Evaluation of Fine Brick Chips as an Inorganic Media Amendment In the Production of Poinsettias

J. W. Boodley, Cornell University

The object of this experiment was to evaluate the influence of fine brick chips as an inorganic amendment to a poinsettia peat-lite growing medium. Brick chips were supplied by the Binghamton Brick Company, Binghamton, New York.

The study compared two types of peat moss: sphagnum peat and a locally mined product from Skaneateles, New York, which is a combination of sphagnum and hypnum peats. The sphagnum peat moss was the component of a commercially obtained peat-lite mix A, a combination of peat moss and vermiculite in a 1:1 by volume ratio with added fertilizers. To this medium was added 10, 20, 30, 40, and 50% by volume amounts of fine brick chips. With the 50% addition, the actual amounts of materials were 25% peat moss, 25% vermiculite and 50% brick chips.

The second medium made up of equal parts of Skaneateles peat moss and vermiculite with additions of 20, 30 and 50% brick chips by volume.

Rooted cuttings of the poinsettia cultivar 'Brilliant' were obtained from a commercial propagator and planted September 30, 1981. There was one plant per 6-inch diameter plastic pot, with 10 pots (replications) of each treatment. The plants were grown at a 62°F night and 70-75°F day temperature in the Department of Floriculture greenhouses of Ithaca, New York.

To maintain vegetative growth, the plants were grown under long day conditions from planting until October 14. The lights were turned on daily from 11:00 p.m. until 1:00 a.m. To induce branching the plants were given a pinch October 7. Fertilization was done at every irrigation with 300 ppm N and 250 ppm K.

The plants were considered in flower and harvested January 26, 1981. Data taken were overall height, average bract diameter, fresh weight and dry weight. These data were subjected to statistical analysis. The results are given in Table 1. Regardless of the treatment used, the addition of brick chips to the media had no significant effect on the growth of the plants. The plants grown in media with brick chip additions were no better nor no worse than those grown in the control media. These same statements apply to the media developed from the Skaneateles peat moss.

Except for the additional weight provided by the brick chips, there is no economically beneficial effect of adding brick chips to poinsettia media as shown by these studies.

Table 1. Influence of various amounts of brick chips added to two peat-lite media on height, bract size, fresh and dry weight. Avgs. of 10 plants/treatment

Treatment	Height (cm)	Bract Diameter	Fr. Wt. (grams)	Dry Wt.
Control	23.9	21.6	43.9	10.6
Sphagnum peat moss,				
10% brick chips	25.0	23.9	45.6	11.9
20% brick chips	24.4	27.2	50.3	11.8
30% brick chips	25.5	26.8	47.6	11.2
40% brick chips	21.2	29.6	39.5	9.0
50% brick chips	24.2	27.5	44.2	10.4
Skaneateles peat moss,				
20% brick chips	22.4	25.0	40 8	9.9
30% brick chips	26.7	25 8	47.2	11.3
50% brick chips	24.2	27.0	42.3	10.0
Average	24.2	26.0	44.6	10.7

Research Briefs

by John G. Seeley

THE SUN BELT CONNECTION

T. A. Nell, J. J. Allen, and J. N. Joiner (University of Florida) and H. K. Tayama (Ohio State University) Ohio Florists' Assn. Bulletin 617:2,3,6. 1981.

Growing potted chrysanthemums to the disbudding stage in Florida and then finishing the plants in northern greenhouses would provide the early growth under less energy-requiring conditions of the South. Pre-finished plants will enable northern growers 2½ to 3 turnovers in the same crop time as a northern produced pot chrysanthemum.

In a study of the effect of environmental conditions during Florida production of pre-finished potted chrysanthemums on shipping and flowering in Ohio, rooted cuttings of Bright Golden Anne chrysanthemums were planted December 7 and February 26, pinched at planting, lighted for 4 nights, and then short days until full flower color. Plants were grown with different degrees of natural light, 3 levels of nitrogen and given 2 sprays of 5000 ppm B-Nine SP.

Four pots of each light and fertilizer treatment were shipped in a commercial floral shipping truck maintained at 62°F, and others were continued in greenhouses in Gainesville.

All plants flowered in Ohio and Florida were of marketable quality. Plants with 63% shade in Florida had thin stems and were weak and spindly compared to plants with 0 and 25% shade. The low light conditions encountered in Ohio seemed to enhance overall plant quality of all plants with plants becoming greener during the four-week Ohio flowering period. Plant height and width were generally greater on plants maintained in Florida during winter and spring compared to those shipped to Ohio although the differences were commercially insignificant. Flower number was similar in Ohio and Florida provided plants were grown with full sun or 25% shade prior to shipping.

Results suggest shipping of pre-finished chrysanthemums can be accomplished successfully. A number of unknowns exist such as best cultivars for shipping, pricing schedules, optimum shipping time, shipping temperature, and timing. A strong communication channel and a cooperative program must be established between northern and Sun Belt growers in order for pre-finished mums to become reality.