

GERANIUM FERTILIZER STUDY¹

R. E. Widmer

Increased interest in gardening and the introduction of new and better varieties have awakened a new interest in geraniums. Geraniums are now grown by more than half of the commercial flower growers in the country.

Fertilization practices help determine the type and quality of plants produced. Individual growers frequently favor particular fertilizers. This study was conducted to determine the effectiveness of various types of fertilizers and methods of application.

Materials and Methods

The variety Minnetonka was selected for this study as it is one of the varieties most responsive to fertilizer. Rooted cuttings obtained from a commercial grower² were planted in 4-inch pots on February 21, 1962. A sterilized soil mixture of equal parts of composted soil, muck, peat moss and sand was used. The pH of the starting soil was 5.6 and nutrient levels varied from medium-low to low.

A night temperature of 62 F. was maintained. Each treatment consisted of three replicates of four plants each. Plants were pot-to-pot until April 16 because of a space shortage. They were properly spaced thereafter. All flower buds were removed until May 1.

The treatments are listed in Table 1.

Ohio Florists' Association Bulletin 377 (1) states that when plants are fertilized with every watering, a solution of 200 ppm each of nitrogen and potassium should be satisfactory for a wide variety of crops if the soil is watered adequately. Treatment 2 provided this quantity of nutrients starting two weeks after potting. Treatments 3, 4 and 5 and 6, 7 and 8 provided similar quantities of nutrients from two different sources. The rate of Tydex C³ employed was found to be optimum in 1961 trials. The medium quantity of heavy-coated 10-10-10 used in treatment 14 was thought to be optimum, based on limited preliminary tests. Quantities of nutrients in treatments 10, 11, and 12 were equivalent to quantities of fertilizer in treatments 13, 14, and 15. Weight of the resinous, polymeric membrane coating accounted for the difference in the total weights.

¹Paper No. 1178, Miscellaneous Journal Series, Minnesota Agricultural Experiment Station, University of Minnesota

²Madsen Floral Company, Minneapolis

³Tydex C, an exchange resin product, is no longer on the market.

People who wonder where this younger generation is headed would do well to consider where it came from.
