

STANDARD CHRYSANTHEMUMS

'SEA FOAM' AND 'YELLOW SEA FOAM' AT 56° F*

Bill Aulenbach, Yoder Brothers, Inc., Barberton, Ohio; Hugh A. Poole,
Extension Floriculturist, The Ohio State University, Columbus;
and Harry K. Tayama, Extension Floriculturist, The Ohio State University.

Standard mum varieties presently available do not, for a number of reasons, lend themselves to production at 56° F night temperature instead of the so-called normal 60° to 62° F. 'May Shoemith,' 'Improved Rivalry,' and 'Bright Yellow May Shoemith' produced at 56° F and even 60° F nights are excellent as far as stem length and quality are concerned. However, the response is 11 weeks, and this, coupled with 5 weeks of long days, results in a minimum 16-week crop. The length of time in the bench has been closer to 17 weeks, since these varieties at 56° F have taken longer to cut out in some Ohio greenhouses.

'Improved Mefo' and 'Goldburst Mefo' produced at 56° F are all right, except that here again crop time is from 16 to 17 weeks. 'Fred Shoemith' and '#2 Yellow Shoemith' are unacceptable when produced at 56° F in the north due to reduced quality and to a crop time as long as 17 weeks. Quilling of the Indianapolis varieties is so severe at 56° F that the quality is not acceptable. 'Dignity' and 'Yellow Dignity' have a 9-week response at 56° F, but flower substance and form retention are lacking.

The results referred to were obtained in a study undertaken by Yoder Brothers, Inc., Barberton, Ohio, to compare the performance of the varieties previously mentioned with the new varieties 'Sea Foam' and 'Yellow Sea Foam.' Results are given in the table.

For the study: 1) data were based on flowering January through March 1974; 2) temperatures maintained were 56° F nights, 60° F cloudy days, and 65° bright days; 3) spacing was 5 by 6 inches; 4) all crops were given 5 weeks of long days; and 5) all crops received supplemental CO₂.

The performance of 'Sea Foam' and 'Yellow Sea Foam' was quite impressive when compared to the other varieties. Flower and stem quality, stem length, and crop time (14 weeks) are all acceptable by today's standards. Now, should a standard mum

grower convert his entire range to these varieties? The answer is a definite "No!" Although the varieties have been tested for the past several years, and they do look good, they now need field testing under a wider range of greenhouse conditions. By field testing we mean grown in various greenhouses throughout the country, shipped in various ways, and used by retailers in various arrangements. Far too many varieties, chemicals, and equipment have come on the market with promises that they are the answer to growers' dreams, only to have numerous problems associated with them crop up when producers try them.

Yes, the Sea Foams look promising. However, they should be tried only on a limited basis. A small area of a range that can be maintained at a separate temperature would be ideal. If this small area is not available, an alternative would be to produce the Sea Foams at the cold end of a greenhouse, if there is one available. Under no circumstances would it be advisable to devote one's entire winter production to the Sea Foams.

Two words of caution when producing Sea Foams. First, a night temperature of 56° F means just that, and no lower. Maintaining Sea Foams at temperatures below 56° F may cause problems with flower bud initiation. Second, approximately 10 percent of the crop may be culls. This figure depends largely on available sunlight and spacing. The percentage of culls decreases with increased light and space.

From the data in the table, it may not be too bad an idea to also give 'Dignity' and 'Yellow Dignity' a try at 56° F. Eliminating the B-Nine® application may result in a stem longer than 28 inches. Again, these varieties should be tested only on a limited basis.

*Adapted from an article by the authors entitled "56F Standard Mums—Sea Foam and Yellow Sea Foam," which appeared in *Ohio Florists Association Bulletin* No. 548, June 1975.

PERFORMANCE COMPARISONS OF SEVERAL STANDARD MUM VARIETIES MAINTAINED AT 56° F. AND 60° F.

Cultivar	Average response at 60°F (weeks)	Average response at 56°F (weeks)	Average height at 56°F (inches)	Average grade compared to 60°F crop	Recommended	Comments
WHITE						
Sea Foam	9	9	36	Up 1 grade	Yes	Good vigor and minimum crop time.
Imp. Mefo	10	10½-11	36	Same as 60°F	Yes	Slight pinking.
May Shoesmith	11	11	36	Same as 60°F	Yes	Very good if crop time not objectionable.
Icecapade	8	9	30	Up 1 grade	No	Severe pink flushing. Uniform response.
Dignity	9	9	28	Up 1 grade	Yes	Excellent if height not objectionable. Given one 2,500 ppm application of B-Nine® ; may not require this. Stems much stronger at 56°F than 60°F.
Fred Shoesmith	10	12	39	Same as 60°F	No	Too slow. Color off-white.
Gt.#4 Ind White	9	11	34		No	Uniform response. Severe quilling and pinking.
#4 Imp Ind White	9	11	34		No	Uniform response. Severe quilling and pinking.
YELLOW						
Yel Sea Foam	9	9	36	Up 1 grade	Yes	Good vigor and minimum crop time.
Goldburst Mefo	11	12	36	Same as 60°F	Yes	
Imp Rivalry	11	11	36	Up 1 grade	Yes	Very good if crop time not objectionable.
Brt Yel May Shoe	11	11	37	Same as 60°F	Yes	Very good if crop time not objectionable.
Yel Dignity	9	9	28	Up 1 grade	Yes	Excellent if height is not objectionable. See Dignity.
#2 Golden Shoe	10	11	37	Down 1 grade	No	Severe reflexing and slow.
#2 Yel Shoesmith	10	11	37	Same as 60°F	No	Too slow; no reflexing but lacks clear yellow color.
Hills Ind Gold	9	11	34		No	Severe quilling, severe bronzing, and slow.
Gt#4 Ind Yel	9	11	34		No	Severe quilling, severe bronzing, and slow.
BRONZE						
Blaze	9	8½	22	Same as 60°F	No	Size marginal; response variable. Short.
Mrs. Roy	10	10	28	Down 1 grade	Yes	Okay if stem length is acceptable.
Gambit	9	8	32	Same as 60°F	Yes	Shattering still the same at 56°F.
PINK						
Escapade	8	9	30	Up 1 grade	Yes	Very good. Uniform response and vigor.
Promenade	9	10	34	Up 1 grade	No	Uneven in response and vigor.