

Erin Lisk
Postharvest & Technical Support Scientist - FloraLife

Introduction:

Throughout the flower industry, people utilize homemade recipes in place of commercial flower food stating that they are as effective and save money. These homemade recipes usually contain basic ingredients that mimic those found in commercial flower food, such as sugar, acid, and some type of disinfectant. In this research update we share the results of an experiment that compared the efficacy of commercially formulated flower foods to multiple popular homemade recipes.

Research:

Flowers were sourced from a farm in Colombia and flown to the FloraLife Walterboro lab and unpacked upon arrival. Flower stem ends were re-cut in air & all leaves below the solution level were removed. The stems were placed in the treatment solutions and placed in vases on tables in the vase life observation room. Each treatment contained three replicate vases. The observation room had a temperature maintained at 68-70 F (20-21 C) with a 12 hour light and 12 hour darkness cycle. The flowers were observed daily for performance and vase life as well as vase solution clarity.

Treatments:

1. Control (Water)
2. FloraLife Crystal Clear® powder
3. FloraLife® Express 300 powder
4. Homemade recipe 1: 1:4 volume of 7-up and water
5. Homemade Recipe 2: Sugar – 2 tablespoons/L, White Vinegar – 1 tablespoon/L, & Lemon juice - 1 tablespoon/L
6. Homemade Recipe 3: Sugar – 10 g/L, Bleach – 1 tsp/L, & Lemon Juice – 1 tsp/L
7. Homemade Recipe 4: 1 penny/L
8. Another commercial flower food brand

Results:

Table 1. pH of Vase Solutions and average days for vase clarity.

Treatment	pH	Vase Clarity (days)
Control (water only)	7.98	7.0
FloraLife Crystal Clear®	3.98	10.0
FloraLife® Express 300	3.66	10.0
Homemade Recipe 1	4.23	3.0
Homemade Recipe 2	3.22	2.7
Homemade Recipe 3	6.84	5.0
Homemade Recipe 4	8.00	4.7
Another commercial flower food brand	3.68	10.0



Table 2. Average Vase life of roses.

Treatments	Vase life (days)			
	'Freedom' Roses	'Vendela' Roses	Yellow Chrysanthemums	Average Flower Vase Life
Control (water only)	8.5	8.0	6.8	7.8
FloraLife Crystal Clear®	11.8	10.9	12.1	11.6
FloraLife® Express 300	13.8	13.0	12.2	13.0
Homemade Recipe 1	6.5	7.4	10.3	8.1
Homemade Recipe 2	6.2	6.4	6.4	6.3
Homemade Recipe 3	8.3	5.8	5.8	6.6
Homemade Recipe 4	8.4	7.9	6.2	7.5
Another commercial flower food brand	11.5	13.7	6.8	10.7

Conclusion:

Formulated flower food provided a clear advantage, extending vase life by as much as 8 days for roses and up to 7 days for chrysanthemums compared to homemade recipes. Formulated flower food also led to the vase solution staying clear up to 7 days longer than the homemade recipes.

Photos Vase Life Day 7:

Treatments from left to right: Control, FloraLife Crystal Clear®, FloraLife® Express 300, & Homemade Recipe 1





Photos Vase Life Day 7:

Treatments from left to right: Homemade recipe 2, Homemade recipe 3, Homemade recipe 4, & Another commercial flower food brand

