



## EFFECT OF LEAF REMOVAL ON SUBSEQUENT FLOWERING OF ROSES

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Removing leaves from below the cut on a rose stem does not appear to affect flowering of the subsequent shoot from that stem. Last fall, we set up a trial to test whether leaf removal will significantly affect growth and development of 'Samantha' and 'Golden Wave' roses. The roses were grown in 5 gallon containers filled with perlite and watered automatically with fertilizer injected each irrigation. Temperatures were 63°F night, heated to 73°F days, with CO<sub>2</sub> injection and high pressure mist. The fiberglass roof had been replaced the previous summer.

Each cultivar had 5 treatments:

1. Flower cut, leaving two 5-leaflet leaves below the cut.
2. Flower cut, leaving one 5-leaflet leaf below the cut.

3. Flower cut to two 5-leaflet leaves, but the upper leaf removed.
4. Flower cut to one 5-leaflet leaf and that leaf removed.
5. Flower cut to two 5-leaflet leaves and both removed.

There were 15 replicate stems for each treatment and each stem had to be a minimum 5 mm diameter.

There were no significant differences among treatments except for bud swelling on 'Golden Wave' where the rose stem was cut to one leaf, which took 7.6 days from cutting, as compared to the stems with two leaves which took an average of 5.9 days to begin visible swelling (Table 1). Note that there was a slight trend toward fewer days to

Table 1. Effect of different leaf removal methods on flowering of 'Samantha' and 'Golden Wave' roses.

	Two leaves left	One leaf left	Two leaves one removed	One leaf one removed	Two leaves both removed
<b>'Samantha'</b>					
Growth of axil bud (days)	7.1	7.1	6.8	7.6	6.9
Appearance of bud (days)	28.6	31.4	28.7	29.4	28.9
Flower cut (days)	49.6	53.3	50.1	51.2	49.6
Stem length (inches)	25.0	23.0	24.1	22.3	24.1
<b>'Golden Wave'</b>					
Growth of axil bud (days)	5.9	7.6	6.1	7.6	6.0
Appearance of bud (days)	23.8	25.6	24.4	26.1	24.1
Flower cut (days)	43.9	45.6	44.5	44.4	43.9
Stem Length (inches)	15.6	14.9	15.5	14.3	14.9

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flower, as well as a trend toward longer stems, when two leaves were left on the parent cane. There have been reports in the literature of variations in flowering where stems and leaves were manipulated as here. We have not been able to substantiate these reports despite rumors in the industry that leaf removal can enhance return to flower. To our thinking, leaf removal reduces food production capacity so that there would be less support for the

new, developing flower. Despite lack of definite confirmation in this study, we feel safe to state that a program of removing leaves will tend to increase time to flower and reduce stem length. All studies that we know of have consistently shown that removal of plant material inevitably reduces total growth — even though there may be an appearance of enhanced vigor. We see no reason to change our opinion.