



# Using Florel Effectively

Once timing, application rate and crop susceptibility are understood, Florel can be an effective tool for both controlling height and promoting branching.

*By Roger C. Styer*



**W**ith more and more new vegetative annuals being produced, growers are finding themselves doing more pinching and cutting back to stimulate better branching and to control growth. Many of the new vegetative annuals are quite vigorous and designed for use in larger containers. However, growers are also producing them for individual sale in smaller pots as well as mixed planters. Whether you buy rooted or unrooted cuttings, the problems are the same — get plants to branch early to fill out the pots faster and control the growth late.

## WHY USE FLOREL

If you have not worked a lot with Florel, you really need to start if you plan to grow vegetative annuals profitably. Florel is an ethylene-producing chemical that increases branching, takes off early flower buds in many crops and acts as a growth regulator. By spraying with Florel early, either during propagation or shortly after potting, you can get faster branching without pinching or with less pinching. Some growers will still pinch cuttings if the height is already too tall.

For most crops, spraying with Florel will also take off early flowers and delay subsequent flowering for a period of time. For geraniums, this re-blooming time can be 6-8 weeks, whereas verbena and lantana may rebloom in 2-3 weeks. Florel will not abort flower buds on some crops, such as mums, but will delay flowering if flower buds are not already evident. Disbudding may be needed during propagation with crops such as New Guinea impatiens to reduce Botrytis problems.

Florel also acts as an early growth regulator, although not in the same manner as other chemicals such as B-Nine, Bonzi or A-Rest. And, best of all, the cost of Florel is cheaper than other growth regulators and definitely more cost-effective than pinching or cutting by hand.

You can use Florel in stock production, during propagation or after potting. If you produce your own stock plants, spray Florel either in place of pinching or around the same time to increase the number of cuttings. ◆



*Top: Abortion of geranium flower buds caused by Florel; Bottom: Stock plants produced with Florel have more branching and no flowers. (All photos courtesy of Peter Konjoian)*

Stop spraying Florel at least two weeks before you want to take cuttings, so you do not have a carry-over effect into propagation, which will delay rooting or cause more leaf-yellowing immediately after sticking.

In propagation, wait until you have some rooting and are weaning plants off mist before using Florel. Generally, spray Florel one week before potting to increase branching. If you want to take off early flowers in propagation, spray earlier but at a lower rate. After potting, wait until cuttings are rooting out into the new media before spraying with Florel. That means Florel can be applied about 1-2 weeks after potting and can be repeated 1-2 weeks later if needed. It may take a week to show the branching effects of Florel, so be careful about applying too frequently and getting too much effect. Many growers like to spray hanging baskets while on the bench or ground 1-2 times before hanging. Keep good notes on re-blooming times for different varieties in order to determine cut-off dates for using Florel.

### HOW TO USE FLOREL

Many growers have tried using Florel and found it doesn't work very well for them, while other growers have had excellent results on the

same type of plants. Why? I have found growers do not know the key points for how to best use Florel. Here's what you need to know:

**pH.** The water in the spray tank after adding Florel should have a pH of 4.0-4.5. If you have high alkalinity in your water, you may need to

add a buffering agent such as pHase5 or acid to lower water pH enough. Remember, Florel itself will lower water pH somewhat, so be careful about getting too low (pH 3.0), as you can burn plants. Growers with very pure water may need to add a buffering agent that will actually keep water pH from getting too low. Activity of Florel is greatly reduced if water pH is not correct.

**Concentration.** Use concentrations of 250-500 ppm for most plants. Normally, start with 500 ppm and see what kind of reaction you get. If too strong, reduce to 250 ppm.

Sensitive crops such as any impatiens, bougainvillea and maybe some fuchsia should be sprayed with 250 ppm to start.

**Timing.** Use spray solution within 2-3 hours after making up, and do not hold overnight.

**Application.** Spray like B-Nine to run-off. You need to get coverage on all leaves and stems. Florel is not active in the soil through the



*Lantana shows more branching with no pinching and no early flowering due to Florel on stock plants and in propagation.*

roots. Leaves need to stay wet with Florel for 3-4 hours to get most of the chemical into the plant. Drying off too fast will reduce effectiveness and require a higher ppm or more frequent spraying. Select proper time of day to do Florel spraying.

**Repetition.** Watch repeated usage and determine re-blooming times. Crops such as verbena and lantana will need more applications of Florel and will re-bloom within three weeks, whereas geraniums may only need one application and take 6-8 weeks to re-bloom.

**Special Circumstances.** Avoid spraying plants when under stress — not your stress, but the stress the plants are being grown under! Florel is a stress-exaggerator, which means it will turn leaves yellow or cause them to drop if plants are under stress. Make sure plants are watered properly and shade is closed before spraying. Wait for roots to come out first on a cutting or liner just planted.

**CROPS THAT RESPOND TO FLOREL**

The list of crops that respond to Florel can be quite long. I tell growers that



Vinca vine is easily controlled with multiple applications of Florel.

Bacopa	Lantana
Bidens	Lysimachia
Brachycome	Osteospermum
Coleus – vegetative types	Petunia – cascading types
Evolvulus	Purslane
Fuchsia	Scaevola
Geranium – both zonal and ivy	Snapdragons – trailing types
Helichrysum	Torenia
Herbs – most types	Verbena
*Impatiens – both double and New Guinea	Vinca Vine
Ipomoea (Sweet Potato Vine)	

*\*use low rates*

any crop you feel needs pinching for better branching is an automatic candidate for Florel. A lot of work has been done by Dr. Peter Konjoian with different crops in an effort to get the label expanded. Much of the work by growers may be off-label, but it works. Table 1, above, contains a list of crops that respond to Florel, but by no means is this list all-inclusive. You need to experiment with Florel on other crops and keep good notes.

Florel works best on geraniums and other vegetative annuals that need a pinch to branch better. You can produce fuchsia baskets with 2-3 sprays of Florel and no pinching, and get a full-looking product. Ivy geraniums fill out hanging baskets with 1-2 sprays of Florel and may only need a pinch on overly long laterals. Bougainvillea will branch better with Florel but may drop leaves due to stress. Be patient, leaves will re-sprout at most of the nodes.



**GeoSeed**

121 Gary Road, Dept 261  
Hodges, SC 29653

**Seed For Professionals**

- 100% dedicated to Seed, your seed needs our only business
- Thousands in stock
- Climate controlled building, newest proven research specs
- Super Cleaning Available. Ask about DreamSeed™
- Germ testing constant and comprehensive
- Personal service and product knowledge of highest standard
- Our people pledge the care and commitment of lifetimes in seed

Yours truly,

*George B. Park*  
George B. Park

Call Toll Free 888-645-2323 • Fax 864-227-5108 • Email [geo@emeraldseed.com](mailto:geo@emeraldseed.com)

Write in 786

Florel works very well on herbs — getting them to branch without pinching and acting as a safe growth regulator. However, herbs are not on the label. Some growers are trying Florel on vegetables, but you need to watch how much drought stress you are using or your tomato plants will turn yellow overnight.

Garden mums were one of the first crops Florel was used on effectively, but many growers are no longer using Florel on mums. This is primarily due to the newer varieties being better-branching with or without pinching, and Florel has a tendency to delay flowering on some varieties even when used near the pinch.

On poinsettias, Florel can be used five days before and after the pinch to bring all the breaks out more uniformly. This will change the finished shape of 'Winter Rose' so all of the blooms are held at the top, not the staggered look that consumers seem to prefer. If you have good-quality cuttings that take off well after potting, you may not see any benefit on branching with Florel, just a growth regulator effect. The jury is still out about if Florel is really needed on poinsettias.

Using Florel on stock plants and during propagation can remove or abort early flowers on many cuttings. Be careful about rates and timing to avoid too much stress or effect. In propagation, use 250 ppm to

remove early blooms on New Guinea impatiens, double impatiens and other crops. Do your own trials and keep good records.

When the weather is really warm (greater than 90° F), you may need to reduce rates to avoid creating more stress on plants. With lower rates, you can spray weekly if needed. Poinsettias grown under high temperatures may need rates as high as 1,000-1,200 ppm to get an effect on branching. Remember, when using Florel, reduce your usage of other growth regulators during that period.

Here's the bottom line on Florel: Use it on a wide range of plants to promote branching, remember how Florel works and do your own trials. Once you learn how to use Florel effectively, you'll wonder how you ever did without it. GPN



*Phototoxicity on ivy geraniums caused by over-application of Florel.*

**Dr. Roger C. Styer is president of Styer's Horticultural Consulting, Inc., Batavia, Ill. He can be reached by phone at (630) 208-0542, fax at (630) 208-0966 or E-mail at [carleton@voyager.net](mailto:carleton@voyager.net).**



#### LearnMore!

For more information related to this article, go to [www.onhort.com/LM.CFM/gp100201](http://www.onhort.com/LM.CFM/gp100201).