been hardened off and that you are prepared to offer protection should a hard frost be predicted. Overwintered plants that are showing vigor may be divided and moved in mid-May, while the weaker ones can be moved once vigorous growth is apparent, generally after the Memorial Day weekend.

Mums do well in most well-drained and fertile garden soils. If in doubt, add peat moss or compost. Work a little 5-10-5 fertilizer into the soil around each plant in May, followed by a good watering.

Spacing of mums is variable: 18-24 inches is the norm, under intense management, 12 inches is acceptable. Where supplemental water will be lacking, a wider spacing is suggested. An important factor in good growth is to locate them where they can receive most of the day's direct sunlight.

Mums are quite drought tolerant plants, often going through a growing season without supplemental watering. When it does become necessary to water during extended periods of rainless high temperatures (7 to 10 days), provide water through a soaker hose or a breaker that allows a slow trickle of water from the opening. Be sure the soil is saturated completely to a depth of 4 to 6 inches. Try to avoid watering via overhead sprinkler or hose. Getting water on foliage encourages disease problems.



The practice of pinching mums will produce sturdy, well-branched plants. The first pinch should be done when the plants are about 6 inches tall (generally late May or early June). Simply remove the soft tissue growth with the thumb nail and forefinger. The side branches or shoots that result are themselves pinched when they get about 6 inches in length. All pinching should be done before the Fourth of July, as some cultivars are forming flower buds around this time, and pinching later would only result in non-flowering plants.

The blooming period varies with the weather conditions of the season. Cool, rainy summers will result in a different time of bloom than one which is hot and dry. Landscape lighting near mum plantings could be the cause for a delay in blooming, since mums are known as "short day" plants. Moving them, or covering those particular mums at sunset will help to bring them into a more timely blooming period. Once the mum flowers have been blackened by late autumn frosts, the gardener can do one of two things: After the soil is hardened by a layer of frost, apply a light mulch (2 inches of straw) around the plant, leaving the top to help trap snow; or, the plants can be dug and stored in a cold frame over the winter. In spring (late April-early May) dig the plants that have remained in the ground and divide them into vigorous growing shoots for replanting.

spring division

Cultivar Selection

Cultivars of mums are numerous, with each year adding many new selections. NDSU has trialed many cultivars, and has introduced one, known as Dakota Sunburst, *Dendranthema grandiflora* 'Hildete'. It flowers early, with a generous profusion of deep, gold-colored blooms. The cultivars on the following page have been found to have merit from our trial observations.

Color	Blooming Season	Height: Flower Size	Color	Blooming Season	Height: Flower Size
White			Orange		
Daisy White	Mid Season	Medium; medium;	Compaigner	Early	Medium; medium
·		single	Superior	Early	Medium; medium
Drifted Snow	Early	Medium; medium	Sunny Glow	Early	Medium; small
Minnwhite	Mid-late	Low; small			
Morden Everest	Mid season	Low; medium	Red		
Poise	Early	Tall; medium	Daisy Red	Mid-season	Medium; medium single
Powder River	Late	Low; medium	Flamboyant	Late	Tall; large
Snowsota	Early	Medium; medium	Redheart	Late	Tall; large
Wee Willie	Early	Low; small	Red Headliner	Late	Medium; large
White Darlingmum	Late	Low; small			
······	- <u></u>		Maroon		
Cream	N 41-1	Mar da s	Maroon Pride	Early	Medium; large
Mellow Moon	Mid-season	Medium; large	Minngopher	Mid-season	Medium; medium
Morden Cameo	Early	Medium; medium		····	
/ellow			Brouxe Even	Mid accor	
Goldstrike	Early	Medium; medium	Brown Eyes	Mid-season	Low; small
Little One	Mid-season	Low; small	Minnautumn	Mid-season	Medium; medium
Minnglow	Mid-season	Low; medium	Morden Delight	Early	Medium; medium
Minnyellow	Mid-season	Low; medium	Zonta	Early	Medium; small
Morden Canary	Early	Low; medium	Purple		
Morden Eldorado	Early	Low; medium	Hoback	Mid-late	Medium; medium
Muted Sunshine	Early	Medium; medium	Morden Fiesta	Mid-season	Low; medium
Prairie Sun	Early	Tall; medium-			
	Lany	large	Lavender		
Sea Urchin	Mid-season	Medium; medium	Centerpiece	Mid-season	Medium; large
Wayzeta	Late	Tall; medium Tall; large	Grandchild Lindy	Mid-late	Medium; large
Wendy Ann	Early			Mid-season	Tall; large
Yellow Darlingmum	Mid-late	Low; small	Lovely Lass	Mid-season	Medium; large
Yellow Glow	Mid-season	Medium; medium	Pink		
			Bonnie Blush	Mid-season	Low; medium
Gold Buff			Cameo	Mid-season	Medium; small
Best Regards	Mid-season	Tall;	Pink Darlingmum	Late	Low; small
		medium-large	Minnpink	Mid-season	Low; small
Companion	Early	Tall; medium-large	Sachet	Mid-season	Tall; large
Golden Jubilee	Mid-season	Tall;			
		medium-large	Rose		
Golden Regards	Mid-season	Tall;	Minnqueen	Mid-season	Medium; medium
-		medium-large	Rosy Glow	Mid-season	Low; large

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