

Garden Mums on Trial

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Garden mums are a bright complement to the displays of leaf color we associate with the fall season. The diversity of colors, flower types and blooming periods make garden mums an interesting and versatile crop. A great deal of effort has gone into developing varieties that combine new colors and attractive flower forms with improved growth characteristics. We examined the growth and flowering performance of thirty Yoder Brothers garden mum varieties under east Tennessee conditions in a landscape trial at University of Tennessee Trial Gardens in Knoxville. These included standard varieties as well as some of the newest on the market.

Plants were pinched when set out in the trial beds during the first week of June and received a second pinch in mid-July. Although June was warmer than average, July and August were cooler. Plants were watered using trickle irrigation and weed control was done by hand. During the growing season, we recorded dates of first color, peak flowering, and past peak flowering, and plant height (Table 1). We also noted our choices for best "early" (late August to early September), "middle" (middle to late September), and "late" (October) season varieties based on stage of development, and growth and flowering characteristics (Table 2). Here is a summary of our results in each color group.

Yellow/Gold

'Yellow Ginger' was our favorite yellow Garden mum for early September sales. By mid-September, 'Anna' and 'Jessica' were chosen for their even canopies of bright-colored, well-formed flowers. These yellow/gold varieties have so many flowers that they resemble Rose Bowl parade floats! October brought the bright yellow season-extender 'Yellow Sarah' to the top of the list of favorites. This beautiful quilled decorative sailed into November flowering at their peak. We observed considerable crown bud formation on 'Donna'. This was apparently due to the relatively cool summer which encouraged flower bud initiation, however environmental conditions were not conducive for these flowers to properly develop.

Orange

Of the orange varieties we trialed, 'Glowing Lynn' showed color the earliest. This two-toned decorative required 6 weeks to go from first color to peak flowering. This extended period of time creates considerable flexibility for marketing. Our choice variety for early

season, however, is pumpkin-orange 'Harvest Emily' which began its display in early September and continued through October. Our middle and late season choice was 'Warm Megan' which began producing its duplex daisy flowers at about the same time as 'Harvest Emily', but continued to be attractive for a longer period of time. Of note is the season extender 'Gentle Kimberly'. The small bronzy-orange daisy flowers were a long time coming but worth waiting for. Unfortunately, these very tall plants did not withstand a late October rainstorm which knocked over, but did not break, the plants while at peak bloom.

Lavender

The lavender-flowering 'Royal Lynn' was our choice for the early-season variety in this category. The entire 'Lynn' series has a compact growth habit and rather small flowers which resemble pincushions. This series is rather brittle which can create problems during shipping. 'Megan', with its intense lavender duplex-daisy flower was our choice for the best middle and late season lavender variety. 'Felicia' is also a noteworthy daisy with lavender petals and yellow centers.

Red

'Helen' produced a wonderful early-season canopy of dark red flowers. Where 'Helen' left off, 'Raquel' picked up in deep maroon and took us through September and into October. Our late season red mum was 'Foxy Valerie'. In general, the red varieties were beautiful in bloom but faded relatively quickly. Note in Table 1 that several of the later flowering varieties, for example 'Gentle Kimberley' and 'Foxy Valerie', required little time, often just one week, from first color to peak flowering.

Bronze

The first bronze variety to show color was 'Dark Triumph' on September 9; therefore, we did not choose an early season bronze variety. Indeed, the two-toned decorative remained at the top of our list until supplanted by the season-extending honey-colored 'Laurie' which peaked in the middle of October and lasted into the first week of November. Although the season extender 'Sarah' was a lovely quilled-decorative flower variety, it never was a top choice in the bronze category. The other bronze varieties possessed deeper, more vibrant colors than the almost yellow 'Sarah'.

White

The large, quilled-daisy flower 'Illusion' was an early bloomer in our trials this year; however, the striking

flowers were relatively short-lived when late summer temperatures were high. In middle to late September, 'Tolima' produced a fine show of large decorative blooms that lasted almost two months. The pure-white flowering 'Frolic' was a very notable plant for a brief period in October, but it was outlasted by 'Tolima'.

Coral Red & Salmon

This category includes the peach-apricot of 'Blushing Christine', the dusty rose of 'Stunning Lynn', and the coral/red of 'Bold Christine' and 'Christine'. Although the growth habit of 'Bold Christine' was rather "stemmy" early in the season, it filled out and bloomed consistently throughout October and into November. 'Stunning Lynn' was the longest flowering variety of this color category.

Pink

'Soft Lynn' was the first Garden mum to flower in our trial, and therefore it is valuable for an early wholesale market. However, in our opinion, 'Rosepink Debonair' has superior growth characteristics and was our top pink variety overall. We did not grow any pink varieties that could be considered for late season markets.

Pinching

We trialed some Florel applications on garden mums this year, however these new varieties have such a remarkable branching habit that a second pinch does not appear necessary. Therefore, we did not observe any benefit of using Florel. A second pinch can be beneficial for the purpose of removing premature flower buds (crown buds). Cool periods during the summer of 1996 resulted in several varieties that produced a significant number of crown buds. The varieties that produced the most crown buds were: Donna, Warm Megan, Harvest Emily, Sarah, and Janice. The varieties that were not affected by crown buds include: Foxy Valerie, the 'Lynn'

series (Peachy, Glowing, Royal, and Stunning), Rosepink Debonair, Blushing Christine, Gentle Kimberly, Yellow Ginger, and Megan.

Table 1. Marketing season, flower type and plant height for thirty Garden mum varieties categorized by flower color. The beginning of the horizontal bars indicate the time of first color (wholesale market), while the bar ends at the time of peak flowering (retail market). Most varieties performed well throughout October.

About the Authors: Liz Will is a graduate student, Jim Faust and Terri Woods Starman are Assistant Professors at the University of Tennessee. The authors extend thanks to Yoder Bros. Inc for donating the plants used in this trial. This article will appear as an original article future issue of Greenhouse Product News.



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Table 2. Top selections for Early (late August to early September), Mid (mid to late September) and Late (October) season markets

Color Category	Early Season	Mid Season	Late Season
Yellow/Gold	Yellow Ginger	Anna/Janice	Yellow Sarah
Orange	Harvest Emily	Warm Megan	Warm Megan
Lavender	Royal Lynn	Megan	Megan
Pink Soft Lynn	Rosepink	Debonair	—
Red Helen	Helen/Raquel	Foxy	Valerie
Bronze	—	Dark Triumph	Laurie
White	Illusion	Frolic	Tolima
Coral Red/Salmon	Stunning Lynn	Bold Christine	—

											Flower Type	Plant Height (in)
Yellow												
	Anna										Daisy	14
	Donna										Spoon-tip Daisy	11
	Janice										Decorative	11
	Sunny Linda										Decorative	11
	Yellow Ginger										Decorative	16
	Yellow Sarah										Quilled decorative	17
Orange												
	Gentle Kimberly										Daisy	23
	Glowing Lynn										Decorative	11
	Harvest Emily										Decorative	14
	Peachy Lynn										Decorative	11
	Warm Megan										Duplex daisy	13
Lavender												
	Felicia										Daisy	12
	Lynn										Decorative	13
	Megan										Duplex daisy	14
	Royal Lynn										Decorative	12
Red												
	Foxy Valerie										Decorative	13
	Helen										Decorative	12
	Raquel										Decorative	16
Bronze												
	Dark Triumph										Decorative	15
	Laurie										Decorative	13
	Sarah										Quilled decorative	16
White												
	Frolic										Decorative	13
	Illusion										Quilled daisy	13
	Tolima										Decorative	13
Coral Red												
	Bold Christine										Decorative	16
	Christine										Decorative	12
	Stunning Lynn										Decorative	13
Pink												
	Rosepink Debonair										Decorative	13
	Soft Lynn										Decorative	10
Salmon												
	Blushing Christine										Decorative	15

Aug. 12 Aug. 19 Aug. 26 Sept. 2 Sept. 9 Sept. 18 Sept. 23 Oct. 2 Oct. 11 Oct. 16