



Photos courtesy of Ball FloraPlant

ANGELONIA

— *the warm season snapdragon*

Like snapdragons on steroids, Angelonia are great plants for an upscale market.

By Rick Schoellhorn

I think this crop is a fantastic example of what our industry can do when it puts its mind to it. Six years ago, *Angelonia angustifolia* was a good little summer annual in the South, but unreliable both in hardiness and in vigor, it was also pretty darn hard to find even if you knew what you were looking for. In today's market, this is one of the leading new vegetative crops, with a lot of good horticulture behind it and a bright future.

While related to the snapdragon, Angelonia is a summer specialty annual. Growth and development are tied to warm temperatures, and while it is hardy in much of Florida and some areas of the southeast, it is really better to think of it as an annual. Unlike the snapdragon, the stems are a lot thinner, and the plant has a looser-mounding growth habit. But like the snapdragon, Angelonia is an excellent cut flower with a long shelf life and a pleasant "grape soda" scent. This aspect of Angelonia will be getting a lot of consideration in the future, but for now, let's take a look at production and landscape potential.

ANGELONIA ANCESTRY

The four species of Angelonia originated in Central and Latin America, but only *Angelonia angustifolia* and *A. integerrima* hybrids get much interest in commercial production. There were originally four forms: a dark blue (sold as 'Blue Pacific') that was more compact with glossy leaves; pink or white forms with silvery foliage

(sold as *A. pandiana* or *A. alba*); and a blue- and white-striped form with silvery foliage (still sold as 'Hilo Beauty'). These were good, strong plants, but availability was sketchy. Also, some disease problems led to disenchanted growers. You can still find the old-fashioned types of Angelonia, but recent breakthroughs in breeding and disease eradication have brought us some far superior varieties.

Ball Floraplant introduced the AngelMist series about five years ago, and through breeding and virus eradication, they introduced a

series that looked like the old-fashioned Angelonia — on steroids! This series is stronger, larger, better-flowering and apparently hardier in the landscape. All in all, a great series and a great place to start if you want to begin growing Angelonia.

GROWING BASICS

A couple of quick notes before you begin...If you want to grow Angelonia, you will need two things: bright production space and warm temperatures. These plants will not do well in a

Culture Quickie

Fertilization. Use 150-250 ppm liquid feed or moderate levels of slow release.

Watering. Normal production irrigation is fine; drought stress works to slow growth.

Media. All commercial peat lite medias work fine; pH 5.8-6.8; high EC will reduce growth and leaf size.

Production Temperatures. Grows well from 60-85° F, below 50° F growth slows dramatically.

Light level. Maintain 2,000-5,000 foot candles; avoid low light at all costs, this will weaken stems and reduce quality.

Propagation. Propagated by cuttings, which root in 7-14 days.

Crop timing. With one pinch, 1-gallon takes 5-7 weeks from rooted liner; hanging baskets (three liners per 10-inch) take 8-10 weeks, pinch optional.

Flowering. Long day flowering with little photoperiodic response; warm temperatures speed flower development.

Common problems. Lots of caterpillar (looper) infestations in the South. *Bacillus thuringiensis* works well for control; spider mites are often seen in plants under stress.

Notes. Angelonia flowers in flushes; in the southern landscape, they repeat bloom with little need to prune, but in production, a shearing may be needed to get plants back into full bloom quickly and within size limitations.





'AngelMist White Improved'



'AngelMist Lavender Improved'



'AngelMist Lavender Pin'



'AngelMist Purple Improved'

greenhouse with a high temperature of 60-65° F or a shade lot. Plan ahead to order, and use Angelonia when you can do it right.

With the good, there is always a little bad, and as with most newer crops, controlling growth is often a problem. Angelonia is no exception and can quickly get out of control in a pot-to-pot production system. The secret is using the right plant growth regulators (shearing *is* a growth regulator!) and timing application to match plant growth. There are any number of ways to chemically hold this plant, but a lot of growers make the mistake of applying PGRs too early and get stumpy plants with poor branching and serious flower delays.

Here is a primer on doing it right: You can use Daminozide at 5,000 ppm; a tank mix of Daminozide with Chlormequat Chloride concentrations varying between 2,500-1,250 and 2,000-1,000 (lower rates might be needed in northern greenhouses). You can also use paclobutrazol, but be careful with rates, we have had some luck with this chemical at 1-4 ppm as a media drench in Florida, but only when plants are almost saleable in size.

The trick is to get the PGRs on just as plants begin to grow out from a pinch (and they usually need at least one pinch). You want new growth to be about 1-2 inches when you apply PGRs, maybe even a little longer, other-

wise you end up with stunted plants and a long wait before they sell. Remember, if you miss the PGR timing, there are always the pruning shears...

Flowering is simple. There's little photoperiod to worry about; just keep plants warm and in bright light, and they will do the rest in about 6-8 weeks (shorter timing in warmer production systems). Plants are usually sold in 1-gallon containers, mostly because smaller pots are just too hard to keep at size.

IDEAS TO TRY

I think a missed market for this plant is the 10-inch hanging basket using one of the larger forms like

'AngelMist Lavender'. You can start them a bit earlier, as they are up in the top of the greenhouse and their fine foliage doesn't block a lot of light; they will continue to flower throughout the summer, getting up to three feet in diameter. Try three liners in a 10- to 12-inch basket and give them 8-10 weeks and a couple of pinches. It will be hard to miss on a good, colorful basket. Be careful, though, once Angelonia is in flower, it is a bit fragile and won't take a lot of abuse in shipping.

Many growers are already including this plant in their crop schedules and have a lot of experience with producing a good crop. The best part is that this is just an easy plant to grow — uncomplicated and rewarding. If you can get "AngelMist Deep Plum", this is the only cultivar with a more dwarf habit. For northern growers, it is probably too weak, but in the south, we had great luck with it in containers and in field trials.

For plants to market along with Angelonia, try *Salvia guaranitica* 'Ensign Blue'; the foliage forms of *Plectranthus* (remember them?) also set Angelonia off well in mixed containers; or for the tropical look, use *Allamanda schottii* with its 4-inch, bright yellow flowers and a love of heat and sun. These plants all make killer combinations. GPN

Rick Schoellhorn is associate professor of horticulture at the University of Florida, Gainesville, Fla. He can be reached by phone at (352) 392-1831 x634 or E-mail at rksch@ufl.edu.



LearnMore!

For more information related to this article, go to www.onhort.com/LM.CFM/gp030207