

Hanging Grape Baskets

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Author's Note: Following is a research report on a potential new bedding plant idea. Mike Maliszewski is an undergraduate student at Michigan State University. Allan Armitage is now Assistant Professor at the University of Georgia, Athens, Georgia, and Lynne Crankshaw is a graduate student in the Horticulture Department of M.S.U. Lynne plans to work on perfecting the grape hanging basket for her Masters Degree, but the idea is novel enough that we thought you'd be interested in our first year's work.

Hanging baskets provide a practical and attractive solution for many home owners and apartment dwellers who enjoy gardening but lack sufficient space. In addition to baskets of flowers, fruits and vegetables work well in the versatile hanging baskets. Strawberry baskets and cherry tomato baskets are available in garden centers, and more crops might be adaptable to these containers. Hanging baskets of grapes is a new idea with real potential.

An experiment was conducted at Michigan State University to develop a method for growing these grape baskets. Three varieties were chosen because of their easy availability: 'Seyval,' 'Rivat,' and 'Concord.' The cuttings were obtained and two methods of rooting were employed: 1) 70°F air temperature with bottom heat in sand in a mist bench, and 2) 50°F air temperature in a growth chamber, with bottom heat in Perlite. The latter method was tried in order to reduce leafing out before rooting occurred. Indolebutyric acid (IBA) was used for both rooting treatments. The rooting was inconsistent, which meant that transplanting was sporadic and could not be completed on any one date. (See Table 1).

TABLE 1: Length of time required to root "Seyval," "Rivat," & "Concord"

Variety	Air Temperature	Time from Stick to Transplant
"Seyval"	50°F	3-7 weeks
	70°F	3-5 weeks
"Rivat"	50°F	5-10 weeks
	70°F	4-7 weeks
"Concord"	70°F	6 weeks

Of the two rooting methods used, the mist bench was much faster. The cuttings leafed out and also produced roots, so the mist bench cuttings were further along when transplanted to the baskets. Another concern was the number of nodes to leave per cutting. Two nodes provided sufficient foliage without making the baskets overcrowded; however, three nodes made for awkward looking baskets.

After the cuttings had rooted, they were transplanted to 10" plastic hanging baskets. The soil mixture was VSP (1), and four cuttings were placed in each basket. It would be possible to stick only three cuttings per basket and still get a full, saleable product.

Fertilization consisted of 200ppm Nitrogen as Peter's 20-20-20 at every watering, with one application of a trace element mix (FTE) one to two weeks after potting in baskets. The baskets dried out quickly, making daily watering a necessity.

'Seyval' was the only variety that showed real potential. It was the earliest to root, and the baskets contained lush, full foliage with several large fruit clusters. 'Concord,' however, had fewer fruit, and the leaves and internode length were much too large for a 10" basket. Lastly, 'Rivat' failed to flower.

A rough estimate for total time from cutting to sale for 'Seyval' would be 13 to 14 weeks (Table II), assuming that a basket with small fruit clusters is saleable. The cuttings were started mid-February, and pea-sized grapes were obtained by late May. By starting the cuttings a few weeks earlier, grape baskets could be available for the bedding plant season.

A few problems developed with the clusters dropping their fruit. This was solved by applying a spray of 6-benzyl aminopurine (BA) at

scale. The malathion seemed to prevent much spreading, but the honeydew produced brought mildew to the leaves. Most of the mildew problems happened much later in the crop, as the baskets were maintained in the greenhouse throughout the summer. Since the basket will be an edible product, pesticides must be carefully used to take care of greenhouse pests without contaminating the fruit.

Grapes have real potential in the bedding plant market. With garden space often at a minimum and high consumer interest in novel plants, the grape basket may have a place in the spring garden market. We are continuing our research work on this plant with the hopes that, one day, it will be an important hanging basket bedding plant item.

(1) VSP - Peatlite mix produced by Michigan Peat Company, Houston, Texas



TABLE 2: Spring growing schedule for "Seyval"

Cutting stick to transplant	4-5 weeks
Transplant to flower	6 weeks
Flower to pea-sized fruit	3 weeks

recommended rates to the very small fruit clusters, which caused the grapes to remain tight and full.

Frequent pruning is recommended to prevent the baskets from becoming overgrown and to maintain a compact, attractive basket. When the secondary growth emerged after the cut-back, a new set of flower clusters appeared; with a third pruning, a third flowering occurred. Thus, several fruitings can be obtained through pruning. Although it is not suggested that grape baskets can provide a summer's worth of fruit to the consumer, proper pruning will certainly increase the amount of fruit. With four cuttings, a minimum of eight fruit clusters should be obtained.

Of course, the grape baskets were not without pest problems. Spider mites showed up on some foliage, and malathion eliminated this problem. A more difficult pest to eliminate was

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