

CFGA #234 Nov. 1969

## Opening roses from tight-bud stages -- Preliminary Report

S.P. Sadasivaiah and W.D. Holley

A series of preliminary tests were conducted at CSU to survey the possibilities of harvesting roses in tighter bud stages. Many questions regarding this technique on roses need answers. Only a few of these answers have been obtained so far. Some of the questions that have preliminary answers at this time are:

Can roses be opened satisfactorily when cut 2 or 3 days earlier than 'normal'? The answer is yes, but opening solutions and temperatures are important to success. Ordinary preservative solutions presently in use by rose producers were not satisfactory. Either 3 or 4% sugar solutions containing 100 ppm 8-hydroxyquinoline citrate gave good results under the conditions of our tests. Everbloom at 15 grams per liter was also satisfactory for opening rose buds.

How do roses cut in tight-bud stage and opened off the plant compare to normally cut roses? Varieties Forever Yours, Bridal Pink and Golden Wave were cut in 3 stages, placed in opening solution in a laboratory and observed for 10 to 13 days. Temperature during the tests varied from 70 to 84F. Relative humidities were for the most part 30 to 40%. Time of the tests was July 29 to September 22, 1969. The three bud stages were:

- Stage 1: sepals fully open, petals tight.
- Stage 2: sepals beginning to open and drop.
- Stage 3: sepals up over the petals.

Stages 1 and 2 were entirely satisfactory. Slight loss of size and color was observed with stage 3 buds but this may be so slight as to be tolerable for many varieties. All stems and buds absorbed sufficient water to allow normal, steady development of the flowers. Bridal Pink and Golden Wave opened faster than Forever Yours. Stage 3 buds required about 3 to 4 days to develop to the 'normal' cutting stage at these temperatures. Many of the flowers were still decorative after 13 days.

Many questions are still to be answered about tight cutting of roses. Two of the most pressing are: 1) What modifications of the opening solution may be required in tap water, especially if it contains high salinity or alkalinity? Distilled water was used in these experiments. 2) Can roses be cut in tight-bud stage and opened satisfactorily at other times of the year? The concentrations of sugar and 8-HQC may need to be varied in winter.

The primary manufacturer of 8-HQC is Merck & Co., Metasol Division, Peterboro, New Jersey. Prices are in the \$6.50 to \$7.00 per pound range depending upon quantity. In order to make 100 ppm, dissolve 5 grams of 8-HQC in 1 liter of water and then dilute this to 50 liters or 13 gallons of solution. To this 13 gallons add 3 or 4 pounds of table sugar depending upon whether you want 3 or 4%.

Your editor,



COLORADO FLOWER GROWERS ASSOCIATION, INC.  
OFFICE OF EDITOR  
W. D. Holley  
Colorado State University  
Fort Collins, Colorado 80521

FIRST CLASS