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# Solution Uptake and Vase Longevity of Rose Varieties with Express Technology

## Introduction

Floralife has recently developed a line of products –Express Technology– with formulas that will enable flowers to take up solution without the need to recut the end of the stems. Floralife® Express Technology formulas have been extensively tested in flower laboratories and at our customer locations. Third party independent testing, performed by private laboratories and / or Universities was also conducted. Testing for the efficacy of Floralife® products is done under varying conditions such as flowers from multiple growing locations, different flower species and varieties, various water types, several dry storage regimes, etc. In these tests, Floralife® Express Technology was compared with and without the recutting of the stem ends.

## Objective

To test the effectiveness of the Floralife® Express Clear 200 product on water uptake performance and vase longevity of 6 rose varieties with or without a recut of the end of the stems.

## Method

Six varieties of cut roses were obtained from a farm in Colombia. The flowers underwent standard hydration, packaging and storage treatments adopted by the farm, and no changes were made. Total time between harvest and receipt at the laboratory was 8 days. Flowers were received dry at the Floralife laboratory and processed immediately for the experiment. Depending on the treatment, some of the flower stems were recut to remove 3 cm of the end of the stem. Other flowers were not recut. Flowers were placed in vases (1 L) filled with solutions described in the following treatment list. There were a total of 12 roses per vase (3 varieties x 4 roses from each variety). There were 3 replicated vases per treatment combination. There were two sets of experiments (each set comprising of 3 varieties). The vases were placed in a postharvest evaluation room (18-20 °C, 12/12 hr light/dark) for vase longevity evaluation.

## Treatments:

1. Floralife® Clear 200 – Recut (current practice)
2. Floralife® Express Clear 200 – Recut
3. Floralife® Express Clear 200 – No cut

## Photos on Day 8 in Vases

Set 1: Freedom, Tressor 2000, and Orlando



Floralife® Express Clear 200  
– No cut



Floralife® Express Clear 200  
– stems recut



Floralife® Clear 200 – stems recut

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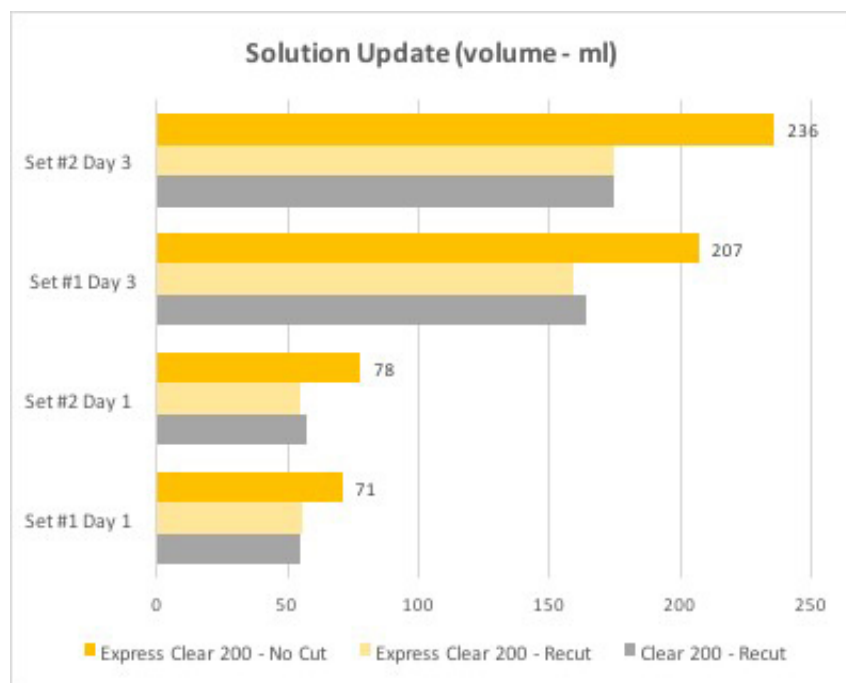
### Data:

1. Uptake of water (solution) from each vase after one day and 3 days
2. Vase longevity (days)

### Results

**Table 1.** Cumulative Solution Uptake per Vase on Day 1 and Day 3 (in ml)

Treatment	Stem Cut	Set #1		Set #2	
		Day 1	Day 3	Day 1	Day 3
Clear 200	Recut	55	164	57	175
Express Clear 200	Recut	56	159	5	175
Express Clear 200	No Cut	71	207	78	236



**Photos on Day 8 in Vases**  
Set 2: Poison, Jade and Miracle



Floralife® Express Clear 200  
– No cut



Floralife® Express Clear 200  
– stems recut

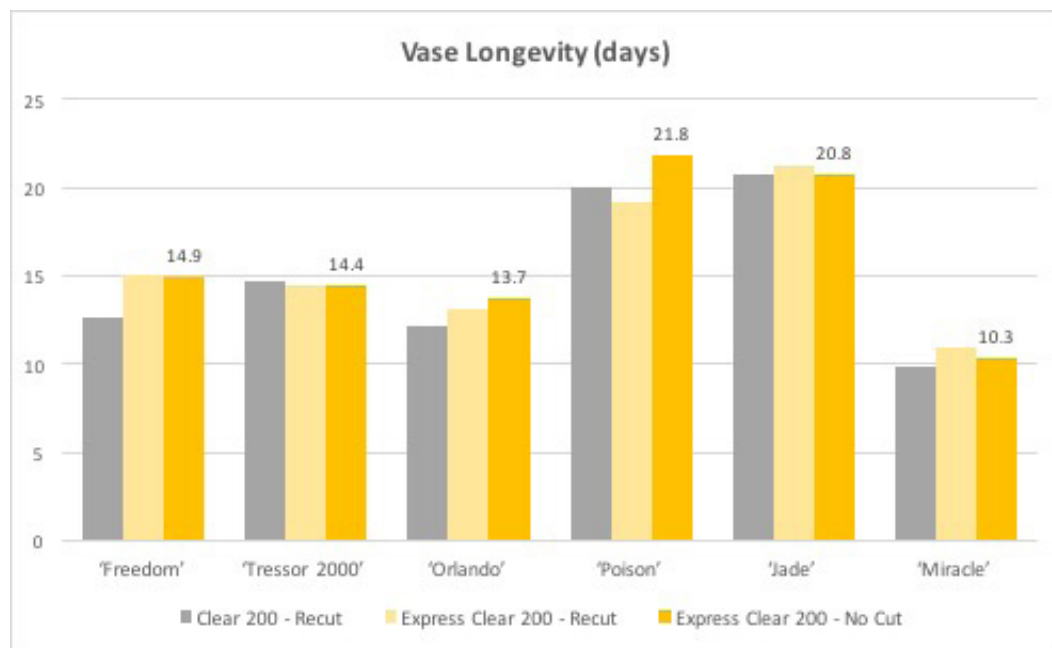


Floralife® Clear 200 – stems recut

**Table 2.** Vase Longevity (days) of Different Rose Varieties

Treatment	Stem Cut	Set #1			Set #2		
		'Freedom'	'Tressor 2000'	'Orlando'	'Poison'	'Jade'	'Miracle'
Clear 200	Recut	12.6	14.7	12.1	20.0	20.8	9.8
Express Clear 200	Recut	15.1	14.4	13.1	19.2	21.2	11.0
Express Clear 200	No Cut	14.9	14.4	13.7	21.8	20.8	10.3

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## Conclusion

It was observed that roses placed in Floralife® Express Clear 200 solution with the uncut stem ends, took up solution at the same rate or better than the volume of solution uptake with the stem ends cut. In 5 out of 6 rose varieties tested, it was observed that the Floralife® Express Clear 200 product gave better flower longevity than the Floralife® Clear 200 regardless of whether the stem ends were cut or uncut.