

Volume 29, Number 1 Winter 2017

The **Cut Flower**

Q U A R T E R L Y

Association of Specialty Cut Flower Growers Inc.

for growers of field and greenhouse specialty cuts

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LISIANTHUS ABC 2 BLUE RIM

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A New Year, New Varieties, New Members

Dave Dowling



As overall ASCFG membership has increased in recent years, the number of Canadian members has increased as well. Currently, we have more than 50 Canadian members. At our Board meeting held the day before the 2017 Grand Rapids Conference, it was decided to create a separate Canadian Region. Not in an attempt to divide them from our stateside members, but to include our Canadian members more fully into the ASCFG planning and management of the organization. Canadian members have been on the Board in the past, but Canada as a country, never had her own, exclusive region. We sent out a call for nominations for Regional Director and three members became candidates, possibly the largest slate of candidates we've ever had for a Regional Director position. I'm happy to announce that Janis Harris the new ASCFG Canadian Regional Director. I look forward to working with her on the Board. Look for Janis' Regional Report on page 53 of this issue.

It was great to see so many new faces at the Conference in Grand Rapids. With 165 "first-time attendees", we hope you felt welcomed (and overwhelmed), but not too lost in the crowd. Our hope is that you were able to go back home to your farms and businesses with a good dose of "I can do this!" enthusiasm for the New Year. The number of "new" growers in attendance was refreshing. You've made the right choice when you joined the ASCFG and attended the Conference.

New and beginner growers probably don't know how good they have it. It's hard to imagine, but not too many years ago, there wasn't the ASCFG, the internet, or all these books dedicated to cut flowers to help farmers become better growers. People had just a few books at the library, and seed catalogs to help them learn how

to grow cut flowers. Plant knowledge was passed down from generation to generation and people learned by working on the family farm. Now, if a grower has a question on spacing, variety specifics, insect control, or any of a hundred questions that come up each day, all he has to do is do a Google search from his cell phone, or send a text to a flower farming friend, and the answer is almost immediate.

Growers can email an order to a supplier or post to social media while out working in the field, never missing a beat. Imagine, if you can, what life was like when growers would look through seed catalogs, fill out a paper order form, write a check, and mail in a seed order. Then wait three to four weeks for the seeds to arrive.

The winter issue of *The Cut Flower Quarterly* is usually the largest of the year. This issue in your hands now is no exception. All the great information on the New Varieties and the results of the ASCFG Trials from the past year take up a lot of space. But all of this is worthy of every page used. You will not find this valuable information dedicated to cut flower production and marketing anywhere else. Look through the results of the Cut Flower Trials in this issue, and commit to growing some, if not all of them. Look at the New Varieties available from various suppliers, and choose the ones that you think will work for your business. Your customers will be rewarded with new varieties of cut flowers that will help stand out in their local

market. And you will be rewarded with more sales and more money in the bank.

Make sure your passport is current, because you may need it soon. This is the year of the "O" for the ASCFG. "O", as in Oregon, Ohio, and Ontario. We're putting on a meeting in each of these locations in 2017. Americans heading to Ontario and Canadians heading to Oregon and Ohio will need a passport. If you don't have a passport yet, start the process now. It can take 4-6 weeks in the States, and 10-20 days in Canada. Besides, once you make all that money on those new flower varieties you're going to be growing, you might want to jet off to Europe on vacation.

Dave Dowling is a Sales Representative and Warehouse Manager for Ednie Flower Bulb. Contact him at dave@ednieflowerbulb.com





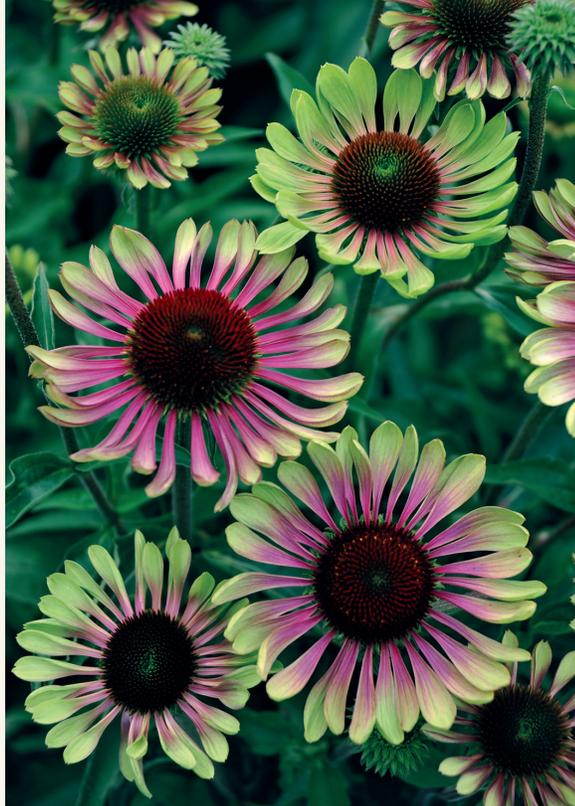
New
Varieties

2017

Jelitto Perennial Seed

Echinacea 'Green Twister'

'Green Twister' is a unique and colorful seed selection. This lively green cone-flower will show natural variation in the color and size of the green edge. A few flowers are light green, but some are almost yellow-edged, with an increasing carmine-red center. Petals are arranged horizontally around a large cone and there is very often a higher petal count. Flowering stems are shorter in the first year but normal size (around 100 cm/40 in) in the second year. Many of these stems are a dark burgundy color.



'Green Twister'

Sakata Seed

Flowering Cabbage 'Condor'

'Condor' is a new and unique look for bouquets and the flower vase! Flowers are pure white with a soft pink center. White color holds in any light condition. Plus, stems grow straight—easy to cut and bunch.

Lisianthus 'Rosita 2'

New 'Rosita 2' is loaded with more usable buds and medium-sized, beautiful rose-shaped flowers. Thick petals, top flowering and strong stems make for easy transport without botrytis problems. 'Rosita 2' is suitable for spring and early summer flowering. New and improved colors include Green Improved, Blue Flash, Pink Flash and Sapphire.

Stock 'Quartet Red II'

With improved color 'Quartet Red II' is early to bloom with approximately 55% double flowers—without seedling selection! Strong stems support beautiful sprays of sweetly-scented flowers. 'Quartet Red II' is ideally suited for bouquets, but can also be used as a spring bedding plant in some markets.

Sunflower 'Vincent's Choice Deep Orange' DMR

Vincent can now be enjoyed in a deeper color with slightly more pointed petal form. Plus, 'Vincent's Choice Deep Orange' is downy mildew resistant. Vincent offers high germ, short crop cycle and a tight flowering window.



'Condor'



'Rosita 2'



'Quartet Red II'



'Vincent's Choice Deep Orange'

Sunflower Selections

Sunflower 'ProCut BiColor'

'ProCut Bicolor' is our best solution for growers who have experienced problems with sunflower downy mildew. Like its cousin, 'ProCut Orange', 'ProCut BiColor' offers resistance to the prevalent races of sunflower downy mildew against which it has been tested. And like our mainstay, 'ProCut BiColor', this DMR version gives the same great petal quality and contrasting orange and red colors. Maturity is medium and the flowers are pollenless on single stem plants.



'ProCut BiColor'

Gloeckner

Daucus carota 'Purple Kisses'

First-year-flowering ornamental carrot with a dark green stem and umbels of dark purple to red flowers. A deep, richer purple/red flower color than any other variety on the market! Attractive cut flower, referred to as the purple Queen Anne's Lace. Height 3 1/2 to five feet.

Flowering Kale Empire Series

Uniform flowering with longer stems stem length. Makes an excellent cut flower and filler in bouquets. Fast crop, can plant 1-2 weeks later than other series. Hard leaf structure requires less fungicide. Series consists of 8 colors. Height: 3 ft. Spread 5-6in. Four varieties: 'Agathana' (white), 'Bogdana' (rosy-red), 'Katya' (deep pink), and 'Luba' (coral).

Matricaria Victory Series

Excellent flower for use as filler in bouquets. Series consists of a single white and a double white. Fast, year-round crop with high germination. Height 28-36 inches.



'Purple Kisses'



Matricaria 'Double White'



'Agathana'

'Bogdana'

'Katya'

'Luba'



'Zinderella Purple'



'Terrosal'



'Discovery'

Zinnia 'Zinderella Purple'

New color to the series. Scabiosa-flowered zinnia in an attractive bright purple. Robust plants, excellent for cutting. Series includes two other unique colors: lilac with a dark pink eye and peach with a ruby orange dark eye. Height two feet.

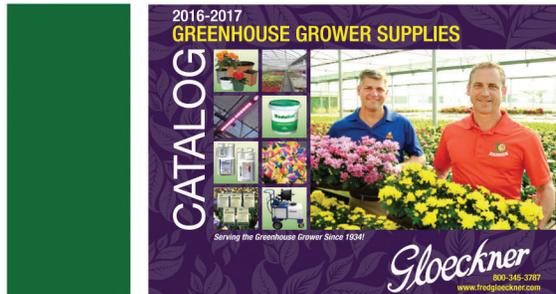
OT Lily 'Terrosal'

A new color for hybrid lilies! Beautiful tangerine flowers with a white/peach reverse. Height 48-50 inches.

Dutch Iris 'Discovery'

The number one dark blue iris variety for outdoor cut flower production around the world! Produces sturdy stems making for an outstanding cut flower. Height 20-24 inches.

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Our American Roots

Asiatic Lily 'Tango Tasmania'

This bright, yellow-flowering true 'Tango' type Asiatic lily available through Our American Roots is entirely American grown. This variety is great for cut flower production, either outdoors or in a tunnel. Grows 41" tall from a 14/16 size bulb.

Asiatic Lily 'Tango Paris Heart'

This orange-tipped, deep maroon-freckled true Asiatic is a nice addition to the 'Tango' series. These American-grown bulbs produce strong stems and are well suited for cut flower production, both indoors and outdoors. Grows about 41" tall from a 14/16 size bulb.

Asiatic Lily 'Tango London Heart'

The darkest and most dramatic member of the Tango series, 'London Heart' has very deep red petals with dark maroon freckles in the center. These American-grown bulbs produce strong stems and are great for cut flower production, both in and outdoors. Grows to about 41" tall from a 14/16 bulb.

Asiatic Lily 'Tango Orange Art'

This bright orange true Asiatic shows more of its vibrant color and a little less of the dramatic center freckles than its cousin 'Paris Heart'. It is American grown as well, and like the other members of the Tango family is well suited for cut flower production both indoors and outdoors. Grows 42" tall from a 14/16 size bulb.

Crocosmia 'Paul Bunyan'

Entirely American grown, 'Paul Bunyan' is a nice addition to our expanding crocosmia selection. It's the largest and tallest member in the crocosmia family. Its large bright orange flowers on a beautiful freesia-like inflorescence make it great for cut flower production. Grows to 40" tall from a 10/12 size corm. Blooms late July–early August the first year, early July the second year.



'Tasmania'



'Tango Paris Heart'



'Tango London Heart'



'Tango Orange Art'



'Paul Bunyan'



'Gold Rush'



'Happy Anniversary'

Crocosmia 'Gold Rush'

'Gold Rush' is another great American-grown addition to our own crocosmia family. This bright gold-flowerer has large flowers on an upright florescence. Grows to 32" tall from 8/10 size corm. Blooms late July–early August the first year, early July the second year.

Crocosmia 'Happy Anniversary'

Another stunning new addition, 'Happy Anniversary' produces beautiful red flowers with an unusual bright yellow throat. Grows about 35" tall from a 10/12 size corm. Blooms mid August the first year, mid July the second year.



'Jochem'

Crocosmia 'Jochem'

The earliest and most unusual crocosmia in our selection thus far; it blooms about 10 days before any other. Its flowers produce a rare color combination of a large yellow throat with a coral edge. Besides the large flower size and unusual colors, the flower count per stem is also far above average. Grows to 38" tall from a 10/12 size corm.

Crocosmia 'Malahide Castle'

An older variety almost lost in cultivation but built back and available commercially now. The orange/red flowers on this variety are plentiful. 'Malahide Castle' might be shorter than most other crocosmias, but it will out-produce most other varieties with its large flower quantity. Grows to 30" tall from a 8/10 size corm. Blooms late July-early August the first year, early July the second year.

Zantedeschia aethiopica (Calla aethiopica)

Unlike its more finicky, smaller but colorful cousins, calla aethiopica is the easiest to grow member in the highly popular calla lily (*Zantedeschia*) family. It produces multiple large (5"+ diameter) pure white flowers on a 26"+ stem without the use of added growth regulators. It establishes well as a perennial in most zones 7 and up without winter protection. First peak blooming early June with second peak blooming in the fall, in zones 8 and up.



Calla aethiopica



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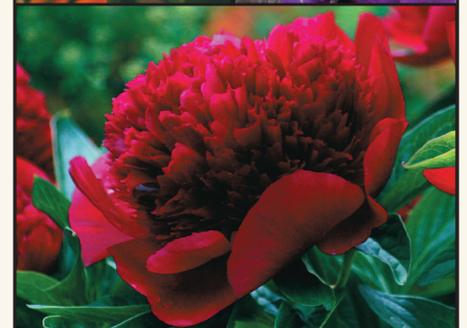
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GeoSeed

Aster 'Opus'

This unique peony-flowered aster produces showy blooms 2 to 3 inches across on strong stems. Snowy white blooms are tipped with lavender and contrast well with other colors. As blooms mature the lavender tips become more pronounced, so a single plant has blooms ranging from white to deep lavender. Height 24-30 inches.

Calendula Touch of Red Series

Fully double two-inch blooms in various shades with "a touch of red" dusted on petal tips. Excellent choice for a field-grown cut flower. Height 24 inches. Colors include buff, orange, yellow, and a mix.

Celosia cristata 'Delhi Rainbow'

Uniform plants produce large flat combs that are "luminous" rose-pink tipped with apricot fringe. Produces small side shoots along the stem below the central comb. Excellent summer crop under cover or as field-grown specialty cut flower. Height 24-48 inches depending on spacing and season.



'Opus'



'Delhi Rainbow'



'Rosetta'

Cosmos 'Red Illusion'

Tetraploid with large, semi-double blooms. Petals are marked at base and rim with reddish veins over a pale pink background. Quick and easy crop in 60-90 days. Height 48 inches.

Cosmos 'Rosetta'

Large blooms with beautifully striped daisy-like, deep rose-pink and white petals and golden-yellow eyes. Blooms are mostly single but some display an inner collarette. Early and very prolific, making it an excellent field grown specialty cut flower. Height 30 inches.

Daucus carota 'Dara'

Ornamental wild carrot with airy blooms in shades of pink and burgundy-red with an occasional white flower. Delicate blooms and pleasantly aromatic ferny foliage add interest to floral arrangements. Highly productive plants with sturdy upright stems. Height 36 to 48 inches. Not for sale in Iowa, Michigan, Ohio, or Washington State.



'Delhi Rainbow'



'Dara'

Dimorphotheca pluvialis 'Tetra Polar Star'

This African daisy has pure white petals with fluorescent blue centers produced on strong stems. Nice, sturdy plant habit make it a showy field-grown cut flower. Height 14 to 16 inches.

Sunflower 'Buttercream'

Striking sunflower with spray habit. Flowers are a clean, creamy yellow featuring five-inch pollen-free flowers with small dark centers, and two rows of overlapping petals. Early and floriferous with strong stems. Height 48 inches.



'Tetra Polar Star'



'Buttercream'



'Bolero Blue Picotee'

Lisianthus 'Bolero Blue Picotee' (Group 2)

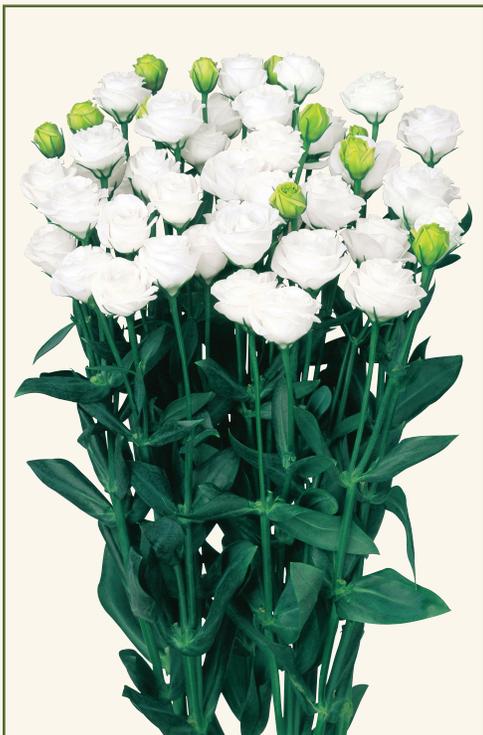
Early flowering with strong sturdy stems. Thick, fully double blooms with blue picotee bands. Bloom shape and quality hold up well under heat. Adaptable to both winter and summer scheduling. Excellent choice for cuts under cover, and worth testing in the field. Very appealing with long vase life. Height 30-40 inches.

Lisianthus Doublini Series (Group 1)

Produces masses of strong, small 1½-2 inch truly double flowers. Each stem carries numerous branches and is already a small bouquet. Blooms resemble mini roses that are versatile for design work. A professional quality cut that holds up well during transport. Height 24-34 inches. Colors include blue, rose pink, and white.

Lupine Avalune Bicolours Mix

A dwarf, hardy annual lupine with a compact habit, which produces a kaleidoscope of colors on low, bushy plants. Each fragrant spike is filled with blooms in either lilac to purple or pink to red shades, all in combination with bright white lower lips. Height 16 to 24 inches.



Doublini Series (Group 1)



Avalune Bicolours Mix

Zabo Plant

Lily longiflorum 'Gizmo'

This side-facing, eggshell-white beauty has an extended green nectary down the center of each smoothly textured petal, which provides a pleasant contrast. It's a good mixer in bouquets, and a terrific garden lily for combining with OT Hybrids like 'Conca d' Or' or 'Tabledance'. Approximately 100 forcing days and 43 inches in height. Large flowering with a pleasant fragrance.

Oriental lily 'Vendome'

Talk about an exciting new pink Oriental! The upward-facing 'Vendome' comes equipped with yellow stamens and carpels, and deep pink speckles in the center. Topping out at 45 inches after 120 days of growth, 'Vendome' flowers wonderfully. It has a great flower bud count when using the 16-18 sizes.

Asiatic lily 'Tiny Double You'

One fantastic-looking double-flowering Asiatic bouquet lily! We suggest using size 14/16, which will give you five to seven blooms. Flower color resembles a melting orange Popsicle on a hot summer day. This gem grows to 17 inches and takes approximately 65 days to bloom.

Asiatic lily 'Tiny Sensation'

This beautifully speckled Asiatic delicately balances sunny yellow with cayenne pepper red. 'Tiny Sensation' is also great for bouquets, as well as fall season cropping, and best produced from size 14/16 which gives you more than six blooms.

Asiatic lily 'Tiny Ghost'

At first look at this flower's name, you'd think it would be pure white. Guess again. This is the deepest purple blooming Asiatic, which is great for contrast bouquets, especially when used with pinks and blushes. Its height is 15 inches; bloom time is 60 days and can be produced all season long.

Oriental lily 'Yellow Tiger'

This brand new Oriental yellow tiger is a fierce as its name and hails from the Spotify Lily clan. It boasts large blooms with dense freckling and the petals fading out to a creamy white. It is the first *true* yellow oriental lily. Enough said. Now for the specs...pun intended. 115 days to bloom with a height of 47 inches; four to six blooms per stem at a bulb size of 16/18. Get 'em while they're hot.



'Yellow Tiger'



'Gizmo'



'Vendome'



'Tiny Ghost'



'Tiny Double You'



'Tiny Sensation'



'Arena III Hot Pink'



'Croma III Silky White'



'Croma III Pink Picotee'

Takii

Lisianthus 'Arena III Hot Pink'

This new addition to the Arena series is classified as mid to late flowering. Deeper in color than 'Arena III Pink', it has excellent doubleness under high temperatures. The Arena series is available in 17 colors.

Lisianthus 'Croma III Silky White'

'Silky White's flowers are more open than 'Croma III White'. Classified as mid to late flowering, flowers are mid-sized with good doubleness. The Croma series has rose-like flowers with thick, strong petals and strong stems.

Lisianthus 'Croma III Pink Picotee'

'Pink Picotee' exhibits very stable color. Its picotee has a nice margin of color. Classified as mid to late flowering, flowers have an excellent shape and strong petals. The Croma series is available.

Crane Feather King (Pink)
Crane Feather Queen (Red)

Takii's Cut Flower Kale

The premier breeder in cut flower kale.

Crane series

Round-leaved type

available in Bicolor, Pink, Red, Rose, and White

Feather-leaved type

available in Feather King (Pink) and Feather Queen (Red)

Lucir series

Glossy, round-leaved type

available in Rose, and
White

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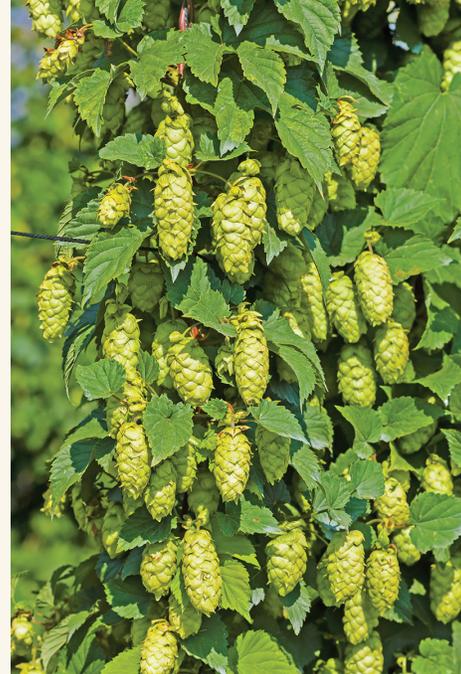
Harris Seeds

Ornamental Kale 'Scarlet'

A glamorous kale meant for the vegetable trade, yet the ruffled red to magenta leaves are stunning in market bouquets! Designers will love this audacious accent.



'Scarlet'



'Nugget'

Hops 'Nugget'

A new favorite for fall brides! With the explosion of craft brewing, consumers are becoming familiar with the look of these captivating cones. Now offering four varieties that designers will love.

Sunflower 'Shock 'o Lat'

A favorite in our on-site trials! This striking pollen-free sunflower offers rich chocolate colored petals with gold-rimmed edges.



'Shock 'o Lat'



'Xanthos'

Cosmos 'Xanthos'

The first true yellow cosmos, and a European garden award winner! A stunning addition to mixed bouquets needing softer tones.

Dahlia 'Boom Boom White'

These gorgeous white dahlias are 2-4" fully double, ball-shaped flowers. A versatile component for centerpieces; designers will appreciate their easy style.



'Boom Boom White'

Dianthus 'Sweet Deep Pink Maxine'

Add this charming deep pink bloom to your line up of sweet William. A new favorite from our 2016 trials with a free-spirited flare!



'Sweet Deep Pink Maxine'



'Polar Bear'



'Rosanne II Deep Brown'



'Crane Feather King and Queen'

Gladiolus 'Polar Bear'

Pure white, lightly ruffled flowering spikes make a strong vertical statement in arrangements. A mainstay of elegance.

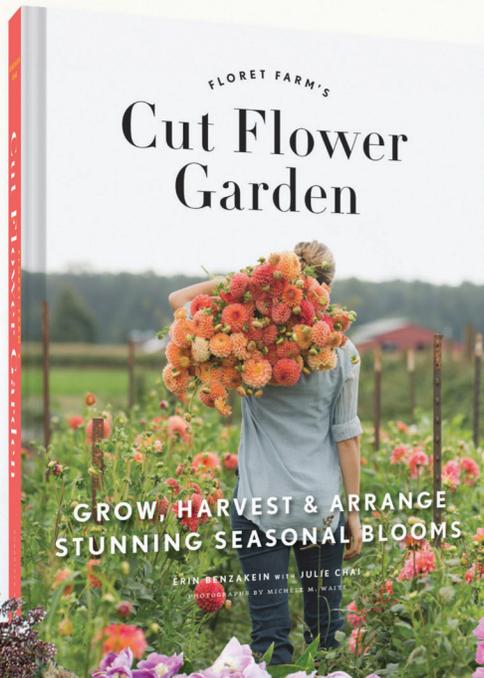
Lisianthus 'Rosanne II Deep Brown'

Florists and brides will rave about the unique trendy lavender-brown color of this double lisianthus. We offer premium lisianthus plugs grown by both Raker and Gro 'n Sell.

Ornamental Kale 'Crane Feather King and Queen'

The first of its kind! A uniform, feather-leaf ornamental kale for cuts; its unusual texture brings a contemporary flair to arrangements.

BE INSPIRED TO CREATE YOUR DREAM FLOWER GARDEN



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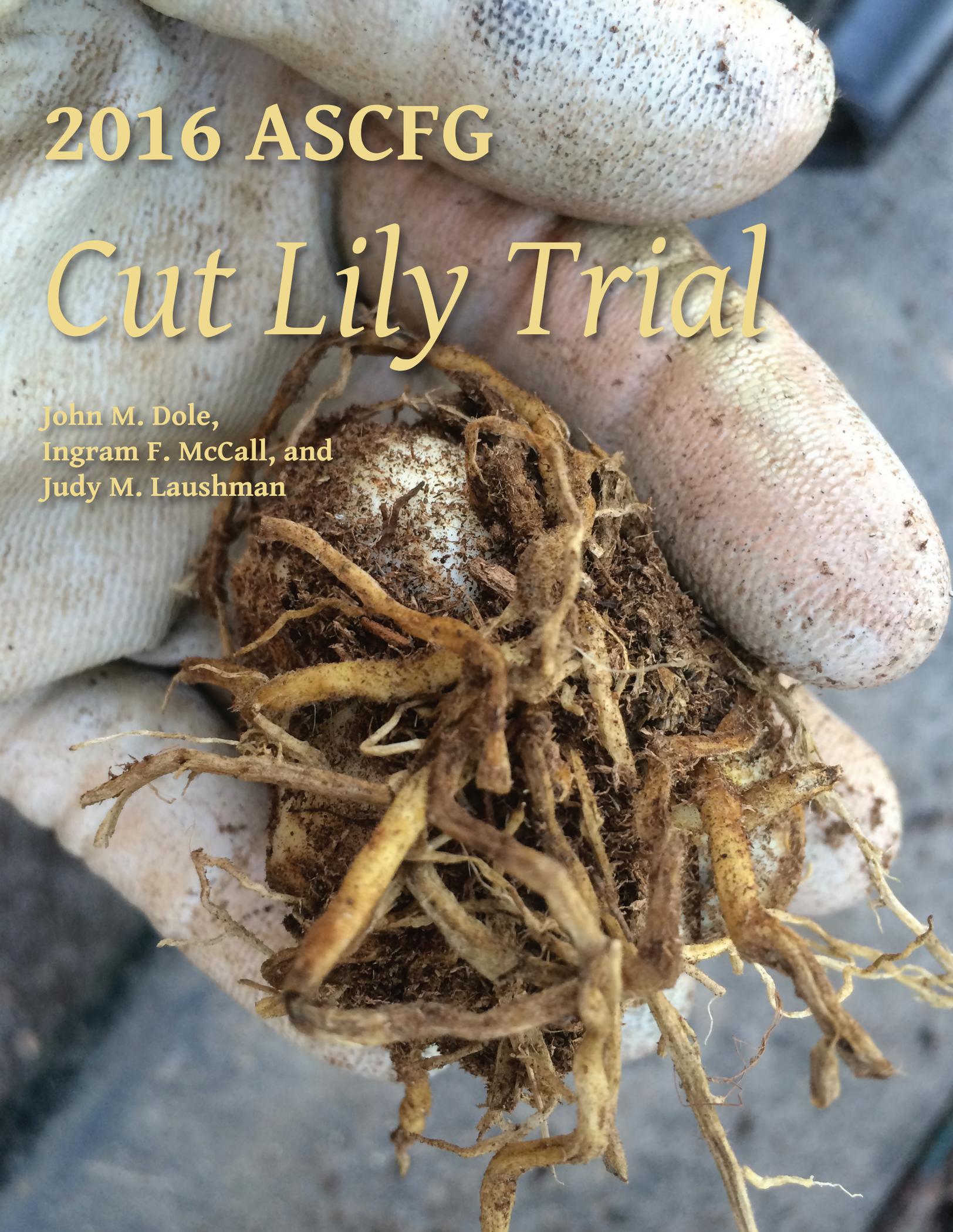
Cut Flower Garden

GROW, HARVEST & ARRANGE
STUNNING SEASONAL BLOOMS

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CHRONICLE BOOKS



2016 ASCFG

Cut Lily Trial

John M. Dole,
Ingram F. McCall, and
Judy M. Laushman

Lilies are the most important specialty cut flower grown in the United States. In 2015 the value of cut lilies was over \$60 million. Considering their value and importance to so many growers, in 2016 the ASCFG coordinated a trial of lily cultivars in cooperation with Zabo Plants and Our American Roots.

Large-scale production of cut lilies is usually accomplished in heated greenhouses using bulb crates. However, many small-scale producers grow in high tunnels, either in the ground or in crates, and some growers produce lilies in the field. In this program, most of the trialers grew the lilies in high tunnels. However, NC State University grew their lilies in a heated greenhouse, and two of the trialers grew the lilies in the field. At NC State, we also planted the bulbs in the field after harvest. We have heard that some growers do this and wanted to see for ourselves how the practice works, and then collect data. We will report on this method in the future.

Of the 23 cultivars from two companies, the top-ranked cultivars were ‘Francesca’, ‘Garnacha’, ‘Logan’, ‘Paramillo’, and ‘Revello’, based on the combined ratings score: market appreciation + repeat again + ease of cultivation. Not only will these cultivars be nominated for the ASCFG Cut Flower of the Year, but they are a great place to start talking about the results of the Trial.

‘Francesca’ produced beautiful rosy pink flowers on 33-inch stems. Bud count was relatively low, 2.5, for single-stem or florist sales, but flowers were great for bouquets. This LA hybrid flowered an average of 80 days from planting. Note that the crop time was an average of the relatively fast flowering in the greenhouse and the slower flowering in the field; see table for the range in crop times.

The LA ‘Garnacha’ was noted by participants for its rich red color and very large flowers. Stems averaged 36 inches long with a little over three buds per stem. It was one of the last cultivars to flower.

‘Logan’ had a relatively high bud count, averaging a little over four per 38-inch stem. The creamy white flower of this LA hybrid had a few burgundy specks at the base of the petals.

‘Obvio’ had a lightly sweet fragrance on a nice-sized white bloom, all were ready to harvest on the same day, that was nice.

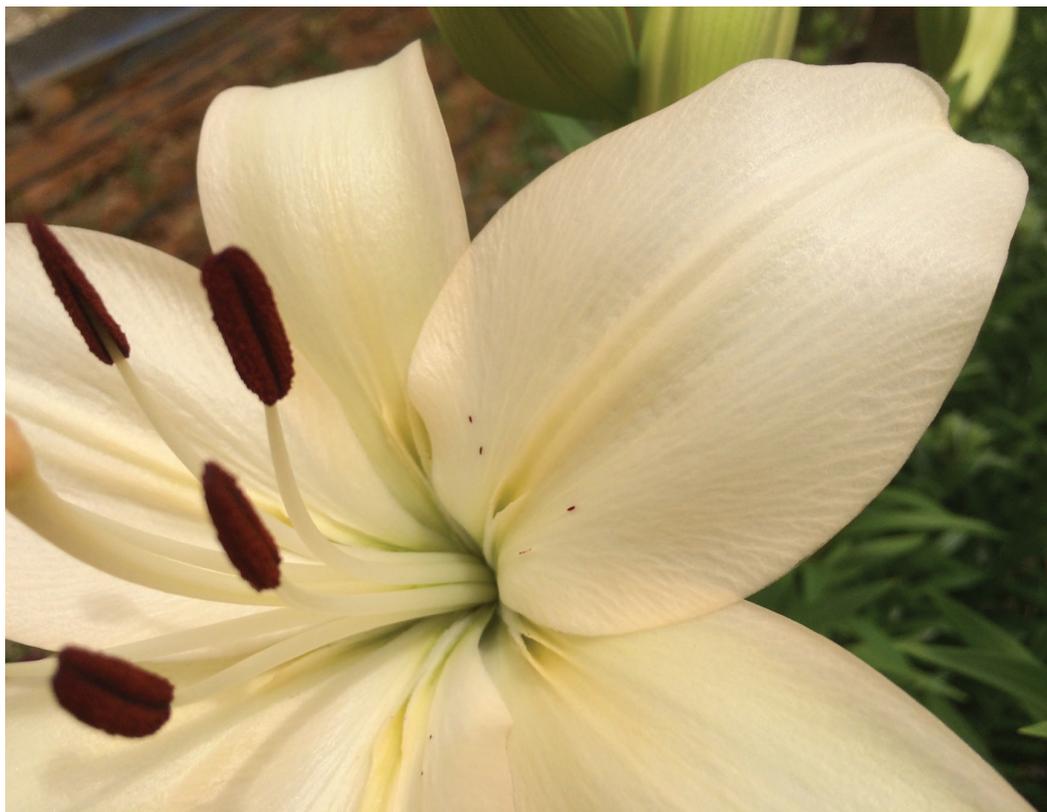
The golden-yellow flowers of ‘Paramillo’ were very large. Buds counts averaged 2.4 on 39-inch stems. This LA hybrid flowered an average of 88 days from planting.

One trialer remarked about the “stunning orange flowers” of the LA hybrid ‘Revello’. Stems averaged close to three buds each and were about 42 inches long.

Other notable cultivars include ‘Vierne’, which had the highest bud count in the trial, almost five per stem. The flowers were white and stems averaged 35 inches long. ‘Paciano’ had the second highest bud count, close to 5 per stem, and the longest stems in the trial. Petals were a beautiful

soft pink. ‘Royal Sunset’ is well named as one trialer noted that “the colors definitely remind me of the colors of a sunset”. Stems had close to four buds each and flowered relatively quickly in 79 days.

Interpreting the trial results: The numbers reported are averages of all the respondents and many factors will affect the success of any plant species. Our participants grow and harvest trial plants using several methods. After looking at the average, check the range of responses listed below each number to see how the cultivar performed at its best and its worst. If the range of responses in the ratings is nar-



‘Pedara’

Photos by Tanis Clifton



Participating Trialers and Production Information

Emily Capule

The Honey Bee and the Hound, Corpus Christi, Texas

Planted Zabo lilies March 13 and
Our American Roots lilies April 15 in the field.

Tanis Clifton

Happy Trails Flower Farm, Dennis, Mississippi

Planted Zabo lilies March 14 and Our American Roots lilies April 10 in a high tunnel. Temperatures were average, but did reach 100 a couple of times in early June in the high tunnel. Shade cover installed May 31. All lilies were planted in crates in our own soil mixture of composted bark mulch, sand, and sphagnum peat moss. Lilies were planted, then stored in the cooler at 50 degrees for 3 weeks, to establish roots before placing into the high tunnel.

Thea Folls

Folls Flower Farm, Auburn, New York

Planted Zabo lilies March 15 and
Our American Roots lilies April 17 in the field.

Jim Kelly

Emerald Farm, Glen Cove, New York

Planted Zabo lilies March 15 and
Our American Roots lilies April 8 in the field.

Ingram McCall and John Dole

North Carolina State University, Raleigh, North Carolina

Planted Zabo lilies March 10 and
Our American Roots lilies April 7 in a greenhouse.

Kathryn Klotzbach

Flower Fields Forever, Lyndonville, New York

Planted Zabo lilies March 16 and
Our American Root lilies April 7 in a high tunnel.

Quinton Tschetter

Tschetter Flowers, Oskaloosa, Iowa

Planted Zabo lilies March 12 and
Our American Root lilies April 6 in a high tunnel.

Paula Rice

BeeHaven Flower Farm, Bonners Ferry, Idaho

Planted Zabo lilies March 11 in a high tunnel in crates and
Our American Root lilies April 28 in the field.

row and high, i.e., 3-5 or 4-5, the plant was a winner for most of the respondents and is likely to do well for you. The 'Repeat Again Rating' is particularly important because it indicates if the trialer would take the time, money, and space to actually grow the cultivar again. Review the trial results carefully. If a variety sounds interesting, but did not appear to do well, try it anyway; it may work well for you.

Acknowledgments: A major thank you to each of the seven evaluators who returned their trial reports. The Lily Trial was more involved than our typical Seed Trial, and we greatly appreciate the time and energy of the trialers. We also want to thank Zabo Plants and Our American Roots for providing such great cultivars. Congratulations to Tanis Clifton for being the first trialer to return her evaluations! We would also like to thank Nathan Jahnke, Ben Bergmann, and Peyton Daly for assisting with the NCSU trials. In preparing the report we did a bit of editing of the comments for space and clarity; our apologies if we've altered the tone or content of anyone's comments.

Participating Companies

Zabo Plant

Pittsburgh, Pennsylvania
www.zaboplant.com

Our American Roots

Woodland, Washington
www.americanlilies.com

Summary of Comments

Note: many respondents did not make specific comments on each cultivar and in a few cases, comments have been shortened because of limited space.

‘Abrazo’ (Zabo Plant) LA hybrid. No bud drop or abortion or leaf yellowing reported by any trialers.

Comments: This lily produced a fluorescent red flower with enormous blooms!; Nice deep rich jewel tone red, freckles with slight or deep in center, large plum buds, very fleshy feeling, even with the low bud count, still very usable and actually very manageable; Red with yellow throat—loved it.

‘Canino’ (Zabo Plant) LA hybrid. No bud drop or abortion reported by any trialers; one trialer reported leaf yellowing.

Comments: This lily produced a beautifully-colored orange flower, I would grow again in a larger size bulb to get more buds, 1-2 buds is not acceptable for our purposes; I can always use fewer amounts of buds, especially in today’s design work, often times the others just have too many, but for making florist bunches it doesn’t work; Beautiful, good vase life, brilliant orange.

‘Dolly Madison’ (Our American Roots) Asiatic hybrid. Five out of seven trialers reported bud drop or abortion; two trialers reported leaf yellowing.

Comments: Only 20% of our stems did not have aborted buds, vase life was 8.5 days; This cultivar was a pretty pink with freckles, the shape reminded me of an Oriental lily, it was somewhat fragile and did not hold up as well as other lilies; May have planted too late in season—stems yellowed, barely produced buds; Beautiful clear, clean dark pink; Weak stems, small buds, beautiful.

‘Eniac’ (Zabo Plant) LA hybrid. No bud drop or abortion or leaf yellowing reported by any trialers.

Comments: Inconsistent bud formation from none to 4 buds, for this reason I would never grow this again; Super clear, clean orange; There was one plant with no blooms.

‘Francesca’ (Zabo Plant) LA hybrid. No bud drop or abortion reported by any trialers; one trialer reported leaf yellowing.

Comments: Buds clustered close together and straight up, which is nice for bouquet work, but the bud count was too low with only two buds, also, petals did not maintain a nice smooth texture in a vase, after only a few days they got a slight crinkled appearance like an aged bloom; Nice-sized blooms; Bulbs were sprouted when received.

‘Garnacha’ (Zabo Plant) LA hybrid. No bud drop or abortion or leaf yellowing reported by any trialers.



Comments: Deep rich color!! high bud count, super tall—the tallest of them all, very uniform and awesome all the way around, stood out among all the rest; A pure deep red, petals were slightly textured, kind of thick-like with a few freckles deep in the throat; Huge blooms, beautiful color.

‘John Hancock’ (Our American Roots) Asiatic hybrid. Two out of six trialers reported bud drop or abortion; two trialers reported leaf yellowing.

Comments: Lots of aborted buds, this cultivar had very weak stems, vase life was 8.5 days; This cultivar was beautiful and unusual with a deep burgundy splotch on each yellow petal, very interesting; Clients liked color combinations, secondary flowers held longer than ‘Yellow Diamond’; May have planted too late in season—stems yellowed, barely produced buds; This is weird but this came up in mixed colors; Weak stems, sprawling.

‘Logan’ (Zabo Plant) LA hybrid. No bud drop or abortion or leaf yellowing reported by any trialers.

Comments: Nice creamy white color; Clients liked the “freckles”; Nice, smaller blooms.

‘Meryl’ (Our American Roots) Oriental lily. One trialer reported bud drop or abortion; one trialer reported leaf yellowing.

Comments: Several stems had brown spots on the buds, vase life was 12 days; This cultivar is similar to a ‘Stargazer’ in ap-

‘John Hancock’ was beautiful and unusual with a deep burgundy splotch on each yellow petal, very interesting.



‘Paramillo’ (Zabo Plant) LA hybrid. No bud drop or abortion or leaf yellowing reported by any trialers.
Comments: Nice bright yellow color with black speckles and a slight fragrance, blooms were huge!, I would grow this one again; This was a beautiful jewel-toned yellow, very rich and nice and deep golden color, this one I tortured a bit as it was the furthest away and in a corner, so maybe other

trialers had more buds on average, I really like the color of this yellow; In general clients like “freckles” on otherwise solid color flowers; Loved the flower and petal shape, good; Nice yellow lily.

*‘Meryl’ was late flowering...
like waiting for Godot; hot,
dry summer may have
contributed.*

pearance, blooms are side facing which makes them easier to design with, farmers’ market customers love this type of lily, but not enough market to grow Oriental lilies so would probably not grow it on a commercial scale, this cultivar got so tall that the stems bent, so they had to be staked; Late flowering... like waiting for Godot, hot, dry summer may have contributed, had to be staked which I rarely do; May have planted too late in season—stems yellowed, barely produced buds; Beautiful, large, customers loved them.

‘Obvio’ (Zabo Plant) LA hybrid. No bud drop or abortion or leaf yellowing reported by any trialers.

Comments: Slightly sweet fragrance on a nice-sized white bloom, all were ready to harvest on the same day, that was nice; Really nice and plump buds, clear cream color (could be called a cream or white) sporadic bud count, but I have many types of markets so can get away with that; There was one plant with no blooms; Unique bloom, large, good vase life.

‘Paciano’ (Zabo Plant) LA hybrid. No trialers reported bud drop or abortion; one trialer reported leaf yellowing.

Comments: Nice to have a lily with higher bud count than most of the others trialed; Super light pink with a few dark freckles, half bloomed early and half bloomed later; Splotchy colored flowers, ‘Tsajkovski’ was far superior in my view; Excellent cut flower; Very strong stems, good bud count.

‘Palentino’ (Zabo Plant) LA hybrid. One trialer reported bud drop or abortion; one trialer reported leaf yellowing.

Comments: The blooms were enormous; Huge flowers, but stems collapsed in the wind, where most others did not; There was one plant with no buds; Deformed buds, good vase life though.

‘Pedara’ (Zabo Plant) LA hybrid. No bud drop or abortion or leaf yellowing reported by any trialers.

Comments: The most unusual white LA hybrid. It had a slight blush pink/coral undertone to the white bloom. Can’t decide if I like it or if it looks like a washed-out white; Later blooming than other LAs, in general, I avoid white varieties due to staining; Lovely peach turns to white.

‘Ravello’ (Zabo Plant) LA hybrid. No bud drop or leaf yellowing reported by any trialers.

Comments: Very uniform, pretty much all the same; Stunning orange flowers, but good number flopped over; Rich color, good vase life vibrant; Just average to small size bloom, standard orange color.

‘Rokanje’ (Zabo Plant) LA hybrid. No bud drop or abortion or leaf yellowing reported by any trialers.

Comments: All the bud counts were either 3 or 5; Smaller white bloom than most LA hybrids I’ve grown, nice bud count though; Whites are difficult to bring to market; Very nice; Large buds, beautiful pure white.

‘Royal Sunset’ (Our American Roots) LA hybrid. One trialer reported bud drop or abortion; two out of seven trialers reported leaf yellowing.

Comments: Vase life was 10.5 days; The colors definitely reminded me of the colors of a sunset, perfect name, I like this cultivar but the petals seem somewhat fragile; Have grown for years, originally thought it might be too radical for my customers, but they loved them; I love this lily; May have planted too late in season—stems yellowed, barely produced buds; I’m not sure what may have different about this ‘Royal Sunset’ but it was so much more vibrant than any ‘Royal Sunset’ I have grown before, it amazed me; Customers loved it, but it was not as strong as past years that we have grown it.

‘Sorbonne’ (Our American Roots) Oriental hybrid. One trialer reported bud drop or abortion; one trialer reported leaf yellowing.

Comments: This cultivar is similar to ‘Stargazer’ in appearance, blooms are downward facing which makes it difficult to design with, farmers’ market customers love this type of lily, but not enough

I'm not sure what may have different about this 'Royal Sunset' but it was so much more vibrant than any 'Royal Sunset' I have grown before, it amazed me.

market to grow Oriental lilies so would probably not grow it on a commercial scale; Beautiful color and markings, customers liked it; Vase life was 10 days; I always grow, very pretty pink variety, standard for florists with “pink” clients; May have planted too late in season—stems yellowed, barely produced buds.

‘Sweet Desire’ (Zabo Plant) LA hybrid. One trialer reported bud drop or abortion; two out of six trialers reported leaf yellowing. *Comments:* The blooms opened cream with burgundy speckles, then changed to more of a creamy yellow in the cooler, pretty unique color, people either loved it or did not care for it; Huge flowers, but stems could not support them in a breeze or wind; There were two plants that did not produce buds; Good vase life, customers loved it, speckled.

‘Tayrona’ (Zabo Plant) LA hybrid. One trialer reported bud drop or abortion; one trialer reported leaf yellowing. *Comments:* The blooms were huge; Beautiful large white, simple yet striking.

‘Tsjaikovski’ (Zabo Plant) LA hybrid. One trialer reported bud drop or abortion; one trialer reported leaf yellowing. *Comments:* This pink lily was inconsistent in bud count, also experienced bud abortion on a few stems, for this reason I would not grow this one again; Nice compact heads; Petals shattered easily; Best pink variety in the LA group; Pastel, maybe too light, used in a wedding and the customer loved it.

‘Vierne’ (Zabo Plant) LA hybrid. No trialers reported bud drop or abortion; two out of six trialers reported leaf yellowing. *Comments:* The bloom was on the small side and a basic white, no wow factor; Customers like freckles, one very short stem; Beautiful but opened too quickly.

‘Yellow Diamond’ (Our American Roots) LA hybrid. Four out of six trialers reported bud drop or abortion; one trialer reported leaf yellowing. *Comments:* Vase life was 7.5 days; Nothing special about this yellow lily and inconsistent bud development will deter me from growing this cultivar; ‘John Hancock’ was superior in many ways; This was the only variety from Our American Roots to perform; Nice.



Trial Results for lilies. First row of data for each cultivar is the average and the second row is the range of responses. Note when only one response is listed in the range line, several trialers responded and all gave the same rating.

Cultivar	Days to 1 st flower ¹	Days to last flower ¹	Low bud count	High bud count	Average bud count	Stem length (in.)	Ratings ²		
							Market appreciation	Ease of cultivation	Grow again
'Abrazo'	86	92	2.1	3.4	2.6	32	3.8	4.7	3.5
	61-106	63-116	2-3	3-5	2-4	23-43	2-5	4-5	1-5
'Canino'	79	85	1.0	3.2	1.9	37	3.7	4.8	3.0
	52-101	56-110	1-1	2-4	2	30-40	2-5	4-5	1-5
'Dolly Madison'	80	85	3.0	6.0	4.6	32	3.5	4.0	3.6
	60-103	64-110	1-5	2-9	2-7	24-38	1-5	1-5	1-5
'Eniac'	88	92	2.8	4.7	3.7	42	5.0	4.8	4.0
	55-110	56-116	0-5	3-7	2-6	33-55	5-5	4-5	1-5
'Francesca'	80	85	1.9	3.6	2.5	33	4.8	5.0	4.2
	52-101	52-110	1-2	2-5	2-4	24-36	4-5	5	3-5
'Garnacha'	88	94	2.0	4.7	3.2	36	5.0	5.0	4.8
	55-106	57-121	1-4	3-7	2-6	24-50	5	5	4-5
'John Hancock'	76	80	2.0	4.1	3.1	35	3.8	3.8	4.0
	62-88	69-89	0-3	0-7	0-5	24-48	1-5	1-5	1-5
'Logan'	87	92	2.9	5.3	4.2	38	4.8	4.8	4.7
	55-108	57-116	2-4	3-7	3-5	30-50	4-5	4-5	3-5
'Meryl'	98	103	2.3	5.1	3.6	40	3.8	3.7	3.2
	78-114	83-120	1-4	2-7	2-6	24-50	1-5	1-5	1-5
'Obvio'	91	97	2.0	5.2	3.6	37	4.3	5.0	4.4
	67-109	74-116	0-3	4-6	3-4	33-45	3-5	5	3-5
'Paciano'	86	91	3.9	5.9	5.0	42	4.3	4.8	4.2
	71-103	74-116	2-5	4-7	4-6	33-53	2-5	4-5	1-5
'Palentino'	79	84	2.5	5.0	3.8	38	4.0	4.4	3.6
	52-98	54-103	0-3	4-7	3-5	28-47	3-5	3-5	1-5
'Paramillo'	88	92	1.5	3.1	2.4	39	5.0	4.9	4.6
	52-111	56-116	1-2	3-4	2-3	32-53	5	4-5	3-5
'Pedara'	86	90	2.5	3.7	3.0	42	4.3	4.8	4.2
	52-104	56-111	2-3	3-5	2-4	33-54	3-5	4-5	3-5
'Ravello'	82	86	2.6	4.6	3.8	35	5.0	4.8	4.3
	55-97	59-101	2-3	4-5	3-5	26-53	5	4-5	3-5
'Rokanje'	84	89	2.8	5.3	4.2	34	4.4	4.9	3.9
	52-107	56-112	2-4	5-7	3-6	30-40	4-5	4-5	2-5
'Royal Sunset'	79	86	2.1	5.6	3.8	31	4.2	4.1	4.0
	62-88	71-96	1-4	2-7	2-6	24-40	1-5	1-5	1-5
'Sorbonne'	82	90	1.7	4.3	3.8	35	3.8	3.8	3.6
	69-95	74-108	0-5	0-7	2-5	24-48	1-5	1-5	1-5
'Sweet Desire'	76	80	2.0	4.5	3.2	36	4.0	4.8	3.6
	52-96	56-96	0-3	3-5	3-4	29-44	3-5	4-5	1-5
'Tayrona'	82	85	2.0	3.3	2.6	35	4.0	4.8	3.8
	61-98	61-104	1-3	3-5	2-3	28-51	3-5	4-5	2-5
'Tsjaikovski'	84	89	2.3	5.1	3.8	41	4.5	4.8	4.0
	61-101	61-112	1-3	4-7	3-5	33-52	3-5	4-5	1-5
'Vierne'	81	87	3.7	5.5	5.1	35	4.7	4.8	3.8
	94-96	63-110	2-6	5-7	4-7	26-49	4-5	4-5	2-5
'Yellow Diamond'	65	71	2.4	5.7	3.9	32	3.3	4.2	2.8
	43-81	43-88	1-3	4-7	3-5	24-41	2-5	3-5	1-5

¹Crop time varied greatly since the plants were grown in a broad range of environments from heated greenhouse to high tunnels to field.

²1 to 5 scale, with 5 being the best. Market ratings are based on sales to wholesalers, retailers or final consumers.

2016 Perennial Trial Report, Year 1

John M. Dole, Ingram F. McCall,
and Judy M. Laushman



Eupatorium 'Baby Joe'

Eupatorium 'Baby Joe' was the stand-out in the first year of the 2016-2017 ASCFG cut flower perennial trial. This charming filler flowered well in mid to late summer of the first year, producing 12- to 36-inch long stems of small fuzzy, purplish pink flowers. One trialer commented that the color blended well with the "pink/burgundy/grey colors that are popular in wedding work right now." Plants produced an average of three stems each, with some trialers getting up to seven. The cultivar name 'Baby Joe' refers to the fact that this is a shorter version of the native species, which occurs in the eastern United States and Canada. Is this good, considering that we like our cut flowers to have long stems? In this case yes, since it is not too short and the flower heads are more compact and showy. Since 'Baby Joe' is reported to grow up to five feet tall, we are expecting longer stems next year. Plants should be cold hardy in Zones 3 to 9. It should be noted that the various eupatoriums have undergone changes in their scientific names: *Eupatorium* 'Baby Joe' is actually *Eutrochium dubium* 'Baby Joe' and you might find it under that name.

A second filler flower, *Filipendula* 'Venusta', also performed well for some trialers, but hasn't yet flowered for others. It produces large clusters of small soft pink blooms that some also harvested in the bud stage, or in the "pod" stage, after the petals had dropped. The common name, queen of the prairie, gives you an idea of its elegance. Plants produced one or two stems ranging in length from 10 to 36 inches. This plant is native to the north central U.S. in Zones 3 to 8. Reports say that it does best in the shade, but can be grown in the sun if kept very moist. We will see what our trialers tell us next year.

Another native species, *Stokesia* 'Mel's Blue', showed potential in the first year for its large purplish blue flowers. Stem length was still quite short, however, ranging from 10 to 18 inches. The native form of this species, *Stokesia laevis*, is found in the southeastern U.S. and is cold hardy in Zones 5 to 10. Note that stokesia flowers will close at night, which might limit sales. Makes a great story to tell customers, however.



Stokesia 'Venusta'

Interpreting the trial results: The numbers reported are averages of all the respondents, and many factors will affect the success of any plant species. Our participants are growing and harvesting the trial plants using several methods. After looking at the average, check the range of responses listed below each number to see how the cultivar performed at its best and its worst. If the range of responses in the ratings is narrow and high, i.e., 3-5 or 4-5, the plant was a winner for most of the respondents and is likely to do well for you. The 'Repeat Again Rating' is particularly important because it indicates if the trialer would take the time, money, and space to actually grow the cultivar again. Review the trial results carefully. If a cultivar sounds interesting, but did not appear to do well, try it anyway; it may work well for you.

Acknowledgments: A major thank you to each of the 11 evaluators who returned their trial reports. We also want to thank Pioneer Garden for providing such great varieties. Congratulations to Jeanie McKewen for being the first trialer to return the evaluations this year! We would also like to thank Nathan Jahnke, Ben Bergmann, and Peyton Daly for assisting with the NCSU trials, as well as Linda Twining and Emma Denman for repacking and shipping the liners. In preparing the report we did a bit of editing of the comments for space and clarity; our apologies if we've altered the tone or content of anyone's comments.

Supplier

Pioneer Gardens
Deerfield, Massachusetts
www.pioneergardens.com

Trialers

Renee Clayton
Wild Scallions Farm
Timberlake, North Carolina
Zone 7b

Tanis Clifton
Happy Trails Cut Flower Farm
Dennis, Mississippi
Zone 7b

John Dole/Ingram McCall
NCSU
Raleigh, North Carolina
Zone 7

Michelle Elston
Roots Cut Flower Farm
Carlisle, Pennsylvania
Zone 6

Kate Field
Gateway Technical College
Kenosha, Wisconsin
Zone 5b

Bailey Hale
Ardelia Farm & Co.
Irasburg, Vermont
Zone 3b

Jeanie McKewen
Brightflower Farm
Stockton, Illinois
Zone 5

Rebecca Perry
Sabatia Flower Farm
Centerville, Massachusetts
Zone 7a

Paula N. Rice
BeeHaven Flower Farm
Bonners Ferry, Idaho
Zone 3/4

Richard Uva
Seaberry Farm
Federalsburg, Maryland
Zone 7a

Emily Watson
Stems Cut Flowers
Milwaukee, Wisconsin
Zone 5

Summary of Comments

The number in a parenthesis refers to the number of respondents who made the comment. If no number is present, only one person made the comment. Comments by each individual are separated with a semicolon (;). Note: many respondents did not make specific comments on each cultivar and in some cases, comments have been shortened because of limited space.

Astrantia 'Roma'

Good qualities: Astrantia did best in full sun, I had it in cloth, I planted the other half in the shade and it did not thrive there, the florist market and wedding design market loves this; Long lasting; Nice size flower, producing several small flowers on each stem adds to our bunches, good color easy to grow; Unique flower.

Problems: Short (2); It is not a showy flower, but a very desirable "filler" flower for the wedding industry; Hoping for longer stems next year; Plants did not do well, very little growth, then died back in the heat and humidity of summer.

Notable insects/diseases: None (4).

Additional comments: Similar to strawflower (2); We also purchased 100 of these bare-root from Pioneer one month earlier, they rooted better than the plugs we received, we were able to harvest about 3 stems per plant of the bare-root ones first year, stems were still pretty short (10-15 inches) but we're hopeful for next season, this plant handled our extremely dry summer well!; Plants were healthy and vigorous, but hardly flowered and no stems were usable, looking forward to their second year; Plants were planted out in the field within a couple days of receipt, they were very small and we planted them according to the instructions given and it was too much space and they were engulfed by weeds, after about 6-7 weeks, we dug up and repotted into gallon pots to grow on and will replant next spring; Low vigor with this species; All of these plants died; I did not harvest any stems this year.

Postharvest handling: No special handling required.

Eryngium ‘Big Blue’

Good qualities: In general we love this form of eryngium.

Problems: Difficult to establish.

Additional comments: Plugs were quite yellow and weak on arrival (4), about 25% died, and the others produced a few tiny green leaves, but don’t look especially “established”, they may surprise me and be great next year, but they seemed unhappy on arrival and never appeared to recover; We have planted many, many eryngiums (and killed quite a few), it seems that if they establish, they are amazing, they often die down in late summer, but reappear in spring, we have definitely lost more than we’ve had success with, these plants arrived in very rough shape and did not have a great chance of success, however, I also received a full flat of this same plant from Pioneer a few weeks earlier, and they also really struggled to establish, we will need to decide on its merits next season after they come back; The ones that lived just never seemed to grow, plants are still extremely small in the field; Our plants did not flower this year, 71% of the plants died over the summer; This one did not take off at all, I never saw any plants take hold and grow; We potted into gallons to grow on and will plant in the field in the fall; Due to their late arrival, this plant did not survive our field, staff too busy for constant hand watering to get established.

Eupatorium ‘Baby Joe’

Good qualities: Awesome filler flower, has a very desirable “muddy”-type color of pink/purple, super drought tolerant which makes it more versatile and easy to grow (this is weird because apparently it grows wild in marshy ditches in certain parts of the USA), it would fill up a bouquet very fast which is a big bonus; Lovely pink color nice form, great filler looks great with pink/burgundy/grey colors that are popular in wedding work right now, vigorous, fast growing, stays short and doesn’t shade other plants around it, can

grow dense in rows to maximize production; Vigorous and quick to establish; Nice spray to fill wholesale market bouquets; Flowers are tall and strong, foliage is clean; Nice flower color, size and shape easy to grow. Editor’s note: See also Postharvest article in this issue.

Problems: Color is dull pink or purple (2); Not a valuable main flower;

None, it’s great that it isn’t as crazy tall as the regular; Short vase life, we harvested when flowers were in bud, as we did not care for the frizzy open flowers. perhaps they’d last longer if harvested later; It’s a nice plant with compact size, easy to grow and adaptable, early to flower and fairly long lasting, just no “wow” factor about it, it will be good for a filler but certainly not feature flower; Deer love these, the color was unique, hard to mix with other blooms unless working on a muted palette; Open flowers dull quickly, we preferred using flowers in full color bud; Cutting flowers at proper time and conditioning is important; A little short, but that may change in year two?

Notable insects/diseases: None (5); The blooms were not in a rounded crown as expected, but looked more like ratty side shoots, I suspect insect damage took out the center of the inflorescence, I cut hundreds of stems of the native *Eupatorium* that don’t have this problem; Insects flocked to open flowers and rendered unattractive; There were corn rootworm beetles all up in the flowers.

Additional comments: I would say that it would take the place of a static-type filler or baby’s breath....but way more specialty...which makes a small grower unique and different; ‘Gateway’ is very similar just taller; Grew with great vigor; We liked this so much that I purchased another flat in August, we did lose some of this second planting due to dry weather, it seems to prefer moisture upon establish-



Filipendula ‘Venusta’

ment, but was extremely drought tolerant after establishment; Based on the first year, the native wildflower is superior to ‘Baby Joe’, there seemed to be insect damage to the inflorescence that was not seen on the native stand on our property, perhaps the second season will yield better results, found this color bloom difficult to work into my more typical bright pallet, it did hold for a couple weeks in the cooler, however, the deer pruning actually stimulated branching and more usable stems, the un-chewed made rather large heads; This cultivar has good potential, I am very interested to see how it will do next year; Again I really did not harvest any in hopes of having a stronger plant next year.

Filipendula ‘Venusta’

Good qualities: Good vigor, tall stem; Nice fluffy pink flower in the middle of summer, will be especially good for events and weddings; Vigorous growth, nice color and texture; We preferred the flowers after they have completed blooming and buds were bronze in color; Could probably be harvested in different stages, it remained attractive after flowering. Editor’s note: See also Postharvest article in this issue.

Problems: We lost all these late in the season due to extreme drought (we lost some established perennials this season due to the dry weather), I am hoping they went dormant and will return in spring; Not a main focal flower from a design standpoint, amorphous flower form; Flowers

shattered very easily after stems were cut; The tiny little petals shatter and fall like snow, they can become very messy in short order, perhaps there is a postharvest treatment, or better stage of harvest that will make them more usable, they may be best suited for event work rather than general retail sale; Flowers shattered, we cut in full colored bud, partial flower/partial bud, full flower, and after flowering, the colored bud stage wilted quickly and had troubles rehydrating, any stage of flower, shattered, we finally tried the “pods” and were happiest with those.

Notable insects/diseases: None (2); Japanese beetles liked to hang out on the flowers, but they didn’t seem to do much damage.

Additional comments: The flower shape and color reminded me of astilbe (2), which is pretty hard to grow here; Similar to spirea; I love filipendula and it is very much desired and loved at every level of the floral industry, I will be excited to see this one bloom; Vigorous, I expect many more stems once established; Another one I am very interested to see next year; Not enough stems to make much of an impression; It is worth further experimentation to see if the petal drop can be reduced, because the color, and texture of the flower is lovely, and they seem quite vigorous; I did not harvest any stems since a first-year harvest frequently leads to failure the next year.

Heucherella ‘Art Nouveau’

Good qualities: Did survive our very dry summer but barely!, no marketable stems or leaves, leaves are pretty; Very vigorous, and established quickly, seems to prefer part shade.

Problems: Low vigor overall, poor survival in sunny areas, better in shade area; These little plants came in looking very sad, I was able to get 2 to make it through the season and I hope they make it through the winter, we had a very hot and dry summer; May not be vigorous enough for production, needs a ton of water; Plants grew slowly; This plant seems to be primarily a foliage plant, remains to

Stokesia ‘Mel’s Blue’ had a lovely flower and an unusual color for the middle of summer.

be seen if it produces marketable flowers; These plants remained very small through the season.

Notable insects/diseases: None.

Additional comments: We’ve tried many other heucheras/heucherellas and have had only limited success, we prefer more vigorous perennials with more usable stem length; I am a little worried I have them in too much shade; 1st year trial not an accurate evaluation of this plant, potential to use leaves as filler if they get the advertised height of 16-18 inches, no flowers produced in first year, leaf stems not long enough to use as a cut as yet; All plants were alive when delivered, but not in good shape, 71% died by the end of the summer, our plants did not flower this year; I cut only a few leaves off for trial, and they held well. I wanted to keep most on the plants to build strength for next season, they may be a useful foliage for sale to florists, they had a similar vase life of heucheras, they seem to be tough, I saw some sit on the clearance rack at the local Tractor Supply for a few months this summer, they still looked surprisingly good despite the abuse.

Physostegia ‘Pink Manners’

Good qualities: Beautiful shiny dark leaves, clean strong pink flowers, strong stems, good appearance; Tolerated very dry summer well; Grows well in partial shade, a nice spike flower in the middle of summer, pollinators love it; Late-blooming vigorous plant.

Problems: None worth noting; Was not a color or form that appeals to us, flowers bloomed low in plant (open from bot-

tom of cluster) and did not look great in bouquets; Weak color; Flowers did not develop uniformly, I didn’t cut any to help the plant develop strength, but none looked worth cutting.

Notable insects/diseases: None (3). The sporadic and contorted flowering may have been the result of unseen insect damage. Our primary pest is Tarnished Plant Bug, but I can’t confirm they were the issues.

Additional comments: Out of all the plants in this trial, during the first year, this is the most promising, I will expect more stem length in subsequent years; A vigorous plant but not substantial enough flower for our style; Excellent potential for next year, once the plants are established.

Stokesia ‘Mel’s Blue’

Good qualities: Nice blue color (4); Good vase life, attractive flower shape; Loved dry weather, great promise to be vigorous and taller as it establishes next year; Hardy plant requiring little attention, did well in a pretty brutal summer here, plants that did not flower had good basal growth and could flower well next year; Doesn’t stop blooming; Cute.

Problems: Too short (3) this year; Not an impressive flower, inside browns quickly, plants got competition from weeds, but we preferred ‘Matsumoto’ asters over this plant; Unusable; So many flowers on a stem, hard to use in small bunches, have to decide to harvest stem either early before all flowers open, or late after some have passed their peak; We did not harvest any stems.

Notable insects/diseases: None (4).

Additional comments: Flower looks like scabiosa; In the vase, the flowers closed every evening and opened up again in the morning; One of our two favorites of the trial (also *Eupatorium*), great in small, low arrangements, we are very hopeful for this next year!; A lovely flower and an unusual color for the middle of summer; They bloomed too short to be of much use this season, but I look forward to their second year.



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Trial Results for Year 1 of perennial cultivars. First row of data for each cultivar is the average and the second row is the range of responses. Note when only one response is listed in the range line, several trialers responded and all gave the same rating.

Species	Cultivar	Plants flowering (%)	Yield (stems/plant)	Stem length (inches)	Ratings ¹		
					Market appreciation	Ease of cultivation	Grow again
<i>Astrantia</i>	Roma	32	5.0	9	2.3	3.3	2.7
		0-100	4-6	4-13	1-4	1-5	1-4
<i>Eryngium</i>	Big Blue	72	-	-	1.0	2.0	4.0
		50-80	-	-	1	1-3	3-5
<i>Eupatorium</i>	Baby Joe	88	3.2	23	3.3	4.6	3.5
		0-100	1-7	12-36	2-5	4-5	2-5
<i>Filipendula</i>	Venusta	54	1.3	26	2.3	3.9	2.9
		0-100	1-2	10-36	1-4	1-5	1-4
<i>Heucherella</i>	Art Nouveau	-	-	-	1.0	3.2	1.8
		-	-	-	1	2-5	1-3
<i>Physostegia</i>	Pink Manners	72	2.7	17	3.0	4.6	3.3
		0-100	1-4	12-24	2-4	4-5	2-4
<i>Stokesia</i>	Mel's Blue	78	2.7	13	3.2	4.3	3.9
		0-100	1-5	10-18	1-4	3-5	1-5

¹1 to 5 scale, with 5 being the best. Market ratings are based on sales to wholesalers, retailers or final consumers.

POSTHARVEST TREATMENT OF SPECIALTY CUT FLOWERS

North Carolina State University Report for 2016

Nathan Jahnke, John M. Dole, and Ingram F. McCall

Department of Horticultural Science, North Carolina State University



This project was supported by the Association of Specialty Cut Flower Growers Research Foundation, and numerous suppliers. The authors would like to thank Ben Bergmann and Peyton Daly for assisting with growing and harvesting the cut flowers.

Every year we conduct vase life studies on promising species and cultivars from the ASCFG Perennial, Seed, and Woody Trials. With the ASCFG's new trial format this year we tested a variety of greenhouse-grown lilies and a few perennials.

Lilies were the largest part of the trial this year. We enjoyed staking them as well as experiencing orange-dusted palms while handling these beauties. Don't assume plants from the same genus will have the same postharvest handling requirements. Some lilies such as 'John Hancock', 'Meryl', and 'Sorbonne' did not show a statistical increase in vase life when treated with hydrator or holding solution. On the other hand, a holding solution increased the vase life of 'Royal Sunset' and 'Dolly Madison'. Generally, holding solutions increased the number of buds that open, and prolonged vase life.

Of the perennials we received and planted this year, a few bloomed, but only two produced stems tall enough to harvest. *Eupatorium* 'Baby Joe' was the most resilient cut of the trial, lasting an average of 20 days. It was not affected by postharvest solutions, but produced harvestable flowers in its first year. It also boasted a high yield, and the longest vase life of any cultivar in the trial. We did not get enough *Filipendula* 'Venusta' stems to fill the whole experiment, but the stems tested needed a holding solution to reach their maximum average vase life.

The Details

Field-grown flowers were harvested into tap water (0.21 EC, 6.1 pH) at the optimum stage of flower development. Stems were then sorted into four equal groups and placed in the treatments below for the specified time and then placed into vases of deionized water.

- Hydrator only (4 hours)
- Holding preservative only (2 days)
- Hydrator for 4 hours followed by holding preservative for 2 days
- Tap water only (as a control)



Floralife Hydraflor 100 was used as the hydrator at 1.0 ounce per gallon and Floralife Professional was used as the holding preservative at 1.3 ounces per gallon (the rates listed on the packaging). After treatment, stems were placed in DI water and held at 68 ± 2 °F under approximately 200 foot-candles of light for 12 hours per day. The vase life for each stem was recorded. Termination point was typically when 50% of the flower(s) or florets on the stem were brown, wilted, drooped over, etc.

What are Hydrating and Holding Solutions?

Some of you may be asking, "What is a hydrating or holding solution?" Floral preservatives can be categorized as either hydrating, holding, or vase solutions. Holding solutions contain a carbohydrate source (sugar) to encourage bud opening and/or flower longevity, and are applied for several hours up to approximately two days, by either growers or wholesalers before they get to the final consumer. Hydrating solutions are meant to be applied

right after harvest, prior to a holding solution, to facilitate water uptake and do not contain a carbohydrate source. Hydrating solutions are usually used for a short time, such as four hours. Vase solutions are generally applied by the consumer, commonly small packets, and contain a higher concentration of carbohydrates than a holding solution. While we do not test the use of vase solutions in these studies, it would be safe to assume that those flowers that perform better with a holding solution would likely last longer for your customers with a vase solution.

One More Thing

Our testing methods tend to produce the maximum vase life, which tells you the potential vase life of each species. We cut and process the stems rapidly, put one stem per jar, and use a postharvest evaluation temperature that is a bit cooler than a typical home in a southern summer. These procedures were set up to provide a consistent environment so that anyone else should be able to repeat our work and get the same results. These factors combined typically add about 1 to 3 days to the vase life of some species compared to what a grower would usually get. It is also important to note that these results do not replace in-house testing as there are many on-farm factors that affect vase life.

The Results

Eupatorium ‘Baby Joe’ This was the fastest growing and most prolific bloomer of the trial. It flowered its first year in the ground and produced a shorter, second harvest. There was no difference between any of the treatments, but with an average vase life of 20 days this is one resilient flower. Be sure to get stems into water quickly. We noticed that if a stem was allowed to wilt, it never recovered.

Filipendula ‘Venusta’ This dainty flower resembles *Astilbe* from a distance, but with a flatter panicle. Growing it under part shade, we were able to harvest 16 stems long enough for the vase life treatments. Treating with holding solution provided the best average vase life at 6.7 days, while vase life in water averaged 4.3 days. We noticed some shattering throughout postharvest. Since production was on the low side the summer of 2016, we expect to get a better read on the vase solution requirements for this crop during the 2017 season.

Lily ‘Dolly Madison’ Although hydrator and holding solutions did not statistically improve vase life, they are still recommended as the average vase life was highest, 9 days, when treating with both.

Lily ‘John Hancock’ John Hancock was one of our favorites with its bright yellow-gold color and rusty, brown speckles. There was no increase to the 8.5-day vase life when treating with hydrator or holding solutions.



‘Baby Joe’



‘Venusta’



‘Dolly Madison’



‘John Hancock’

Lily ‘Meryl’ This was the most fragrant lily in the whole trial. It lasted for an average of 11.3 days, regardless of treatments.

Lily ‘Royal Sunset’ The variation in oranges made ‘Royal Sunset’ the most unique lily of the trial. Definitely treat this with a holding solution as it significantly increased vase life to 11 days compared to 9.5 in tap water. If possible, provide hydrator before the preservative as this will give the vase life a little boost. Hydrator alone did not statistically increase vase life.

Lily ‘Sorbonne’ ‘Sorbonne’ was very similar to ‘Meryl’. The average vase life was 9.8 days regardless of treatments.

Lily ‘Yellow Diamond’ Hydrator and holding treatments did not statistically affect vase life, giving ‘Yellow Diamond’ an average vase life of 7.7 days.



‘Meryl’



‘Royal Sunset’



‘Sorbonne’



‘Yellow Diamond’

Perennial Project - Production and Postharvest

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This project was supported by Ball Horticultural Company through their generous donation of plant material. The authors would like to thank Ben Bergmann and Peyton Daly for assisting with growing and harvesting the cut flowers.



Perennials are gifts that keep on giving. With the bonus of planting once, and harvests over multiple years, these plants are must-haves for field cut flower producers. Perennials offer a wide variety of shapes, colors, and postharvest durability. However, it can be difficult to find the right varieties and cultivars in today's industry, which is breeding for compact plants. Through our trialing we provide recommendations on a number of perennials for you to try.

We received rooted liners from Ball Horticultural Company, and planted three blocks of 12-16 plants each. All flowering stems were harvested and measured if over 12 inches in length. Stems were then processed by recutting to a similar length and putting them into a vase life study. These are the treatments we used during our postharvest trial:

- 1) Hydrator only (4 hours)
- 2) Holding preservative only (2 days)
- 3) Hydrator for 4 hours followed by holding preservative for 2 days
- 4) Tap water only (as a control)

Floralife Hydraflor 100 was used as the hydrator at 1.0 ounce per gallon, and Floralife Professional was used as the holding preservative at 1.3 ounces per gallon (the rates listed on the packaging). After treatment, stems were placed in tap water and held at $68 \pm 2^\circ\text{F}$ under approximately 200 foot-candles of light for 12 hours per day. The vase life for each stem was recorded. Termination point was typically when 50% of the flower(s) or florets on the stem were brown, wilted, drooped over, etc. This study helps us provide accurate information how long these flowers will last and how to increase vase life.

If you are looking for more information on our postharvest trials or production information on the varieties we tested in years past, check out any of our articles in *The Cut Flower Quarterly* or go online to: <https://cutflowers.ces.ncsu.edu/>.

Agastache 'Blue Boa'

Production: 100% of plants bloomed with an average yield of 21 useable stems per plant. Stems averaged 14 inches long.

Postharvest: Overall, stems lasted an average of 8 days in tap water. With the addition of holding preservative for 2 days, the vase life was increased to 9 days.

Notes: 'Blue Boa' took a little while to get started, but did produce throughout the growing season. Flowers continued blooming after harvest, and were lavender to violet. With its great mint-like fragrance it can add another dimension to arrangements.

Final Thoughts: Fragrant filler with production all season long.



Agastache 'Blue Fortune'

Production: 100% of plants bloomed with an average yield of 43 stems per plant. Stems averaged 19.5 inches in length.

Postharvest: The average vase life increased from 8 days in tap water to 9 days using holding preservative for 2 days.



'Blue Fortune'

Notes: 'Blue Fortune' differs from 'Blue Boa' in several aspects. The flowers are a lighter lavender, but the stems are much longer, easier to cut, and stronger due to thickness. It bloomed throughout the summer providing multiple harvests. When cut, it releases a licorice-like fragrance.
Final Thoughts: Sturdy filler with long stems, and reliable production throughout the growing season.

Coreopsis 'Cerise'

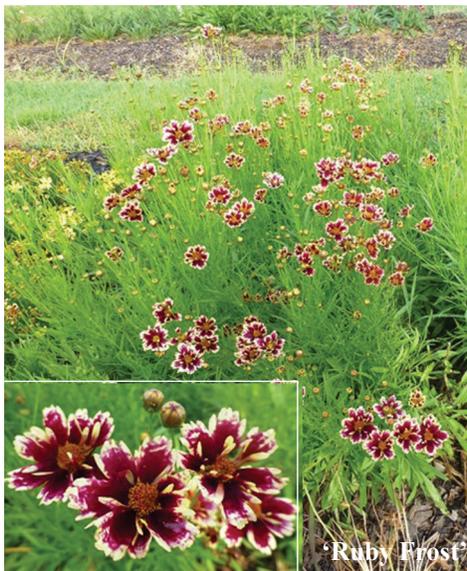
Notes: Stems were short, brittle, and branched, producing a low quality cut. Although plants produced a large number of flowers, we were not able to get stems long enough to conduct postharvest tests.
Final Thoughts: Not recommended for cut flower use.



'Cerise'

Coreopsis 'Ruby Frost'

Production: 100% of plants bloomed, with each plant producing an average of 53 stems. Stems were an average of 15 inches.
Postharvest: Vase life in tap water averaged 8 days, and was not affected by hydrator or preservative.
Notes: 'Ruby Frost' was by far the most prolific bloomer throughout the entire growing season. The flowers are a beautiful red and gold. Although it produced a plethora of stems, in postharvest new buds failed to open, decreasing its potential.
Final Thoughts: Has great potential as a filler for small bouquets if it is used quickly after harvest.



'Ruby Frost'

Helenium 'Ruby Tuesday'

Notes: Plants did not produce stems long enough to harvest or obtain postharvest data.
Final Thoughts: Not recommended for cut flower use at this time.



'Ruby Tuesday'



'Cranberry Lace'

Mondarda 'Cranberry Lace'

Notes: Too short for production and postharvest experiments.
Final Thoughts: Not recommended for cut flower use.

Monarda 'Jacob Cline'

Production: 100% of plants bloomed, with each plant producing an average of 9 useable stems. Stems were an average of 15 inches. 23% of plants died by the end of summer.
Postharvest: The longest vase life was in tap water at 7 days. Hydrator and holding preservative did not statistically increase vase life.
Notes: The stems often fell over and curved, so netting may be needed. Plants flowered throughout the growing season giving steady production. We experienced periods of heavy rain and intense heat, causing our plots to lose quite a few plants by the end of the summer. Make sure to have adequate drainage.
Final Thoughts: It has potential, but may require more labor to produce high quality stems.



'Jacob Cline'

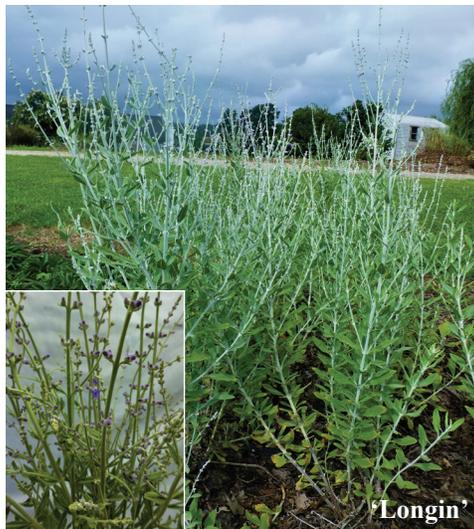
Perovskia ‘Longin’

Production: 100% of plants bloomed with each plant producing an average of 23 useable stems. Stems were an average of 18.5 inches long.

Postharvest: There was a no difference between any of the treatments. The overall average vase life was 5 days.

Notes: Although the vase life is short, ‘Longin’ does have silver-grey, long, straight stems and a great fragrance. The purple flowers do not open well, and shatter during postharvest.

Final Thoughts: Not highly recommended for use as a cut, but it could provide great fragrance and color contrast with its silver-grey stems for events where a long vase life is not needed.



Rudbeckia ‘Viette’s Little Suzy’

Production: 100% of plants bloomed with each plant producing an average of 13 useable stems. Stems were an average of 15 inches.

Postharvest: Hydrator, holding and hydrator + holding treatments all increased vase life to 18 days compared to 12 days in just tap water. We recommend using holding preservative, if nothing else, as it also decreased the variability in vase life.

Notes: Plants produced one large harvest about midsummer. Harvesting was relatively easy as stems were a good length and held high above the foliage. Flowers had a long vase life and colors did not fade after harvest.

Final Thoughts: Highly recommended due to its long vase life, ease of harvest, and gold-yellow color.



Salvia ‘Burgundy Candles’

Production: 100% of plants bloomed, with each plant producing an average of 8.5 useable stems. Stems were an average of 13.5 inches long.

Postharvest: No treatment statistically improved vase life from an average of 5 days.

Notes: Very slow to start, and there was no peak harvest throughout the season. Plants may need a season to bulk up for better harvest. Flowers were a deep purple and had a great fragrance.

Final Thoughts: Not highly recommended at this time as the stem length and vase life were on the short side, but future seasons may provide different results.



Veronica ‘Charlotte’

Production: 100% of plants bloomed with each plant producing an average of 4.5 useable stems. Stems were an average of 12.5 inches in length. 6% plants died by the end of the summer.

Postharvest: There was no statistical difference between treatments, but the holding preservative did increase the average vase life from 13 to 15 days.

Notes: This was one of our favorites, because it had a variety of attractive characteristics like variegated leaves, white flowers, and upright habit. However, with an average length of just over 12 inches, and low production numbers, it may be difficult to justify growing this as a cut.

Final Thoughts: Main drawbacks are the shortness and minimal production, but with a great vase life it should be considered. Stem length may be longer next year.



Veronica ‘Tranquility’

Production: 100% of plants bloomed with each plant producing an average of 13 useable stems. Stems were an average of 13.5 inches.

Postharvest: The average vase life was 11 days and no treatments statistically increased it.

Notes: The upright habit made harvesting easy and each plant produced a high number of stems. Stems were usually straight and flowers continued to open during postharvest.

Final Thoughts: Recommended for cut flower use due to the high production and long vase life. Stem length may be longer next year.



All in the Family

Jodi Helmer

An Oregon flower farm is passed from one generation to the next.

Bruce and Claire Hammelman were growing hazelnuts, cherries, and vegetable seeds on a farm in Lebanon, Oregon, when they got a call that would change their lives.

After three decades in business, Bruce's aunt and uncle, Bernadette and Dan Hammelman, were retiring and selling their cut flower farm, Hammelman's Dried Florals. They hoped the next generation would step in and take over.

"We thought it was the coolest idea ever," Claire recalls.

Bernadette and Dan Hammelman started the company in 1986. The flower farm is part of a 950-acre operation in Mount Angel, Oregon, that includes wheat, grass seed production, and hazelnut trees. The couple added flower production in 1989 and grow 55 acres of assorted blooms, including celosia, eucalyptus, craspedia, dogwood, yarrow, millet grass, and echinops.

"We certainly learned through trial and error," says Bernadette. "We started with four crops; we now grow 60 or more different items."

As the name suggests, Hammelman's Dried Florals is best known for its dried flowers, which are shipped across the U.S. and around the world; their biggest clients are overseas in countries like Japan and South Korea. The farm also grows 10 acres of peonies that are sold fresh to wholesale and retail accounts.



Continuing a tradition

Bruce and Claire are high school sweethearts who grew up in farming families.

In 2003, after graduating from Oregon State University—Bruce earned a degree in agricultural business management and Claire graduated with a degree in horticulture—the couple started their own farm in Lebanon, about 40 miles south of their hometown of Mount Angel.

"Farming is in our blood," says Claire. "We always knew it's what we'd be doing."

Despite their success growing food crops in Lebanon, the couple hoped to return to Mount Angel to raise their five children near their families. The opportunity to take over a family farm proved too good to pass up.

"We've watched the 30 years of sweat and tears that went into building this business," Claire says. "We're walking into a well-oiled machine."

There is also a sense of pride of continuing a family tradition.

"It brings us joy to see [our aunt and uncle] excited about us taking over the farm," says Claire. "I know it also brings them a lot of peace that it'll stay in the family. We hope to someday pass it on to our children."

For Bernadette and Dan Hammelman, the decision to sell the flower farm was difficult, and keeping it in the family means everything to them.

"I'm very protective of what we've created over the years and have been struggling to find the perfect fit for the business," says Bernadette. "When Bruce and Claire came to mind,

I knew I had found them! They will be the youth and enthusiasm to take Hammelmans into the next generation!”

The couple will mentor their nephew and niece-in-law through the transition, which started early in 2016 and will take a year to complete.

For the past year, Claire has been making the one-hour trek between Lebanon and Mount Angel several times per week to learn more about the operation. The couple has also attended several conferences—and has plans to attend several more—to learn the nuances of growing and selling cut flowers.

“I’ve been getting a crash course,” Claire exclaims. “We grew up around the flower farm but didn’t understand their business.”

At the most basic level, Claire believes that growing cut flowers is not that much different than growing food crops. On the flower farm, she plans to use similar strategies for weed management and disease suppression that worked well for growing food crops. The biggest difference between the two farms, she explains, is the process for getting the crop to market.

At their edibles operation in Lebanon, Bruce and Claire were growing under contract. All of the nuts, cherries, and vegetable seeds sold before the season started, which meant no social media campaigns or setting up booths at farmers’ markets. For the flower farm, the couple will have to use Facebook, Instagram, Twitter, and other marketing strategies to ensure their fresh and dried flowers go from field to market.

“Even though a lot of their marketing is word of mouth and repeat customers, it still requires attention,” says Claire.

Looking to the future

The couple plans to continue the social media marketing their in-laws started and eventually explore new avenues to get their products into the hands (and homes) of consumers, including partnering with third party channels like Zulily.

And, while Claire cites the “great crops and products” that her aunt-and-uncle-in-law are known for, she plans to expand the sale of fresh flowers.

“The plan is to enhance what’s being done and see where it leads,” she explains. “We’re enthusiastic about the options and we’re earnestly going to do our best.”

One of the things Claire is most excited about is the opportunity to get creative. Dried flowers, she explains, can be dyed or preserved as well as sold naturally dried.

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“There is so much creativity that you can have with it and it’s cool that a single crop can be taken in so many different directions,” she says.

And, unlike fruits and nuts, there is no expiration date or shelf life for dried flowers.

“We can actually preserve the harvest and make the crop last,” says Claire. “It’s kind of cool to have a dried bouquet of flowers you grew that season that you can look at and think about all of the hard work that you put into growing them.”

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Aphids—First Pest of Winter

Stanton Gill



Potato aphid on lettuce

As winter progresses, the seed catalogs start showing up and excited growers rush their orders to get a jump on the 2017 season. Whether you are starting plants under artificial lights or in a greenhouse there is a real excitement at seeing the first young plants pop out of the soil. Aphids are also excited about these new crops, and they are easily lured to your lush, fresh young plants.

Where do these aphids come from? In a greenhouse, aphids overwinter as adult females. You can usually find them on weeds or in leaf debris under the benches or old flats. If you maintain stock plants for taking cuttings, or have “pet plants” in the greenhouse or in your house, these can be reservoirs for aphids.

If you’re starting transplants in a greenhouse, you need to get your rear in gear and set up a regular monitoring program so insects and disease don’t eat into

your profits. Greenhouse and high tunnels are great and really empower a cut flower grower, but with great power come great responsibility (quote from Spider-Man 2, I think). Anyhow, bugs love greenhouse plants as much as you love to grow plants in the greenhouse. You don’t need to live in fear of insects consuming your plants if you conduct regular monitoring, and combine this with good sanitation practices.

Cleanliness is Next to Aphidlessness

Sweeping or vacuuming plant litter and other debris are excellent sanitation practices in the greenhouse. If you have a spun-down polypropylene weed barrier on the floor, a power washer can be used to clean the floor. Afterwards use a hand sprayer to apply a disinfectant such as a quaternary salt (Greenshield) or Clorox (one part Clorox to ten parts water) to benches and growing areas. Notice I said “Clorox”. This is because Clorox is the only sodium hypochlorite that has an EPA label as a disinfectant for use in greenhouses. Store brands do not have this EPA labeling.

Do not leave any weeds on the greenhouse floor because these will serve as reservoirs

for insects and mites that will easily migrate onto your cut flower transplants. This is where you get your winter exercise, bending over to pull weeds. You can use glyphosate to kill the weeds if the greenhouse is completely empty and you have the vents closed. Hand-weeding is usually not too much work unless you let weeds get out of hand during the fall and winter.

If hand-weeding is not appealing, chemical options include Diquat (Reward), or short-chained fatty acids (Scythe). Reward and Scythe just burn back the tops of the weeds and are not as systemic as glyphosate. A relatively new pre-emergent called Morengo is labeled for use in greenhouses to keep weeds from germinating. It is rather pricey, but it lasts a long time.

Aphids are usually among the first pest samples submitted in the spring by cut flower growers. They’re usually one of the “group of four” that I receive samples of at our CMREC lab. This very trendy and popular group includes green peach aphid, melon aphid, potato aphid, and foxglove aphid. Foxglove aphids appear to be growing in numbers in several operations. All four of these species can reproduce rapidly in a greenhouse and can really cause much frustration and anxiety. The key is early detection and prompt action. In most cases, aphid populations build up as little epicenters in your greenhouse. Find these epicenters and deal with them quickly before they get a chance to spread.

In spring, aphid populations can virtually explode in greenhouses. When greenhouses become packed with tight



Melon aphids on mandevilla

spacing of plants, as is often the case in spring, populations of aphids can build and spread rapidly. Growers' attention is often on producing the plants and getting the outside fields ready for spring planting, and aphid buildup may go unnoticed until it's out of control.

In greenhouses, most aphid species are able to reproduce asexually (parthenogenesis), with females giving birth to approximately 100 live female offspring (viviparous). This high reproductive capacity and short development time means that more frequent applications of insecticides may be required, thus increasing the probability of aphid populations developing resistance.

Now On To the Monitoring Part

Certain plants are highly susceptible to aphids and should be checked frequently in spring, so the problem may be dealt with quickly. Plants that are big draws for aphids include sage (just about any sage is a magnet for aphids), dianthus, coleus, basil, snapdragons, zinnias, and any of the ornamental peppers grown for cut stems.

Early detection is critical to prevent an aphid population from spreading throughout the greenhouse. When using biological control organisms, it is important that the release of natural enemies be initiated early on in the cropping cycle. What is just as important is which plants tend to be susceptible to aphids so that potential problems can be avoided when a crop is moved into a greenhouse.

During the feeding process, aphids extract between 11 to 12% protein, and large quantities of water and sugar from plants. The water and sugar initially ingested is excreted from the aphid's anal opening. This excrement, which covers leaves, is a sweet, sticky substance called honeydew. Honeydew is an excellent growing medium for black sooty mold fungi, which can cover foliage and flowers. Look for shiny foliage, which is easily spotted, even if your eyes just are not what they used to be when you were a novice in this cut flower business.

Aphids shed their old skin or cuticle when they molt. The old skins or cast skins, which may be present on leaves, appear white. These are easily seen as you move through the greenhouse.

Aphids differ in their distribution on plants, and dispersal capability, which can influence monitoring procedures. Melon aphids tend to be located in the plant interior, aggregated on the stems and flower buds, whereas green peach aphids tend to be less aggregated. Green peach aphids are typically located on the terminal growth of plants. They may blend in with the foliage due to their light green color. The green peach aphid is also more mobile than melon aphid, often dispersing to adjacent plants. The potato aphid congregates in large numbers on plants, and the distinct stripe extending down the middle of body is noticeable.

Invest in a good 10-20 X hand lens, and use it to examine foliage and stems closely for presence of aphids.

When aphid populations build up to very high levels, females will start to birth out young with wing buds, which will fully develop at the adult stage. The wings can be twice the length of the body of the aphid. The winged forms can disperse in your greenhouse, spreading the populations to new plants. If you reach this stage, you better take action quickly or things will get out of control rapidly.

Yellow sticky cards will capture winged aphids. Although yellow sticky cards may indicate the presence of winged forms of aphids, it is still important to inspect plant foliage at least weekly to detect aphid populations early enough, so that the appropriate controls may be implemented.

Biological Control

Aphidius colemani is a parasitoid we have successfully used in a Maryland grower's greenhouses. It attacks green peach aphid, but it is more successful in parasitizing the melon aphid (*Aphis gossypii*). Females of both species lay eggs into aphids, and the eggs hatch into larvae that consume the internal contents of an aphid. As the parasitoid larvae mature, the



Green peach aphids and sooty mold on celosia

aphid body expands and turns brown to tan. The emerging adult parasitoid creates a round exit hole in the dorsal (top) side of the aphids' abdomen. Emerging adults will mate and then females of the next generation will search out and parasitize any aphid's that are present.

Aphidoletes aphidimyza is a predatory midge that attacks over 50 species of aphids including melon aphid, green peach aphid, and potato aphid. The larval stage feeds on aphids, whereas the adults feed on honeydew produced by aphids. Adult females locate aphids using visual cues and olfaction (odors), and then lay eggs adjacent to aphid colonies. A single larva consumes 10 to 25 aphids during its life.

Insecticide Options

Several new insecticides have come onto the market in the last ten years that provide good levels of aphid control. The newer products tend to be safer materials used at very low rates. The somewhat bad news is that these new products cost a lot more than some of the older pesticides.

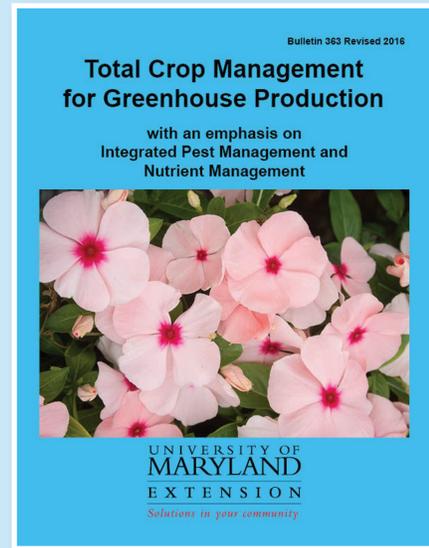
Some of the materials we tested at the University of Maryland Extension with good success in aphid control include Aria (flonicamid) and Endeavor (pymetrozine). Both materials block the stylet of the aphid, resulting in starvation of the insect. In our trials it took 5 to 10 days before you really

see the impact of the application but it is very effective in controlling aphids. It is very difficult for insects to develop resistance to a material that does something physical like blocking the stylet.

Another material we trialed in 2009 is Kontos (spirotetramat). Kontos is a systemic insecticide, very effective in controlling green peach and melon aphid for 20 to 30 days. It is also good on spider mites. In 2016 we tested Mainspring and Acelepryn for aphid control. Both of these products are true systemics and sold by Syngenta Company. They both worked very well for aphid control.

To help determine insecticide efficacy, several aphid-infested plants can be marked with flags or flagging tape, and an estimate of the aphid number on each may be recorded. Several days after an insecticide application, the number of live aphids may be recorded. It is important to examine plants carefully and frequently to determine whether additional applications are required.

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In 2016, several researchers including Karen Rane (pathologist), Andrew Ristvey (horticulturist), Joyce Latimer (horticulturist) and myself (Stanton) collaborated to revise an extension publication for greenhouse production: “Total Crop Management of Greenhouse Production”. It is \$30 a copy and you can obtain a copy by sending an email to my technician Suzanne Klick at Sklick@umd.edu.

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Recipe for a Useful Farm Worker

Hana Newcomb

Since 1962, this farm has been hiring people who are overqualified for the job, and underqualified for the work. Most of our workers are college educated, or perhaps on the way to college. They have loads of skills. They are generally academically successful. Usually those skills don't translate perfectly to farm work, but everyone who comes to the farm is willing and ready to learn—even if they have no idea what they will really be learning.

In one of many bean patch conversations this summer, we were idly talking about what the requirements are for learning to be a good farm worker. We came up with common sense, a lot of practice—and mistakes that you can learn from.

In fact, this list is the same for all new jobs, so it's not quite specific enough. On a farm, it helps if a person is observant; for starters, if she can tell when she is walking on cultivated plants and not just on grass or weeds. As soon as a new worker arrives on the farm, she needs to navigate walking in the aisles and working on the beds. This is not immediately obvious to the uninitiated.

It also helps if a person can remember a list of instructions; they are usually simple, but they come in a rapid sequence, and you have to remember the whole thing. It's good if the person has used his body before, maybe as an athlete or working

in a restaurant, something requiring constant motion and efficiency in movement. Athletes have also learned the discipline that comes with practicing in all sorts of weather, no matter what. They don't tend to drag their feet when weather gets cold or hot or wet.

And, it really helps if a person can ask intelligent questions. This point cannot be emphasized enough. Not only does a farm worker need to be observant, have a good memory for details, and not mind working in all sorts of conditions, a good farm worker pays attention enough to ask about picking standards (they change constantly in the vegetable business) and the logic behind pricing decisions.

I have been watching workers pass through this farm for about 50 years now, and there is no clear formula for who is going to be a success and who is never going to be able to learn to move efficiently or tell the difference between a too-small squash and a ready-to-pick squash. It all depends on a person's capacity to pay attention and learn, and to care about the quality of her work. It is hard to know what matters the most when you are new to farming, and you have to rely on the experience of those around you, and be a good mimic. We can't always tell who will be a good listener and who will be oblivious to the details.

The farm workers who seem to adapt most quickly to this (tedious, repetitive, back-straining, uncomfortable) work are often athletes, artists, waiters, bakers, and people who have worked in their family business as kids. One of the most important qualities that ensures success is mental and emotional stamina. It is much easier to pick squash every morning if picking squash doesn't actually affect your mood. It is so much easier to weed carrots for hours if you are able to keep your fingers moving fast without succumbing to boredom. Your mind can keep busy, both paying attention and thinking about a million other things.

And, just like any other job where there are bosses, it is so much better when the workers don't take everything personally. Every single day there are inevitable interactions about the most trivial things—how to pick up a container correctly, how to put it down so that vegetables on the bottom won't get smashed, how to drive appropriately so things don't tip over—and it is so much better for everyone when feedback is received without drama (and obviously that works only when it is delivered without drama).

While farming is certainly not for everyone, I believe that almost anyone can do it. We have had the most amazing people come through here, bringing their (usually brief) life experience and their spunk, and we have watched them learn so many skills in just a few months.

To be a useful farm worker takes common sense, a lot of practice, the capacity to learn from mistakes as well as successes, and the sort of personality that is nice to be around while we do all the tedious and repetitive work together, day after day. You can be 80 years old or 4'10" tall or a high school kid or a retired military person with time on your hands, and if you have those qualities, you are qualified to be a useful farm worker.

Hana Newcomb is an owner of Potomac Vegetable Farm in Vienna, Virginia.

Postharvest is an Art and a Science

Gay Smith

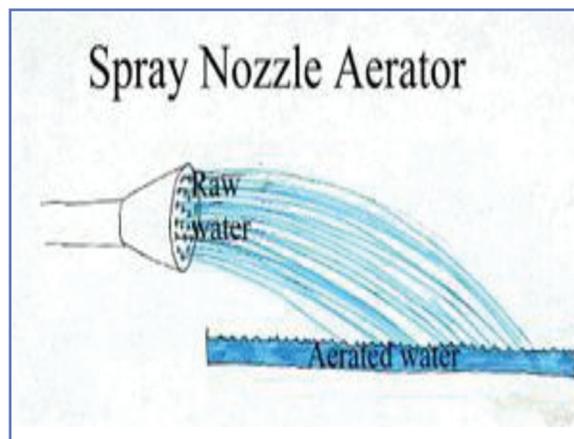
Choosing the best treatments for top quality begins with knowing your water. Water affects so many pre-harvest and postharvest procedures that it's important to know what elements you're dealing with. Of course, maximizing the vase life of cut flowers is dependent on more than just water. Long before harvest, cultivar selection must be considered for postharvest longevity. Weather conditions are also at play. Impending storm conditions sometimes force harvesting at tight cut stage just to get flowers out of the field. A heavy rainfall can splash soil onto plant stems ramping up the risk of microbial contamination and resulting in blocked stems after harvest. Even the simple procedure of watering prior to cutting is important to ensure cell walls are turgid to mitigate water-stress associated with harvest.

No chemistry PhD required, but knowing the levels and measurements of various elements in your water reduces trial and error of postharvest success. A basic water test provides valuable information on pH, EC and alkalinity. Additional elements affecting cut flower success include levels of Ca (calcium), Mg (magnesium), Cl (chlorine), fluoride, Fe (iron) and B (boron). Once you receive the analysis, interpreting results can be confusing (especially if you weren't listening in chemistry class!) so I've included a chart developed by the Chrysal laboratory in Holland showing the impact of various elements and pH on cut flower quality.

Cleaning up your initial water may require installing filters, or the use of a flocculant to precipitate

impurities. Iron can be reduced through aeration. A quick online search mentioned something as simple as using a nozzle to aerate water. The method is explained like this: "Aeration introduces oxygen to the water source to convert soluble iron to its insoluble form so it precipitates out of the water..." Seems worth investigating, if high iron levels are an issue. Reverse osmosis is another very effective way to clean up water and works great, but is expensive, requiring a series of special membranes to filter unwanted minerals.

Another consideration when deciding on postharvest solutions is logistics. Do you plan to harvest into one solution and deliver in another? How many days will blooms rotate in the cooler? Do you sell to grocery stores that offer consumers a vase-life guarantee? Do you provide customers with a food packet? Does your product mix include ethylene-sensitive cultivars? If so, please note that STS, the systemic anti-ethylene treatment, is registered for use in Washington, California, Florida, Minnesota, and Texas.



Let's Drill Down

Two questions frequently asked at the Chrysal trade show table during the Grand Rapids ASCFG conference were "Is the gerbera pill a hydration solution?" and "What's the difference between the various hydrators?"

A bit of solution background info is helpful in discovering the answers. Arguably, the two most important aspects of hydration center around lowering the pH to dissolve air bubbles, and controlling bacteria. Both bacteria and air bubbles clog the delicate vascular system of a flower, inhibiting stem flow. Research proves that it is impossible to kill bacteria once inside stems. In fact, once a flower drinks polluted water, whatever is inside the stem remains unchanged—bacteria stay there regardless of what solution is introduced later (one hour later or 24 hours later). And bacteria travel up stems four to six inches (even higher in gerberas), which is why a fresh cut to remove the bacterial plug is important every time flowers go into fresh solution.

Because minimizing the explosion of bacteria colonies is significant to postharvest success, sanitation measures are super important. Everyone knows the story of clean buckets, clean work tables, etc., but what about tools? Dipping cutters into a disinfectant as you harvest helps prevent cross-contamination.

The story behind Floralife's Quick Dip centers directly on sanitation too. QD was developed in the 1970s, when postharvest interest (and research dollars) were focused primarily on roses and carnations. It was developed as a stem dip for field flowers. The purpose was to

rinse away surface grime, as well as provide a liquid band aid (citric acid) to the fresh wound prior to plunging bunches into plain water. Keep in mind, bacteria thrive on the juices bled out by cut stems, so it takes only hours for untreated water to become contaminated.

As transit times lengthened between grower and wholesaler, interest in refining postharvest care ramped up. New products entered the market. Aluminum sulfate became the darling of hydration because it's so stable, more so than either citric acid or chlorine. Some quaternary ammonium compounds were found to be effective as first drink flower solutions and a few other chemicals that EPA no longer allows. Formulas vary based on the "active" ingredient. Chlorine, citric acid, aluminum sulfate and quat compounds are the primary "actives" used in hydration products.

Back to the question of "What's the difference between product X and Y?" Hydration solutions (first drink after harvest) basically perform two functions: keep the bacteria count low, and reduce the pH of water to dissolve air bubbles. Of course, there are a few exceptions. Some hydration solutions don't acidify the water, some focus on rebalancing cell chemistry. Sometimes a hydration solution doesn't give as good of results as using a holding solution as the first drink. Holding solutions fall into the flower food category and contain a source of sugar, generally glucose.

So which solution is best?* It depends on the starting water and flower type. Some growers prefer the KISS, one-size-fits-all mentality, but why not treat the weakest issue determining longevity success? A solution like Professional 1 is based on aluminum sulfate and gives great results with hydrangeas. Why? Hydrangeas LOVE aluminum. Zinnias and gerberas are sensitive to stem blockage (usually a bacteria issue) so Professional Gerbera pills (the active is slow-release chlorine) work great. Cotinus is tough to hydrate. It responds well to Chrysal OVB ("actives" are quat compounds). Tuberoses love sugar so placing these beauties into a holding solution (containing glucose) gives better results than a hydration solution (which contains no sugar). Different crops respond differently to distinctive "actives" which makes comparison testing so important. Find which solutions are best suited to your water, crop list and logistics then plan accordingly.

Table 1 shows a summary of the water characteristics and external factors and the importance in relation with vase life of flowers.

WATER CHARACTERISTIC	CRITICAL LEVELS	IMPACT	RANKING
Conductivity	< 200 µS	-	4
	200 - 1000 µS	+	
	>1000 µS	-	
Hardness	< 1° D	-	6
	1 - 21° D	+	
	>21° D	-	
Alkalinity	< 100 mg HCO ₃ ⁻ /l	-	5
	100 - 500 mg HCO ₃ ⁻ /l	+	
	>500 mg HCO ₃ ⁻ /l	-	
Acidity	pH 1 - 2	-	
	pH 4 - 5	+	
	pH 9 - 12	-	
Elements			
F	> 2 ppm	-	
Zn	> 10 ppm	-	
Fe	> 10 ppm	-	7
Cu	> . .	-	
Air			
Temperature			
Bacteria	> 10 ⁶ CFU	-	1
Fungi		-	
Yeast		-	
Macro elements		-	
Daffodil slime		-	3

Acidity (pH)

Usually tap water is a neutral solution with a pH of +/-7 (between 6 and 9). Generally, water with a low pH (4 - 5) is much better for cut flowers. Many postharvest treatment products (e.g. Chrysal Professional 1, Professional 2, Bulb T-bag), lower the pH.

Water uptake at lower pH is improved and the bacterial growth is limited. The biocides used in Chrysal products more effective at lower pH's.

If the pH of the water is too low (lower than 4) there are chances of stem discoloration with flowers with soft stems (e.g. Gerbera and Chrysanthemum).

*Disclosure: As the technical manager for Chrysal, I am more familiar with Chrysal products than other brands, which is why only Chrysal product specifics are provided. I recommend comparing brands to find your best fit.

Gay Smith

is the Technical Consulting Manager for Chrysal USA.

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Beyond the Fringe: ASCFG Members Team Up in Oregon



Those of you fortunate enough to have attended James DelPrince's floral design session at the 2016 Growers' School in Baton Rouge know that James is an talented designer, an enthusiastic proponent—and user of—locally-grown flowers, and a visual artist looking to stretch boundaries.

He'll be bringing that same spirit to this year's Oregon Fringe Festival, held in Ashland, May 3-7, as the featured floral designer in "Concerto for Florist." This piece was composed by Dr. Mark Applebaum, currently of Stanford University.

As James explains, "Prior to his work at Stanford University, Mark was on the music education faculty at Mississippi State. He, another faculty member and I, developed and performed what

is now this particular concerto at a bagel restaurant in Starkville, Mississippi many years ago. This composition involves many different types of musicians, instruments, and involves performance art. During the concerto, musicians not only play instruments, but are given assigned tasks such as to pack a suitcase, make a phone call, and so on. My job is to design flowers. This video link provides a visual explanation, a performance with the La Jolla Symphony <https://www.youtube.com/watch?v=CuhIAvKhOb0>

"Variations of the concerto have been performed in the past. In them, I have relied on large-scale props such as scissor lifts, ladders, and automobile parts. These items became floral containers, all of which were prepared prior to the performance with a variety of traditional and non-traditional floral design mechanics. During the concerto, I filled the props with flowers and foliage, as well as performed any of the other performance art tasks. As we see it in this work, floral design is not just an activity or a product, but is also a performance."

James connected with Joan Thorndike, owner of Le Mera Gardens in Ashland. Joan grows certified organic fresh flowers, foliage, branches, and ornamental berries on ten acres of open fields, and several unheated hoophouses. She sells to florists and local businesses, and for weddings and special events. James will use some of Joan's floral products in this very special performance.

This synergy between ASCFG members cannot be missed!

Find more information about this special event at oregonfringefestival.com.



NORTHEAST

Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont



Carolyn Snell

Carolyn Snell Designs
carolyn@snellfamilyfarm.com

Greetings from Maine!

I'm excited to write my first column as your new Regional Director. To put my farm into context, my folks run a retail farm growing plants, vegetables, apples, and raspberries here in southern Maine, and I own and run the flower farm piece of the puzzle. We have a slew of greenhouses and some nice woods for foraging mosses and twigs and such, plus we grow on about 14 acres here at home, and 20 acres of leased land down the road in the next town. I plant flowers in three high tunnels and some of the greenhouses, and on about four acres in the field. My flower farm's revenue is about half wedding work including full service design and bulk flowers for DIY brides, a third in bouquets and solid bunches at Farmers' Market twice a week, and the rest to other designers, wreath work, and other odds and ends. Our selling season is late April to Thanksgiving.

Last year was a blur for us on our farm, so I bet it was for many of you too. As I start to plan my seed orders and scheduling I sure do love thinking about the many waves of flowers we grew and sold last year. We all tweak our lists and refocus our attention based on what grew well and what our customers loved. I like to review the previous year, focusing on things we did well and things that were let-downs.

Triumphs 2016

Our anemone crop was really fantastic, and production was high enough to sell some to a local grocery store. Since we don't heat in the winter or leave the covers on our high tunnels through our snowy season, I have been soaking and sprouting our anemone bulks in February, planting them into 72 trays and starting them in our seed-starting greenhouse, and planting them into the tunnels around the beginning of April. First blooms are usually mid May continuing through June.

We also potted up a few spare anemone and ranunculus corms in the spring to sell as plants at market, and they were a hit. I like being able to order a few extras and get a wider range



of colors, knowing I can sell some this way. We planted one corm per 4 1/2" deep pot and sold them for \$5 each.

The peonies really stole the show in June, and held up great in our cold storage. We cut our first stem May 25th, and used our last stems July 15th. We were really thrilled to go straight from peony bunches to lisianthus bunches in our flower display at market to entice customers who like those softer tones.

This year we divided our eucalyptus into two fields: we planted some with our summer crops and harvested that as we needed it, but set aside the other section for November when it was a perfect accompaniment to our kales and mums. We sold every stem!

We tried growing some passion vine in our high tunnel to use for foliage, and it was so much fun, and very productive.

In the summer and the drought we weren't sure our late plantings of celosia and amaranth were going to survive, let alone thrive, but they sure did! Late is great for both of these,



and we pinched the amaranth with great success. Planting out the little stumps was a real leap of faith, but our September bouquets benefitted from the toughness of those little plants. I'm thinking about skipping my earliest spring/summer planting of amaranth altogether...

Tragedies 2016

Early daffs last year were damaged by a freeze, but the later ones really strutted their stuff. This is a reminder to me, that even though I am excited to have flowers as early as possible, mid-season and late-season crops are more reliable and profitable.

After we had been planting tulips in the same place for years and years, botrytis had built up in the soil enough to ruin about half our tulips. Update: we now have a deer fence around the orchard and I can now plant tulips there and not be just feeding the wildlife!

Our dahlias really struggled last year in the heat and the drought and we didn't do a great job planting and tending them in a timely manner.

I am realizing I need to streamline my system for compiling orders from designers, and managing wedding inquiries and contracts, as I became overwhelmed this year and lost some business. My plan right now is to have one crew member be designated office manager a couple hours per week. This feels really scary to me as I am used to doing all that myself, but I'm prepared for it to also feel liberating.

We wasted quite a bit of energy on some seedlings for dried flowers (nigella and acroclinum) that never made it out into the field. I am scaling back some of my ambitions for next year, so we can focus our efforts on crops we are able to follow through on.

We planted some *Cobaea* for cutting, and I really love it, but it matched up for color and style with only one of our weddings this year, so it didn't pay its way space wise. We will still grow it to sell as plants.

We overdid it making cuttings of our heirloom mums, so we tucked some in a high tunnel as a Hail Mary, but it got too cold as they were flowering to be any good. In our climate, we definitely need to put those in our heatable space.

I can't wait to get rolling with 2017 as we face new challenges and fall in love with different varieties. Warm cozy wishes to you!

MID-ATLANTIC

Delaware, Maryland, New Jersey, Pennsylvania, Virginia, and West Virginia



Lisa Ziegler

The Gardener's Workshop
lisa@shoptgw.com

While I had intended writing on a totally different subject, that idea got kicked to the curb as I reviewed my notes from the 2017 National Conference in Grand Rapids. WOW! I didn't even get through the very first speaker's notes before I knew what I wanted to and needed to write about this issue.

"Some people want it to happen, some people wish it would happen, some people make it happen." Dale Deppe, Spring Meadow Nursery

A North Star Idea

The Conference kicked off with welcoming words from Dale Deppe. Dale has led Spring Meadow Nursery to a position as a world-renowned propagation nursery. You may think you don't know of him, but I'm sure you do; his nursery introduced 'Limelight' hydrangea, among many other flowering shrub introductions.

A few minutes into Dale Deppe's talk, I knew he was talking to me. Have you ever had that happen? I have on occasions while sitting in a pew, but not at a farming conference. He offered ideas

and solutions to problems that I know I'm struggling with but hadn't taken the time to get a clear view of what they were, much less tackle them.

Some of you may think, like I did, that your farming business is too small or new to even consider what he shared. But the truth is, I wish I had heard him 18 years ago as I was starting out. What a north star idea, to build your business with purpose. To know that every day you are moving towards making your business work for everyone: you, your employees, the environment, and the consumer.

*"Some people want it to happen,
some people wish it would happen,
some people make it happen."*

**Dale Deppe,
Spring Meadow Nursery**

Farmers don't often have or make time to address what Dale shared until later in the game if at all. Things like business planning, strategies, the big picture, a long-term plan, and an exit plan, for Pete's sake! I think sometimes that when I face something I don't quite understand, I turn and go the other way. It's so easy to get all caught up in something else, things that may seem more tangible today, like the field of flowers that must be harvested....

Well I'm doing my best to face this music, and plot my business's future, not just deal with what comes each day. I hope you will take the time to watch his presentation (posted in the Members Only section of the ASCFG web site). It just might change the future and success of your business.

Here are just some of my takeaway nuggets from Dale's talk. Hope you'll find some nuggets of your own.

- The Association helps us in ways we don't realize, to make us better people, better business people.
- Learn from each other—Seek and Share.
- Think about your business making a profit. It's not about the money, it's about the whole picture—employees, being successful, consumers.
- Always eliminating the low margin items, this is the driver on business success. (WOW!!!)
- Plan to grow your business more profitably; raise prices and quality.
- A successful business has a plan. Need a five to ten-year plan, next year for sure.
- The quest for success—good for all and survival.
- Planning long term allows you to make decisions day to day.
- Poor decisions lead to failure.
- What do you believe about your business? How you want to live as a business person?
- Invest in people and let them do their job. Pay well.
- You pay them more than you make in the beginning.
- Work on your business, not in your business. Become the person that no one contacts.
- If you are putting out fires all day, you have no time to work on your business.
- You must do everything better every year.
- Invest in your business for the long term, from the beginning.
- Lead the way in your industry, be the innovator.
- Lead your farm into the future.
- Go home and make a plan. Let it guide you. Be thankful and happy.

I hope this gives you something to chew on all the days long this winter.

SOUTHEAST

Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee



Val Schirmer
Three Toads Farm
vschirmer3@gmail.com

Tanis, how will we ever thank you!

We owe Tanis Clifton a GIANT debt of gratitude for everything she's done for each of us, our Region, and the ASCFG. She's one of the best storytellers out there—with a huge and generous heart to boot—and has done such an amazing job sharing stories and photos of growers all around the Southeast Region and beyond. I'll do my best to step into her work boots in this new role, but I know I'll never be able to walk in her shoes. Thank you Tanis, for the last three years of making each of us, and all of us, better growers!

So, what to talk about for my first report?

It's pretty daunting, staring at this blank computer screen, still with a head full of learning and inspiration from our amazing National Conference in Grand Rapids, my farming to-do list staring at me, plus all the dreams I have for our little flower farm simmering patiently on the back burner. I'm betting this issue of the *Quarterly* will be jam-packed with TONS of info from Grand Rapids, so if you don't mind, I'll take this space to introduce you to Three Toads Farm.

All it took was a little Kentucky bourbon

Yep, a little Kentucky bourbon is probably the nudge behind just about every great big, far-fetched, crazy idea ever hatched and that's what happened to us on that late summer evening in 1997 on our front porch. Our great friend Charlie Hendricks and I came up with the notion that we were going into the flower farming business as a sideline. Not only that, we had the totally insane idea that we wanted to "grow the kind of flowers that could literally stop people in their tracks." And we were going to name it Three Toads Farm, after the name my husband and I gave our little place in the country.

Obviously, the bourbon was talking.



The next day we still thought it was a good idea, so we ordered up 500 Oriental lily bulbs from White Flower Farm and our tiny flower farm was born. Then

we planted the bulbs too late, and it stayed cold and wet. The lilies didn't exactly match our dreams. Fast forward two years, and we were still a mess, having made just about every mistake known to man. But we still had that darn dream to grow show-stopping flowers. I joined the ASCFG and the third Toad signed up to help Charlie. That first ASCFG meeting around 2001 in Texas showed me—among lots of other things—the power of branding (thank you, Pamela and Frank), which became the foundation for everything we've done since.

Things literally took off for us. We grew the largest bulbs we could find (yes, we finally stopped buying them retail) of LA, OT, and Oriental lilies, and our farmers' market customers went gaga over them. We decided to push the season and tried forcing them in my ancient backyard greenhouse. The experiment worked to get the season going early, but we failed totally forcing them for Christmas, but we learned about lighting.

What we were also learning is that people—well, some people—loved the idea of buying something special and would pay good money for our great big, gorgeous lilies. The first time we sold them for \$4 a stem at the farmers' market, I almost threw up, I was so nervous. But it worked. In 2003 we built a real production greenhouse, a 60 x 90' polycarbonate setup from Stuppy, and started growing all of our lilies on tables inside, year-round. I'd been to enough ASCCFG meetings and tours to realize we needed a cooler, and the guys built one. We were growing lots of flowers outside and experimenting with more inside the greenhouse. Life was pretty good.

Fast Forward to Today

We have two of those Stuppy greenhouses and still grow 100% of our lilies inside, which we sell at the farmers' market for \$7-9 per stem. Yes, it took a while (and a whole lot of consistency about what we grew and brought to market) to build the kind of reputation where we could actually get that price. We still buy 18-20 and 20-22+ cm bulbs to get the biggest stems, largest flowers, and the most buds. We cut the stems long, condition them in the cooler, and when we sell them at the market, every stem goes in a vial of water with flower food, wrapped up in bright green waxed tissue paper. Lexington has some well-off people with the horse industry and all, but there are a whole lot of people who aren't like

that. We have lots of people who start out buying just one stem and for less than \$10, they can spread all those great big buds all around the house to open, and smell like heaven.

We still follow that crazy notion of trying our darnedest to grow flowers that can stop people in their tracks. That's been our niche and it has set the bar for everything we do. Lilies are still a big staple, but we've added other big focal flowers—dahlias and peonies—along with just about every kind of specialty flower or foliage we can try out.

We grow on about 2 ½ acres outside, between the flower farm with the two greenhouses and main flower fields and our farm, where we grow dahlias, peonies, and hydrangeas, along with spring flowers (ranunculus, anemones, forget-me-nots, and poppies) under low tunnels. The past two years we overwintered our 600 dahlias under low tunnels, learning from Bob Wollam. About 90% made it through our zone 6b winters and we could start cutting before the end of May. This year we dug them up so we can reorganize the dahlia patch, get rid of some of the poor sellers and grow more of the winners. We'll see how well that works out! In 2014, we started doing on-the-farm Field to Vase workshops.

There Are Still Three of Us Toads

Charlie, me, and Charlie's daughter Elizabeth, who was with us the first time we ever sold at the farmers' market in 1988. Today, she's 29 and in charge of all our weddings and special events. Elizabeth's crazy talented and I think the reason Martha Stewart named us one of the top ten farmer-florists two years ago.



We started getting serious about wedding and event florals, using our own flowers and foliage, in 2012. We each focus on different things and yes, how we handle finances is definitely complicated, as you'd guess, but we work hard to keep that all behind the scenes. To our customers, it's just Three Toads Farm. Square sales, no matter whose account the money goes into, always says Three Toads Farm.

Two Ideas to Consider

I'll be the first to say that nothing we do is unique, but if you haven't done this yet, consider doing on-the-farm workshops, and forcing spring bulbs to sell as fragrant spring bulb gardens.

We started doing workshops three years ago after a farmers' market customer watched Elizabeth create a bouquet and asked, "Do you ever do classes on making bouquets like that?" It took us two seconds to decide "Why yes, we do!" And two hours later our first Field to Vase Workshop at Three Toads Farm was launched.

We created a flyer for the market, posted it on our Instagram and Facebook sites, and ten people signed up. We were ecstatic. We hosted two more workshops that year.

People loved the opportunity to come out for a behind-the-scenes tour and learn what we grow and how we do it. We cut the very best of all our flowers and foliages at both farms, condition them, and then display them in nice buckets and containers on our growing tables down the length of the greenhouse. Elizabeth shows how she creates a giant farmer-florist bouquet, and then we turn the attendees loose, with as much help needed for each to go home overjoyed with their visit to Three Toads.

In 2016, we got a little more sophisticated, raised our prices a tad, and posted all of our workshops on the website. They all sold out.

This year, we tried again to get a little smarter and posted all the workshops on our website in November, touting them as Christmas gifts. As I write this, it's working out pretty well. You can check them out at www.threetoadsfarm.com



If you're not already doing this, you should! We are nowhere near the likes of Erin Benzakein, Jennie Love, and lots of other awesome flower farmers and farmer-florists, but we have a ton of fun doing these and have found people REALLY want to come to experience the farm, and try their hand at what we do. They go away telling wonderful stories, and totally making us seem a lot better at what we do than we think we are. It's helped build the reputation of Three Toads Farm by leaps and bounds, and it will for your flower business, too.

If you're forcing spring bulbs for early sales, pot some up as spring bulb gardens. We started doing this about thirteen years ago for a high-end event here, called the Blue Grass Trust Antiques & Garden Show. We don't use our cooler much in the winter, so I get about 3,500 early-blooming, fragrant varieties of heirloom and multi-stem spring bulbs, pot them in six packs, and put them in the cooler for 12-14 weeks of cooling. Then we bring them into the almost unheated greenhouse to get them going, and pot them up in all kinds of beautiful baskets, concrete urns, and containers, topped off with Spanish, clump, or reindeer moss. If you have a high-end place to sell them, be sure to make your prices align with that.

Last year, we added a new spring bulb garden class to our roster, giving everyone "first dibs" on our spring bulbs. You know, people just love having first choice on just about anything.

Whew! This has been a whole lot of talking on my part. I hope to see lots of you at the spring meeting in Portland and look forward to hearing from you any time!

NORTH AND CENTRAL

Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, Montana, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin, and Wyoming



Mimo Davis Duschack

Urban Buds City Grown Flowers
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Let me start by congratulating the ASCFG 2016 National Conference Committee for planning, hosting, and executing a spectacular conference! The workshop topics were outstanding and the speakers were on point. As always, it was great to see all my peeps, meet my online friends in person, and introduce our son to the gang. I was particularly touched to see the Association honor Josie Crowson and Ellen Frost for their continued dedication and service to ASCFG and our industry. We so grateful to have you, Josie and Ellen!

The Numbers Game

Urban Buds is five years old! In some ways is hard to believe it has already been five years, but time flies when you're doing a labor of love. The five-year mark is the perfect time to pause and assess how we are doing financially. Each year we have set and met a new gross sales goal that is higher than the year before. We keep an eye on the totals throughout the year via our QuickBooks accounting program and our quarterly sales tax, but around mid-September, we start a "count-up" to our goal number, and weekly we say, "We are x amount dollars closer to hitting the goal." This is count-up motivates us to keep working hard.

This year we are completely blown away at the number of flowers we sold from our postage stamp farm. At year five we have our growing and distribution systems in place, and we have a good idea of the amount of product we can grow and sell. Now it is time to analyze our expenses in relation to the gross sales amount. This is where true profit lies; one way we determine total net sales is by subtracting our expenses from our gross sales.

When we took a hard a look at our categorized and itemized expenses via the QuickBooks account we saw areas where we could cut costs, and make them more efficient. Here is an example

that may help to inform the financial analysis of your farm. Our crated indoor lily production was really expensive compared to how they sold. We were spending a lot of money on monthly bulb deliveries, potting material for the crates, the greenhouse space they occupied and the care they took, but the reality of our market is that lilies aren't the most fashionable flower.

We give every crop three years to see if it is profitable. In an attempt to build a demand for our lilies, for the past three years we introduced new varieties and seasonally appropriate colors. However, our clientele—florists, farmers' market customers, and brides—weren't buying them in the quantities we needed. The florists can get imported domestic and international lilies cheaply, and some of our direct sales customers would specifically request no lilies in their arrangements.

We know that other ASCFG members have a strong market for lilies and it is true, a couple of our farmers' market customers loved the lilies and the lilies did help to fill out our CSA and a portion of our market bouquets, but it wasn't enough to make the grade. This year we are significantly cutting our lily production, which will be a big cost saver to the farm. Do you think there is a flower on your farm not making the grade? Take a closer at it.

For all you new growers, a quick cost saver is to order your floral preservatives, bouquet sleeves, fertilizers, soil amendments, and any products you use in large quantities in bulk through wholesale accounts that you set up with the distributors. The wholesale accounts are generally tax-free. For even deeper discounts you can organize several area farmers to order supplies together. We did this with our Vermont Compost Company order. A dozen or so eastern Missouri and western Illinois growers wanted to use Vermont Compost Company potting soil and compost, but to get the company to even send a truck this way

we needed a minimum 20-pallet order, so we contacted our farmer colleagues to see who wanted to get in on it. Within a week we had our 20 pallets and a deeper discount on shipping and the product because we ordered in bulk with other farmers, once the farmers agreed to accept and store the orders. Working cooperatively saved us all money on this high quality product.

This year we are going to focus on lowering our expenses; the idea here is that as we grow (the number of flowers sold in a year) we will be simultaneously cutting down or "trimming out the fat" in our production costs, and growing our net profit. Net profit is the number we are excited about.

These are just a couple suggestions you can try to lower your overall expenses. A little bit of analysis and planning can go a long way.

This year we are significantly cutting our lily production, which will be a big cost saver to the farm. Do you think there is a flower on your farm not making the grade?

SOUTH AND CENTRAL

Arizona, Arkansas, Colorado, Louisiana, New Mexico, Oklahoma, Texas, and Utah



Rita Anders

Cuts of Color

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It's the end of November and the flowers out in the garden are still hanging on. A couple of beautiful rows of 'ProCut Plum' sunflowers, red and green okra, hibiscus, and zinnias still blooming and growing in very unseasonable temps resulting in no frost yet. Certainly by the time you read this they will be gone yet for another season. Late November plantings of larkspur, bupleurum, dill, ammi, bachelor buttons, and bells of Ireland that were priming in the fridge the last two weeks have been seeded and are now waiting for some timely rains to get them started.

We came off a ridiculous busy fall and a very stressful election season and felt somewhat overwhelmed, but thanks to making lists and staying very organized, we were able to handle all the harvesting and lots of weddings, and still slip away for the ASCFG Conference. I returned home on election night due to having a huge wedding weekend and sure was sad that I missed the tours. I have to share with you that it was an eerie feeling flying high above looking down at all the city and country lights knowing that most people were sitting glued to their televisions anxiously awaiting the election results, and not knowing what's going on down there.

Accomplishing all this was made possible by an awesome crew and family that pitches in when I need them. My husband jokes that he is still waiting for a paycheck! Also crop planning, meetings with brides, and making sure all supplies are in stock, flower lists and recipes done for all the weddings, and market bouquets helps streamline the process and makes everything flow.

Some of you may be tired just from reading this but believe me your adrenaline keeps you going through all these tough weekends. So, you may wonder, how do we manage all this workload and not suffer from burnout? I think first and foremost you have to know you can take time off and step away from your business without it owning you. I very much value my time with family and friends, church, God, and vacationing and I make sure to schedule those in every week, and trips away from the farm throughout the year.

One of the ways that I have learned to get it all done is by learning when to say yes, and the hardest word in the dictionary, "no". I start by marking up my calendar with special weekends as booked so I have those times with family. I also pencil in AS-

CFG meetings, vacations, and special weekends like Valentine's Day, Easter, and Mother's Day as I know I will be so busy with my store deliveries that I don't want to tackle weddings on those weekends as well.

What I have learned since starting to grow flowers in 2004 is that my business has changed as I changed financially, mentally, and physically. I started selling at a farmers' market, then added weddings. In early 2012 I decided that I was done with farmers' market because I was burned out on going every weekend for 8 years and being so worn out on Sundays. We then switched to selling to a large retailer and still doing even more weddings. I'm very happy growing flowers and I know that's where my passion is so I just continue to change how I sell them to fit my changing life.

Now I've come to the point where I want to cut back on weddings and concentrate more on growing for my market. My husband retired 18 months ago and the time has come where he wants to do the things that you do when you retire like fishing, traveling, and his hobbies so once again our business is changing. He has really been involved in the farm but we want to step away when we can and not have the farm fall apart. Over the past three years I've been blessed with an awesome employee and I've been training him to just about do everything from seeding to harvesting. He keeps me in line because he is pretty meticulous with his job and never scared to learn something new.

I believe if you make an investment in a good employee, it pays off. He loves working on projects that are improvements to the farm. He takes so much pride into a job well done and he is just as happy as I am with a successful crop. Having a great employee helps me from being physically burned out. Unfortunately I can't do the things I used to for long periods of time like hand tilling, chopping and pulling weeds and still be able to walk the next day.

At the 2017 Conference in Grand Rapids, Lisa Ziegler gave an excellent presentation about other ways to profit from your farm sales besides flower sales. Her presentation, as well as all the others, are available for viewing on the ASCFG website. I hope you take advantage of watching all of them over the winter. I'm not ready to write a book (writing these articles is hard enough), or travel around to give presentations on flowers or sell tools and accessories, but Lisa has developed a market to home gardeners and she has tapped into a perfect market for her. I am sure though that when the time comes and I need to change my market strategy, I will figure it out.

For now I want to build a team here on the farm that will get all the jobs done that need to be accomplished each week. It's a balancing act to know when you need to hire employees and still be profitable. My dad use to tell me that if he had to hire help, he wouldn't make any money. He was a dairy farmer and pretty much a one-man show with us kids to help him milk. I always valued all his advice but I've had employees for a long time because flower farming is much different than dairy farming. You have only so many cool hours in a morning to get the flowers harvested and

with an operation the size of ours you have to have employees. I also never make my employees do something if I don't want to do it. We work side by side and it sure makes chores much easier. Who on earth would want to pick a long row of gomphrena by themselves? I think I myself would quit if I had to.

To grow a successful business you need to know the strengths and weaknesses of yourself and your employees. I also believe that employees need to be applauded and appreciated when they do a job well done. It's amazing how just bringing in breakfast or occasional goodies to eat motivates the crew on a busy harvest day. "Take care of your employees and they will take care of you" is what I go by on my farm.

If I wouldn't have a good crew that I could depend on I wouldn't be able to attend the ASCFG meetings throughout the year. They laugh and say "Wonder what new idea she will bring back this time to implement?" They know me too well. This past November's meeting was attended by a record attendance and it was so awesome to be with so many flower farmers. I was so amazed to see so many young growers and very happy to see so many old friends. Several local growers donated flowers to make the photo booth flower crowns, flower hats, bouquets, and table decorations for the banquet. I was like a kid in a candy store getting to play with all the flowers and make some arrangements for the meeting rooms. Most of the material came from the Michigan area and most of the greenery was new to me so I had fun working with it.

Every year money is allotted in the ASCFG budget for Grower Grants. This past year there were no applicants so this year please start brainstorming and come up with a good grant proposal so we can award this money to a deserving applicant. A notice will be sent out with guidelines and when they need to be turned in by so please be on the lookout for this information.

Also please try to attend one of the meetings this year located in several places across the country, even one in Canada. Sounds like a vacation to me! Last January I visited several farms in our part of Texas and even a couple in Louisiana. What I would like others in our South and Central Region do is make a point to get together with growers in driving distance of your farm, and create mini groups like we did last year. It is so helpful to reach out to fellow growers if you have questions about what you are doing before reinventing the wheel. Also if you haven't already, join the ASCFG Facebook group and post pictures or just questions. If you aren't on Facebook, make sure to take advantage of the Bulletin Board on the ASCFG website. There is endless information on there that could answer most questions. Please don't be afraid to ask questions.

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There will not be a grower meeting in the southern part of the country this year so if any of you would like to meet with other growers I strongly suggest you meet with the growers that are near you and create sharing groups. Sharing is learning so let's help each other and build a better future for all of us.

WEST AND NORTHWEST

Alaska, California, Hawaii, Idaho, Nevada, Oregon, and Washington



Lennie Larkin

B-Side Farm

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The Value of Mentorship

As ASCFG members, you've all already bought into the idea that we've much to learn from one another, particularly from those among us with more years of experience in our ever-growing field, more notches on the belt, bigger, gnarlier calluses on the hands, and honed-in muscle memory of how to run thriving farms season after season.

Last fall I wanted to jump back into education, and I embraced mentorship from both angles—as the mentor in one case and the mentee in another. Both experiences were hugely valuable and I want to share some thoughts on the process in the hopes that all of you out there will consider connecting with each other this winter in either offering assistance, asking for it, or both. After all, each of us is probably both more experienced than someone out there, and less than someone else. Am I right?

Part One: Learning at Love 'n Fresh

In early October of last year I traveled to Jennie Love's two-acre Philadelphia farm in order to spend the better part of the day learning from her—or, as she has referred to it since—to dive into a marathon Vulcan mind meld. I'd been wanting to do this for years, or more precisely, for two years, since the ASCFG 2014 National Conference in Delaware, when we visited Love 'n Fresh in the pouring rain, and watched Jennie power through a low tunnel demonstration like a champ. As you probably know, Jennie is that rare combination of plants-woman (dare I say, affectionately, plant geek), savvy business mind, and talented designer. I wanted to learn her secrets, or at least gain some tips. I had of course creepily read through her

entire blog archive years ago, long before we became friends and colleagues on the ASCFG board, so I was ready.

While the crux of this article centers on the actual process of mentorship and not the content, I'll let you all in on some lessons I took home from Jennie as we go.

Lesson One: Find a plan for balance from the beginning.

My first lesson was one in self-care and general badassery, when I arrived at Jennie's studio just as she rolled in on a motorcycle. I learned that this was a part of both a realization that life wasn't getting any longer, and a plan to reclaim longstanding dreams and hobbies outside of the farm. Seven years in and after real sacrifices to her personal life and well-being, Jennie decided things needed to change. No doubt her success in her business was in part due to some of these sacrifices, but I think she wishes she had begun the quest for balance from the get-go when it would have been easier to reclaim. I was particularly ready to hear these words, and have been patting myself on the back ever since for striving for a more manageable workload.

Lesson Two: If you have a conversation (or email exchange) once, you'll have it again. Use this to your advantage.

We broke our day into two main parts: wedding biz talk at the studio, and flower farming/design talk out at the gorgeous farm. Both were equally valuable to me. In terms of the wedding side of the business, I wanted to know what Jennie has implemented to help her streamline and manage inquiries, what language she uses to attract and book the right brides, how she screens for a sincere appreciation (or at least understanding) of local flowers, and how she set her wedding business up for growth. You can bet I scribbled tips on all of it, and asked questions until both of our heads hurt (sorry, Jennie!). One current running through all of the processes was a quest to set up systems that could almost manage themselves.

Lesson Three: Figure out what you want to provide and make sure that's what you're charging for.

I also left the studio thinking a lot about pricing. Jennie knows her market and how much it can bear, and she's also honed in on exactly what level of service she's providing. And she charges for it. This caused me to come back to my business and look at my prices and at what I provide, and to make some adjustments to both what I offer and what I'm charging (both adding in some categories and subtracting in others).

When I finally exhausted my office-oriented questions (or perhaps just forgot the rest with my swelling brain), we moved to the farm. This was of particular interest to me as I had spent

2015 setting up a successful flower farm, and 2016 launching a successful wedding business, but I hadn't yet figured out how to do both. Jennie had long been my role model in keeping both aspects of Love 'n Fresh running full speed ahead.

Lesson Four: Conduct smart trials and then know when to give up. Learn your climate and grow accordingly.

I wanted to know how she approached the mix of crops on her farm, and just as I suspected, each year she grew increasingly more of what grew well and almost effortlessly in her climate. You should check out her blog to see what some of these crops are; I love how she thinks outside of the box. This should be a no-brainer, but I find that so many of us struggle with certain crops year after year and don't know when to give up. Meanwhile, we're probably missing out on other crops that would grow like weeds for us if only we found them and gave them a chance.

Lesson Five: Know thyself (and own it).

When it came to floral design, I came away with some quite helpful snapped pictures, tips, and diagrams I scribbled, and have been struggling to decode ever since. I've got to work on my handwriting. It's such a treat to watch someone describe their personal style while they design. One thing that really hit home was Jennie's focus on her bridal bouquets. She admitted to me that she had to eventually give up on the idea of time limits for this task. To make a bouquet that she truly loves (which she does every time without fail), she's learned that it just takes her a while. She wants it to. And rather than try to change this or reel herself in, she accepts it. And, you guessed it, she charges accordingly.

This was such a rich experience for me and I encourage you all to reach out to others for mentorship. Here are a few things I suggest in the process.

Tips for Being Mentored

- Do your research. While there is no such thing as a stupid question and no mentors worth their weight will belittle you for asking it, treat your time together like gold (or, you know, high-value heated hoop house space). Ask the questions that draw from an expert's years of experience, not the ones you can learn from a book.
- Be prepared. Send ahead a general list of topics you want to cover, and be reasonable about how many you will really get to. Two separate lists might be helpful—a "Must Cover", and an "If Time Allows". There is never enough time!
- Pay generously for the service being provided to you. I'm all for barter and favors in life, but in this case, I think we need to place real value on the level of experience it takes in



order to advise someone else. In my mind, these are the kinds of things you should be spending your precious dollars on. The money will come back around.

Part Two: Advising Others

Like many of you, I've been hosting small workshops on my farm. I love it. I went into farming so that I could teach and be outside at the same time (and as it turns out, I love growing things, too). As I left old positions where teaching was a formal part of my job description, I had to really think about how to keep flexing these muscles. Incorporating workshops into my plan seemed like the natural next step. Most of my workshops were small and rather general: a bit about gardening, a bit about design, and some time for strolling in the field. They were festive, experiential, and sent people home with a few new skills (and a lot of flowers).

When I started to get requests for more in-depth advice on flower farming, I decided to offer a few private and group consulting sessions where we could really dive into specifics on building a flower farming business. For my first session, I spent the better part of the afternoon with two awesome women who were exploring the world of flowers and wanted to sit down and hash it out.

It went swimmingly, but I was reminded of certain challenges inherent in any group setting. In this case, with such a small group I really wanted to be able to troubleshoot each farmer's respective plans. But they were coming from completely different places: one was deep into planning her own little flower farm, had read all the books and blogs and catalogues, and needed

some help putting all this information into a solid plan for year one. The second farmer, on the other hand, had recently taken a job with a community farm and wanted to learn more about incorporating flowers into their crop plan. There wasn't much if any budget for this, and they would probably best succeed with simple flowers that volunteers could help to grow.

What different situations! We essentially switched back and forth from one farm plan to the other, and both participants hungrily scribbled notes on any valuable tidbits, even if they didn't apply to their particular situation. Those are some great students. I can attribute the success of this session to both this flexibility on their part, as well as (more importantly) the fact that I was clear from the get-go as to what I would be offering.

I was reminded that there's such value in being upfront, clear, and comprehensive when offering your services. I advertised that I would bring all my knowledge to the table (along with all sorts of reference material for us to paw through), and that I would follow up to track down answers that I couldn't come up with on the spot. But I wouldn't be developing a curriculum (read: formally preparing). I tried to set the price accordingly, and I pretty much was able to just show up (as I recall, it was after setting up a wedding). I have to say, it was a fun departure from more formal teaching, and a great way to help others, flex the mentorship muscles, and look into new ways of diversifying my income stream.

Tips for Beginning to Mentor Others

- Do a real assessment of your strengths and what you have to offer. The list is probably longer than you think. If you're brand new to farming, sure, you're probably not ready to really advise others in a formal way. But if you've been at it a while, and specifically if you've achieved some success through focused and sustained trial and error, chances are you've got something to give. Start with beginner farmers who are looking for tips on things you've already gone through.

- Start with a package, rather than an hourly consulting rate. This sets a realistic framework for how much time you will use and inspires your mentees to come with concrete goals rather than a list of questions with no beginning and no end. This is a tip I gleaned from Jennie.

- Put out the word. If people don't know you're got the goods and are willing to share them, how will they know to reach out to you?

For the next *Quarterly* I'd like to present a survey of what's going on with West Coast growers. So a call to my members: who's out there? What's going on with your farms? Where are you struggling? Where are you thriving? Be on the lookout for an email from me asking these questions!

CANADA

Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Nova Scotia, Ontario, Prince Edward Island, Quebec, and Saskatchewan



Janis Harris

Harris Flower Farm

janisandmarkharris@hotmail.com

Thank you to the Canadian membership for electing me as the first ASCFG Canadian Director. It is an honour. I am excited to represent all of us in this awesome organization. Looking back I have to credit my mom for giving me the ASCFG membership for my birthday. I will admit I didn't know at the time how valuable of a gift it was!

Right now we are in the slower time of our year as flower farmers but I know you are still busy deciding and dreaming of next year's blooms. I find myself daydreaming of flowers instead of having to look out the window at the deep blanket of snow.



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Meet the ASCFG's Newest Members

- Rachael Ackerman**, Blue Sky Flower Farm, Lakeville, MN
Maureen Althouse, Hellertown, PA
Sharon Andrews, Andrews Farm, Jarrell, TX
Katie Aurand, Back Mountain Flower Farm, Milroy, PA
Shannon Babinsack, Newville, PA
Pamela Bardenhagen, Bardenhagen Berries, Lake Leelanau, MI
Laura Bergey Wiebe, Bergey's Blossoms, Chesapeake, VA
Rebecca Berry, Bellefontaine, OH
Haley Billipp, Eddy Farm, Newington, CT
Emily Blanton, Cana Farms, Mocksville, NC
Robin Bodony, Indianola, WA
Linda Bradley, Columbia, SC
Heidi Brauitgam, Cookstown, ON
Gay Brown, C & G Farms, Tyler, TX
Tyler Brown, Port Clinton, OH
Sara Brown, Meadowview Flowers, Princeton, KY
Mindi Bruckhart, Cool Spring Garden, Manheim, PA
Noma Brueckner, Lawsonville, NC
Amanda Burgan, Laughing Lady Flower Farm, Philadelphia, PA
Kristy Buskirk, Clay Hill, Tiffin, OH
Debbie Calewarts, Ghost Turkey Acres, Winneconne, WI
Eliza Chapelle, Ann Arbor, MI
Alissa Cockroft, Kersey, CO
Katie Conrado, Meeker, CO
Heather Cook, Mayesh Wholesale Florist, Portland, OR
Kristiana Coutu, Liberty Hill Harvest, Kalamazoo, MI
Lisa Cox, Flower Girl & Company, Palmyra, IL
Wendy Crowley, Branches and Blooms of Sandy Lake, Lakehurst, ON
Christine Curley, Fair Field Flowers, Monona, WI
Angie Darsney, Growing Interest, Elkton, MD
Svenja Dee, Tulipwood Inc., Lunenburg, NS
Michelle Dimauro, Elkhorn, WI
Genevieve Dimmitt, Monticello, FL
Kathryn Dunnigan, Purcellville, VA
Premalatha Durham, Lakshmi Farms, Anchorage KY
Brady Dwyer, Chicago, IL
Kathy Eichstedt, Country Florist, South Bend, IN
Teresa Eschenburg, Teemie's Country Blooms, Allenton, MI
Daniel Fernandez, Scotch Plains, NJ
Carrie Ferran, Dragon Heart Flower Farm, Spokane, WA
Tammy Fuller, Honey Dome Farms, Plymouth, IA
Jacqueline Gardner, Moonset Farm, Porter, ME
Meryl Gartside, Brewster, MA
Kari Geary, Bruce Ewing Landscaping, Fort Wayne, IN
Killoran Gordon, Victoria, BC
Anne Gould, The Lavender Hill Farm, Union Dale, PA
Gina Graham, Old Stonehouse Farm, Random Lake, WI
Shayla Grover, Rio Grande, NJ
David Hammel, Bridgeport, IL
Wanda Hammel, Bridgeport, IL
Claire Hammelman, Hammelman's Dried Floral, Mt. Angel, OR
Iman Hawkins, Firefly Flowers, Bluemont, VA
Lori Heffner, Pine Creek Farms & Nursery, Se Monroe, WA
Kelly Hill, Springfield, MO
Tausha Holden, Big Red Truck Gardens, Kalispell, MT
Michael Holmes, Dallas, TX
Morgan Hopkins, Urban Buds City Grown Flowers, St. Louis, MO
Lorna Jackson, Ninebark Farm, Victoria, BC
Erika Johnson, Elawa Farm, Lake Forest, IL
Michael Jowers, Hazlehurst, GA
Chelsea Juengling, Two Hounds Farm, White Lake, MI
Jennifer Kinney, Harvard, IL
Kendra Kluck, Olathe, KS
Jean Knutson, Richmond, IL
Melanie Kopjanski, Boston, VA
Caitlin Kundrat, Albuquerque, NM
Tracy La Valley-Hall, Firefly Floral and Design, Lyons, NY
Kathleen LaRone, Sweet Pea Flowery, Kelowna, BC
Clai Lasher-Sommers, New Dawn Farm, Westmoreland, NH
Joanna Letz, Bluma Farm, Oakland, CA
Adria Lipsett, Bee Friend Flowers, Cobble Hill, BC
Andrea Little, Andrea's Garden, Lamar, AR
Kellan MacKay, Oak Hill Farm, Glen Ellen, CA
Shelly Mak, Mak Lilies and Perennials, Stayton, OR
Roxanne Marotta, Podmijersky Farm, Hudson, NY
Amanda Maurmann, Gnome Grown Flower Farm, Ann Arbor, MI
Tom McFarland, Bluebird Flower Farm, Bessemer, PA
Boni McNatt, Anchor Point, AK
Faye Melville, Ball Horticulture Company, West Chicago, IL
Stacy Moeller, Tiny Acre Farms, Des Moines, IA
Penny Molina, Brooklyn, WI
Celeste Monke, Bellingham, WA
Cynthia Nazario-Leary, USDA Extension Service, Kahului, HI
Evan Neal, Chamblee, GA
Rebecca Newton, Decatur, IL
Reiley Ney, Boise, ID
Jessica Niederer, Chickadee Creek Farm, Pennington, NJ
Tammy Norman, Rodwell Roots, Mebane, NC
Arie Pannekoek, Meadowland Flowers, Chilliwack, BC
Bonnie Patnoe, Greenstone Fields, Lovettsville, VA
Meghan Payne, Wild Rose Farm, Everson, WA
Karen Pineo, Karen's Country Gardens, North Alton, NS
Laura Pittard, Poppin's Blossoms, Orem, UT
Lori Pizzuti, New Braunfels, TX
Ellen Poggi, New Leaf Farm, New Lebanon, NY
Paige Powell, Dripping Springs, TX
Julie Pulfer, Bellefontaine, OH
Michael Pursell, Late Bloom Farm, Northfield, MN
Deb Ramsay, Branches and Blooms of Sandy Lake, Peterborough, ON
Jack Ray, Marked Tree, AR
Heidi Reed, Nellysford, VA
Molly Robertson, Ballard Canyon Farms, Solvang, CA

Meet the ASCFG's Newest Members *continued*

Terri Rossiter, Mosinee, WI

Mary Royal, Elko, GA

Jill Russell, Boreal Peonies, Two Rivers, AK

Jenna Ryan, Elodie Flower Farm, East Montpelier, VT

Gwen Sayers, Pine Creek Farms & Nursery, Monroe, WA

Laura Schafer, Senecaville, OH

Daniel Schavey, Roots, Piedmont, SC

Joshua Scheller, Three Rivers, MI

Timothy Schipper, Colorblends, Bridgeport, CT

Maggie Sheehan, Green Light Farm, Prairie Farm, WI

Kelly Singer, Earth Blooms, Mountain Rest, SC

Alison Smith, Wild Air Flower Farm, Dryden, NY

Dana Smith, North San Juan, CA

Denise Smith, Desert Art Farm, Poway, CA

David Smits, Downers Grove, IL

Laura Spragg, Moses, WA

Rosie Standish, Mantua, OH

Allison Starn, Petal and Thorn Flowers, Westby, WI

Amy Stoker, Lucky Bee Cut Flower, Longmont, CO

Momoko Hirose and Suzie Scordino, Soluna Garden Farm, Winchester, MA

Juliah Thrift, Juliah Thrift Garden, Los Angeles, CA

Stephanie Todd, Bluebird Flower Farm, Mitchell, IN

Karen Trubitt, True Love Farm, North Bennington, VT

Kimberly Van Mersbergen, Rhinebeck, NY

Carly Waddell, Ashland, OR

Mechel Wall, Pea Ridge, AR

Elisabeth Weaver, Lancaster Farmacy, Lancaster, PA

Lucy Whitridge, Ashland, OR

Clarissa Wiebe, Mitchell, ON

Kristin Witte, Witte Farm, Salem, OR

Carly Wycklndt, Door Blooms Flower Farm, Baileys Harbor, WI

Susan Young, Restoration Roses, Nashville, TN

Gail Zorn, Daybreak Farm, Loganville, GA

Research is Formalized Curiosity

You know that one production problem that constantly trips you up in your spring planning? How about the question of efficient crop management? Exactly what kind of irrigation is best for your specific cut flowers?

Don't wait for someone else to give you the answers—do some exploration yourself!

The ASCFG periodically awards funding to cut flower growers for on-farm research. Results of the research should benefit specialty cut flower growers in the field or greenhouse. The program is open only to current ASCFG members who have grown cut flowers commercially for at least three years.

Grants ranging from \$500 to \$2000 may be awarded to qualified projects. Matching funds are encouraged.

Half the grant payment will be made at the start of the project, with the balance paid after the successful completion of the research, as well as submission of a complete, coherent report for publication in *The Cut Flower Quarterly*.

No overhead costs will be funded. Final reports will be due three months after completion of the work for which the grant was awarded. Final reports should be in the form of an article for *The Cut Flower Quarterly*. The ASCFG expects to receive copies of any abstracts, publications, and presentations (titles and locations) resulting from the funding research project. Recipients should be prepared to present results from the research project at the ASCFG National Conference or other ASCFG event.

Proposed work should be for one year or less in duration, but can be part of a multi-year project. Recipients of a grant for a multi-year project will be given preference when they apply for funding in subsequent years.

You never know who else out there might have the same questions as you. Apply for a Grower Grant, and see what kind of results you get. Find the application at ascfg.org.



Looking for a Mentor? How About a Mentee?

After the success of the inaugural cycle of the ASCFG Mentor Program, we're going for a second round. We'll start the application process for the 2018-2019 pairings in May. Applications will be accepted July 1 through July 31, and the pairings will be announced after the fall Board of Directors in November. Watch your email for details!

ASCFG Presents Awards

At last fall's National Conference, the ASCFG recognized two members for their longstanding support of and contributions to the organization. Congratulations to these two remarkable women!

The Armitage Leadership Award is given to those in the floral industry who consistently strive to foster the goals of ASCFG, and the specialty cut flower industry. In 2016, this was presented to **Ellen Frost**, founder and owner of Local Color Flowers in Baltimore, Maryland.

Ellen is recognized as one of the country's first florists to use and promote exclusively locally-grown floral product: all flowers used in her designs are grown within 100 miles of her studio. Ellen's philosophy is to be as gentle to the earth as possible: all discarded material is composted, containers used in designs are often upcycled and reused, she swore off using floral foam years ago, and her shop uses wind power as an energy source.

Working with dozens of regional growers, Local Color Flowers is able to produce award-winning wedding and event designs year-round, even in the off season when imported flowers are often used.

Ellen actively supports other small, locally-owned businesses in her Baltimore neighborhood, contributing to their success, and improving the lives of local residents. Many designers working at Ellen's shop have been there for years, reflecting Ellen's ability to maintain a business that works for everyone involved, not only the owner, but the workers, farmers, neighbors, and community at large.

Ellen is also admired for encouraging, mentoring, and supporting young or beginning flower growers, by helping them establish their farms, offering production and marketing advice, and purchasing their cut flowers on continuing basis. Many flower farmers in the Mid-Atlantic owe her a great debt of gratitude for her long-term commitment to their success.



Dave Dowling, ASCFG President, and Ellen Frost



Dave Dowling, Josie Crowson, and Judy Laushman, Executive Director

Josie Crowson has been an ASCFG member for 15 years. Josie's Fresh Flowers started in Nacogdoches, Texas, where she sold at farmers' markets and to local florists. Her members chose her as their Regional Director in 2010. She was responsible for increasing membership in the South and Central Region, hosting several meetings, and writing absolutely flawless Regional Reports for *The Cut Flower Quarterly*.

Then she was elected Treasurer, and using her Ph.D in economics, her whip-smart brain, and her relentless organizational skills along with her naturally warm personality, she made sure every decimal point was in the right position in every monthly financial statement and annual budget.

After she retired from actively growing cut flowers and moved to Virginia, she decided to take on another challenge. She virtually single-handedly made possible the ASCFG's first film "Local Flowers, Local Farmers". She found the

filmmakers (in her own town), she lined up the starring farmers, she helped write the script, she was at most of the filming. Since the film was finished, she has tirelessly worked to share this presentation with other growers, florists and designers, and floral consumers, and spread the word about local flowers.

The ASCFG Outstanding Service Award is given to a member in recognition of his or her valuable and long-lasting contributions to the organization. Josie Crowson is well-deserving of this honor.

Association
of
**Specialty
Cut Flower
Growers**

Deep Dives - Beyond the Basics of Flower Farming

February 20-21, 2017



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Go to www.ascfg.org for program and registration.

- 9 intensive hours of flower farming courses by industry experts
- "Speed Dating" informal evening to ask all your burning questions
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ASCFG GROWER MEETING

Green Park Nurseries

Ridgeville, Ontario
August 7-8, 2017

Tours
Sessions
Design
Network

ASCFG GROWER MEETING

TOUR

October 8, 2017



SUNNY
MEADOWS
flower farm

Columbus, Ohio



Judy M. Laushman

It was fifteen years ago that the ASCFG was changed forever. That's when Linda Twining began working for the Association. Juggling several tasks, and wearing many hats, I had been keeping the ASCFG running with the variable assistance of the Board of Directors, college students, local temporary workers, and my children. It was apparent that I needed someone permanent who could handle a wide range of responsibilities, was dependable and organized and experienced, and who had sharp business sense.



Little did I know that I would find those essential qualities, and hundreds more, in one person. I could fill twenty pages with details of the tasks Linda completes daily, those which are part of her formal job description, as well as those she has created for herself to take on, and still not completely describe the scope of her influence on the success of this organization.

Let's just say that every piece of printed or online material that comes from the office, each part of every successful small meeting or large conference the ASCFG produces, every aspect of an organized and profitable business, an intensely-managed membership database (which increases monthly), and effective promotions and outreach, are all products of Linda's endless energy and professionalism.

Her work ethic is epic. She laid out the upcoming postharvest book while on vacation in Florida. She put together most of this magazine bedridden with a viral flu. She works through lunch, after dinner, and most weekends.

People laugh when we tell them that we often email each from our desks twelve feet from each other, but most times, we are on the same wavelength, and barely need to start a sentence before the other one finishes it. I tell her almost weekly that if she ever left her position, I would have to follow her, as I could never work without her, and could never find a replacement for her.

You should know how absolutely vital this woman is to the ASCFG, and when you have time during your busy spring season, please let her know, and join me in thanking her.

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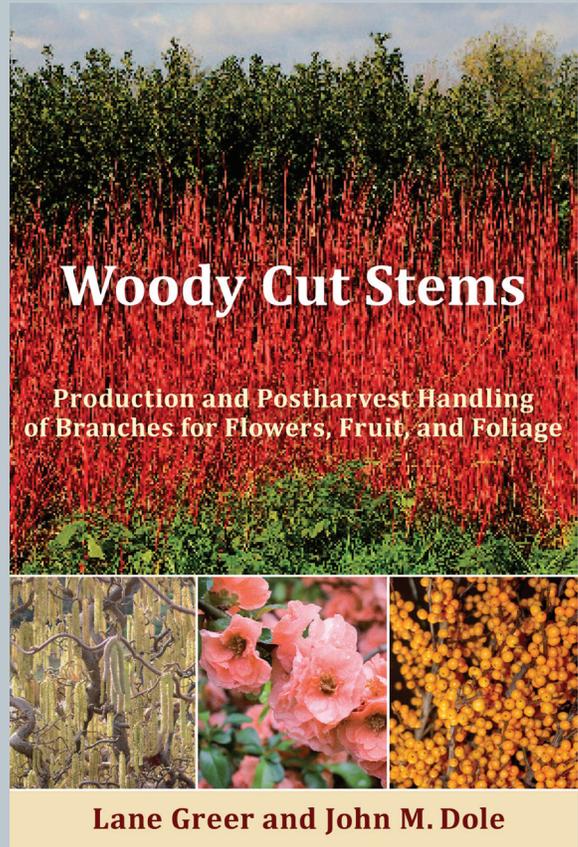
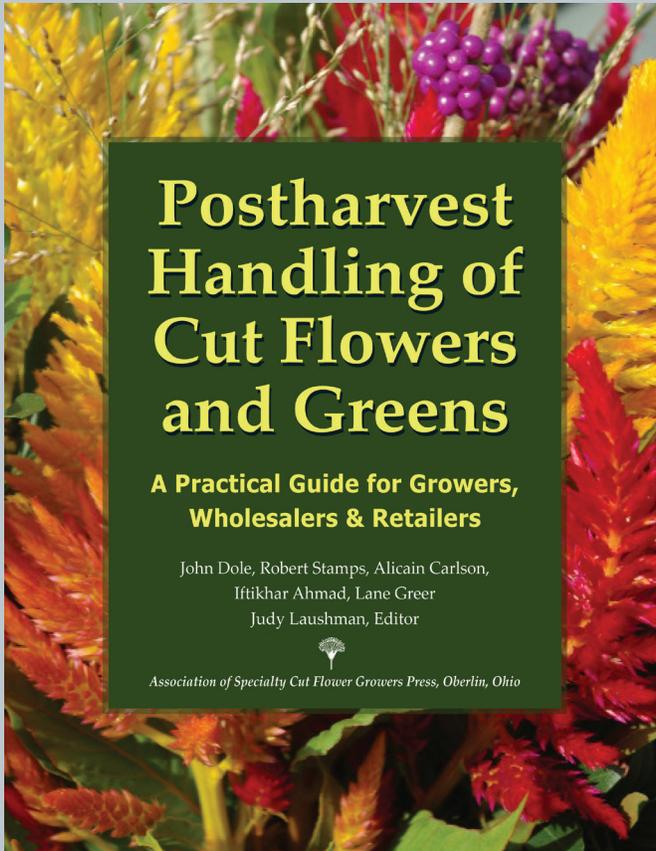
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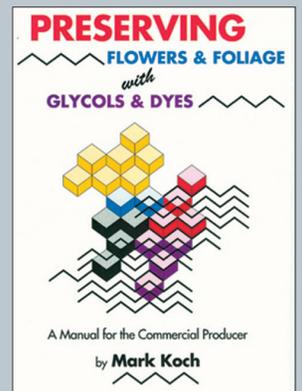
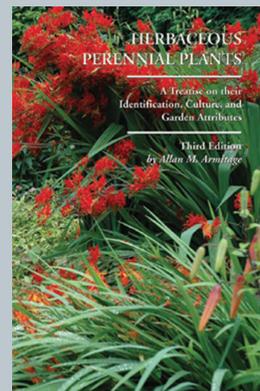
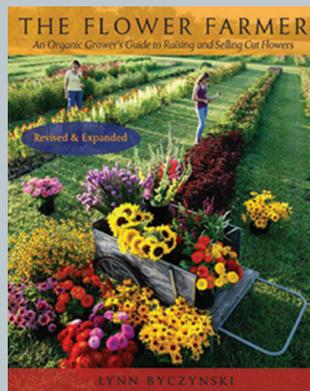
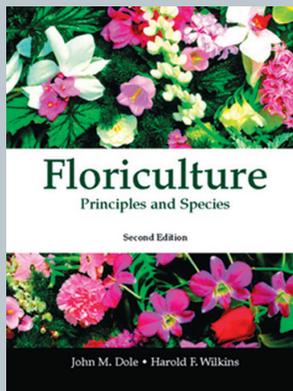
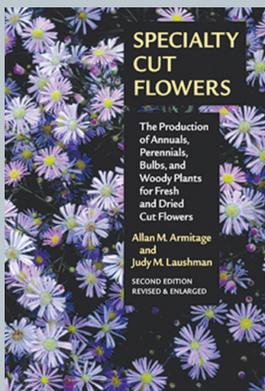
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