

MAXI-MUMS

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*A new series from the Minnesota
Agricultural Experiment Station
exhibiting shrub-like growth.*



MAXI-MUMS™ A Horticultural Breakthrough!

Unique perennials! Massive, flowering winter-hardy shrubs!
A totally new type of chrysanthemum from the University of Minnesota!

Peter Ascher, Neil Anderson, Vince Fritz, Cathy Perillo, Steve Poppe, Roger Wägner, Dave Willdang¹

Maxi-Mums, new massive, perennial, winter-hardy, shrub-like chrysanthemums, are proudly introduced by the University of Minnesota. The release of 'Betty Lou' marks the beginning of this new series of garden mums.

Maxi-Mums match their names. Second and successive year's growth far surpass standard chrysanthemums.

Maxi-Mums resemble shrubs, and they add a new dimension to the use of fall-flowering garden chrysanthemums in the landscape. With fall-flowering shrubs rare in northern gardens, *Maxi-Mums* add delightful color through to the first hard freeze.

Maxi-Mums are unique! Their plant habit is massive, their nature floriferous. They provide an unusual opportunity to create a colorful, perennial hedge, or provide a continuous backdrop for garden displays.

Maxi-Mums fill their space. Few need to be planted to saturate fall color across a landscape. Each 3-foot-high, 3-foot-wide plant is covered with blossoms at the peak of its flowering season. *Maxi-Mums* are perennial, winter-hardy shrub chrysanthemums, with a shrub size that is usually attained in the second or third year after planting.

Maxi-Mums originated from a natural cross found in the garden of Betty Lou Patsche, and the first release is

named in her honor. 'Betty Lou' (Minnesota Selection No. 92-390-10) is a first generation inbred, derived from self-pollinating an F1 hybrid.

Introducing 'Betty Lou'

'Betty Lou' is an attractive addition to a landscape. Striking red button 'Betty Lou' flowers average 6 cm (2½ inches) in diameter and have intermediate stem stiffness. First-year flowering begins mid-August when grown from cuttings, and continues until a freeze. Successive years flowering commences in early August.

'Betty Lou' provides an unusual opportunity to create a colorful, herbaceous hedge. In first-year growth from cuttings, 'Betty Lou' attains a plant height of 25-30 cm (10-12 inches) and spread of 50 cm (30 inches). Plant shape changes dramatically in the second year, growing to a height of 75-90 cm (2½-3 feet), with a plant spread of 90 cm (3 feet) across.

'Betty Lou' represents a new plant form for garden chrysanthemums. Its inclusion in the landscape must be consistent with its final plant size, and customers must be informed that *Maxi-Mums* are to be planted at twice the normal

spacing for standard chrysanthemums. Spacing at least 120 cm (4 feet) apart is essential to ensure the attainment of full plant stature. Closer plantings of 30-60 cm (1-2 feet) can provide a continuous hedge without individual plants being distinguishable.

'Betty Lou' is in the 6½ week response group when grown commercially for spring flowering pot sales. It attains an average plant height of 18.2 cm (7 inches) when grown in 10-cm (4-inch) pots under short-day conditions. An application of a chemical growth substance is recommended to control height for spring flowering pot sales.

'Betty Lou' plants have been subjected to extensive multi-site trials throughout Minnesota. These have proven *Maxi-Mums* to be the most winter-hardy releases to date from the University of Minnesota garden chrysanthemum breeding program. Winter survival is excellent (frequently greater than 95 percent) without crown protection (mulch). Flowering is consistent across the state and through the years.



Betty Lou after one year of growth, and closeup of flower.



especially the center — may die back.

Usually, however, rhizomes at the perimeter of the crown will survive and grow up to produce a full-sized plant.

Availability

'Betty Lou' may be propagated only by licensed parties. Firms or individuals desiring to propagate and merchandise cuttings of 'Betty Lou' must apply for a license. Contact Neil Anderson, Ph.D. (612/624-3232; FAX: 612/624-4941; e-mail: cander044@maroon.tc.umn.edu) or Peter Ascher, Ph.D. (612/624-9762; FAX: 612/624-4941; e-mail: asche001@maroon.tc.umn.edu), Department of Horticultural Science, University of Minnesota, 1970 Folwell Avenue, St. Paul, MN 55108.

Individuals may also contact these licensed propagators: Dooley Gardens, 210 North High Drive NE, Hutchinson, MN 55350 (320/587-3050); Mums for Minnesota, 3135 227th Street East, Faribault, MN 55021 (507/334-6220); or Spring Hill Nurseries Company, 6523 North Galena Road, Peoria, IL 61652 (309/691-4610).

Planting Time

Plant *Maxi-Mums* in the spring, after the danger of a killing frost has passed. Use small plants derived from rooted suckers of old plants or new plants from a local source. Larger plants in various stages of development may be planted anytime during the summer or early fall.

Spacing/Pinching

Maxi-Mums can be planted at different spacings, depending on your desired effect for the landscape. As a hedge or border planting, to provide a screen or solid backdrop in the landscape, space *Maxi-Mums* 1-2 feet apart.

Close 1-foot spacings create a very dense hedge, with individual plants impossible to distinguish. This hedge will have a neatly clipped appearance during July and into August, prior to flowering. At 2-foot spacings, individual plants are distinguishable and the hedge appears less continuous and manicured.

If *Maxi-Mums* are to be used as accents, where it is important to display each plant in its full splendor, a wider spacing of 4-6 feet apart is recommended.

Pinching *Maxi-Mums* is not recommended. They branch by themselves and produce well-rounded plants with blossoms covering the entire surface. Pinching only delays flowering, and may actually reduce

the final height and spread of the entire plant by six inches or more.

Dividing

Do not divide *Maxi-Mums* during their first three years of growth (waiting five years is better). Crowns will gradually increase in size over several years. When *Maxi-Mums* begin to spread into adjacent areas, removing rhizomes and shoots from the outer perimeter of the crown will reduce the overall circumference of the blooming plant.

Overwintering

Maxi-Mums are extremely winter-hardy in northern climates (USDA plant hardiness zones 3-8). They are so hardy that it is not necessary to either dig the plants in the fall to bring them inside or place them in cold frames for overwintering. Winter survival with adequate snow cover will average between 90 and 100 percent.

To ensure maximum survival of established *Maxi-Mums*, it is recommended that the crown be mulched with a 4- to 6-inch layer of straw, compost or leaves. If *Maxi-Mums* are not mulched and snow cover is sparse during all or part of a winter season, part of the crown —

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