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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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From Buying Soda at Wal-Mart to Selling Flowers at Whole Foods

Frank Arnosky



It gets a little blurry when I think back about how we actually got into the cut flower business. How did that happen, anyway? What were we thinking? It was the early 1990s. For most people, cut flowers meant weddings and funerals, and maybe the three-for-a-dollar carnations at the grocery store. Locally-grown flowers were still a long way in the future. There was no one around us growing any flowers at all.

Pamela and I had recently moved to the Texas Hill Country and started a bedding plant business. We had several greenhouses up and running. We also had three young children and another on the way. Pamela wanted to help in the greenhouses, but that was a challenge with the kids underfoot. At one point she tried working with a 2-year-old in a backpack. One day, while Pamela was moving some trays, our daughter wriggled out, did a complete somersault, and landed on her back in a bench of petunias. She was fine, but she made a perfect “snow angel” pattern in the trays. This wasn’t working.

Understandably, Pamela was frustrated and wanted to do more in the business. We racked our brains for a solution. “I know” I said. “Let’s grow some cut flowers in front of the house. You can be close to the house, the kids can be out there with you, and maybe we can even sell them (The flowers, not the kids).” We actually didn’t even know at that time if we really could sell cut flowers. We just thought it was worth a try.

I’ll be honest—we didn’t have a clue what we were doing. I pored over my bedding plant seed catalogs looking for tall varieties that we might grow as cuts. We bought a Troy-Bilt rototiller

and plowed up a 100 x 100 foot area in front of the house. That Troy-Bilt bucked like a mule. We planted snaps, zinnias, sunflowers, marigolds and statice. Oh, and gomphrena. I grew to hate that stuff. It seemed like a hundred acres of flowers.

Surprisingly enough, they grew. But this was new territory. It was like growing greenhouse flowers with no greenhouse. Storms would blow through at night and knock everything down just as they were coming into bloom. We would go out at two in the morning, flashlights in our teeth, and prop up the snaps with 2-foot bamboo stakes. The stakes were green and practically invisible, and we later we would almost put our eyes out on them trying to harvest the flowers. We didn’t know Tenax netting even existed.

We packed the flowers on our screened-in front porch. Twenty buckets of flowers seemed like an insurmountable amount of work. We would get up at 3:00 a.m. to work before the kids got up. A pet rabbit would sleep under the table as we fumbled around trying to figure things out. How many flowers in a bunch? How tall? We didn’t know. Sleeves? Buckets? We knew we needed flower food, but what should we use? How about lemon-lime soda? Didn’t Martha Stewart tell us to do that? We bought gallons of the stuff from Wal-Mart. Lordy!

Now what? Where do we sell these flowers? Well, in the middle of downtown Austin was a big red and white “revival” tent set up in the parking lot of a defunct car dealership. It was called the Rose Tent. It was a cash-and-carry bucket shop that sold mostly South American roses at a discount price. The guy had hundreds of buckets of flowers and a line of steady customers. He had a big sign

above the register that said “If you pay cash, we’ll pay the tax”. (Uh, right.) You could tell there was more going on there than met the eye, but that was none of my business and he was receptive to the idea of local flowers.

The Rose Tent quickly became our main customer. Local flowers were a hit, and we were soon selling everything we could grow. Through the Rose Tent we learned how flowers were bunched,

We packed the flowers on our screened-in front porch. Twenty buckets of flowers seemed like an insurmountable amount of work. We would get up at 3:00 a.m. to work before the kids got up. A pet rabbit would sleep under the table as we fumbled around trying to figure things out.



packed and sold by the exporters, and what the standards were for selling flowers. It was an eye-opening experience to see that there was a worldwide industry in flowers. Sounds naïve now, but back then it was a revelation.

From the Rose Tent, we branched out into grocery store sales and our education continued. But we needed more information. We knew there was an industry out there, but remember, this was in the days before the internet. The internet? Ha! We had only just gotten a private phone line out here. (Before that our neighbor would get on the party line while I was talking to customers and holler “This is Mrs. Dollahite. Who’s talking?”) We wanted to expand our farm, and we needed a source of information. You can tell where I’m going with this...

About this time we discovered the ASCFG and stuck to it like a pilgrim who’s found his guru. Then, as now, it was a great source for the information we needed, but there were two things that we have now that we didn’t back then: the Trials Programs and the Growers’ Schools.

Since 1993, John Dole and his team at North Carolina State University have been receiving, processing, and compiling data for the ASCFG Trials Program. These trials have put the ASCFG in the forefront of introducing new cut flower varieties to

our industry. ASCFG members participate in growing out and carefully evaluating new introductions. John painstakingly collects all the information and presents it in the annual issue of the *Quarterly* (which you now hold in your hands!). A huge amount of work goes into this project, from NC State to the growers who participate and evaluate, to the staff in Oberlin who solicit seed, repackage it and ship to Trialers, and then put together this big issue of the *Quarterly*. I think we can all name a number of key varieties that we discovered from the new variety trials—ABC lisianthus and Jedi marigolds for me, just to name a couple, along with a flood of new sunflowers. This is a resource that I would have loved to have back in 1994.

Another great project that the ASCFG offers is the Growers’ School. Boy, I could have used this back in the day. We wouldn’t have wasted all that money on lemon-lime soda, I can tell you that! This year we will have two Growers’ Schools, a spring school and one this fall at the National Conference. The theme for the spring Growers School is “Everyone Started Somewhere”, and as you can see, it certainly applies to our farm. Join us March 6th and 7th in sunny Baton Rouge, Louisiana for a crash course on how not to make the mistakes we made when getting started. We’ll cover the

basics of starting and running a cut flower operation, from seeds, plants and bulbs to bunching, selling, and bookkeeping. These schools are an invaluable resource for both new and established growers. It’ll be spring in Baton Rouge, and we can practically guarantee that the *Bon Tempes* will indeed *Roulez!*

We are also working on the National Conference for this fall in Grand Rapids, Michigan. Mark your calendar for November 6-8 for tours, sessions, and another Growers’ School. Western Michigan is a hotbed of horticultural activity and Grand Rapids will be a great site for a conference.

With the help of the ASCFG, we built our farm up from that little garden plot to an operation with 20 acres of flowers. A few years after we started selling flowers, business at the Rose Tent started to “go south”, as they say. The Rose Guy lost his lease on the big parking lot and had to move up the street to a small used car lot. We were having trouble getting paid. He owed us \$1100 (a fortune back then) and I went by to see about the money. The Rose Guy had an office in a tiny trailer, just big enough for a desk and one other person. I had a three-year-old on my hip, and I walked in to the tiny office and demanded my money. Just then a big black Cadillac noses up to the trailer, gold trim all over the grill. A guy gets out and opens the door to the office, looking like he just walked off the set of *The Godfather*. Black suit, gold jewelry, greasy moustache—the works. The Rose Guy calmly says “Frank, I want you to meet Howard”. I took one look at Howard blocking the door, nodded good-bye, and ducked under his arm and got the hell outta there. I never did get that 1100 dollars. The Rose Guy filed bankruptcy, landed on his feet, and got into the antique business.

The new owner of his old Rose Tent site was Whole Foods. They built their flagship store and world headquarters right on the site of the old Rose Tent, and that is now one of our best stores. You just never can tell how things will work out.

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'Planet Light Pink'



'Planet Light Pink'



'Rosanne I Black Pearl'



'Rosanne II Deep Brown'

Sakata Seed America

Delphinium 'Planet Light Pink', 'Planet Blue'

Planet is a versatile new series that is great as a cut, bedding or potted crop. It is early blooming and is available in two striking colors. Delicate star-shaped flowers make Planet a perfect bouquet component.

Lisianthus 'Rosanne I Black Pearl'

Rosanne has unique flower colors and patterns as well as an excellent vase life, with more useable buds. The thick flower petals and top flowering habit of this series reduce botrytis problems during transportation. Rosanne belongs to Group 1 of the standard double flowers.

Lisianthus 'Rosanne II Deep Brown'

Rosanne II is a standard double lisianthus with extremely strong flowers that hold up well for shipping. Rosanne II's new color, 'Deep Brown', is a trendy lavender-brown that adds a unique element to floral arrangements.

Jelitto Perennial Seeds

Angelica sylvestris 'Vicar's Mead'

Large umbels of pale purple-pink top dark, reddish-purple stems, which are almost five feet tall. This biennial flowers in late summer to early autumn.

Cosmos atrosanguineus 'Black Magic'

The deliciously scented *Cosmos atrosanguineus* has an unforgettable fragrance that ranges from chocolate to vanilla scented. The gorgeous burgundy—almost black—blooms are spectacular, too. The chocolate cosmos was presumed extinct, lost in the pine and oak forests of Mexico, and the species was produced only from sterile clones. Jelitto plant hunters found one fertile seedhead far away from its native home and breeding began at Jelitto. 'Black Magic' has been chosen 2016 Plant of the Year in the United Kingdom.

Heliopsis helianthoides var. *scabra* 'Burning Hearts'

Bulk up the distinctive dark stems of heliopsis 'Summer Nights', deepen the purple leaf tones, and top it off with a bright colorful red eye in the center of each of the dozens of golden blooms. With its vivid red-eyed and golden bicolored flowers, dark purple leaves, and sturdy habit, this variety is a must-have for gardens everywhere. Jelitto hit the bull's-eye with 'Burning Hearts'.



'Vicar's Mead'



'Black Magic'



'Vicar's Mead'

Jelitto Perennial Seeds

Heliopsis helianthoides var. *scabra* 'Prima Ballerina'

Jelitto's first-year flowering 'Prima Ballerina' is floriferous and lovely and a prime example of the Jelitto dedication to bring desirable new introductions to market. Sturdier than other previously existing seed strains, this oxeye sunflower grows to 24 inches the first year and tops out at 40" in future seasons. The wonderfully drought-tolerant North American native can handle heavy clay soil and is adaptable to any sunny site.

Trifolium rubens f. *album* 'Frosty Feathers'

Brilliant white flowers atop vivid green foliage which rebloom after deadheading. Flower stems grow to about 24 inches.



'Frosty Feathers'

Johnny's Selected Seeds

Cut Flower Kale Crane Series

Lovely rich color for autumn bouquets. Red: plum centers surrounded by dark green to purple outer leaves. White: creamy white centers with a blush of pink surrounded by green outer leaves. Pink: bright pink centers surrounded by green outer leaves.

Cut Flower Kale Feather Series

Novel ornamental kale with serrated leaves. Extend the flower production season with ornamental kale. 'Feather Queen Red' has bright magenta centers surrounded by green outer leaves. 'Feather King White' features light pink to creamy white centers surrounded by green outer leaves.

Lisianthus Rosanne Series

Novel, 2-3" blooms with outstanding color and slightly ruffled petals. Group 1, best suited for spring production. Pelleted seed. 'Rosanne Black Pearl' is considered the darkest purple lisianthus while 'Rosanne Green' is a vibrant, truly green.

Amaranthus 'Coral Fountain'

With its unique coral-pink tassels, 'Coral Fountain' is a great complement to 'Emerald Tassels' and love-lies-bleeding. All have similar plant habits, days to maturity, and great presence in arrangements.



Crane Series



Feather Series



Rosanne Series



'Coral Fountain'

Our American Roots

Brushmark Asiatic Lily 'John Hancock'™

This bright yellow brushmark-type true Asiatic Lily is exclusively available through Our American Roots and 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 'Dolly Madison'™

This magenta-pink true Asiatic is also exclusively available through Our American Roots. These American-grown bulbs produce strong stems and are well suited for cut flower production both indoors and outdoors. Grows about 40" tall from a 14/16 size bulb.

Gladiolus 'Prima Verde'

This beautiful lime-green gladiolus with a chocolate-red throat is a great addition for the gladiolus cut flower grower. Grows to about 56" tall from a 12/14 corm.

Gladiolus 'Setubal'

Another great new addition to our gladiolus selection. The beautiful, fuchsia-pink flowers are complemented with a faint white trim, and have good strong stems. Grows to about 56" tall from a 12/14 corm.

Crocosmia 'Vera Cruz'™

Exclusively available through Our American Roots and entirely American grown, 'Vera Cruz'™ is a nice addition to our crocosmia family. With bigger flowers than 'Lucifer', a lime green center line shows on each petal when the flowers fully open. Grows to 40" tall from a 12/14 corm.

Crocosmia 'Adriana'™

Another great American-grown addition to our crocosmia family, also exclusively available through Our American Roots. This bright orange crocosmia has lovely coral-pink centers and will outperform any other crocosmia on the market today. Grows to 35" tall from a 12/14 corm.

Fragrant Tulip 'Sanne'

This sweetly fragrant pink tulip makes a nice addition to our tulip selection. 'Sanne' produces a nice fragrance, which is rare for tulips, making it stand out from other varieties. Grows to 20" tall both out and indoors. Mid-season bloom. Available fall 2016.

Tulip 'Merlot'

A beautiful deep wine color, this lily-flowering tulip boasts strong, tall stems. Does well outdoors as well as in a high tunnel or heated greenhouse. A taller tulip with a 25" height. Mid-season bloom. Available fall 2016.

Dutch Iris 'Flash Light', 'Rush Light' and 'Day Light'

This new Dutch iris trio is a great addition to our iris selection. With taller and stronger stems with a height of 32", they can also have multiple flowers per stem. Available fall 2016.



'Dolly Madison'



'Setubal'



'John Hancock'



'Prima Verde'



'Merlot'



'Sanne'



'Adriana'



'Vera Cruz'



'Day Light'



'Flash Light'



'Rush Light'

Sunflower Selections

Sunflower 'ProCut Orange DMR'

We fortified our popular 'ProCut Orange' against sunflower downy mildew. 'ProCut Orange DMR' is a breeding breakthrough in ornamental sunflowers that has tested resistant to the most prevalent races of downy mildew found in major sunflower growing areas of the world! We believe that 'ProCut Orange DMR' is the best choice available against sunflower downy mildew. It has the same familiar orange petals, a dark center, and is pollenless on a single stem plant. Give it a try!

Sunflower 'ProCut Plum'

'ProCut Plum' showcases the unique spectrum of colors that we offer the sunflower world. Is it pink? Rose? Mauve? We decided it was 'ProCut Plum.' It's definitely not your typical yellow or orange, but is way different. It can be used in flower arrangements never before possible for sunflower, mixing well with bronze and reddish flowers. 'ProCut Plum' produces a single pollenless flower on a strong stem. It is medium in maturity. The limit is your imagination!



'ProCut Orange DMR'

Harris Seeds

Dianthus 'Sweet Magenta Bicolor'

This hybrid sweet William is an excellent choice for cuts. 'Sweet Magenta Bicolor' features lovely pink florets with magenta/dark rose rings. We recommend growing Sweets in greenhouses or high tunnels where they will achieve appropriate stem length and produce large fragrant flower heads. Height: 18-39", 10-12" spread.

Sunflower 'Copper Queen'

The golden yellow petals of this pollen-free hybrid sunflower are "dusted" with a layer of translucent cinnamon-red, giving the large flowers a rich orange appearance, and contrasts nicely with the clean dark brown disks. Single non-branching stems are perfect for cutting for both wholesale florist and farmers' market sales. Matures in approximately 55-65 days. Height: 5+ feet.

Sunflower 'Sunrich Orange DMR'

If downy mildew issues in your area prevent you from growing sunflowers, your problems are solved! New 'Sunrich Orange DMR' (downy mildew resistant) provides substantial benefits with high yield results and the reduction of chemical use, yet retains all the other characteristics of one of the country's top-selling cut flower sunflower varieties, 'Sunrich Orange'. Matures in approximately 55-70 days. Height: 4+ feet.



'ProCut Plum'



'Sweet Magenta Bicolor'



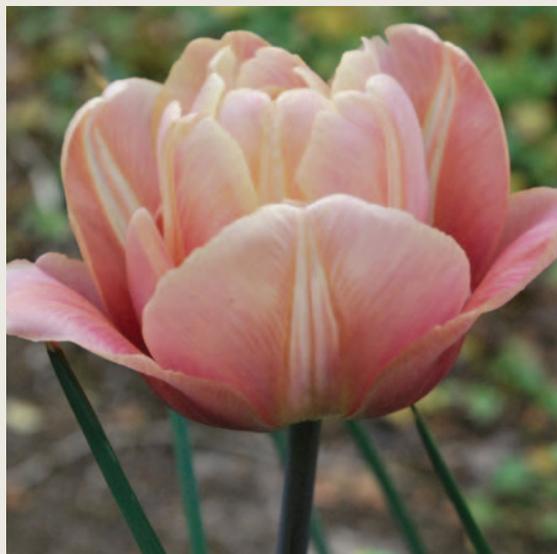
'Copper Queen'



'Sunrich Orange DMR'



'One Love'



'Belle Époque'

Ednie Flower Bulb

Tulip 'Belle Époque'

The subtle shades of blush pink and peach of 'La Belle Époque' gives this 16" tall, double, late variety a soft feel that is perfect for spring weddings.

Lily 'One Love'

Dark red Oriental lily with darker red freckles. Plant has dark green foliage with up-facing, deep, rich, red buds.

Lily 'Special News'

Light pink, up-facing buds on this Oriental lily give no hint of the striking, red and white striped petals hidden within.

Lily 'Tasman'

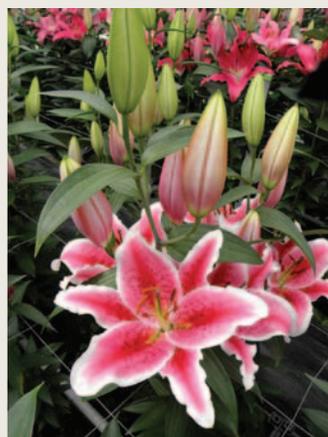
Large pink buds open to reveal speckled pink blooms outlined in white.

Lily 'White Oak'

Oriental lily with large, up-facing buds that open to pure white flowers. Nice dark green foliage.



'Special News'



'Tasman'



'White Oak'

OT Lily 'Elara'

Plump, up-facing white buds open to huge blooms with a hint of green at the base of each petal.

Calla 'Gold Medal'

These plants have deep green leaves, with bright yellow flowers on strong, sturdy stems.

Calla 'Lapaz'

Dark, moody, nearly black flowers are produced in abundance on strong, full plants. The speckled leaves can be used to add texture and fullness to a bouquet.



'Elara'



'Lapaz'



'Gold Medal'



'French Kiss'

Gloeckner

Celosia Act Series

In addition to its improved appearance with shorter and stronger leaves, Act is less sensitive to botrytis than other varieties, and will grow to a height of 3-4'. Included in this series are 'Dara', 'Zara', 'Edna', 'Inca', 'Orla', 'Rima', 'Vida', and Act Mix.



Celosia Act Series



Lady Coral Series

Cosmos 'Xanthos'

Take a good look at this stunning beauty—the first true yellow cosmos! Unique, soft petals sit atop this 20-25" plant with an upright, branching habit. Early to flower, just 70 days from sow, this knockout provides 6 months of nonstop color.



'Xanthos'

Cosmos 'Capriola'

Truly something different! Early to flower in white with a light red picotee edge and dark red center, these two-toned beauties are a real attention getter. 'Capriola' produces these showy flowers on branching plants which grow to a height of two feet.



'Capriola'



'Arbatax'

Zinnia 'Macarena'

These bicolor zinnias have a strong plant habit with excellent branching. Their 3" double blooms display a bold scarlet with gold tips, and reach a height of 25-30".



'Macarena'

Zinnia 'Mazurkia'

Large 3" double scarlet blooms with cream tips rest atop this sturdy branching plant. 'Mazurkia' will reach heights of 25-30" at maturity and is guaranteed to add interest and beauty to your collection.



'Mazurkia'



'Sweet Nathalie'

Aster Lady Coral Series

This new flower type resembles a cross between a rose and a chrysanthemum. With excellent durability and texture, the 4-4 3/4" slightly curved flowers have narrow petals. Colors in the Lady Coral series include Brilliant Rose, Chamois, Cream White, Dark Blue, Dark Rose, Deep Red, Salmon, Lavender, Light Blue, White, Yellow and Mix. These beautiful asters grow to a height of 24-28".

Dahlia 'Arbatax'

A small decorative dahlia in white with pink/lilac edges, 'Arbatax' is simply stunning and elegant! The exquisite flowers are 4" wide and the plant height is 36".

Dahlia 'Sweet Nathalie'

Sweet Nathalie, a soft-colored beauty, will grow to 40" in height. Its 5" flowers bloom in light pink with a cream center. 'Sweet Nathalie' is a wonderful complement to other colors with its great form and texture.

Dahlia 'Daisy Duke'

A small decorative dahlia with 5" salmon pink flowers, Daisy Duke is as interesting as it is beautiful. The plant height is 36". Its bright colors are accented by curved petals, delivering gorgeous blooms.



'Orange Symphony'



'Daisy Duke'

Dahlia 'Orange Symphony'

Simply striking! This pure orange dahlia will grow to 52", with flowers 5" in diameter. It is a medium ball type variety. Looking at 'Orange Symphony', it is no wonder dahlias are the center of attention in many floral bouquets.

Plants Nouveau

Gomphrena globosa 'Cosmic Flare'

An all-summer, shockingly beautiful combination, 'Cosmic Flare' will brighten any arrangement with its stunning foliage and flower color. Cut blooms dry perfectly pink and last for months with just a little spritz of hair spray. This fabulous new beauty will provide months of chartreuse foliage and magenta blooms.



'Cosmic Flare'

Echinacea 'Rainbow Marcella Butterfly'

'Rainbow Marcella' will produce a plant full of blooms in just one growing season. Incredibly hardy and long lasting, plants will be covered with single-petaled flowers the color of orange sherbet with a pink halo that ages to a soft, raspberry pink and remains colorful until a cold winter frost. Perfect for hand-tied bouquets and arrangements for a bride or event looking for a more natural, wildflower look. 15-18" tall by 18-24" wide. Zones 4-9, full sun.



'Rainbow Marcella Butterfly'

Eryngium xzabelli 'Neptune's Gold' Garden Candy

The first all-gold leaved eryngium! Bright golden leaves and bracts contrast greatly with the steel blue stems and flower heads. The long-lasting, electric blue flowers are surrounded by bracts that are graduated from silver to gold and then soft lavender—a stunning combination. It makes an excellent, long-lasting cut flower in that often-coveted shade of steel blue. 20-24" tall by 10-12" wide. Zones: 4-9, full sun.

Callicarpa Plump & Plentiful Series

We're sure growers and designers will love these new callicarpa! 'Amethyst', 'Lilac' and 'Purple Giant' all have plenty of fruits along each stem in unique colors. Mix these berries with oranges and golds for the perfect autumn combination. All are 5-6' tall by 4' wide, Zones 5-9, and best in sun to part shade.



Pump & Plentiful Series 'Lilac'



'Amethyst'



'Purple Giant'



'Neptune's Gold'

Plants Nouveau

Hydrangea 'Hortmabrid Everlasting Bride'

The blooms of this stunning variety remind us of lace and pearls, pure white flowers with hard blooms and strong stems for cuts. As the flowers mature, they turn to mint green. 'Bride' is smaller than many hydrangeas, more tolerant of sun, with flowers that don't burn as easily.

3' tall x 3' wide, Zones 5-9.

Hydrangea 'Hortmagreco Everlasting Green Cloud'

'Green Cloud' opens with apple-green flowers, each with a white eye-zone, and blazes with red and green as it matures. Strong stems, hard flowers and classic, antique colors are all signature attributes of the Everlasting Series. 3'-4' tall by 3'-4' wide, Zones 5-9. Prefers afternoon shade.

Hydrangea paniculata 'Bokraflame' Magical® Candle

Immense, porcelain-white flower heads appear backlit to create a surreal glow of soft yellow flowers above tall, erect stems. A robust grower, the dense, lacey panicles of this variety are produced July through September. It's the perfect color between green and cream, for late summer and fall weddings. 6' tall by 4'-5' wide, Zones 3-9. Prefers full sun.

Hypericum 'Magical Midnight Glow'

In late summer, yellow flowers mature to long-lasting, crimson-red berries that create quite a color-play against dark-red leaves. 'Midnight Glow' has been improved to feature a compact plant with color-drenched berries on rust-resistant plants. 30-36" tall by 30-36" wide. Zones 5-9. Full sun to part shade.

Magical® Series of Roses – for hips

'Bullet', 'Gold', and 'Pearls' are the newest varieties which will add sprays of color to any arrangement. Stems have hundreds of long-lasting hips, whose colors complement the purples, oranges, and burgundies of fall. All are 4' tall by 4' wide, Zones 4-9, and prefer full sun.



'Hortmabrid Everlasting Bride'



'Bokraflame'



'Hortmagreco Everlasting Green Cloud'



Magical Series of Roses 'Gold'

GeoSeed

Celosia spicata 'Ruby Parfait'

Features showy plumes of deep, rose-violet flowers with pinkish overtones, giving them a velvety appearance. Multiple stems can stand alone or be used as filler in arrangements. Easy to grow as field cut flower. Height 30 to 40 inches.



'Ruby Parfait'



Centaurea imperialis

Centaurea imperialis

Produces double, fluffy quilled flowers that are very fragrant and resemble 3-inch pom-poms. Excellent as a field-grown cut flower and can be used fresh or dried. Height 24 to 28 inches. Colors include 'Lemon Yellow', 'Mix' (broad range of colors including purple, yellow and pink to rose) and 'White'.

Cosmos pinnatus 'Xanthos'

A real breakthrough in breeding, this unique new color is a winner. Stunning, soft-yellow blooms have lighter edges and golden centers. Begins to flower in as little as 70 days from sowing and is very floriferous. An appealing color addition for cut flower arrangements. Height 25 inches with close spacing.



'Vanilla Ice'



'Mystery Rose'

Cynoglossum amabile 'Mystery Rose'

This is a cultivated variety of the Chinese forget-me-not. Plants produce a profusion of soft, rosy-pink flowers on extra tall upright stems. Its attractive, dainty flowers make great fillers for cut flower arrangements. Height 30-36 inches.

Helianthus debilis 'Vanilla Ice'

Creamy white, 3 to 6-inch flowers with deep chocolate eyes are produced on heavily branched plants that produce numerous flower stems. Easy to grow and its blooms are ideal for hand tied bouquets or delicate additions to arrangements. Height 4 to 7 feet.



'Xanthos'

Lisianthus Doublini Series

Group 1/Double flower. A new concept in lisianthus, this series produces 1½ to 2-inch extra small, rose-shaped flowers. The unique flower shape makes stems very eye-catching in floral arrangements and a favorite for wedding work. Height 26 to 34 inches. Colors include 'Doublini Blue', 'Doublini Rose Pink' and 'Doublini White'.

Lisianthus Rosanne Series

Two new unique colors join 'Rosanne Green' and 'Rosanne Brown'. 'Rosanne I Black Pearl' is a unique purple color, like nothing else on the market. Group 1/Standard double. Height 36 to 48 inches. Available April 2016. 'Rosanne II Deep Brown' is a trendy lavender-brown that adds a unique element to floral arrangements. Group 2/Standard double. Height 36 to 48 inches.



'Fata Morgana'



Lisianthus Rosanne Series



Lisianthus Doublini Series

Scabiosa atropurpurea

'Fata Morgana'

This unusual blushing pinkish-yellow blends well with many colors and makes a beautiful showing on its own. Erect stems support durable blooms that are sweetly scented. Good choice for field grown cut flower. Height 36-40 inches.

GeoSeed

Triticum aestivum 'Black Knight Wheat'

Produces exotic-looking black seedheads, awns, and spikelets making this a great variety for adding curiosity to floral arrangements and cornucopia. Sow in the fall. Vernalization is required. Height 36 inches.



'Black Knight Wheat'

Zinnia tenuifolia 'Red Spider'

Dainty, single spider-like petals of luscious red surround darker cone centers studded with golden stamens. The plants are upright, compact, well branched and loaded with blooms all season. Sure to attract attention in fresh bouquets, it can be direct sown as a field grown cut flower. Height 30 inches.



'Red Spider'

Newflora Cut Roses

Pashmina™ Summerhouse®

Lovely clusters of large pastel cream, nostalgic blooms on an upright, vigorous plant. Lightly fragrant. Productive, healthy variety. For production under tunnels or greenhouse. Excellent stem length. Vase life of 8-10 days.



'Pashmina'

Petticoat™ Frelander®

Moderately vigorous variety producing clusters of nostalgic, pastel peach/pink blooms held on long stems. Foliage is semi-glossy dark green. Plant has upright habit. Vase life of 10+ days.



'Petticoat'

Pomponella™ Summerhouse®

Good production of clusters of fragrant pink and white flowers. Moderately vigorous plant is healthy and hardy. Ideally, produced under tunnels, but has been grown outdoors. Stem length approximately 16-20 inches. Vase life is good.



'Pomponella'

Spicy Antique™ Frelander®

One of our best varieties, with good production of clusters of fragrant, nostalgic apricot blooms that sell well. Can be produced outdoors as well as under poly. Stems 16-24 inches. Vase life of 8-10 days.



'Strawberry Antique'

Strawberry Antique™ Frelander®

Distinct, eye-catching deep strawberry color showcased by abundant dark foliage. Our most vigorous grower and producer outdoors. Very good disease resistance. Large, upright blooms in moderate clusters. Stems 16-20 inches. Vase life is good.



'Spicy Antique'

PanAmerican Seed

Dianthus 'Sweet Deep Pink Maxine'

Floral designers all want pinks, but different markets prefer different shades. With its exceptional true deep pink color, newcomer 'Sweet Deep Pink Maxine' expands the palette in this important floral color class. Named in honor of Maxine Burton for her innovative leadership and contributions to the floral industry.



'Sweet Deep Pink Maxine'



'Sweet Pink Dianthus'

Dianthus 'Sweet Pink' Dianthus

A key color for cut flower use, 'Sweet Pink' is perfect for Valentine's Day and Mother's Day sales. Choose 'Pink'—and the other 10 separate bright Sweet colors—with confidence. The Sweet series delivers outstanding product year-round with no vernalization needed, whether you grow indoors or out.

Dianthus 'Sweet Pink Magic'

Shades of pink to white florets on each 'Sweet Pink Magic' flower head provide a novelty look. The 11-color series features large, fragrant and long-lasting blooms on strong stems. Growers can count on high yields of saleable stems to send to market, and can promise their customers excellent retail holdability.



'Sweet Pink Magic'



'Sweet Magenta Bicolor'

Dianthus 'Sweet Magenta Bicolor'

The uniquely patterned florets of 'Sweet Magenta Bicolor' have a magenta/dark rose ring with pink color at the center and edges. This two-toned beauty offers growers and designers a top-notch bouquet filler with uniform height and flowering time.

Celosia 'Sunday Gold'

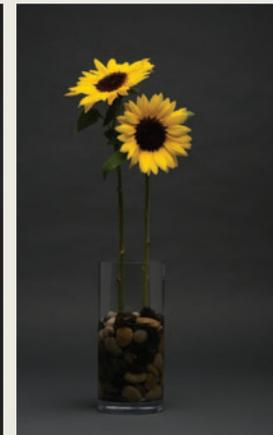
The first professional cut version of the popular plume-shaped celosia, the six-color Sunday series brings high-end retail mixed bouquets to life with its full plumes and long, strong stems. 'Sunday Gold' offers a brighter yellow-gold color than 'Sunday Yellow', making it ideal for bolder bouquet design.



'Sunday Gold'



'Jua Maya'



'Jua Inca'

Sunflower 'Jua Maya'

Jua sunflowers are bred to be less sensitive to cultural variations than traditional varieties. The pollenless, fast-growing plants produce big, 3½ to 4¾ inch flowers, complemented by smaller, deep green top leaves, making it better suited for mixed bouquets.

Sunflower 'Jua Inca'

Always shining, the two-color Jua series offers big, center-of-attention focal flowers for bouquets and arrangements, with very good vase life. 'Jua Inca' features mahogany and gold bicolor petals with dark center. The series is suited to high tunnel and field programs.

Lisianthus Flare Series

Every Flare stem looks like a bouquet—without pinching! This spray-type series produces double flowers on top of each stem that open within a short window. Useful in both greenhouse and high tunnel programs. Flare series is speed group 2 and is suitable for early spring through summer flowering. Available in three colors - 'Flare White', 'Flare Deep Blue', and 'Flare Deep Rose'.



'Flare White'



'Flare Deep Blue'



'Flare Deep Rose'

Zabo Plant

Oriental Hybrid Lily 'Companion'

This exclusive new one from Zabo Plant has nice light pink flower petals. Several ASCFG growers have already tried this variety in 2015 in trials; one of the fastest-producing Orientals. Great for your first spring planting item to get in the market quick, in 80-85 days. It has an excellent flower count, which is best achieved with 16-18 bulb sizes. But if you need a speedy Oriental flower for bouquets then best to use 14/16 size OR Companion.

Oriental Hybrid Lily 'Snowboard' (double)

Talk about new and unique! This double is not part of the Roselily series, as this variety is from a different breeder, but it does qualify to be of the same caliber of double Orientals taking their place in the cut flower market. This variety is pure white, with a little blushing on the edge of the flower petals in large double flowers. It has a good flower bud count when using the 16-18 bulb sizes. This flower is just astounding.

Oriental Roselily 'Natalia'

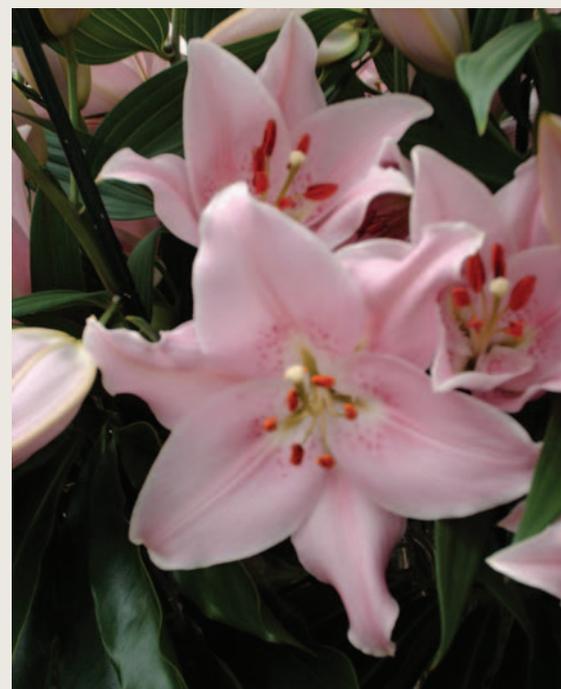
One fantastic-looking double Oriental flower that is the next generation of Roselilies coming in the market, 'Natalia' is a bit more pink than 'Belonica', and the flower count is great at bulb size 14/16. We have seen no disease issues with 'Natalia' yet, so it is durable.

OT Hybrid Lily 'Zambesi'

This new selection has the potential be an ultimate staple flower variety in the North American cut flower market. The stem is very sturdy and it has plenty of flower buds in production from 16-18 size flower bulbs. What we like about 'Zambesi' is that the bulbs store well, so we can continue throughout the year, which is a great for late-season plantings. This variety has come through the test greenhouses in Holland with high grades.

OT Hybrid Lily 'Imprato'

This is one of the most exciting releases in the OT line in recent years. 'Imprato' is a deep pink OT with excellent bud count and a bright flower color, a great variety to replace items like 'Acapulco' and any other of the deeper color Orientals that are fading from the market.



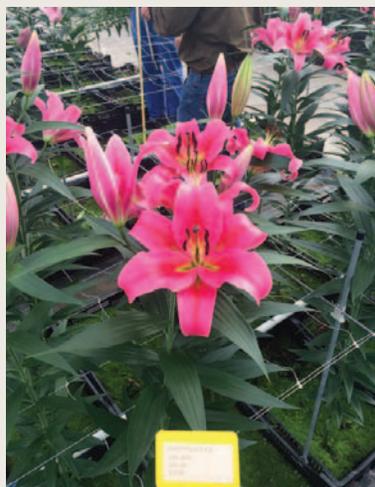
'Companion'



'Snowboard'



'Zambesi'



'Imprato'



'Natalia'



2015 ASCFG Cut Flower Seed Trials

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

The tall lacy white flowers of wild carrot (*Daucus carota*) are a common sight, gracing fields all over North America. This European native is possibly one of the first cut flowers many people recognize, thinking back to memories of snipping some of the flowers for Mom or Grandma. The white flowers also lent themselves to the classic experiment of putting the flowers in a glass filled with red or blue food coloring and watching the petals turn color. Well, there is no need for food coloring anymore.

One of the hits of this year's cut flower trials was *Daucus* 'Dara' (Harris Seed), a favorite for its long stems, topped with the classic wild carrot flowers. But there was a twist; the petals ranged in color from white to pale purple to dark purple. Average stem length was two feet and some trialers cut four-foot stems. The average number of stems per plant was 14, but there was a tradeoff: those

who harvested many stems, up to 40 to 60 stems per plant, cut shorter stems. Not surprisingly, the long stems were from those who either cut the entire plant or cut just a few of the longest stems. Plants were productive for a long time, provided that they are kept harvested, as pointed out by one trialer. The flowers worked well as an attractive, long-lasting filler flower.

Here at NC State we were concerned that 'Dara' would not transplant very well, which is our normal production method. Thus, we did two plantings—one from transplants, and one direct seeded. Both processes produced the same average stem length, but the direct-seeded planting produced 13 more stems per plant. Certainly, you could use either method to spread out the season a bit as the transplants started flowering earlier.

Another year, another set of marigolds. Their popularity continues to increase as more people grow them for

mixed bouquets or garlands, especially for Latino or East Asian customers. The off-putting fragrance needs to be mentioned, and continues to hold down popularity for many growers and their customers. Of the seven cultivars in the trials the three favorites were 'Oriental Deep Gold' (AmeriSeed), 'Jedi Orange Plus' (AmeriSeed), and 'Giant Orange' (Johnny's Selected Seeds). 'Oriental Deep Gold' produced an average of 13 stems/plant that were 20 inches long. 'Jedi Orange Plus' produced 14 stems/plant that were 22 inches long. 'Giant Orange' had 11 stems/plant at 21 inches long. Some trialers of all three cultivars were able to get 40- to 48-inch stems and others harvest up to 50 stems per plant. Keep in mind that as with the carrot, those who cut the most stems tended to end up with shorter stem lengths.

We had three unique lisianthus in the trials this year. The Doublini series

from Sakata had small, double, rose-shaped flowers in white, purple and rose pink. Stem length was a bit on the short side, averaging 13 to 14 inches, with some trialers getting up to 24 inches. Stem number ranged from one to ten per plant, for an average of three to four. Vase life was excellent, which is not surprising as the flowers have much substance. Regarding market acceptance, there was a big divide among the trialers. We can't say that we have ever had a group of cultivars for which "love" or "loved" were used so many times. The key seems to be how the flowers were used. Trialers who sold to florists or did event work, or made wearables such as corsages and boutonnieres—dare we say —LOVED this plant. However, they didn't compete well with larger-flowered lisianthus at farmers' markets, and the small flowers got lost in mixed bouquets. Of the three cultivars, 'Doublini White' scored the highest for its clean white flowers.

The ASCFG National Cut Flower Trials have had very few years without sunflowers and this year was no different, with six cultivars in the 2015 program. Two of the more unusual were 'Starburst Greenburst' and 'Starburst Panache' (SeedSense). Both are heavily double with many petals; 'Greenburst' had a green center and 'Panache' a brownish one. Both were branching cultivars with strong stems. Trialers noted that the plants could be treated as single stems, because the side shoots were generally too short on their own, but plants could be pinched to produce longer shoots. 'Helios Flame' (Harris Seed) and the three ProCut cultivars (SeedSense) did very well in the trials. 'Helios Flame' was a red/yellow bicolor, 'Procut Brilliance' had bright yellow petals that are darker yellow near the center, 'ProCut Gold' had golden yellow petals and green center, and 'ProCut Red' had rusty red petals. All produced stems at least three feet long.

As in previous years, Chris Wien conducted his photoperiod trials on sunflowers. Most were day neutral this year: 'ProCut Brilliance', 'ProCut Gold', 'ProCut Red', and 'Starburst Panache'. 'Starburst Greenburst' had a long day response (flowered later if given short days as a seedling) and 'Helios Flame' had a short day response (flowered earlier if given short days as a seedling).

In summary, there were 19 cultivars from five companies. Based on trial results, the top five commercially available performers are automatically nominated for the ASCFG Cut Flower of the Year. The rankings are based on the combined ratings score: market appreciation + repeat again + ease of cultivation. Thus, from the 2015 trials *Daucus* 'Dara', lisianthus 'Doublini White', and sunflower 'Helios Flame', 'ProCut Brilliance', 'ProCut Gold' and 'Starburst Greenburst' (we had a tie for fifth place so both are included) are nominated for the Cut Flowers of the Year and will join other nominations from ASCFG members.

Interpreting the trial results: The numbers reported are averages of all the respondents. 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. The cultivar may work well for you.

Acknowledgments: A hearty thank you to all of the 21 evaluators who returned their trial reports and to the seed companies for providing such great cultivars. Congratulations to Nanette Dietmeyer for being the first trialer to return the evaluations again this year! We would also like to thank Alicain Carlson, Travis Hootman, Peyton Daly, Ben Bergmann, Brad Holland, and Tim Ketchie 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.



Sunflower 'Starburst Greenburst' (front)
'Procut Brilliance' (left)
'Starburst Panache' (right)



'Doublini White' lisianthus is perfect for floral crowns.



Marigold 'Garland Orange'

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JOHN DOLE
North Carolina State University
Raleigh, North Carolina

RITA ANDERS
Cuts of Color
Weimar, Texas

JIM MERCER
Sheepscot Farm
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LEON CARRIER
PlantMasters
Laytonsville, Maryland

CAROLYN SNELL
Carolyn Snell Designs
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TANIS CLIFTON
Happy Trails Flower Farm
Dennis, Mississippi

BARB STEFANYSHYN-COTE
Tierra Del Sol
Saskatoon, Saskatchewan

CONNIE DAM-BYL
William Dam Seeds
Dundas, Ontario

JENNIFER SYME
Syme Family Farm
Broad Brook, Connecticut

DAVE DELBO
Dave's Flowers
Elysburg, Pennsylvania

RODGER TSCHANZ
University of Guelph Trial Garden
Guelph, Ontario

NANETTE DIETMEYER
Fox Ridge Flowers
Crestwood, Kentucky

LINDA VANAPELDOORN
Take Your Pick Flower Farm
Lansing, New York

MICHELLE ELSTON
Roots
Carlisle, Pennsylvania

CHERYL WAGNER
Wagner's Homestead Farm
Belleville, Michigan

JOHNNY'S SELECTED SEEDS
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JUAN FEDDES
La Primavera Farm
Dundas, Ontario

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Cornell University
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SAKATA SEED
Morgan Hill, California
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SUSAN WRIGHT
Shady Grove Gardens and Nursery
Vilas, North Carolina

SEEDSENSE LTD.
Penrith, Cumbria,
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BARBARA JEWELL
Island Meadow Farms
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PARTICIPATING
SEED COMPANIES

AMERISEED
Lompoc, California
www.ameriseed.net

HARRIS SEEDS
Rochester, New York
www.harrisseeds.com

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.

CAMPANULA

Campanula 'Champion Pro Deep Blue' (Sakata)

Good Qualities: Nice deep blue (5); Germination good (2); Smaller, more tightly spaced flowers; No disease or root issues no insect damage; Unique flowers; Large flowers; Easy production, early.

Problems: Poor germination (4); Stem length too short (2); Vase life too short; I have been trying to grow these types of campanula for many years, I may have 2 plants of 100 that will throw up some height, all rest are short and unusable as a cut; Due to wet spring, flowers turned brown quickly; We started these as soon as received but it got too hot for them here in Mississippi, they all perished in the heat; It will be interesting to see if the plants survive in our zone, of the blossoms we did receive many were misshapen and not of saleable quality; Short from 2nd sowing, 2/16, maybe in plugs tray too long, transplanted 4/28; Not bouquet worthy for my flower farm based on size of flower and the way it flowers; Became quickly rootbound in cells, probably missed the window for transplanting and so missed out on this cultivar for sure.

Similar Cultivars: Champion.

Postharvest Recommendations: Cool water, out of sun, and Floralife; So important to harvest before pollination, better to cut and hold in cooler than let pass on plant. *NC State conducted vase life testing of this cultivar; see article in this issue for details.*

Comments: I think the Pro series is a little easier to handle than the regular Champion; We grow campanula as a fall-planted biennial, so I cannot report

until next year, so far, plants are sturdy and doing fine, will compare to cup and saucer, planted side by side; No germination; This campanula was a total write-off as a cut, it would be more suited as a bedding plant, I sowed and transplanted to 50 cell plugs, was very careful not to let them become root bound, Campanaro F1 series P from Geo had more available stems in the field, notably the pink, there were several occasions when I did harvest good stems from this variety; to conclude, I have trying these for many years hoping for better results, with none forthcoming, should we grow in a hoophouse/tunnel I may reconsider as it would be a much desired bloom to have for bouquet/wedding work; Due to wet spring, plugs were held longer than they should have been, resulting in shorter flowers; Flats were too wet and not planted out in time, bloomed in the flat; Need to know when to sow for taller plants; Had never grown campanula before, very quick germination, experimented by pinching some and not pinching others, found out that I probably should not have pinched, most pinched plants did not produce decent stems, have to be honest, I cannot see myself using campanula in my bouquets, found it to be sort of awkward and not quite sure how to use it.

DAUCUS

Daucus 'Dara' (Harris Seeds)

Good Qualities: Very pretty range of colors from white to deep purple (12); Prolific (2); Made great filler for bouquets and wedding design; Grew very easily; Super long, sturdy stems; Huge flowers; Very useful for wedding and event work, graceful, sturdy stems; Designers love it; It was very much liked by a floral designer and a great filler for bouquets, very cold hardy, it was the last flower standing after a frost; Absolutely gorgeous form



Daucus 'Dara'

and texture for bridal bouquets, wide window of harvest, did not seem to shatter like ammi; Looked great in late-season bouquets; Good shelf life, beautiful texture added fall and summer tones to bouquet, patches were harvestable for three weeks; They were very versatile in bridal and centerpiece work, having the ivory in the mix was much appreciated, the varied sizes of blooms was a bonus, they had a huge harvest window, provided it was kept cut; Excellent filler.

Problems: Flower color is inconsistent, varies widely from off white to dark plum (2); None that I saw; Direct seeded but did not get any germination of any of the seeds, I then tried sowing in seed-starting mix but they did not germinate either; Somewhat messy as they dropped pollen, on super hot days, they would wilt in the bouquet and I would have to pull them out; Short in all sowings, weak; Needs plant support/staking; We had trouble with germination (direct seeded during a wet, cool period), biggest problem is that I could have used 4-5 times as much!; Direct-sown seeds were much more successful than transplants; Harder to grow after the third succession, i.e. for September and October; May cause skin irritation, wear gloves.

Similar Cultivars: Ammi 'Black Knight'
Postharvest Recommendations: Plain water (2); Easy 7-10 days with no special treatment; We harvest everything into Chrysal hydrator; as long as it had a few hours to drink, we did not have any wilting; Harvest early, into water, we treated with

#2 Chrysal and put in cooler 38F. *NC State conducted vase life testing of this cultivar; see article in this issue for details.*

Comments: Love this! We did two plantings and I wish I had done one more for fall, the shades of mauve were perfect for the purples (not blue purples) our clients were asking for this year; My zone benefited from starting seed on April 1st and transplanting 5-6 weeks later, blooms were harvested at least 5-6 weeks earlier; This entry was direct sown in the field; I used it fresh, but then also used the seed pods after the flowers went by; Great for late in the season, takes a long time from sowing to flowering, customers loved the dark color; My favourite this year and the last, saw photos of it called “chocolate lace” everywhere; I sowed this April 19 and again June 1, in the greenhouse they were transplanted to the field through black bio plastic, the first planting was by far the most productive, started harvest in mid-July, the longer stems used in bouquets, shorter sides in table centres and posts, we do not irrigate, our summer was very late starting and our first frost October 17, I still

harvested after the frost, it did not seem to bother the blooms from the later planting, still some decent stems in my barn today, will be planting two dates again in 2016, also planted ‘Dara’ from GeoSeed side by side and I did not notice any difference in the two, harvested many, many buckets of ‘Dara’, this is a great staple to have.

LISIANTHUS

Lisianthus ‘Doublini Blue’ (Sakata Seed)

Good Qualities: Deep blue/purple color (8); Long-lasting flowers either cut or on the plant, abundant small, fully double purple tea-like rose flowers; 80% germination; I liked the smaller, more tightly spaced flowers, looks like blue spray rose!; Multiple small blossoms, long lasting, different from the other lisianthus we grow; Unique petite-sized blooms that most florists loved; Very dainty looking; Cute little flowers, great for event work; Great size for weddings and wearables; LOVE these! Doublinis are perfect for personal flowers (corsages, boutonnieres) and

look just like sweetheart roses, this color is especially upright, and the tight flower head did not blow open at all, sturdy plants.

Problems: Short stem length (5), not great for bouquet work; Worms on the rebloom in October; Late to bloom, very small blooms, there needed to be more buds per stem to make it eye catching; Smaller blooms created a smaller bunch for price; Slower to bloom compared to ABC series, for straight stems at farmers’ market, customers prefer bigger ABC, Mariachi, etc.

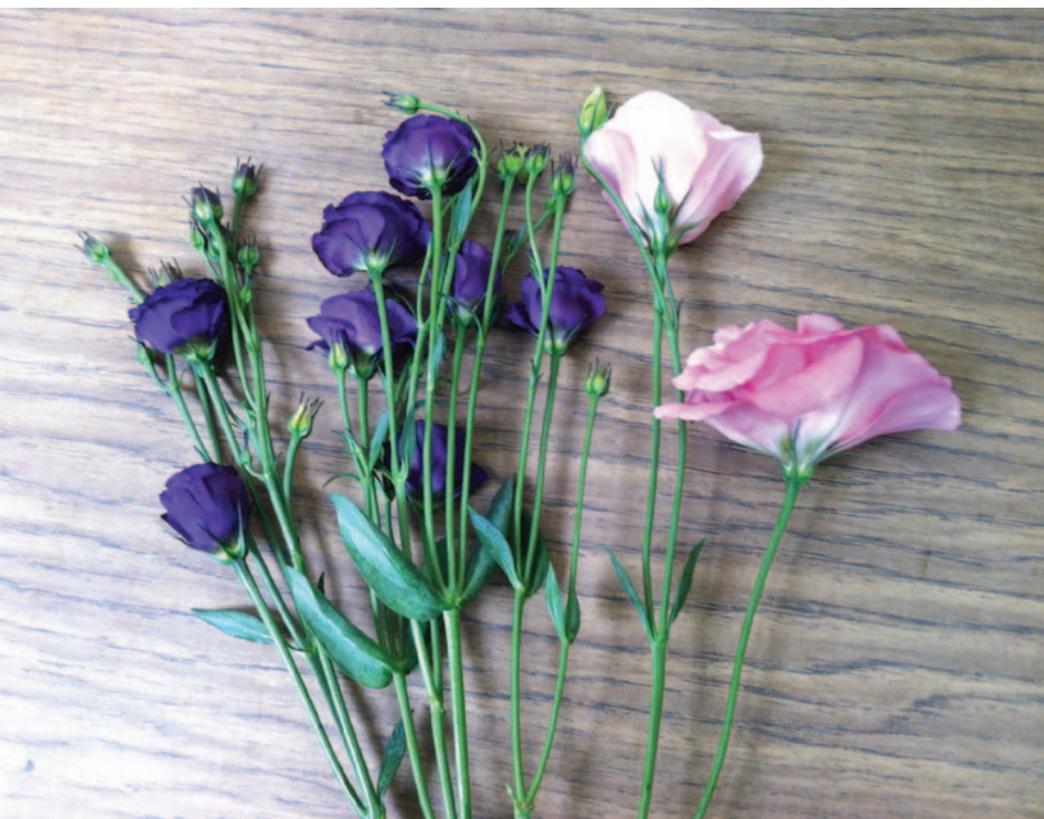
Similar Cultivars: None listed

Postharvest Recommendations: Treat with hydrating solution; Plain water; Fresh, clean water; We harvest everything into Chrysal hydrator and never had any issues.

Comments: I just love this series for its small flowers that are easy to harvest, look great in bouquets; Slow start, looked sad all summer, blooming in full force now in November; Lisianthus sown 2/8, transplanted 5/19, bloom 8/10; Well received by customers; This was my favorite out of all three Doublini varieties, the color is so deep, I made petite mixed bouquets out of all three Doublini varieties, customers loved them! I was sold out in one weekend of markets and people were asking for them next week; Loved these for our micro-bouquets and for crowns, didn’t use them much in regular bouquets; Seed started 11-25-14, transplanted 3-31-15 (tunnel); We will absolutely be growing more Doublinis next year, they are perfect for event work and very sturdy.

Lisianthus ‘Doublini Rose Pink’ (Sakata Seed)

Good Qualities: Nice raspberry color (3); Long-lasting flowers either cut or on the plant, abundant small fully double pink tea like rose flowers, gorgeous small pink flowers; Very popular; Multiple small blossoms, long lasting, different from the other lisianthus we grow; Unique small blooms about one inch in diameter; Loved this!! So petite, very dainty; Great for event work; Great



‘Doublini Blue’ (left), Mariachi Pink (right)



'Doublini Rose Pink' and 'Doublini White'



'Rosita 2 Blue Picotee'

size for weddings and wearables; LOVE these! 'Rose Pink' is a slightly more open flower and has more of a garden rose look, Doublinis are perfect for personal flowers (corsages, boutonnieres) and look just like sweetheart roses, most vigorous of three Doublini colors.

Problems: Short stems (4); Worms on the rebloom in October; Second flush stem length very short: 10-12 inches and one to two blooms per stem; Not great for bouquet work, slower to bloom compared to ABC series, for straight stems at farmers' market, customers prefer bigger ABC, Mariachi, etc., this was my least favorite color of Doublinis because it's on the mauve side of pink, but still an excellent plant which we will definitely grow again.

Similar Cultivars: None listed

Postharvest Recommendations: We harvest everything into Chrysal hydrator and never had any issues; Plain water (2), change water every few days.

Comments: Customers loved it and so did I! Comments included that it looked like a tea rose, I sold out of this variety in one weekend at markets, within a half hour at markets, I was sold out for the day; Lisianthus sown 3/20, transplanted 6/25, bloom 8/10, several florists squealed on sight to all the Doublinis; Well received by customers and floral designers; Due to wet spring, plugs were held longer than they should have been, this contributed to the shorter stem length; Definitely looks like a rose, that can be good or bad, lovely addition to bridal work; Seed started

11/25/14, transplanted 3/31/15 (tunnel); We will absolutely be growing more Doublinis next year, they are perfect for event work and very sturdy.

Lisianthus 'Doublini White' (Sakata Seed)

Good Qualities: Nice white (2); Long lasting flowers (2) either cut or on the plant, abundant small fully double white tea like rose flowers; I liked the smaller, more tightly spaced flowers; White very popular, perfect for boutonnieres; Multiple small blossoms, different from the other lisianthus we grow; Unique petite-sized blooms; Very dainty looking, I did pinch it early on, and got branching and more stems/plant; Great for wearables; Great size for weddings and wearables; LOVE these! White was the most versatile for us—used in almost every boutonniere or corsage this summer, Doublinis are perfect for personal flowers (corsages, boutonnieres) and look just like sweetheart roses.

Problems: Too short (4); Least robust of the 3 colors (2), but most useful, so we'll just increase production next season; Worms on the rebloom in October; Small blooms created a small bunch for the price; Second flush stem length very short: 10-12 inches; Not great for bouquet work, slower to bloom compared to ABC series, for straight stems at farmers' market, customers prefer bigger ABC, Mariachi, etc.

Similar Cultivars: None listed.

Postharvest Recommendations: We harvest everything into Chrysal hydrator and never had any issues; Plain water (2), change water every few days.

Comments: I thought this was the prettiest color in the series; Lisianthus sown 3/20, transplanted 6/25, bloom 8/10, several florists squealed on sight to all the Doublinis; Well received by customers and floral designers; Loved it! very surprised how short it was but still loved it; We will absolutely be growing more Doublinis next year, they are perfect for event work and very sturdy.

Lisianthus 'Rosita 2 Blue Picotee' (Sakata Seed)

Good Qualities: Nice deep blue and white picotee (6); Cute shape (2); Long lasting, like this better than other blue picotees we have grown; Small 1½-2¼" white flower with blue rims, two to six flowers per plant on long strong stems; Nice size of bloom; Customers loved the picotee coloration, chose these over other colors every time, it was the first one to sell out each farmers' market, stronger stems than Laguna picotee, but not as tall; Great size for weddings and wearables; Strong stems; Although nothing showy, just a regular lissi, nice but not super impressive.

Problems: Needed to be netted; Worms on the rebloom in October; Shorter than ABCs and Arenas, nice, though; Not nearly as vigorous as ABC, or even as vigorous as 'Rosita 2 Purple', much



Marigold 'Eagle Yellow'



Marigold 'Falcon Yellow'



Marigold 'Garland Orange'

shorter than ABC, even though we did not get the number of stems per square foot that we'd like for greenhouse space, we will grow again for customer appreciation, difficult coloration to use in design work—picotee flowers are too “busy” for our work; Second flush stem length around 12 inches—very short; None; Flowers were small, not super showy.

Similar Cultivars: 'Arena Picotee Blue'; 'ABC Blue Picotee', but this is more delicate, graceful, and shorter; 'Super Magic Blue Picotee'.

Postharvest Recommendations: We harvest everything into Chrysal hydrator and never had any issues; Plain water (2), change water every few days.

Comments: Nice, but did not stand out (2); Everyone who has seen this flower loves it; Sown 1/30, transplanted 5/19, bloom 8/15, color not needed much, these would have been better in a high tunnel; A favorite of customers; Mid to late season variety.

MARIGOLD

Marigold 'Eagle Yellow' (AmeriSeed)

Good Qualities: Bright yellow flower color (11); Sturdy stems; Strong necks; Blossoms were large and showy, they

added significant colour to bouquets and arrangements; Beautiful flower; Abundant large yellow flowers; One of our favorites; Good doubleness and flower size; Size of flower; This is a lovely healthy marigold, for me it would be better suited as a tall bedding plant, constant bloom for a good presentation, I did use this one in a few events, it was long lasting and had a nice bright colour with good-sized blooms; Productive, helpful addition to our June and July offerings; Different color from regular yellow marigolds; Japanese beetles were not as attracted to this one as to 'Falcon Yellow', however, beetles do like yellow marigolds more than orange, one week earlier than 'Eagle Yellow'; Lightest yellow of the marigolds, high petal count, straight stems.

Problems: Too short for cut flowers (7); Large flower easily breaks (2); Weak stems; The yellow varieties were shorter than the other colors we grew; Disease; Marigolds did not sell well to our farmers' market customer base; I found it was very bushy and hard to get a nice long single stem, it was the shortest of the trial marigolds by at least 10 inches, it may have been that I was late cutting into the plant to open it up for the longer stems, I

found that unless you make an effort to keep this done, then you would lose out when you really wanted the stems later in the season, the plant was not at fault, I was late getting into it and part of the crop was not harvested; We had some fungal problems with all the marigolds in September, the plants went down fast, deadheaded the first two weeks, bloomed out too short to harvest without cutting down the entire plant; Really too branching for our work, we cut whole tops & were able to get 4-5 side shoots, but not as productive as other marigolds, also, regrowth was unusable (too short); Small flower heads, susceptible to fungus, woodchucks loved this variety; Yielded fewer cuts.

Similar Cultivars: 'Giant Yellow'; Gold Coin; 'Inca II Yellow', 'Falcon Yellow'.

Postharvest Recommendations: Plain water (2); Cool water and Floralife; Pro2.

Comments: Very healthy plants, very little if any botrytis or botrytis-like symptoms, three-inch blooms; We had the same problem with all marigold cultivars, in the field they were fine, once cut we lost many beautiful blossoms as the stem snapped at about 5-6", also the multiple blossoms per plant made them difficult to harvest and store, although

planted early in our zone (May 13) we only had about 3 weeks of production due to frost, will try again with transplants as opposed to direct seeding, not sure if it is our growing conditions but we saw very little difference in any of the marigold cultivars, colour, yes of course, height, cutability, vase life no, unfortunately very little interest from florists or farmers' market customers, they were fine if we included them in our bouquets but no one asked for them; Customer favorite, wish more customers liked marigolds, they are beautiful, striking flowers; Easy to grow and prolific, but not well received in our markets, a little short; This would be a great bedding plant; Seed started week 22, transplanted week 28, bloomed week 33; It seems the woodchucks have a preference for the yellow marigolds, they destroyed the yellow ones first.

Marigold 'Falcon Yellow' (AmeriSeed)

Good Qualities: Attractive medium yellow flowers (9); Thick hardy stems; Big showy blossoms that added lots of colour; Flowers grow to 3-4 inches in diameter, pleasing fragrance for marigolds; Tall, large blossoms (4 in.); Long-lasting cut flower, could have been even longer than 14 days in same water, except that our trial was over, great stem length; Big blooms most close to 4 inch, long stems, healthy good germination, popular colour, nice bloom form; Long stems, multiple blooms, good vase life, no black spot; Better stem length than 'Eagle Yellow', some rebloom that was harvestable (2-3 branching stems), heads were a nice size/ not too huge (were 3" vs 4-5 of Optiva, Babuda); Strong stems; Size of flower; Large pompon flowers on long stem, good second cut.

Problems: Japanese beetles like them (2), beetles preferred this one over all other marigold varieties; Weak neck (2); Lower number of stems than other 6 varieties in the trial; Weak stems and multiple

blossoms made it difficult to harvest, lack of consumer interest; The larger the flower, the quicker the stem breaks; The yellow varieties were shorter than the other colors we grew; Favorite deer food until fenced; It was hard to cut long stems, multiple blooms that were large broke easily; We had fungal problems with all our marigolds this year; Needed support, fell over; Even though taller than Eagle, still a bit short for our bouquet work; Shorter plants than the orange or gold varieties.

Similar Cultivars: 'Gold Coin'.

Postharvest Recommendations: plain water (2); Handle with care to prevent bent over necks, same as for all marigolds, remove all foliage to avoid the strong marigold odour, we have excellent vase life under adverse conditions; Cool water and Floralife. *NC State conducted vase life testing of this cultivar; see article in this issue for details.*

Comments: Bright yellow flower, love these marigolds! customers like them; Need to find the right customer, although planted early in our zone (May 13) we had only about 3 weeks of production due to frost, will try again with transplants as opposed to direct seeding, not sure if it is our growing conditions but we saw very little difference in any of the marigold cultivars, colour yes of course, height,

markets; Falcon was one of the top 3 marigolds for longevity in the vase; This was a great yellow marigold, we liked this one, it was a great producer and good colour, good germination and seedling vigour, they are a great addition to the marigold selection, and I did like this one better for a cut flower than 'Eagle Yellow', found the late rain and winds in October made it difficult to keep upright, they had one layer of netting, with posts placed 9 ft., I did not use more than one layer of netting as we find it is too hard to harvest through...especially a dense growing marigold, I will grow this one again; Nice addition to early summer flowers if brights are something you need; Seed started week 22, transplanted week 28, bloomed week 34, our florists don't usually order marigolds, but we use them in our bouquets for grocers and markets; We have generally found "gold" varieties to be stronger than yellow, they don't break just under the flower head and their stems are a bit sturdier; Woodchuck favorite.

Marigold 'Garland Orange' (Harris Seed)

Good Qualities: Deep orange flowers (7); Large flowers (4); Tall (2); Flowers grow to 3-4" in diameter; Most productive variety in trial, finely ruffled flowers of medium size; finely cut foliage; Not much different than 'Giant Orange'; Pleasing fragrance for marigolds; Long stems; Large blossoms (3-3 1/2"), very productive; Very double; Stem length, plants were large and bushy; Long stems, multiple blooms, good vase life, no black spot; Would be good for

garland work of other times when just heads are needed; Strong stems; Most florets, best of the oranges, long straight stems, good second cut.

Problems: Weak stems (3); Large flowers break easily; Disease; It was hard to cut

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'Falcon Yellow' produces big showy  
blossoms that added lots of colour;  
Flowers grow to 3-4 inches in diameter,  
pleasing fragrance for marigolds.

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cutability, vase life no., unfortunately very little interest from florists or farmers' market customers, they were fine if we included them in our bouquets but no one asked for them; Easy to grow and prolific, but not well received in our



Marigold 'Giant Orange'



Marigold 'Oriental Deep Gold'



Marigold 'Gold Storm'

long stems, multiple blooms that were large broke easily; Japanese beetle damage; We had fungal problems with all our marigolds; Need support netting - plants fell over; Compared to 'Giant Orange', it was weaker stemmed and had less blooms; Susceptible to fungus.

Similar Cultivars: 'Giant Orange' (3), 'Jedi Orange Plus'; 'Garland Orange' has more blooms per plant than 'Giant Orange'; Regular orange marigolds.

Postharvest Recommendations: Plain water (2). *NC State conducted vase life testing of this cultivar; see article in this issue for details.*

Comments: I love how they dry, good color retention; Although planted early in our zone (May 13), we had only about 3 weeks of production due to frost, will try again with transplants as opposed to direct seeding, not sure if it is our growing conditions but we saw very little difference in any of the marigold cultivars, colour yes of course, height, cutability, vase life no, unfortunately very little interest from florists or farmers' market customers, they were fine if we included them in our bouquets but no one asked for them, need to find the right customer; Love this marigold!

all marigolds were diseased this year, the first time ever, all marigolds were sown 4-22 and transplanted 5-26; Easy to grow and prolific, but not well received in our markets; The only drawback to Garland, and all of the other marigolds in the trial, is their distinctive scent, this disappears after a day, but was strong enough to make staff comment while we were setting up the vases; I don't typically grow marigolds because I don't use them in my design work, this was a prolific variety that was a heavy producer, I pinched these plants a few times when they were young so the fully mature plants were very dense almost like a hedge; Seed started week 22, transplanted week 28, bloomed week 34, our florists don't usually order marigolds, but we use them in our bouquets for grocers and markets; This variety the woodchucks left alone for the most part, plants grew over 5 feet tall, nice strong stems, I find that at farmers' markets, customers won't choose to buy marigolds, but if I put them into a bouquet or as part of CSA, they like it and they enjoy how long they last.

Marigold 'Giant Orange' (Johnny's Selected Seed)

Good Qualities: Large blossoms (4") (3); Great deep orange color (3); Long stems (3); Tall (3); Good vase life (2); Strong stems (2); Productive (2); Uniform flower size and appearance; Showy blooms - not much different than 'Garland Orange'; Great addition to summery bouquets; Would be good for garland work of other times when just heads are needed, nice branching habit, good stem production; Healthy foliage.

Problems: A little weak in the neck; Weak stems; Disease, late to bloom; It was hard to cut long stems, multiple blooms that were large broke easily; Needed support, fell over; Regrowth is not as tall as 'Optiva' (but was a bit sturdier), does not have as many blooms per plant as 'Optiva'; Contracted fungus at end of season; Shortest of the oranges, sprawled, not as erect or as many blooms as 'Jedi'.

Similar Cultivars: 'Garland Orange' (3), 'Giant Orange' has longer, stronger stems, the blooms are less double and uniform than Garland, also a little lighter orange; 'Jedi Orange Plus' (2); I find all cut flower marigolds to be very similar.

Postharvest Recommendations: Keep everything clean; Plain water (2); Pro2.

Comments: I love how they dry, good color retention; I would grow this one and 'Optiva Orange' as our two oranges, both have benefits and are worthwhile, for just head production, this marigold would be my choice; Although planted early in our zone (May 13) we had only about 3 weeks of production due to frost, will try again with transplants as opposed to direct seeding, not sure if it is our growing conditions but we saw very little difference in any of the marigold cultivars, colour yes of course, height, cutability, vase life no., unfortunately, very little interest from florists or farmers' market customers, they were fine if we included them in our bouquets but no one asked for them, need to find the right customer; Easy to grow and prolific, but not well received in our markets; Seed started week 22, transplanted week 28, bloomed week 34, our florists don't usually order marigolds, but we use them in our bouquets for grocers and markets; We had a brutal woodchuck infestation this year, the marigold crop was their favorite, the woodchucks would break off the branches to eat the flower buds, the 'Giant Orange' was their least favorite, it suffered the least amount of damage, plants were over 5 feet tall, all of the marigolds contracted a fungus, but 'Giant Orange' was the least susceptible to the fungus.

Marigold 'Jedi Orange Plus' (AmeriSeed)

Good Qualities: Great deep orange color (11); Productive (4); Tall (3); Large flower head (3); Long stems (2); Erect stems; Strong stems, good doubleness; Size of flower, length of stem; This plant grew about 46" tall, good bloom size, amazing postharvest life, we did get some wet windy weather in late September, good germination, healthy plants, vigorous, made excellent garlands; Long stems, good vase life; Bloomed one week earlier than 'Optiva Orange', same

size heads as 'Optiva', reblooms more quickly than 'Optiva' (but a bit shorter regrowth); Woodchucks' least favorite!

Problems: Flowers slightly smaller than 'Falcon' or 'Eagle', fewer petals per flower; Out of all the marigolds this one had the weakest necks and often broke in transit; Just hard to sell; This variety had brittle heads, they broke readily; Disease; It was hard to cut long stems, multiple blooms that were large broke easily; Japanese beetle damage; Needs lots of support to keep upright, ours were planted in a sheltered spot but we were somewhat challenged to keep them and netting up, this might not be an issue where they would be harvested regularly, keep harvested to prevent this, also suggest placing posts closer together to allow for better support; All our marigolds struggled with fungal problems; Needed support, fell over; As season got cooler, 'Optiva' outperformed 'Jedi Orange Plus', it was taller with more regrowth, also, 'Optiva' stems were more of a single form, these were branched and sometimes too large for bouquets; Weak stems, susceptible to fungus; Lighter color of flower and foliage, lower petal count, smallest flower of the oranges.

Similar Cultivars: 'Giant Orange' (3); 'Garland Orange' (2).

Postharvest Recommendations: Plain water (3); Pro2; Pick in the morning; Cool water and Floralife; Same as for all the others, handle carefully to prevent bent necks, remove all foliage, and allow yourself extra time to harvest as we found there was some bent necks therefore discarded bouquet stems.

Comments: I try to harvest and strip leaves with gloves on as I really think marigold foliage smells like moth balls which I cannot stand, but the beautiful full blooms are worth it; Great flower, good for colour in bouquets, just problems with people still not loving the smell or look of marigolds; Easy to grow and prolific, but not well received in our markets; Great colour, good stem length, the plant grew around

48 inches, could be very interested in a recommendation for a foliage spray with micronutrients to help with strengthening the neck and upper stem area, if we could prevent the broken necks it would be of great benefit, it can be frustrating losing about one third of the stems by the time you get them from the field to home, this is in my mind the biggest challenge with growing marigolds as a cut, also some years spider mites can be challenging as well, however this year was an exception, they (spider mites) were not a problem; I love growing marigolds!; Seed started week 22, transplanted week 28, bloomed week 35, our florists don't usually order marigolds, but we use them in our bouquets for grocers and markets; A very worthwhile marigold, but we still prefer Optiva for straight, single stems in bouquet work; All marigolds become very top heavy with rain, should be staked or netted.



Marigold 'Jedi Orange Plus'



A sampler of marigold varieties
in the 2015 Trials

Marigold ‘Oriental Deep Gold’ (AmeriSeed)

Good Qualities: Amazing color in between orange and yellow (11); Nice to have a softer shade of orange; Strong stems (2); Nice large heads great for bouquets; Tall, large blossoms, very productive; Very long lasting in the vase, the flowers are so double that they resemble chrysanthemum balls!; Size of flower, length of stem, large tall plants; Color is good to mix with lots of things; Works well with many of the sunflowers, large blooms make a bouquet fill up quickly, makes really nice garlands; Looks great in bouquets with blues and purples for a summery effect, flower subscriptions customers loved these!; No black spot, long stems, multiple blooms; Huge heads; Flower heads nice and large but not so large as to break stems like some marigolds.

Problems: Disease; Hard to cut long stems, multiple blooms that were large broke easily; Japanese beetles; None specific to this variety, just the same weak neck, and the need to remove all

of foliage, same as for all cut flower marigolds; Need support - plants fell over; Some blooms blew open quickly - would perhaps work for petals, confetti or just heads, but occasionally we were unable to use all stems because they were too big and blown open; Did not perform well after days of rain.

Similar Cultivars: ‘Storm Gold’; Slightly lighter yellow than ‘Babuda Deep Gold’, similarly sturdy to ‘Babuda Deep Gold’, we’d probably choose Babuda over this one because the heads are a bit smaller and more appropriate for our bouquet work (but if grower wants garland flowers, I’d choose ‘Oriental Deep Gold’).

Postharvest Recommendations: Plain water (2); Handle with care, we did cut this one during the day into water without any problems, remove fragrant foliage as the customers found odor unappealing, placed in #2 Chrysal and stored in cooler; We harvest everything into Chrysal hydrator and never had any issues; Pro2.

Comments: Easy to grow and prolific, but not well received in our markets; One of the top marigolds for longevity in our vase trial, stayed fresh for two weeks, marigolds should be used more as a cut flower, the only drawback being the initial strong smell; This one grew the tallest of all the marigolds we trialed, the blooms were huge, it is a very impressive variety, the vase life is remarkable, the colour excellent; Seed started week 22, transplanted week 28, bloomed week 35, our florists don’t usually order marigolds, but we use them in our bouquets for grocers and markets; We used these as part of our last marigold succession, so I can’t comment on regrowth; Woodchuck favorite; These were really nice multi-flowered stems that created nice faces and really filled grocery bouquets; Not much visible difference between ‘Storm Gold’ and ‘Oriental Deep Gold’.

Marigold ‘Storm Gold’ (AmeriSeed)

Good Qualities: Really nice gold shade (6); Productive plants of good height; Nice large heads, great for bouquets; Big bold blooms; Tall, large blossoms, very

productive; Very long-lasting in the vase, good colour that blends well with other flowers in bouquets; Size and length of stems, plants were large; A really nice medium head size marigold, best of trial ones for bouquet work, sturdy stems and plants; Large flowers, eye-catching; Strong stems; Excellent germination, was my favorite of the trials, very large blooms 4½” and sometimes larger, very healthy plants, abundance on cut stems also great for garland use, amazing postharvest life even under the worst conditions, does not seem to be bothered by ethylene; Tallest of the yellow marigolds, erect stems.

Problems: Weak stems (2); The large flowers appear lumpy rather than smooth balls of petals; Disease; It was hard to cut long stems, multiple blooms that were large broke easily; Japanese beetle damage; We had fungal problems with all our marigolds; Not as much regrowth as oranges; Large flowers easily break; Attacked by fungus; The necks continue to be a challenge to keep them strong and upright after cutting, I would be interested in learning about a foliage spray of nutrients that would promote stronger stems.

Similar Cultivars: ‘Oriental Deep Gold’ (2), less double than Oriental though; ‘Giant Orange’, ‘Jedi Orange Plus’; Very similar dark gold to ‘Babuda Gold’. Equally strong, good plant. I have no preference over ‘Babuda’ vs. ‘Storm Gold’ (and ‘Babuda Gold’ has traditionally been our favorite gold).

Postharvest Recommendations: Cool water and Floralife; We harvest everything into Chrysal hydrator and never had any issues; Pro2; Plain water; Be careful of the neck to avoid bending, remove all foliage as it has an undesirable odour, placed in #2 Chrysal and stored in cooler. *NC State conducted vase life testing of this cultivar; see article in this issue for details.*

Comments: One of top 3 Marigolds for lasting quality in the vase; My favorite marigold, I love this color; Although planted early in our zone (May 13), we had only about 3 weeks of production due to frost, will try again with

transplants as opposed to direct seeding, not sure if it is our growing conditions but we saw very little difference in any of the marigold cultivars, colour yes of course, height, cutability, vase life no., unfortunately very little interest from florists or farmers' market customers, they were fine if we included them in our bouquets but no one asked for them, need to find the right customer; Easy to grow and prolific, but not well received in our markets; Woodchucks love this variety, post-woodchuck, plant reached 2½ feet; I liked this marigold and found this year my customers are getting more receptive to the 'marigold stigma', most Islanders do not enjoy marigolds and it takes them actually purchasing a bouquet without really knowing they have marigolds in the mix, once they see the vase life they usually become marigold fans, they do require some deadheading in order to keep the ideal longer stems in production, they need to be kept harvested even though they may not be required, failure to do so will result in fewer saleable stems later in the season when they are most popular, also they are most popular later in the season with sunflowers, the plants were very healthy and treated twice with a preventative spray for spider mite control, prolonged wet weather caused a bit of botrytis on the blooms but it did not seem to bother the foliage, this is a recommended variety to grow here on PEI, continuous bloom and earlier to start than most of the taller varieties (*the above paragraph info is the same for all of the varieties/colour we had in the trials*).

SUNFLOWER

Sunflower 'Helios Flame' (Harris Seeds)

Good Qualities: Beautiful golden yellow with a reddish purple ring and dark disk (12); Quick blooming (55 days) (2); Contrast is well-defined; More sophisticated than orange/black bicolor - had some red/mauve coloration; Not as dramatic as 'Procut Bicolor' but nice; Vase life appears to be longer than

Sunflower 'Helios Flame' faces forward, with a slender, strong stem that florists prefer, broad overlapping petals give a full look to a large, 5 to 6 inch flower.

'Procut Bicolor', but did not make a formal comparison; Strong stems; Cute shape; The colour is good for fall, harvest window a bit wider than ProCuts, it was a good colour for a dark sun, the yellow tips added some light giving it some added presence, I would grow this again; Good flower head and stem size for bouquets; Single stem; A nice branching bicolor, good for fall work and wedding work calling for light/dark contrast, germinated easily, we actually got usable side shoots, often branching suns do not branch long enough for us to use; Good vase life; Faces forward, slender strong stem that florists prefer, broad overlapping petals give a full look, large 5 to 6 inch flower.

Problems: None (2); Early petal drop (2); We seeded in cells to transplant, they became VERY leggy compared to all other varieties; Very few laterals with varying stem length; Found the stem neck a bit floppy, rather a more solid stem to prevent downward facing, the neck was a bit soft and needed propping; Some stems toppled over, long to bloom from seed, much variation in seed packet (yellow and black, cream and black, and mauve and black) - this could be good or bad depending on needs, tricky to cut at just right stage, seemed to mature slowly and then pop open all at once- a bit different

that traditional sunflower harvest; Center disk oozed sap.

Similar Cultivars: 'ProCut Bicolor' (3); 'Orange Mahogany'; Flowers reminded me a bit of 'Chocolate', but bigger and with more variation.

Postharvest Recommendations: Plain water (2); Pro2; Chlorine tablets; Cut when just unfurling to avoid petal drop/damage; Cut them at just opening, they shatter easily. *NC State conducted vase life testing of this cultivar; see article in this issue for details.*

Comments: Beautiful sunflower, customers snapped them up!; Flowers 9 days earlier if given short days in seedling stage, branching stems; I planted these several times, found the later plantings better quality stems and the colour was more acceptable in the fall, germination was excellent,



Sunflower 'Helios Flame'



Sunflower 'Starburst Greenburst'

six to eight inch spacing, the earlier plantings produced several side shoots developing just before the main stem was harvested, these sides were about 5-9" average, I will probably grow again but a limited amount and only 2-3 sowings aiming for a mid Sept, early Oct and mid Oct harvest, July 16 planting we harvested Sept 21, planted twice earlier but honestly did not harvest as they were not what people wanted during the summer months, I like these better than the similar shade of ProCut; We had a lot of deformity problems with our sunflowers this year; Flowers were small-about 2.5 inches in diameter; We hate bicolors and liked this one!!; Made first planting in late May, planted for single stems, after first cutting, stems branched nicely and I got a very nice second cutting, second cutting flowers were slightly smaller, did a second planting later in season, got only one cutting from late planting; Seed started week 25, transplanted week 28, bloomed week 33, transplanting delays downy mildew; Best color developed in part shade in our hot climate, varying shades/amount of rusty red brush strokes radiating from center.

Sunflower 'ProCut Brilliance' (SeedSense)

Good Qualities: Bright and sunny yellow color with a dark center (9); A vibrant, sunny yellow vs. more traditional "orange" suns like 'ProCut Orange', 'Sunrich Orange', etc.; 4½-5" blooms; Shape; Early blooming, medium sized flower; Probably my favorite ProCut, very consistent bloom and harvest time, also harvested in October in about 48



Sunflower 'ProCut Gold'

flower, what customers think of when they head to market to buy sunflowers, good petal retention; Slightly stronger plant than 'Procut Gold', same head size as 'Procut Orange', bloomed as quickly as 'Procut Orange'; Very nice sunflower, was a customer favorite; Pointed double ray flowers are loosely arranged but abundant looking, thin sturdy stem.

Problems: None (2); Animals eat them; Some of the seed heads got so big

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'ProCut Brilliance': A nice-looking traditional sunflower, what customers think of when they head to market to buy sunflowers, good petal retention.

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days on shorter stems than is typical for this cultivar, I think that was due to short days; Uniform growth and flowering time, daylength neutral; Traditional sunflower look—liked by many and very easy to grow; Strong stems; Not too large; A nice-looking traditional

they were unsaleable, cultivar finished blooming by mid-August, so there were no later fall sales when sunflowers are most popular here; Slight bending of necks compared to other varieties, but not terrible; Shorter vasilife; necks crooked over, these were harvested



Sunflower 'ProCut Red'

during an extremely wet period when all sunflower stems felt a bit “watery”, but these seemed less sturdy than ‘ProCut Orange’; The golden brown disk turns dingy brown, short.

Similar Cultivars: Perfect looking sunflower.

Postharvest Recommendations: Plain water (2); Cut in the coolest part of the day; Chlorine tablets; Pro2; Cut stems regularly, fresh and clean water; Cool water and Floralife, out of the sun in cooler or cool area. *NC State conducted vase life testing of this cultivar; see article in this issue for details.*

Comments: Promising to replace the standard variety, ‘Sunrich Orange’, because of the daylength neutrality of ‘ProCut Brilliance’; 55 days; Golden-yellow petals with a dark brown center; I believe it was our year that all sunflowers trialed were done blooming by mid-August - too soon for fall sales; Love it! easy to sell; I used to grow a lot of ProCuts in the past but have not in the past 5 years because I was always frustrated with their bendy, weak necks, this variety changed my mind and will probably grow in the future; Seed started week 25, transplanted week 28, bloomed week 33, transplanting delays downy mildew.

Sunflower ‘ProCut Gold’ (SeedSense)

Good Qualities: Bright orange-yellow petals with a green-yellow disk (12); Nice sunflower size heads (4); Strong stems (2); Short harvest window, accurate bloom dates, disease free, good germination, aphids don’t seem to enjoy the ProCuts as much as Sunbrights and Sunrich; Shape; Good petal retention, nice addition to traditional-looking sunflowers, customers constantly asked why these sunflowers did not have a brown center!; Due to the yellow center of this sunflower I feel it would be better suited for spring; Uniform growth and flowering time, daylength neutral; Had a ring of pollen at outer edge of center; was actually very pretty; Overlapping petals with full appearance.

Problems: None (2); Animals eat them; Customers not keen on green center; Many of ours had dark centers, instead of the gold centers; Shorter vase life; necks crooked over quickly, these were harvested during an extremely wet period when all sunflower stems felt a bit “watery”, but these seemed less sturdy than ‘ProCut Orange’; Too short, small; The gold part of disk too soon turns dingy brown.

Similar Cultivars: ‘Sunrich Gold’ (2);

ProCut has fewer petals, but is faster; ‘ProCut Yellow Lite’.

Postharvest Recommendations: Cut early in day (2), as flower starts to unfurl; Plain water (2); Chlorine tablets; Pro2; Cooler, cool water and Floralife, out of the sun.

Comments: Easy sell; ProCut series is a reliable one, this is not a favorite of mine, I find the Sunrich and Sunbrights are more traditional looking and certainly have a longer vase life, the long petals and small centers are opposite of what I am looking for in a cut sun, when florists are choosing from Suns in our cooler, they always choose Sunbright and Sunrich over the ProCuts, if bouquet material was needed for a particular date, the ProCut series is very dependable, responds well to dry storage in cooler (up to 8 days before rehydrating), surprisingly, the dry stored, once hydrated have a longer vase life than ones placed directly in water, I realize this has nothing to do with this variety, but I did find they responded well to dry storage, the gold colour was pleasing, especially for late August through September, these were sown 4 times: June 9, June 28, July 7 and Aug 4, I did not notice any difference in growth from the varied sowings, all had much

the same flowering times, if the weather/growing conditions were favourable, they did produce some decent sides, although not consistent; Short due to spring planting sturdy with good color; We had a lot of deformities in our sunflowers this year; This sunflower was not popular with my customer base, they did not care for the greenish center; Seed started week 25, transplanted week 28, bloomed week 33, transplanting delays downy mildew.

Sunflower ‘ProCut Red’ (SeedSense)

Good Qualities: Rusty red color (17); Nice color for fall (2); Black center; Consistent timing and harvest window; Daylength neutral; Holds its petals better than other reds we have grown in the past; Single stem; Size of flower and long strong stems; Seeded 7/28, so short days mean smaller head size, was nice for fall event work, we liked this one!; A good cut whether cut immature or fully open, dark slender stem, faces forward.

Problems: Petals drop off very easy (5), no matter how gently they are handled; Very bendy and weak necks!!! (3); Misshapen heads (2); Color was not consistent, some deep red, some lighter bronze (2); Animals eat them, hang down; Not bright red like I had hoped; One week later than most varieties in the trial, short vase life; Some of ours had a bicolor appearance; Doesn’t sell well in June or July; Necks crooked easier than ‘ProCut Orange’, but seemed stronger than ‘ProCut Brilliance’ and ‘Gold’; Some variance in shades of dark red.

Similar Cultivars: None listed.

Postharvest Recommendations: Pick when they are barely opening (2); Plain water (2); Chlorine tablets; Harvest with special care, petals fall very easily, usually before you get home from the field there are some missing; Pro2; Cut in the coolest part of the day; Cool water and Floralife out of sun. *NC State conducted vase life testing of this cultivar; see article in this issue for details.*

Comments: A good red to include in fall bouquets; Nice and tall but will not grow again; I sow this one every year,

it is never going to be a big part of our sun offering, but a necessary colour, good germination, even growth, aphids and mildew not a significant problem, I would like it if they would develop an upward-facing red sun with stronger petals; 4-inch flowers at 6-inch spacing; Will definitely not grow this one again, customers did love the unique color but I did not sell many because of the weak necks, I tried postharvest into warm water, soapy water, cool water and never had success with the droopy neck problem; Likely need to succession seed to get continuous production; ‘ProCut Red’ was a very short plant, the color is very strange, customers would comment on its uniqueness but did not purchase it; Seed started week 25, transplanted week 28, bloomed week 33, transplanting delays downy mildew.

Sunflower ‘Starburst Greenburst’ (SeedSense)

Good Qualities: Bright yellow petals with green center (7); Unique flower (3), outer pointed long orange outer petals merging to short inner green ones; Easy to grow; strong stems, size of flower; Love the look of this, not the typical sunflower; Attractive; Very prolific; Six to 8-inch flower diameter which is the perfect size for me; Early flowering, profuse bloomer with long sturdy stem; Best branching sunflower we’ve grown, just different enough to sell; Anything with a green center looks fresh and bright, pleasant and interesting change from traditional suns; Great novelty sunflower, long-stemmed, well-branched plants after a pinch; Had a modern, funky look; Lots of blooms branching all the way to the ground.

Problems: Had some that had irregular middles; I planted very close together to try to prevent branching (about 3 inches apart), they still branched, branches were not usable; Branching habit may inhibit commercial use; Customers preferred the more standard sunflower look and did not care for the green centre, done blooming too early; Not a customer favorite; Animals eat them; Petals were messy looking—too shaggy; A large amount of

side buds, growing closely to the main bloom, they had to be removed, after the main stem was removed, the sides that were produced were less than 6” long and not usable; None; Found that the petals were more prone to insect damage than traditional varieties, noticed a shorter vase life than other varieties; Our customers generally do not like double suns, is a branching form, but side shoots of all Starbursts were too short to use, could perhaps pinch top bud to get longer shoots; Only cut as a single because branches were too short to cut.

Similar Cultivars: ‘Starburst Panache’ (2), except for some of the centers; ‘Double Quick’ however, liked ‘Starburst Greenburst’ better.

Postharvest Recommendations: Plain water (2); Cool water Floralife and out of sun; Pro2; Chlorine tablets; Cut before too mature, find the outer petals turn back making the bloom look tired; Fresh, clean water. *NC State conducted vase life testing of this cultivar; see article in this issue for details.*

Comments: This sunflower reminds me of the spider gerbera daisies with “hairy like” quills, I really love this one especially for spring and summer, the center has a bit of green whereas the similar ‘Starburst Panache’ has a darkness to the center; Flowers 8 days later if given short days in the seedling stage: long-day response; Pinched plants produced 3-4” blooms, plants not pinched produced 6” blooms, pinched plants bloomed about 5 days later; This was not a customer favorite, my clientele prefers the more traditional yellow or orange sunflower with a dark center; Customers were less than enthusiastic about the color, they chose the dark-centered sunflower every time; I probably will try it again next season, I found it offered a nice change that people enjoyed, this one was sown May 16, June 1, June 15, June 29, July 7, and July 16, I found the later sowings did not have as many small buds near the main bloom, there were some aphids, I did plant ‘Starburst Lemon Aura’ this year as well, the lemon colour works really well in summer bouquets, it is my favorite

new sun this season; I planted a tight 4"x4" spacing so I did not get branching and treated them as a single stem variety, I would not grow this variety in large quantities in the future but it is nice for "something different"; Seed started week 25, transplanted week 28, bloomed week 33, transplanting delays downy mildew.

Sunflower 'Starburst Panache' (SeedSense)

Good Qualities: Outer pointed long orange outer petals merging to short inner dark ones (8); Loved unusual flower appearance (4); Strong stems (3); Attractive; Daylength neutral; Closer to a traditional sunflower, but still not what the customer really wanted, many saleable stems; Long stems; Good branching sunflower, just different enough to sell; Pleasant change from the usual Suns, really enjoy this one; Well branching, long stem length after a pinch, medium sized 3-4" blooms; Size of flower; Productive.

Problems: Cucumber beetles love it too, don't really open up as well if you cut when just unfurling, have to wait until it is unfurled then you have to deal with potential insect damage; Blossom style was not what my customers were looking for - they prefer the more traditional

type; Flowers are a bit large; Animals eat them; Softer stem near the heavy flower head gave potential for bent over bloom, as they are side facing there is potential for them to look tired before their time, also short side buds were present, we did however harvest some decent sides, following the main stem harvest; None; Kind of a muddier look with the darker center; Our customers generally do not like double suns, is a branching form, but side shoots of all Starbursts were too short to use, could perhaps pinch top bud to get longer shoots, this one was especially unappealing in early summer (when we trialed) because the dark brown/orange center felt very fall-like; The middles were brown making the sunflowers look bad or dirty; Only cut as a single because branches were too short to cut, golden brown center had a "dirty" appearance.

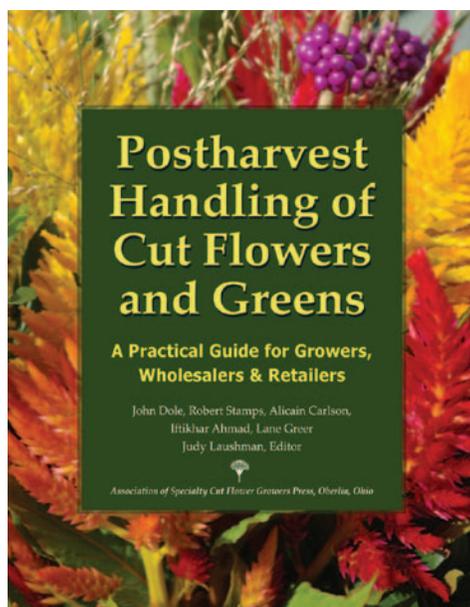
Similar Cultivars: 'Starburst Greenburst' (2); 'Double Quick' however, liked 'Starburst Panache' better.

Postharvest Recommendations: Pro2; Chlorine tablets; Plain water; Harvest before mature for longest vase life, I did not experiment with cutting this one and storing dry, we cut and placed in water with #2 Chrysal, they were harvested and placed directly in water in the field,

I found with the heavy flower head, if they were deprived of hydration the head would nod forward.... it was hard to revive after; Cool water Floralife and out of sun. *NC State conducted vase life testing of this cultivar; see article in this issue for details.*

Comments: Nice novelty sunflower, bloomed in about 70 days; All the sunflowers I trialed were direct seeded once in the spring into field conditions, they bloomed very early mid July and were done by mid August, this timing did not match up well with my customers' timing, I may need to succession plant to alleviate this problem; Customers wanted dark-centered sunflowers, not a first choice for buyers; We had a lot of deformity problems with our sunflowers this year; This has been in our sunflower plantings for several years, we will continue to grow, we sowed the seed June 13, June 28, July 27, and Aug 4, the harvest window did not vary much between the various plantings, usually a wider window than with the ProCuts, more like 7-8 days, good germ and even growth in trays; Seed started week 25, transplanted week 28, bloomed week 33, transplanting delays downy mildew.

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2015 ASCFG Seed Trial Results. The 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, either only one person responded for that category or several responded and all gave the same rating. The single highest score and the single lowest score in each category for each cultivar have been dropped.

Species Cultivar Company	Yield (stems/plant)	Stem length (inches)	Market appreciation rating ¹	Repeat again rating ¹	Ease of cultivation rating ¹	Average postharvest life (days)
Campanula 'Champion Pro Deep Blue' Sakata	2.3 1-12	13.0 3-18	3.3 1-5	2.5 1-5	3.0 1-5	8.7 3-14
Daucus 'Dara' Harris Seeds	14.4 1-58	23.9 10-48	4.5 1-5	4.6 2-5	4.2 1-5	11.0 5-20
Lisianthus 'Doublini Blue' Sakata	3.0 1-10	14.1 8-25	4.2 2-5	4.2 2-5	3.8 2-5	13.3 7-21
Lisianthus 'Doublini Rose Pink' Sakata	3.8 1-10	14.4 8-21	4.3 3-5	4.5 3-5	4.0 3-5	13.0 7-21
Lisianthus 'Doublini White' Sakata	3.7 1-10	12.8 8-20	4.3 2-5	4.6 3-5	4.1 2-5	13.1 7-21
Lisianthus 'Rosita 2 Picotee' Sakata	2.8 1-20	16.2 8-24	4.3 3-5	4.5 3-5	3.9 3-5	12.8 7-14
Marigold 'Eagle Yellow' AmeriSeed	9.3 3-38	15.9 6-30	3.2 1-4	2.6 1-5	4.4 3-5	11.5 7-21
Marigold 'Falcon Yellow' AmeriSeed	11.6 3-36	20.3 12-48	3.4 1-5	3.9 1-5	4.6 3-5	12.8 7-21
Marigold 'Garland Orange' AmeriSeed	14.1 5-40	20.8 8-48	3.6 1-5	3.7 1-5	4.3 1-5	11.9 7-21
Marigold 'Giant Orange' AmeriSeed	11.1 3-55	21.2 10-48	3.6 1-5	3.9 1-5	4.5 3-5	12.0 10-21
Marigold 'Jedi Orange Plus' AmeriSeed	14.4 3-54	22.0 9-48	3.8 1-5	3.7 1-5	4.5 3-5	12.0 7-21
Marigold 'Oriental Deep Gold' AmeriSeed	12.8 2-54	20.0 12-40	3.7 1-5	3.9 1-5	4.5 3-5	12.6 7-21
Marigold 'Storm Gold' AmeriSeed	13.8 3-40	18.6 8-48	3.2 1-5	3.4 1-5	4.6 3-5	12.9 7-21

¹ 1 to 5 scale, with 5 being the best. Market ratings are based on sales to wholesales, retailers, or final consumers direct.

2015 ASCFG Seed Trial Results. The 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, either only one person responded for that category or several responded and all gave the same rating. The single highest score and the single lowest score in each category for each cultivar have been dropped.

Species Cultivar Company	Yield (stems/plant)	Stem length (inches)	Market appreciation rating ¹	Repeat again rating ¹	Ease of cultivation rating ¹	Average postharvest life (days)
Sunflower 'Helios Flame' Harris Seeds	1.3 1-5	41.4 14--60	4.2 3-5	4.3 2-5	4.9 4-5	9.2 7-12
Sunflower 'Procut Brilliance' SeedSense	1.0 1-2	39.0 18-72	4.4 2-5	4.4 2-5	4.9 2-5	8.5 7-12
Sunflower 'Procut Gold' SeedSense	1.0 1-2	38.9 18-80	3.9 1-5	4.2 1-5	4.9 3-5	8.2 4-12
Sunflower 'Procut Red' SeedSense	1.0 1	45.4 18-75	3.7 2-5	3.9 2-5	4.9 4-5	6.8 5-12
Sunflower 'Starburst Greenburst' SeedSense	1.8 1-9	36.2 12-65	3.9 2-5	4.2 2-5	4.9 2-5	8.1 5-14
Sunflower 'Starburst Panache' SeedSense	2.1 1-9	35.7 12-65	3.8 1-5	3.9 1-5	4.8 4-5	9.3 5-14




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POSTHARVEST TREATMENT OF SPECIALTY CUT FLOWERS

North Carolina State University Report for 2015

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 Alicain Carlson 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. This year we tested ten cultivars. The charming ‘Dara’ carrot was the star with its long-lasting flowers ranging in color from white to purple.

Marigolds have been hot the last few years and this year was no different. Three cultivars, ‘Falcon Yellow’, ‘Garland Orange’, and ‘Storm Gold’ were in the postharvest trials and all performed well, lasting 12 to 19 days. But as we discuss below, marigolds tend to root in the vase, artificially extending vase life, so commercial vase life is more likely to be 9 to 16 days. Holding solutions increased vase life.

The parade of beautiful sunflowers also continued this year with five cultivars in the postharvest trials. Vase life varied from an average of 8 days for ‘Sunburst Greenburst’ to 12 days for ‘Helios Flame’. Holding solutions increased the vase life of three of the cultivars: ‘Sunburst Panache’, ‘ProCut Brilliance’ and ‘ProCut Red’.

Holding solutions also increased the vase life of ‘Champion Pro Deep Blue’ campanulas, which lasted around 14 days. The sugars in holding solutions will also improve color development of the buds that open.

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 4 equal groups and placed in the treatments below for the specified time, 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
- De-ionized (DI) 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 $68 \pm 2F$ under approximately 200 footcandles 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)/ florets on the stem were brown, wilted, drooped over, etc.

What Are Hydrating and Holding solutions?

Some of you may be asking, “What are hydrating and holding solutions?” 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. They are applied for several hours, for up to approximately two days, by either growers or wholesalers before the flowers 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 amount of time, such as four hours. Vase solutions, commonly distributed in small packets, are generally applied by the consumer, 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 one to three 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

Campanula ‘Champion Pro Deep Blue’. Campanulas are well known for having a long vase life and ‘Champion Pro Deep Blue’ was no different with an average vase life of 14 days. The hydration solution added about a day to the vase life.

Carrot ‘Dara’. Despite its delicate appearance, ‘Dara’ held up well with a vase life of 13.1 days. The treatments had no apparent effect.

Marigold ‘Falcon Yellow’, ‘Garland Orange’, and ‘Storm Gold’. All three marigolds performed well, with vase lives of 12 to 19 days (see note below). A holding preservative increased vase life by up to 3 days. Marigolds have a postharvest quirk that sometimes skewed our testing: stems tend to root in the vase. Needless to say, a rooted marigold stem takes longer to die. We had to terminate some of the stems that rooted and weren’t senescing. To be safe, take 2 to 3 days off of our numbers to account for the rooting.

Sunflower ‘Helios Flame’. This stunning yellow red bicolor has a long vase life of 11 to 12 days for a sunflower. The treatments had no apparent effect.

Sunflower ‘ProCut Brilliance’ and ‘ProCut Red’. ‘ProCut Brilliance’ with its traditional yellow petals and dark centers lasted 7 to 9 days when held in water for two days, but lasted 9 to 11 days when held in a holding solution. Vase life of ‘ProCut Red’ was also extended with the use of a holding solution from 8 to 9 days for water to 9 to 10 days in a holding solution.

Sunflower ‘Sunburst Greenburst’. This green-centered, heavily double sunflower lasted 7 to 8 days. The treatments had no apparent effect.

Sunflower ‘Sunburst Panache’. This brown-centered, heavily double sunflower lasted 8 to 9 days when held in water for 2 days, but lasted 10 to 11 days when held in a holding solution.

For more cut flower information, including twenty years of trials reports, postharvest research, and production material, spend some time at John Dole’s NCSU cut flower site.

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LINKS OF INTEREST

- Association of Specialty Cut Flower Growers
- North Carolina Commercial Flower Growers Association
- Chain of Life Network

DEPARTMENTS

- Horticultural Science

Postharvest Information

A crop is at its highest quality at the time of harvest and must be properly handled to minimize the loss in quality. To maintain quality during marketing and in the final consumers location, cut flowers must be handled and stored at the correct temperature (as cold as possible), have a high carbohydrate level (use floral preservatives), and be free of water stress, ethylene, and microbial contamination.

<http://cutflowers.ces.ncsu.edu/welcome-2/>

Taking a Bite Out of the Edible Flower Market

Gibby Knoebel, Gib's Farm
by Jodi Helmer

Even though the flowers growing on Gib's Farm look good enough to eat, customers are often surprised to see colorful pansies hiding in their mixed greens, garnishing a cake, whipped into butter or candied.

"It's a conversation starter," says Gibby Knoebel. "It delights people to discover that flowers are edible!"

In 2010, Knoebel and her husband, David, started growing vegetables and herbs on their 88-acre parcel of land in Catawissa, Pennsylvania. But Knoebel, a lifelong lover of cut flowers, was eager to add cut flower and edible blossoms to their vegetable patches.

"I can't remember a time when I didn't love flowers," she explains. "I love the colors, the textures, the shapes, the fragrance, the transformations from seed to finish, and edible flowers just fascinate me."

In addition to traditional cut flowers like ageratum, calla lilies, sunflowers, peonies, coreopsis, cosmos, larkspur and roses, Knoebel grows blooms that are both beautiful and edible, including calendula, dianthus, garlic, chives, pansies and nasturtium.

Dahlias are among the most popular edibles; Knoebel has used the flowers in dahlia pancakes and added peeled, diced dahlia tubers to soups and stews.

As the market for edible blooms grows, restaurants are ordering flowers as garnish, colorful salad fixings and flavorful ingredients for whipped butter from Gib's Farm.

In addition to selling to restaurants and creating bouquets for special events, Gib's Farm operates two 20-week CSAs (one for vegetables and herbs, another for cut flowers) that run from April to October

and participates in the Ferry Street Growers Market in Danville, Pennsylvania.

While Knoebel is eager to expand the farm—she's been experimenting with hops, which she calls "beautiful and unusual cut flowers" that can be used in tea or beer and hopes to partner with local breweries to grow hops for craft beer production—there are challenges to growing edibles and cut flowers.

For starters, Gib's Farm relies on a single cooler. Since flowers can't be stored in the same space as fruits and vegetables (produce gives off ethylene gas as it ripens, killing blooms), the Knoebels store flowers in the cooler and transport produce from the farm to their home where it's stored in the basement. The other challenge is familiar to all flower growers.

"Flower farming is all about washing buckets," Knoebel says. "I would have never believed I'd be washing this many buckets in a day!"

Washing buckets and hauling produce between locations are small concessions for the pleasure of pursuing a passion for growing cut flowers.

"There is no greater joy than watching a flower grow or seeing a child holding a sunflower like it's sacred," she says.

While Knoebel's goal is to grow beautiful blossoms, she insists that the



Gibby Knoebel creates a custom bouquet for a customer at the Ferry Street Growers' Market in Danville, Pennsylvania

process is as important as the product – and that starts with treating the land as sacred, too. With one acre in production, Knoebel uses organic and permaculture practices for intensive growing.

Although Gib's Farm isn't certified organic, Knoebel, inspired by environmentalists like Rachel Carson, Eliot Coleman, and Alice Waters, follows organic practices, steering clear of pesticides and toxic fertilizers.

Alliances with other organic growers through memberships in the ASCFG and the Pennsylvania Association for Sustainable Agriculture have also proven invaluable for helping Knoebel further her knowledge and dedication to organic agriculture and permaculture.

“I was a kid when my father gave me a copy of Rachel Carson’s *The Silent Spring*,” she recalls. “Pesticides and herbicides were bad news for as long as I can remember.”

Following organic practices, she believes, helps attract wildlife, including pollinators like bees, birds and butterflies, to the farm—beautiful and essential elements of the landscape. “We’ve noticed a lot more wildlife feasting on what we’re growing,” she says.

As part of their goal of incorporating a permaculture teaching lab on the farm, the couple hired Chyvonne Rhoads as their farm manager. Rhoads applies her passion for organic agriculture and permaculture to manage all aspects of the business from sowing seeds and irrigating the fields to harvesting and sales. She’s also encouraged to pursue her own farming interests. This season, Rhoads, inspired by Instagram, experimented with dried flowers.

“As I was growing up, my mom always had dried flowers around the house and I thought it was neat that the flowers lasted all winter when nothing else was growing,” Rhoads recalls. “Being on the farm rekindled my interest.”

Through trial and error—and with a lot of advice from her mom—she dried varieties like statice, gomphrena, lavender, and ornamental peppers and used them to make wreaths, bouquets and hair accessories. Rhoads posted pictures of her creations on Facebook and Instagram and customers snapped them up.

While dried flowers are a wonderful addition to the product line, especially during the winter months, Knoebel will always look forward to spring. “Watching the earliest ranunculus, daylilies and tulips come up is the best part of flower farming,” she says.



Gibby and Chyvonne Rhoads show off flowers at a bridal expo at the Pump House Bed & Breakfast.

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Managing Ornamental Cabbage Seedlings

Chris Wien, Emeritus Professor, Cornell University



Near-perfect ornamental cabbage, both direct-seeded and transplanted from the greenhouse.

Ornamental cabbage: beautiful in a fall bouquet but a pain to plant. In this part of the country (Zone 5b), we usually sow in late June or early July, when the greenhouse is so hot that seedlings shoot up like rockets and are impossible to harden off before transfer to the field. The result is a wilted, stressed plant that begins its life in the field with a crooked stem. In addition, the problem is made worse by using 72-cell planting trays and then transplanting the large seedlings to a high density in the field, where we want to keep the plants small. We have been trying some alternatives that lessen the stress, and provide us with “well-adjusted” seedlings.

In this trial, conducted in 2015, we compared direct-seeding with raising seedlings in small cells in the greenhouse, but getting these into the field before they started to stretch. In the greenhouse the seeds were sown either singly in 288-cell trays, or 2 seeds per cell in 98-cell trays. In the field the seeds were sown at a 6 x 6 in. spacing, 5 rows in a 40-inch bed, and thinned down to 2 seedlings per hole. Two varieties were compared in the treatments: ‘Lucir Rose’ and ‘Crane Bicolor’. All seeds were sown on June 24, and the transplants put in the field on July 13. Hortonova netting laid on the ground provided a handy template for the spacing, and was raised during the season to provide plant support.

The results were very satisfying: we got a nearly perfect stand with the direct seeding, and the greenhouse-sown seedlings were transplanted before they became large and floppy. By the time of the early October harvest, there was no difference in stem length or the number of stems among the three treatments (see table). The diameter of the colored area at the top of the plant, termed flower, was also the same among treatments, although ‘Crane’ was slower to color in our relatively warm fall than ‘Lucir’. ‘Crane’ also was significantly taller at harvest.

So what’s next? It would be interesting to try direct-seeding with a mechanical seeder, or pinching the seedlings before they stretch. Give them a try!

Treatments	Varieties	Stem length, cm	Stems/ft ²	‘Flower’ dia., cm
Direct seeded	Lucir	68	6.8	8.7
	Crane	83	6.0	4.2
Small cell	Lucir	60	6.2	8.0
	Crane	78	5.8	4.4
Large cell	Lucir	63	6.6	8.2
	Crane	82	6.0	4.2

Acknowledgements: Many thanks to Priscilla Thompson and Emily Burrister who did most of the work, and to the Harris Seed Company who supplied the cabbage seed.

*Chris Wien is recently retired
Professor of Horticulture at
Cornell University.*

Contact him at hcw2@cornell.edu

Insects You Love to Hate, and How to Control Them

Stanton Gill

Minnesota's Twin Cities are a delight in November, especially if you are attending the national entomological society meetings. Each year thousands of entomologists get together to talk about what new bugs are hitting the horticulture industry, and what we're doing to fight back. Here are a few highlights of our discussions.

Two new products from Syngenta, Acelepyrn and Mainspring, will be on the market in 2016 with expanded labels for insect pests. Both products are true systemics and can be applied as foliar sprays or soil drenches. Soil drenches take longer for the uptake but last longer in the plant. These materials are very effective on certain insects and extremely safe around pollinators and beneficial organisms.

We have been working with Brian Kunkel of the University of Delaware to evaluate these materials against pests such as aphids, thrips, and Japanese beetles, and both have proven to be very effective. Keep in mind that these newer chemistries are extremely safe for applicators and non-target beneficials, but this comes at a cost—a financial cost. Get used to this because as we move to safer pesticides, prices will go up.

Another pesticide expanding its label is Met-52, which contains a naturally-occurring fungus called *Metarhizum anisopliae*. Spores germinate on the surface of the targeted pest, and hyphae then invade and kill the susceptible insects. The spores are suspended in an emulsifiable oil as a formulation suitable for spraying or drenching into soil like

a chemical insecticide. Met-52 EC is an effective contact bio-insecticide for use in an IPM program to control thrips and spider mites. It must be applied with a sprayer that emits a fine mist to be sure contact is made. We have conducted several trials with Met-52 and have found that it is a very effective, safe pesticide to use in horticultural production systems.

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Specialty Cut Flower Growers Short Course
March 8-10, 2016
Brookside Gardens, Wheaton , Maryland

The University of Maryland Extension Service, in cooperation with the ASCFG and the Maryland Cut Flower Growers Association, is offering a three-day seminar on beginning and advance growing techniques for cut flower producers.

Speakers include Chris Wien, William Preston, Richard Uva, Ko Klaver, Stanton Gill, and many others.
For more information, contact Stanton at sgill@umd.edu

Quality is so Yesterday—Premium Rocks

Gay Smith

The urge hit me as rain pounded my windows: time to organize—go through and file or pitch the stuff stacked in menacing piles on every office surface. Soon I was knee deep in my file cabinet looking at fascinating scraps of information abandoned to my ever-increasing reliance on Google for answers and insights.

I am not a fan of paperless. I love thumbing through photos and holding a book, magazine or newspaper in my hands, but those piles were ruining the feng shui of my office. While digging through one of them, I found a gem from the November 1997 issue of *Greenhouse Grower*—an editorial by David Kuack titled, “Quality is Out, Premium is In”. He said it’s time we find a replacement word for “quality”, since it is a given. His column asked what it would take to develop a premium line of plants. (I’m including flowers as well.)

Kuack referred to a June 1997 Newsweek article that credited Chuck Williams, founder of Williams-Sonoma (also Pottery Barn and Gardner’s Eden) as responsible for “upscaling everyday life by offering premium products to replace the mundane and the ordinary.” In the same article, the editor of W&S catalog business, Pat Connally, said “...people rely on us to tell them what they should own.” Isn’t that what we do in the flower business, tell people what they should buy and why? Eighteen years ago, Kuack posed these questions: “Is this desire for premium products a short-lived fad or will the appeal for upscale and refinement become the consumer trend?” He continues by asking, “...can a grower or retailer change the consumer’s perception of plants” (and flowers)?

A look at some of the events exerting huge cultural, economic and political force on our society since Kuack’s 1997 editorial helps put in perspective changes affecting business in the floral industry. It’s hard to believe that the Internet was still in its infancy in ’97—email beginning to eclipse faxes as the new mode of communication. Who dreamt that Google, founded in 1998, was a name destined to be used

Consumer surveys and scan data show that given the choice of products having similar price points, consumers favor purchases that support the environment, local vendors, and causes like breast cancer awareness.

as a verb as Google evolved into a go-to information source? Martha Stewart was sitting in prison the same year (2004) Mark Zuckerberg launched Facebook, the site that started as a way for men to rate women’s attractiveness, and exploded into a social media phenomenon used by 1.18 billion subscribers ten years later. YouTube launched in 2005, resulting in a new-normal of video sharing (everything).

That same year the housing bubble began to burst, causing more than one million foreclosures by 2006. The 2008 collapse of Lehman Brothers, a financial crisis unlike any in history, affected both Wall Street and Main Street. Bailed out by the government program, TARP (Troubled Asset Relief Program), Wall

Street rebounded, but Main Street (the job market) continues to struggle.

Highlights of 2015 include the 26th anniversary of the ASCFG, the Supreme Court decision legalizing same sex marriage, and marijuana’s upward trajectory as a lucrative horticultural crop as more states legalize its use for both medical and recreational purposes.

Considering what’s happened in the past 18 years, how do you answer Kuack’s queries? Has the desire for premium products, the appeal of upscale and refinement, become a consumer trend? Do growers and retailers have the power to positively change consumer’s perception of plants and flowers to appreciate a premium product? Yes! On both accounts.

Consumer buying patterns and market indicators show that both “upscale” and “premium” are solid trends. Another trend firmly rooted is the buy local movement. Consumer surveys and scan data show that given the choice of products having similar price points, consumers favor purchases that support the environment, local vendors, and causes like breast cancer awareness.

Of course, electronic commerce and online purchasing has and continues to change consumer buying habits as well as marketing processes. If you sell to supermarkets, utilize scan data to obtain a clear picture of what sells and what’s lost to shrink. Take advantage of media sites like Facebook and Pinterest to share and gather information. Forrester Research forecasts a 10% online sales growth over the next five years, so increasing media presence is a no-brainer. Sites provide windows to discover what consumers consider “premium”.

When planning your cut flower crops, incorporate blooms that complement the 2016 color(s) of the year, Rose Quartz and Serenity. *Greenhouse Grower's* benchmarker e-newsletter (December 15, 2015) article title says it all, *13 Varieties That Enhance Pantone's Colors Of The Year*.

Even if you have no plans to sell flowers online, your customers are surfing for ideas, information and product sources. The beauty and uniqueness of flowers are built-in selling attributes, and handling tips ensure the consumer experience is successful. Staying attuned to cultural and religious influence on flower purchasing is critical. Prior to Joan Thorndike's Bulletin Board posts last fall, who knew the far-reaching demand of marigold blooms? If you've been reluctant to tap social media resources, now is the time to start surfing and hang ten. Resolve to substitute the word PREMIUM for quality in 2016 sales and marketing endeavors, and enjoy a prosperous New Year!



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Gay Smith
is the Technical Consulting Manager
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It's 2016. You Have a Business. You Should Have a . . .

Dave Dowling, Ednie Flower Bulb

Please don't take any of what I'm about to say personally. But as they say, "If the shoe fits, wear it." Just make sure it's a good fit, and it's a pair of good shoes. (Preferably waterproof for working on the farm.) I'll be first to admit that there are a few shoes out there that fit, and that I should be wearing, I just don't always wear them well. These are my observations over the years, as both a cut flower grower, and now working for a supplier.

Email

You have a business. You should have a business email address. SuzyQ85@gmail.com is not an email to use for your company. Your email should tell people who you are. If your address doesn't identify you as a professional, it should be changed.

You can get a free email account from Gmail, Yahoo, and other providers. Try something like SuzyQ85@TheBestFlowerFarm.com, or TheBestFlowerFarm@gmail.com. Even better is an email like SuzySmith@TheBestFlowerFarm.com. Avoid including your internet provider such as @comcast.net, @att.net, etc. You will someday change internet providers, and you will not be able to keep that email address. It's best to get an email address you can keep forever, guaranteed. Use separate email addresses for personal and business matters. It just makes life easier. You can focus on work email during work days, and personal email on your day off, without the temptation to wander across that work/home divide.

When you write an email, sign it with your name, company name, phone number, and web address. Don't leave the recipient wondering who you are. If you're replying to an email, include the previous emails in the conversation. It's so helpful to be able to scroll down and see what the bride said three emails ago when the conversation started about how many table arrangements were needed and she said "Never, ever use purple flowers".

Web Site

It's 2016. You have a business. You should have a business web site. (Um, kettle, the pot is calling...) An online presence allows you to sell yourself 24/7, 365 days a year. Web sites can be detailed pages offering e-commerce to sell your products, register participants for workshops, or coordinate inquiries from brides. Or they can be simply informational, with pictures and text for customers and potential customers to learn about you, your farm, your flowers, and how and where to buy from you.

As a supplier, I view customers' web sites to find out more about their farms and businesses. Web sites should be up to date and accurate. If you find you can't keep it current, keep it static,

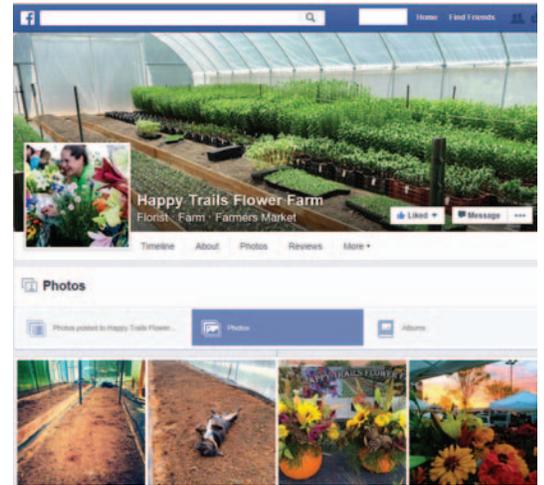


with information that never gets out of date. A site with last year's market schedule, or pages and links that don't work, will just frustrate people and drive away customers. If you have the skill to make your own web site, do it this winter. If you don't, find a fellow flower farmer whose site you like, ask who set it up, and hire that person or company. Web sites cost time and money to create, as well as a recurring charge to keep them online. It's just another expense of doing business, like the phone, electric, seeds, and water. You need it.

Social Media

It's 2016. You have a business. You should be on social media. Platforms such as Facebook, Instagram, and Pinterest are all based on photo sharing. The cut flower industry is a visual one. Color is very important. You should be sharing photos of your farm, your flowers, and your work online often. Smart phones are easy to use. Ask an eight-year-old for a lesson. Keep one (a phone, not an eight-year-old) in your pocket and post pictures of your fields, your flowers, your market setup, your lifestyle. It will increase sales.

Social media posts are easier to update than web sites. Just don't overdo it. Too many "updates" and it will be like the boy who cried wolf too many times—people will tune you out. Your accounts should be in your business name, and should stick to just business information: no silly cat videos, cute puppy pictures, or political statements.



Market Banner and Logo

It's 2016. You have a business. You should have a banner and a logo. Your logo can be fancy pictures and quite detailed, or as simple as your name in a consistent font and color. Some web sites design logos for very reasonable prices—pick something and stick to it. And stick it to everything: your truck, shirts, market banner, price signs, web site, stickers for your flower sleeves, etc. If you're selling at a farmers' market, make yourself stand out from crowd with a large banner with your name and logo on it.

Signage must be consistent. If we forgot to hang the "HERB" banner over our table of herb plants at the market, herb sales would drop 10-20% that week. It may not seem that important to some people, but put price signs on everything. If one person has to ask "How much are the sunflowers?" you have lost several people who won't ask, and therefore will never buy.

*Dave Dowling is a Sales Representative and Warehouse Manager
for Ednie Flower Bulb.*

Contact him at dave@ednieflowerbulb.com

Research is Creating New Knowledge

Here at the ASCFG Research Foundation we feel strongly that you should know how the funds you donated to support research on cut flowers have been spent. A panel of seven of your peers evaluated five proposals submitted by researchers, and they agreed that four of these should be funded. Thank you to those committee members for their participation. Here are the projects, listed in alphabetical order of the authors:



Andrea Garfinkel and Gary Chastagner



Raymond Cloyd



John Dole



Leslie Peck

- Gary Chastagner and Ph.D. student Andrea Garfinkel, Washington State University, will be surveying peony diseases occurring in the central and eastern parts of the United States.
- Raymond Cloyd of Kansas State University proposes to test the control of western flower thrips using water sprays or the application of beneficial nematodes on cut flower species.
- John Dole, North Carolina State University, will continue his studies of the best techniques needed to handle the new cut flowers being grown in the ASCFG Trials programs.
- At Virginia Tech, Holly Scoggins and her graduate research assistant Leslie Peck will test a range of new techniques to extend the vase life of popular dahlia varieties.

By accepting our money, these researchers have agreed to report the results of their work to us in *The Cut Flower Quarterly* or other means in about a year's time. We hope that you agree with us that this has been money well spent, and that we should keep the program going in the coming years. But that requires money.

If you're one of the generous members who contributed at renewal time, or who recently returned the donor card with a payment—thank you! We're grateful for your support. If you weren't able to donate last year, we're working on other ways you can help build the Foundation fund. We know that the Auctions held at Conferences are not only fun, but bring in tidy sums. Plan to participate in this year's Auctions at the Grand Rapids Conference by donating and purchasing items.

Every dollar you spend will go directly to cut flower research!

Local Meets Virtual

ASCFG Funds Project to Help Members Sell Flowers Online

By Jeanie McKewan and Dennis Fuze

Ecommerce has become the way to shop. In 2015, online sales on Black Friday, the biggest shopping day of the year, topped in-store sales nationwide. As business owners, we growers see the benefits of online storefronts—the speed, efficiency, and ease of sale. But, as local flower growers, can we go virtual and still maintain that personal, producer-to-consumer relationship so important to our business?

This article tells the story of two flower grower co-ops who are trying to answer these questions. With funding from an ASCFG Research Grant, Capital Flower Growers (marketing to Washington, D.C. and Baltimore customers) and Fair Field Flowers (marketing in Madison and Milwaukee) built an online flower shop, and discovered many advantages and some new challenges of selling online. While the project is only one year old, a substantial product catalog, with photos and many of the marketing and sales processes, is operational. Our goal for this article is to describe the development of the online store, and provide step-by-step instructions for interested

ASCFG members who would like to try this ready-made, virtual flower shop.

The Appeal of an Online Store

For Capital Flower Growers, our experience as a growers' co-op caused us to think about trying an online store. For three years, Greenstone Fields, Wollam Gardens, and (during 2013) Farmhouse Flowers collectively sold stems in the Washington/Baltimore market to florists and designers as Capital Flower Growers (CFG). Prior to 2015, CFG used websites and social media to grow their brand and to communicate seasonal availability. Each week we created a new MailChimp newsletter, featuring our weekly product availability, including product descriptions, photos, and pricing that customers could use to order from us. We negotiated orders using multiple phone and email exchanges. With multiple farms involved, the logistics of creating orders, fulfilling orders, coordinating delivery schedules, and splitting income



relied on multiple emails, phone calls and spreadsheets. As the business grew, the sales and administrative processes became increasingly complex and prone to error.

In 2015, CFG sought a more efficient way to communicate product availability, help customers create a solid order on the first try, equitably split orders among multiple producers, modify orders prior to taking payment, create harvest sheets for each farmer, and easily split the revenue among the growers.

Finding the Right App

In January, CFG compared several online store software application costs, add-ons, a vibrant user community and vendor engagement, training help, user support, and canned software, which would automate as many documented flower sales processes as possible.

After much research, we settled on Shopify. We trialed the free version of Shopify, and found the free software had most of the capability of a basic shopping cart store. It has a significant product and customer database, with various ways to search and display the data. It also provides automatic notifications to both customers and the system administrator. Customers can track their orders over time and refer back to past purchases. We can manage the inventory of bunches for sale in the store by setting “for sale” limits. Free Shopify provides easy ways to handle SKUs and bar codes, coupons, discounts, sales tax and shipping, as well as payments, fulfillment, refunds and credit card processing.

We made a commitment to Shopify, but decided on a paid subscription of \$29 per month. This paid subscription gave us more free preconfigured themes and functions from



Figure 1

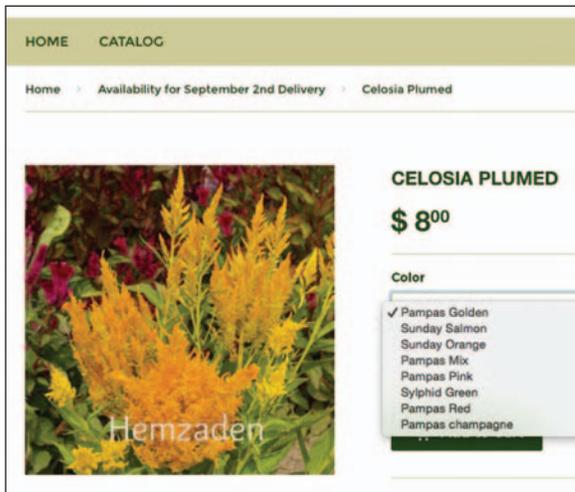


Figure 2

Crop	Color/Type	Unit	Price	Local Color					Total	WG	GS	Total \$
				Wiley Babes	Little Ace	Female Garden	Ammon and Co	Local Color				
Ageratum	-	10 st	\$ 8.00			2			2	0	2	\$ 16.00
Amaranthus	Burgundy	8-10 st	\$ 9.50						0	0	0	\$ -
Aronia	Red	3-4 st	\$ 10.50					5	5	5	0	\$ 52.50
Asparagus Fronds	-	6-8 st	\$ 10.00	5	1				8	0	8	\$ 80.00
Basil	African Blue	10 st	\$ 8.00	8					8	8	0	\$ 64.00
Boxwood	-	-	-					15				
Broomcorn	-	5 st	\$ 7.00					5	0	5	0	\$ 35.00
Cabbage	ornamental	10 st	\$ 15.00		2		1	3	0	6	0	\$ 90.00
Celosia	Supercrest Mix	5-8 st	\$ 8.00					10	0	10	0	\$ 80.00
Celosia	Celway mix	10 st	\$ 7.00						0	0	0	\$ -
Celosia	Pampas Magenta	10 st	\$ 7.00						0	0	0	\$ -
Celosia	Pampas red	10 st	\$ 7.00	4				4	4	4	0	\$ 28.00
Celosia	Pampas mix	10 st	\$ 7.00						0	0	0	\$ -
Celosia	Chief Persimmon	5-8 st	\$ 8.50	3				3	3	3	0	\$ 25.50
Celosia	Mini Persimmon	8-10 st	\$ 8.50						0	0	0	\$ -
Celosia	Mini Red	10 st	\$ 8.50						0	0	0	\$ -
Cosmos	-	15-20 st	\$ 7.50						0	0	0	\$ -
Cryptomeria	-	8-10 st	\$ 12.50						0	0	0	\$ -
Cypress	-	8-10 st	\$ 12.50					5	5	5	0	\$ 62.50
Dahlia	Purple	5 st	\$ 7.00			2		2	2	2	0	\$ 14.00
Dahlia	Butterscotch	5 st	\$ 7.00						0	0	0	\$ -
Dahlia	Leon's Orange	5 st	\$ 7.00	4	10	1		15	15	15	0	\$ 105.00
Dahlia	White	5 st	\$ 7.00					18	20	18	2	\$ 340.00
Dahlia	Red	5 st	\$ 7.00						0	0	0	\$ -
Dahlia	Thalia	5 st	\$ 7.00						0	0	0	\$ -
Dahlia	Naomi/Burgundy	5 st	\$ 7.00				7	6	13	13	14	\$ 189.00
Dahlia	Almost Black	5 st	\$ 7.00				3	5	10	10	0	\$ 70.00
Dahlia	Fiesta	5 st	\$ 7.00		4				0	0	4	\$ 28.00
Dahlia	Ala Mode	5 st	\$ 7.00	4			4	8	8	8	0	\$ 56.00

Figure 3

which to choose, accommodated a product catalog large enough to hold our inventory, and provided better technical support. We continued to use the free version of MailChimp to send out a weekly newsletter and link to the Shopify store that presented that week's offering of products for sale. See Figure 1.

Tweaking the System

Even the paid version of Shopify didn't do everything we wanted, or the way we wanted. (Selling t-shirts is not like selling flowers.) The software was flexible enough for us to adapt their two-tiered product catalog design to represent floral genera, species, and varieties, including colors. For instance, crested, plume and wheat celosia became "products" in the catalog, and each celosia product had a number of "variants" to present its different colors. See Figure 2.

As we began testing the software in early February, we quickly found some things that Shopify could not do, which we really needed, and required the assistance of a programmer. Although we could hire a Shopify programmer, the rate was too high, so we reached out to Haig Kavaldjian, a local freelance programmer doing business as Arts & Letters (A&L). A&L's rates were not only very farmer-friendly; Haig donated half of his time!

The things we needed Haig to program included a Split Report to divide customer orders across multiple growers, each of whom contributed different amounts of products. See Figure 3. We also needed a time clock to manage store opening and closing between publishing the MailChimp newsletter and when we would actually deliver to the customer. We also required theme modifications to design, layout, and content, setting minimum order amounts across multiple orders from the same customer, and more.

CFG went live with the system on April 23 with its first Weekly Availability email and link to the Shopify store. That email went to 22 customers who registered for a Shopify log-in account. It was a bumpy ride the first couple of weeks: fixing bugs, making quick enhancements, and working closely with our small list of customers to get feedback on the experience. A&L was also working with FFF at the time to clone the CFG site and get FFF ready for their go-live date on June 4, 2015.

Fair Field Flowers Joins the Project

Fair Field Flowers (FFF) is a similar a group of growers as CFG, but selling to florists and designers in the Madison/Milwaukee market. FFF was interested in this Shopify venture from the beginning, although their business model was a bit different. FFF uses Shopify order fulfillment and delivery functions differently, but we use all the other core and enhanced functionality. Mostly, we were eager to help CFG build and use a robust flower catalog. Thus began the very tedious and long process of standardizing product naming conventions and descriptions, finding and editing professional quality photos, crediting



the generous vendors who donated their photos, and entering the product, variant and all the other content consistently to make the catalog professional and re-usable.

FFF's members enthusiastically entered into the Shopify project in mid-February. We spent untold hours in conversation with each other creating the combined plant list, then entering the list into Shopify and editing photos of plants to complete the catalog's offerings. FFF has always had a Customer Service person who takes calls, replies to email requests, and creates and sends a Weekly Availability to their customers. We hoped Shopify would replace some of the time spent by a person resulting in some labor savings, as well as enhance the customers' experience by the use of an online shopping cart full of wonderful pictures. In addition, FFF's website has always had a calendar showing what we grow and when it is in bloom and ready for sale. Our long-time customers have used this calendar along with the Weekly Availability to create their requests and orders.

At the time of this printing, only a handful of the 90 FFF customers who receive the weekly Availability list use online ordering. Reasons for lack of use include being in rural areas with poor internet service, being uncomfortable using computers to place their orders, and being content to buy off the truck!

FFF uses only the ordering system and catalog of the CFG Shopify Storefront, not the enhancements meant for multiple growers. We sell our products on a refrigerated truck that travels to the customer's door. On the truck are pre-booked items for the customer along with "eye candy" that is available for purchase. FFF utilizes a point of sale system, which is on the truck to complete the sale; the daily sales data from the truck computer is exported into our QuickBooks (QB) system on the bookkeeper's computer. The QB system is used to collect payment from the customer and pay the growers.

After this year of collecting experiences with online ordering from our customers and members, we hope to head into our second year equipped to take better advantage of Shopify to enhance our sales and our bottom line.

ASCFG Joins the Project

As we adapted the storefront for FFF, we began thinking that this system might be useful for other ASCFG members. With that in mind, we applied for and received a \$2,500 research grant from the ASCFG to help with the programming, which was needed for other growers to use the system. CFG and FFF did all the catalog work, and contributed an additional \$1,300, making the total programming effort cost \$3,800.

Order GS-2015-1118
Dec 30, 2015, 10:37AM

SAMPLE

Order details		Customer
Dusty Miller candelans	\$8.00 x 3	\$24.00
Lily, LA - Batistero	\$11.00 x 2	\$22.00
Eucalyptus Silver Drop	\$9.50 x 5	\$47.50
Lily, OT Hybrid Areno	\$13.00 x 2	\$26.00
Chrysanthemums Apricot Courtier	\$12.50 x 4	\$50.00
Subtotal		\$169.50
State Tax 6%		\$2.88
Total		\$172.38
Paid by customer		\$0.00

Additional details	
History	
December 30, 2015	
Received new order GS-2015-1118 by Dahlia Ferche	10:37am
Payment for \$172.38 USD is pending	10:37am
Order was placed from draft order #D27	10:37am

Shipping address	
Dahlia Ferche Flowers by Dahlia 431 Main Street Purcellville, VA, 20132 United States 540-822-4408 View map	
Billing address	
Same as shipping address	

How Can You Install Your Own Virtual Store

We have now created a "master" Shopify site that other ASCFG members can clone for their use. It contains all of the core and enhanced functions as well as a product catalog for Zones 5-7. If members want to use the system as a group, or generate harvest lists for the orders, it will contain the Grower Split and Harvest reports. ASCFG members can use the Bulletin Board/Forum to help each other with Shopify configuration and enhancement questions and solutions. To use the master site, a member grower or group of growers must first:

1. Subscribe to Shopify to create a store, at least at the \$29 per month level. Update Order is optional as are marketing, financial and other apps.
2. Pay the ASCFG a one-time fee of \$300, which includes 4 hours of A&L's time to clone the master site for your store and make any minor enhancements within the 4 hours. Additional hours can be purchased from A&L at \$50 per hour.
3. Sign an agreement, releasing the ASCFG, Arts and Letters, and Capital Flower Growers and Fair Field Flowers, and their growers, from any liability related to your use of the master site.

Lessons Learned So Far

The way growers can use an online store varies widely, depending on their business models. The differences between the way CFG and FFF used Shopify, and the interests of their customers were marked. This changed the approach, use, rate of acceptance, and level of success the first year.

- The upfront setup and ongoing maintenance of the Shopify, or any other on-line store is the most difficult part. Since 90% of that work is already done in the ASCFG master site, this is a good value for the right ASCFG members, depending upon their skills, and the uniqueness of their markets and models.
- This software doesn't solve all problems. Customers make mistakes in their orders and also change their minds at the last minute; product availability can change overnight with a few large orders, a thunderstorm, or any number of conditions. The virtual store and supporting technology might

also break for some reason (when you most need it). Being flexible, and having backup manual processes, like manual order forms, spreadsheets and invoices, as well as friendly customer service calls, are still required.

- While selling online increases the seller and buyer transaction efficiency, there is a danger of losing the personal relationship with our customers that we all value. Keep that from happening by continuing to engage your customers with updates on your products, their orders, what's happening on your farm, a newsletter, Facebook and Instagram postings, personally going on deliveries to your customers, continuing to learn more about their business, and asking for feedback on their experience with your store, your staff and your products.

Think an online store might be right for you and your customers? Contact us and we will try to answer your questions about this new tool.

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Bouquet photo courtesy of Aster B. Flowers.

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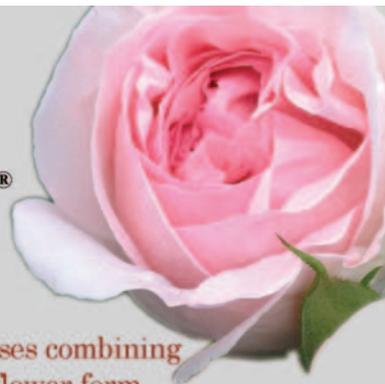


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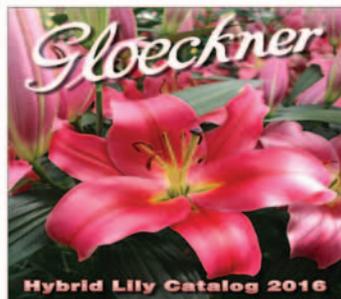
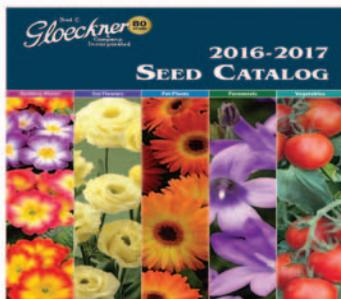
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Yoga for Growers

By Jeriann Sabin
Bindweed Farm



I am one half of team Bindweed, a small cut flower farm in southeast Idaho. In charge of sales and service, I process every stem, put orders together and make deliveries. Our farm lies between two mountain resorts, each 125 miles away in opposite directions, so when I'm not running around the farm I'm driving long hours over mountainous terrain—gorgeous, but not so kind on the body.

Practicing yoga has been my lifesaver, my fountain of youth, so much so that a year ago I flew to India to study and become a yoga teacher. In the summer the farm takes all my attention and I practice yoga just to keep going, but during the winter I teach several times a week.

The sad fact is my husband and I have joined the ranks of “older growers”, an esteemed but far from elite group of folk. We have finally caught up to success, and have the aging bodies to prove it. Mentally and financially we are not ready to retire, but physically we are beginning to wear out.

Even if you have not reached fogey-hood, lifting and carrying buckets of water and flowers, bending over and reaching into flower beds, and continuous use of flower cutters can all lead to aches and pains for even the fittest farmers.

A few years ago when the usual aches and stiffness did not disappear a few weeks into the off season, I turned to yoga for site-specific relief. I am not a doctor or a physical therapist but I would like to share a few simple things you can do to restore your farm-abused bodies.

Let's start with hands, our number one tool, the first to be used and the first to be abused. We use our hands for tiny precise and often repetitive skills, and we abuse our hands by using them too often like heavy equipment. They are miraculously engineered to accommodate so much, but it's time to treat them with a little more respect.

The following exercises are known in yoga as joint openers, used to open and relieve joints and to stretch and restore muscles and ligaments. You can do these exercises standing or sitting down, you can practice them in line at the grocery store, or even while waiting for a client. Just do them. Keep in mind that you are looking for sensation—the sensation of a good stretch. If at any point you feel pain, that is the signal to back up or stop, and listen to your body. It will probably take you longer to read the exercises than to do them but give them a try. Once you have a feel for them and begin to practice regularly you may notice greater mobility, and real relief from joint and

muscle stiffness and pain. Again, I am not a doctor, just a humble yogini sharing what works for me.

Hand clenching

Extend your arms directly out from your shoulders with your palms facing down. Open hands wide, stretching fingers outward, then make a fist with the thumb inside. Spring your hands open, fingers outstretched, and make a fist with the thumb outside. Repeat ten times, springing the hand open and closed, alternating your thumbs inside and outside.

Wrist bending

With the arms at shoulder height, bend the hand backward from the wrists as if pressing the palms against a wall, with the fingers pointing toward the ceiling. Now exhale and bend the hand forward from the wrists so that the fingers point toward the floor. Following your respiration bend the wrist, fingers up, fingers down. Keep elbows, palms, and fingers straight throughout the entire exercise. Repeat ten times; do not bend the knuckle joints or fingers, if possible.

Any popping or creaking noises heard during the exercises is not due to old age, it is the champagne cork of joy as your body releases tension.

Wrist joint rotation

With arms extended in front of the body at shoulder height, make your hands into loose fists and begin to make circles with your wrists in opposite directions. Make ten revolutions and switch directions so that the wrists are rotating toward each other. Make another ten revolutions. To open the chest and shoulders at the same time, while rotating the wrists away from each other, circle the arms up overhead and back behind the body. Inhale the arms up, circling behind and exhaling down. Continue the circle, bringing the arms to shoulder height and repeat four more times. Reverse the direction of the wrists, rotating them toward each other, reversing the arm circles as well, inhaling up and exhaling down. I do this exercise several times a day to loosen up the muscles in my hands and forearms and to relieve my wrists and shoulders.

Shoulder socket rotation

Raise the right arm to shoulder height, bend the elbow, and place the right fingertips on the right shoulder. Rotate the arm to make large clockwise circles with the elbow, inhaling up and exhaling down. Repeat four more times and switch directions, making circles counter-clockwise. Repeat with the left arm.

Forearm stretch

Extend right arm at shoulder level, fingers up, palm open as if pressing against a wall. With the fingers of the left hand, gently stretch the fingers of the right hand back towards the shoulder. Pull back only enough to create a good stretching sensation. You will feel a stretch in your fingers, palm, and wrist. Release and repeat four more times. Repeat on the left side.

Fascia forearm stretch

Extend right arm up to shoulder height to the side of your body, with the fingers extended and the palm out, again as if your hand were up against the wall. Turn your head to the left and move your arm slightly up and down, forward and backwards until you feel a tingling or almost numbing sensation. Once you find the “sweet spot” hold there, breathe into the sensation for a few moments. Release and repeat as much as is comfortable. The tingling/numbing sensation is the stretching of your muscle fascia, the tissue that lines the muscles. Repeat the exercise on the left side. This exercise relieves the hands and works against carpal tunnel issues.

These exercises can be repeated as often as you wish. Any popping or creaking noises heard during the exercises is not due to old age, it is the champagne cork of joy as your body releases tension.

Artist Jeriann Sabin

is co-owner of Bindweed Farms in Blackfoot, Idaho.

Contact her at jasabinart@aol.com



Try these stretches for
an easy warmup before you
head to your flower field.

NORTHEAST

Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, Vermont, Ontario, Quebec, and the Maritime Provinces



Diana Doll

StrayCat Flower Farm
 diana@straycatflowerfarm.com

During the winter we receive lots of employment inquiries from folks who have worked on small veggie farms, and from folks who see our bouquets in supermarkets and at the farmers’ market. While seeing pretty flowers gussied up for retail might give the impression that cut flower farming is a walk in the park compared to veggie farming, there’s work involved in growing and marketing flowers that goes beyond what the final product—gorgeous healthy flowers—suggests.

From the ground up, both types of farming require soil preparation and bed cultivation. Both involve daily greenhouse or hoophouse management, attention to ergonomics, working knowledge of hand tools, and tractor and implement maintenance. Beyond those similarities, flower production deals with both pre- and postharvest distinctions crucial to serving up a decent product.

Bouquets are like “salad for the eyes”. While the veggie farmer grows the ingredients for the salad, the flower farmer processes the ingredients, combines them in a pleasing arrangement, packages and transports them without damage, and finally puts them out on display to catch people’s eyes as they move through the market assessing their options. Bouquets must be customer-friendly “grab and go” packages so customers can handle them easily without fear of damaging any blooms. That’s a lot of steps!

Getting back to the winter work of handling all those inquiries for employment: we’ve created an “employee application” designed to winnow out folks who want to tiptoe through the tulips versus folks who want to get some dirt under their nails. It’s a gnarly questionnaire and it has been a great help in deciding who to interview versus who to let know about other opportunities more suited to their experience. Email me if you’d like to see that document; I’d be happy to send it to you.

Once the applicant sends back the questionnaire (some balk at this point), next comes the initial interview: a walking tour of the farm, a few questions about what they feel are their attributes, their two to five-year plan for the future, and how they feel they would be a good fit for the farm. The third step in our hiring process is a working interview; the applicant

joins the crew on a few projects knowing we’ll be assessing her compatibility with our style, and that her input informs us about her understanding of the job. At this point it becomes clear to the applicant whether she would feel excited about being in this environment five days a week, and clear to us whether the feeling is mutual. Like I said, it’s kind of gnarly but it has resulted in a fantastic crew in recent years where everyone participates in equal measure and we’re less likely to be faced with the uncomfortable situation of having to end their employment (or resigned to grinning and bearing it until the end of the season).

I want to let you know about a super interesting project one of our members is spearheading. Nellie Gardner of Flower Fields in Spencerport, New York is doing research on, and restoring cutting beds at two historic properties in Buffalo. She kindly shared lots of details with me over the phone, but I’ll simply give a very brief introduction of her historic floral restoration work.

The Darwin Martin house, designed by Frank Lloyd Wright, is in a neighborhood laid out by the great landscape architect Frederick Law Olmsted. Nellie is reviving the cutting gardens used by the family throughout the year (they also had a greenhouse) and giving tours of the restored home. She is working from maps of the flower borders and the diary of Isabelle Martin to revive the practice of growing and giving of cut flowers at the turn of the last century. At Greycliff, another Frank Lloyd Wright home, Nellie is creating a cultural landscape report which

While seeing pretty flowers gussied up for retail might give the impression that cut flower farming is a walk in the park compared to veggie farming, there’s work involved in growing and marketing flowers that goes beyond what the final product—gorgeous healthy flowers—suggests.

includes the “ladies’ cutting garden” and intricate designs in flower arranging. Having visited both of these landmark homes, I’m thrilled to know an ASCFG member is doing this type of side work in addition to growing and marketing her own farm’s products! While on a recent tour, someone in the group took an interest in her story and passed it on to a reporter who writes about horticultural therapy. *Draft Horse Journal* is carrying the story in January; I can’t wait to see it!

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Lisa Ziegler
 The Gardener’s Workshop
 lisa@shoptgw.com

This *Quarterly* column is my first official chore as your new Mid-Atlantic Regional Director. I am honored and excited to have been selected to fill Jennie Love’s position so she can move on to the position of Vice President. I cannot think of a better group of folks to work for and converse with than this bunch, and I’m looking forward to serving. Please do not hesitate to contact me with questions, concerns, and ideas. We are all in this boat together and it takes a crew to keep it afloat, so please, talk to me.

Farming Survival Guide

I am going to share some of the habits I’ve gotten into during the no-harvest season. They prepare me to survive and even thrive during the crazy harvest season. I’ve come by these lessons mostly the hard way, but they have increased the joy—and bottom line—in both my farming career and my personal life.

The foundation habit for me is to structure my winter down time just like I do the busy times in high season. Without some kind of schedule, winter used to just disappear, and suddenly, it was spring again. I am a creature of habit and once a task is on the list and works into my week, you can count on it. Discovering this was a game changer! Of course, the to-do list must be a realistic one. I may think I’m superwoman from time to time, but the undone tasks at the end of a day reveal the truth. Keep it real—you can do only so much.

At the top of my winter to-do list is the crucial question: when am I going to take a break? Yes, I plan this and it makes it even better! The anticipation fuels my fire to get the other stuff done. I plan a vacation with Steve, and at least one other week I’ll share with my dog Babs in lazy bliss watching our favorite movies. These are the moments I dream of while harvesting on blistering July days.

And then there are the chores. I always tackle my least favorite one first to get it out of the way. I start by looking over my QuickBooks sales records while the season is fresh in my memory. What were the best sellers? What did we have left

The other property where Nellie is restoring cutting gardens is the old Buffalo Hospital, back then called the insane asylum, now called the Richardson Olmsted Complex. The Olmsted-designed property was a working farm with animals, flower beds, a greenhouse, and a farmstand, where the patients participated in healthy outdoor productivity as part of their lifestyle. Next time I’m in downtown Buffalo I’ll be sure to connect with horticultural historian Nellie Gardner to see what she’s up to!

Side-stepping out of the Northeast Region into the Mid-Atlantic, I just looked up the PASA (Pennsylvania Association for Sustainable Agriculture) conference schedule, and see that several great sessions are planned. This four-day annual conference is huge (February 3-6) and covers many topics relevant to any agriculture business. A few titles to pique your interest: Creating effective farmer’s market displays. Regenerative soil management. Building a farm budget from scratch. Working with land trusts to access farmland. Build your own solar generator. Soils with staying power. Debunking humates (that’s my favorite). See you there!

over? Any surprises? What could I have sold more of? Using that information, I proceed to plan what I want to grow next season, how much space I can give each flower, and what my rotation/succession plan is going to be. Then I get down to the business of laying it all out on the jumbo calendar.

I use a wall-hung jumbo at-a-glance calendar (each day's square is 2" x 4"). It hangs on the door of the work building. I write my plans and make notes on it during the year. This way, all plans and records are in one place. That jumbo calendar has really improved my record-keeping. It is a great place to jot down new things I want to grow, when we began harvesting a specific flower, when we mowed a crop, etc. I use the calendars from past years as a guide while planning for the year to come.

The seed-starting schedule is first to go on this calendar. Then I add all the other in-season chores. I pencil in when I should place seed and supply orders, when beds should be ready for planting, when I should plant cover crops, and more. This calendar is the brain of our operation, you might say. I tend to become like a zombie once the heat starts. The calendar points me in the direction I need to go each day. As long as my eyes are open with glasses on, all is right in my little farming world. No thinking required in season—very dreamy, actually.

Once the calendar is done, I move onto the next biggest thorn in my side during the season: what's for supper? If it was just me, Cheerios would work most nights; however, the hard-working man in my house needs more. My off-season goal is to fill my freezer with 2-3 meals per week that I can use in the busy season. My classic dilemma has been suddenly thinking of dinner as I'm walking to the house dead tired after working all day.

My solution is to think of them all during a couple of weeks in February. My standards aren't too high: it just has to be something I can pull out of the freezer at the last minute and have ready in a short time. My easy fixes include spaghetti sauce, ribeye steaks, minute steaks (for sandwiches), chicken breast filets (salad topper), pie shells for weekly tomato pies and chicken pot pies, cooked ground beef for shepherd pies, and ready-made hamburger patties. I purchase a quarter of a cow and have the butcher package it according to our need. A couple nights a week we go for big salads and seafood.

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The jumbo calendar that runs my farm. I often use the backside of the calendar for bed planning.

It really makes the whole work day better if you don't have to think about how the day will end for you and your family. A hidden bonus is that when I have options in the freezer, Steve is likely to have supper ready when I come indoors. That's reason enough to think ahead in February!

During the summer season, I have a pretty structured week. I work Monday through Friday, never Sunday, and only rarely on Saturday. My typical work day begins at 6:00 a.m. and ends by 2:00 to 5:00 p.m. I owe all this to thinking it through in the downtime. Lots of farm fixes come when your head is free of flower orders, weather challenges, and deer.

Seed-starting used to be a task that often fell through the cracks. Then I got the great idea of hiring a niece to do the regular seed-starting that is essential to a steady flow of flowers. Amazing how smart we are in winter.

I love flower farming because it is all-consuming. But to make it the long haul career of your dreams, you can't crash, burn and just recover each winter. You need to go into farm survival mode.

May your winter months be full of good times, rest, planning and brainwork!

SOUTHEAST

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



Tanis Clifton

Happy Trails Flower Farm
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“If I knew then what I know now...” Famous last words, right? We have all said this famous phrase at one time or another in our life, and since the ASCFG is here to educate you, maybe I can “school” some new growers here so this phrase does not become part of their flower history.

I recall standing in line next to Dave Dowling at my very first ASCFG conference and asking him, “If there was one flower that you would recommend for a new grower, what would it be?” He said “Go buy some ‘Limelight’ hydrangeas.” I made a mental note of that, then sat through two awesome days of speakers, and was completely and totally overwhelmed.

To make a long story short, dare you ask if I went home and planted ‘Limelight’ hydrangeas? Well, ya know, um...sadly the answer is NO. So here is one of many woulda, coulda, shoulda moments: listen to me when I say “GO BUY SOME ‘LIMELIGHT’ HYDRANGEAS!” I did finally plant some two years later, and each year I add more, but had I done what I was told, I would have been harvesting, selling, and profiting from those hydrangeas years ago! No matter your market, there is always a use for ‘Limelight’, among other woody material.

Woody plants often take several years before you are able to harvest very many stems, so start NOW. Depending on your zone, there are so many options for this type of planting. After planting those ‘Limelights’, go search for this book for all the woody details, *Woody Cut Stems for Growers and Florists*, by Lane Greer and John Dole. All regions of the country have native species of woody cuts that may already be available to you on your own property. But if not, now is the time to start looking into these type of permanent plantings, don’t wait, there is no time like the present. Below is a list of some of my favorite woody cut stems and what I use them for, however there are so many possibilities:

Hydrangea paniculata ‘Limelight’—bouquets, straight bunches

Salix matsudana (curly willow)—bouquets, straight bunches, large events, winter outdoor containers

Salix discolor (pussy willow)—bouquets, straight bunches, large events, winter outdoor containers, wreaths

Elaeagnus pungens (silverberry)—large bouquets, events, large vertical and horizontal elements

Euonymus japonicus—shiny green filler for small bouquets, great flower cluster when cut in bud



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Magnolia grandiflora

Magnolia grandiflora—Christmas arrangements, wreaths, swags, garland

Dwarf Magnolia ‘Little Gem’—Christmas arrangements, wreaths, swags, garland

Boxwood (all varieties)—bouquet greenery, wreaths, swags, garland

So here is my next, shoulda, woulda, coulda epiphany: PLANT MORE GREENERY, and for lack of a better word, FILLER!

This too took me a few years to realize. It is human nature to be drawn to big

beautiful flowers, but when it comes to bouquets, without the supporting material and accessories, we would have a pretty boring composition. I was guilty of poring through the seed catalogs and picking out all of the beautiful flowers I wanted to grow, realizing too late that a bouquet needs more than just those beautiful shining faces. Don’t forget that ever-important supporting element and grow lots of it. Everyone has their favorites; here are a few of mine:



‘Mahogany Splendor’

Hibiscus ‘Mahogany Splendor’—red foliage

Basil ‘Cinnamon’, ‘Aromatto’, ‘Lime’—fragrant foliage

Bupleurum—lime-green foliage

Eucalyptus—start early, great blue fragrant foliage

Rudbeckia triloba—little black-eyed Susan cluster

Tagetes ‘Burning Embers’—small branching marigold

Celosia spicata—love all of them

Solidago—really fills the gaps

Another consideration when poring through those seed catalogs and selecting next season’s flowers is to keep it simple. Have some restraint. I know, you want it all. Every time I read about somebody’s favorite flower, or the next new thing, I of course want it. Truth is, it is the staple face flowers that carry all the load. I have had my share of 20-foot sections trying out all these different flowers only to be disappointed, wasting time, space, and patience much of the time. The advantages of mastering a few varieties over trying to manage a multitude is obvious. There are many true workhorses out there and these are mine:

- LA hybrid lilies
- Sunflowers
- Zinnias
- Celosia
- Marigold
- Mums

Lastly, I wish we could have figured out our market sooner. We are very fortunate to live in the quiet rolling hills of northern Mississippi; unfortunately we live nowhere near a decent-sized population base. If you do, count your marketing blessings. We did not relish driving two hours to a large city to sell our flowers so we thought we could provide flowers to our local and rural community, along with local florists. The only problem with trying to market flowers to ruralites (made that word up) is that most typically do not have a desire for flowers because they do not entertain much, most of their family lives nearby so they don’t have company, dinner parties are rare, plus everyone’s grandma



LA hybrid lilies



Sunflowers



Mums

grows zinnias so they see no value in flowers. On the other hand, urbanites do all of the above, plus they are surrounded by asphalt so there is definitely more of a market and desire for beautiful locally-grown flowers. Just with any business, the greater the population, the more varied and greater are the opportunities. Had we known then what we know now we would have approached grocers, wholesale florists, and upscale farmers markets in a large city sooner. Now we know, and that two-hour drive isn't so bad after all.

There are so many components to managing a flower farm business it is my hope that some of these coulda, woulda, shoulda moments of mine can help you achieve your goals quicker and less painfully! Good luck this season, and don't forget to plant your 'Limelight' hydrangeas!

NORTH AND CENTRAL

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



Mimo Davis Duschack
Urban Buds City Grown Flowers
citygrownflowers@gmail.com

Midwest Buzz

First, a big thank you goes out to the cheese curds of Wisconsin: Joe Schmitt, Carol Larsen, Hans Larsen, Emily Watson; and John Hendrickson of the University Wisconsin Center for Integrated Agricultural Systems; and to Doug Trott from Starbuck, Minnesota, and Jeanie McKewan of Stockton, Illinois. The Madison Grower Intensive was a resounding success! Everyone loved the presentation made by Roy Klehm, owner of Klehm's Song Sparrow Nursery, which even included a gift of a free peony for all attendees. Thanks, Roy! Brian "Dr. Death" Hudelson and P.J. Liesch of the University of Wisconsin Plant and Disease Diagnostic Laboratories gave free diagnoses to anyone who sent pictures or plant material in for a show and tell. Thanks to Brian and P.J.!

Frank and Pamela wrapped up the day with a lively description of their farm, and Pamela's bouquet-making process.

As with any of our meetings the farm tours are a highlight; a special thank you to the crews of Sunborn Flowers and Brightflower Farms. Believe me, I know what work it is to open your farm for the tours!

Mark your calendars for November 6-8: the 2016 ASCFG National Conference will be in the Midwest! Grand Rapids, Michigan, in fact. Look out for the coming details and schedule. One of my favorite nurseries—Walters Gardens—is in that neck of the woods!

Around the Farm

At the head of our 2016 farm goal list and the one that is most important to me is improving soil health. The first step is taking a soil test to know where we currently stand. This year we've decided to use a lab that specializes in the Albrecht method of soil fertility. Agronomist Dr. William A. Albrecht worked at the University of Missouri in 1940s and 1950s, and focused his attention on the link between an overemphasis on N-P-K regimens with a loss of minerals in the soil and lower nutrition of the food we eat.

His views were controversial at the time, but ACRES USA, sustainable agriculture practitioners, and a handful of agronomists now analyze soil samples using his method. This allows them to offer recommendations that balance macro and micro nutrients, minerals, and trace elements to create a beneficial cation exchange that enables plants to grow better. This is not a testimonial! We are just getting starting using this process, but we are excited to try it. Some of the best farmers we know in Missouri use this method and follow the recommendations. Sure, we don't eat our flowers, but we do strive to offer the best possible growing conditions for our plants.

In the same vein, we would like to expand our use of cover crops in all our growing spaces: greenhouse, high tunnel, and field. This past year we used buckwheat as our primary summer cover crop. Buckwheat fit well into our crop rotation because it grows quickly, suppresses weeds, and provides a home for beneficial insects, including parasitic wasps that eat aphids. Our ornamental cabbage was aphid free this year and I believe that providing habitat for beneficial parasitic wasps played a big part in this.

This past year we used buckwheat as our primary summer cover crop. Buckwheat fit well into our crop rotation because it grows quickly, suppresses weeds, and provides a home for beneficial insects, including parasitic wasps that eat aphids.



Tillage radish increase soil porosity and decrease the incidence of nematodes.

Our fall cover crops included tillage radish interplanted with oats and peas. Tillage radish offers a couple of stellar benefits to the flower farmer. First, its deep taproot penetrates compacted soils, sometimes up to two feet or more! The radish dies in winter and decomposes in place, creating channels into the soil and food for micro-organisms. The second benefit of tillage radish is that it can be used as a bio-fumigant to treat some species of harmful nematodes, including root knot nematode, ring nematode, and soybean cyst nematodes. I'm not aware of flower farmers having big issues with nematodes, but veggie growers sure are excited about this application and our flower farms can have soil compaction problems.

Tillage radishes don't add much organic matter to the soil, so we inter-planted with oats and peas. We chose oats because they can grow well into the fall and then winter-kill; cover crops that winter-kill are essential to us because they are easier to incorporate into the soil; we are working with only a rototiller. We added Austrian winter peas into the mix in hopes of getting a boost of nitrogen from the decomposition of the bacteria that live (and die) on the legume's root nodules; when the bacterium decomposes nitrogen is released into the soil. Austrian winter peas can put on some bulk and when they are tilled in the spring they will be a good source of organic matter.

This fall we also experimented with inter-planting our larkspur with the oats. It was done simply enough with the help of our Earthway seeder. We planted alternating rows: larkspur, then oats, larkspur, then oats, etc. The idea here is that the oats will winter-kill, fall to the ground, and create mulch that the larkspur grows up through. We will keep you posted as to how this goes.

Compost is an important part of our soil fertility regimen. We are on limited space here in the city, and so we don't compost—we buy it in. Local sources of consistently high quality compost have been hard to come by in our area this past year, so I organized twelve farmers to participate in a group buy of Vermont Compost products with delivery to our St. Louis region. For years I've heard flower and vegetable farmers swear by Vermont Compost and I decided to see what all the hype is about.

All these efforts in combination are to keep the soil healthy, the micro-organisms fed and the flower harvest bountiful. Happy spring!

SOUTH AND CENTRAL

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



Rita Anders
Cuts of Color
ritajanders@cvctx.com

Last September I attended the ASCFG meeting in Virginia. I enjoyed it so much and learned a lot about cover crops and dahlias, and had valuable conversations with many growers. I left energized and excited to start another winter season and then got another big surprise before I flew home. On our last day there, my sister-in-law and I decided to do a little sightseeing. Boy, did we see a sight in Washington D.C., the one and only POPE. So not only was I energized about growing but also had a great spiritual boost. Great thing I did because I came home to seven weekends of weddings, bouquet making, and a church retreat, which were all exhausting.

I have been implementing lessons from the cover crop talk given by Casey Gustowarow from The Farm at Sunnyside, in Washington, Virginia. You can find the video recordings of the 2015 meetings in the Members Only section of the ASCFG web site, under "Videos and Slideshows". I suggest you use the downtime in the winter to view all the talks and make use of all this shared knowledge.

As we cleaned our fields last fall, I planted Austrian winter peas and Daikon tillage radishes in beds that would lie unused till spring. I choose these two as companion plantings because in Zone 8b, they should be able to handle our winter and continue to grow. In the spring I will shred (mow) them down and plow them in before planting my spring crops. An excellent article on tillage radish can be found at <http://tinyurl.com/h5j4czq>

I also planted a quick crop of buckwheat in some greenhouse beds that were going to have ranunculus and sweet peas in them. I let it grow for about four weeks, then weed-eated them down and tilled them in. The weed-eater decimated the plants and we were able to almost plant immediately. The crops we planted into them are doing well.

In Virginia I saw a lot of beautiful dahlias and I was so jealous that we can't grow them like here all summer and fall like a lot of other growers can. What we can do is grow them in greenhouses with supplemental lighting and just a little heat to keep them from freezing. Last year I picked much less than I did the year before. I was really worried what I was doing wrong and did some research and made some calls and figured out that because of all the cloudy days and rain, we just didn't get enough

sunlight to get the blooms. I also figured out the plants needed more potassium and phosphorous, and I believe I was giving them too much nitrogen.

The Virginia sessions covered a lot of dahlias and I felt more empowered to grow better dahlias this year. I've heard Bob Wollam's talk on starting dahlias from cuttings and finally I was able to grow some 'Cafe au Laits' and 'Lady Natalie' from cuttings. I had always tried to do it in the winter, and this time I tried in August and September and they all rooted. I believe I wasn't giving them enough lighting or warmth and this time they had enough of both.

Lisa Ziegler of the Gardeners Workshop Farm gave a talk on "cool flowers". I can attest to her talk because at the 2014 National Conference I bought her book *Cool Flowers* and made sure I planted every flower in there with the exception of agrostemma and dropmore, and they all grow great in Zone 8b. I will be adding those two this next year. I had beautiful rows of flowers, but harvesting was a problem due to the unending rains Texas had this past spring. I lost almost all the fall-planted flowers such as larkspur, bells of Ireland, and snapdragons because they rotted in the fields.

Grocery store bouquet-making is a huge part of our farm, so the talk from Gretel and Steve Adams of Sunny Meadows Farm really made me think about the time some of my employees spent making bouquets. After the meeting I shared her techniques with my crew and it made a difference with their performance. Gretel lays her material out on the table in



Rows planted with cover crops.

piles and picks as she goes, turning the bouquet in her hand as she adds the flowers. We do that also but I got them to be quicker by not picking up a flower and then setting it down and picking up another. Gretel's best advice was once you pick that flower up, don't put it back down. We also started making a table full, and the slowest worker goes to sleeve them, and we keep making bouquets. We have been able to cut our day by two hours at least, and one less person. I also started giving the girls a recipe which I think made them speed up and not have to think so much.

Have you thought about participating in the ASCFG Trials program? Bailey Hale brought some of the lisianthus he trialed such as the Rosanne series and the Doublini series to the Virginia meeting. I got to see them in person and they were awesome. On the Flower Farmers

page on Facebook he put together a buying group to order these from Gro' n Sell this next year. Needless to say I have my order in and am so glad. There are some cool colors in the two varieties and the Doublini series is a small double flower that will be perfect for wedding work. I can't wait to use them.

Our South and Central Region is large, and even though we are grouped together, there is so much distance from grower to grower making it hard to visit with and learn from each other. Just recently I contacted some of the growers in the Houston and Austin areas, and we are setting up a couple of days when we will meet and visit each other's farms and swap growing ideas and information that can help each other. I'm very excited about this networking and hope to do more but for now I'm going to do these two farm days to give it a trial run. I would like to urge you to get with growers in your area and try to do the same thing, farmers meeting farmers. What could be better than that?

Between two weekends of several weddings I flew to St. Louis, Missouri where we were greeted and entertained by Midwest Regional Director Mimo Davis, for the fall meeting of the ASCFG Board of Directors. As soon as I arrived, Mimo whisked Paula Rice and me off to a tour of her urban farm. In Texas we live on open farming land and pretty much have the run of the land around us, which is so different than Mimo on her lot in urban St. Louis. I was very impressed on what she had going on there and the output of her small city farm. I was also blown away on how much she sells her flowers for and

I'm sure I bombarded her with questions just trying to wrap my head around her income on that small lot. Mimo inspired me to be very proud of our specialty flowers and charge accordingly for them. We always feel we charge as much as our market can stand but I'm really going to try to push for a little more.

Mimo is happy to get another neighbor to let her grow in his backyard, and seeing this made me appreciate all the room I have and make each square foot of growing area more profitable. Mimo also took a few of us that were able to go to the Missouri Botanical Garden where we saw some beautiful plants. We were standing in line to grab a sandwich and several ladies walked by and they all knew Mimo because she gives back to her community and is part of the Master Gardeners and has given classes there. That is what it is all about, giving and sharing.

After a couple of fun outings, we were in Board meetings for two days, planning lots of projects for the ASCFG, such as a brief film promoting local flowers to be released soon, a marketing program for flowers which will be great for those of you that sell to florists, and a Growers' School and National Conference for 2016. One will be held in Baton Rouge on March 6-7 with what looks to be a full program of experienced growers. Please try to attend. While you will be able to read online the subject matter, it is so much better to experience it with all the other attendees and really get the full impact. Hope to see you there.

WEST AND NORTHWEST

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Lennie Larkin

B-Side Farm
lennielarkin@gmail.com

For some it's getting straight A's, for others it's making partner at the law firm (my winter courtroom television drama binge is already in full force), or winning that Oscar or, I don't know, qualifying for the local roller derby team. It may not be every little girl's dream, but for me, joining the ASCFG Board of Directors means that I have arrived. I made sure to drill the ASCFG acronym into the minds of my friends and family months ago so that when the day finally came, they were able to respond with the kind of enthusiasm I was looking for. I think it worked—my boyfriend caught me rereading the latest issue of *The Cut Flower Quarterly* on the couch the other day and exclaimed, "Oh! Isn't that a great issue?!" They get it.

I'm so excited to take over the reins from Paula Rice and want to thank her for being such a generous, business-savvy, flower-obsessed, workhorse of a farmer and mentor. For those of you who haven't heard her speak about her farm operations and systems, go back and check out some past presentations on the ASCFG web site. She sees a promising variety or sales outlet or new venture and goes after it full-force, all the while being the most organized person around. And then she shares with us her successes and lessons learned; I always come away with useful wisdom to incorporate into my own business planning. So thanks, Paula, for setting the bar so inspiringly high.

I don't have nearly the level of experience as Paula, so I'm going to focus on sharing lessons that I'm learning along the way, along with tips gleaned from others, notes from the field, and plans for the future. I'm hoping that my new role will allow me to bring more of us growers together more often, and get me out to visit more farm operations. Join me!

For now I'm going to share some reflections on this past year and planning for next, with the hope that my experiences can help some of you. This past season was my first year in production of B-Side Farm, a half-acre plot that I cultivated to sell cuts to designers, small grocers, florists, and for use in my own little wedding design business and local flower CSA. I juggled this in the early mornings and late evenings while employed full-time as the farm manager of a small, educational non-profit farm, Petaluma Bounty. It was too much and it has come time to choose. So after three years at the Bounty—a job I've really loved and that has taught me tons—I'm leaving to make the jump into flowers full-time. I've just broken ground on another half-acre plot about thirty minutes away, and am currently working out what to plant where.

In the midst of this transition, I'm thinking of this leap into flowers and how to be smart about it. Here are the main improvements and ideas I'm working on for this coming season.

Streamlining Processes for My Customers and for Me

This year, I began each week by cutting everything that was ready on Sunday and Monday, and delivering it each Tuesday to my biggest customer, a hugely supportive, busy florist just ten minutes from me. Through working with them—and even working for them in the studio—over the past few years, I've learned what varieties and colors they're looking for and in what quantity. This has meant that for the most part I can just bring them what I have each week with little to no communication beforehand. It's a dream. They head down to the San Francisco Flower Mart every Wednesday, so the amount of flowers I provide is just a drop in the bucket for them.

As the week progresses, I fill smaller orders for local designers and for the new Sonoma Flower Mart (a venture I'm hugely excited about and will come back to), harvest for my own mixed bouquet sales and restaurant accounts, and then finish the

My big florist account would take, reluctantly, up to twenty bunches at once, but called me to say, “You know, Lennie, bright purple isn’t really a huge wedding color for us. We’re trying to make it all work, but...” This shows how supportive my accounts are, but the subtext is clearly, “Stop pushing product on us!”

week off with a Thursday/Friday harvest for either a wedding I’m designing for, or perhaps another delivery to the florist.

This worked pretty well for me this year. But now that I’m scaling up, and want to expand my customer base—and because I’ll have more than the twenty maximum bunches of any one variety at a time—I need to change my system. I’ve gleaned some good ideas from ASCFG conferences regarding availability and ordering. My plan is to create a list of projected availability each Sunday for the first part of the week, with the intention of doing two main harvests every week. I’ll then send the spreadsheet to my big florist customer and ask for a quick turnaround. Once I get it back, I’ll edit what’s left over, and send it to my next biggest customer, and so on and so forth. On Wednesday or Thursday after I’ve harvested and delivered all my big bulk orders, I’ll harvest what has bloomed in the days since and know that I’ll be using all of those flowers for my CSA, restaurant accounts, and grocery bouquets. Sounds like it will work, right? I’m a little nervous about either overestimating how many bunches I’ll come up with and disappointing customers, or underestimating and be faced with unsold flowers at the week’s end. But growing pains are inevitable...I’m telling myself.

Pull - Don’t Push - Product

I’m reading all the same books that many of you are this winter: *The Lean Farm*, *The Market Gardener*, and of course Richard Wiswall’s work. One salient idea for me so far is this idea of responding to existing customer demand (pulling) rather than pushing a certain product on them. There are certain things that I consistently could have sold far more of this year (‘Cafe au Laits’, green amaranth, white snaps, dark hellebores), and others that were always a struggle to sell in the quantities that they were blooming. I had a 100-foot bed of bright ‘Amazon Neon’ dianthus, for example, that I planted

because in 2014 it was incredibly useful in my supermarket bouquets. But this year when I was selling to mostly florists, it proved to be way too much of one color. My big florist account would take, reluctantly, up to twenty bunches at once, but called me to say, “You know, Lennie, bright purple isn’t really a huge wedding color for us. We’re trying to make it all work, but...” This shows how supportive my accounts are, but the subtext is clearly, “Stop pushing product on us!” So in planning my crop this year I want to focus much more closely on filling holes in the local marketplace.

Invest In the Bottlenecks

There are certain processes that always take much longer for me than I expect them to. This year, transplanting stands out as one of those. Seeding in the greenhouse was manageable and predictable, as was harvesting; actually, harvesting moved more quickly than I anticipated. But time and again, transplants sat on benches, rootbound, for weeks as I struggled to find time to get them into the ground. I’ve identified a few small things I can do to fix this problem. The first is to hire help for plant-outs. I tend to be stubborn and tie my ego to my ability to get everything done on my own. I have to let this go, and how better to start than to get help on those big days?



Root-bound Lisianthus
Oh, the horror!

Another thing I can do is resign myself to paying more for lisianthus plugs in 72’s that can go straight in the ground when they arrive. Last year, like the one before, I ordered them in 288’s, as many people do. I got them potted up in 72’s on time but then was weeks—and I mean weeks—late getting them into the ground. They were in rough shape and constituted one of my biggest crop failures of the season. I lost a significant amount in potential earnings. This year, I’m going to spend a little more money getting sized-up flower plugs, plan my shipping date more carefully, and mark a big red “LISIANTHUS PLANT OUT” day on the calendar.

What Do I Love To Do? Where Is The Money? Where's The Balance in Between?

I'm still figuring out my niche.

I'm a good farmer. I love growing big quantities of a wide variety of flowers, the hustle in the field, the long, long rows, the standing back after a harvest and being overwhelmed by the quantity. I love making tons of on-the-fly yet stunning market bouquets. But I can't succeed as a production-focused flower farmer growing on just an acre selling bunches for \$6.

I'm an okay-and-improving-every-day designer. I'm thrilled to have found my creative side, and I love figuring out what

works and the adrenaline and the way my dirty sweaty work can suddenly look so fancy next to a white wedding dress. But I don't want to sacrifice work in the fields to work on big weddings every weekend, and I don't want the bulk of my work to turn into figuring out logistics and hiring in help for big weddings that I can't handle on my own. What's the comfortable number? How many can I do a month and still have fun with them? How few can I do to bring in enough money to provide some semblance of a work/life balance?

I love teaching and sharing the beauty of things growing in the field. For three years I've been teaching people how to grow things and connect to the land. I'm trying to work out how best to incorporate workshops and learning opportunities into my 2016 plan. My new farm plot is connected to a commercial kitchen and event space that is excited to collaborate and allow me to host workshops. This could be a great opportunity for me to attract city folk from San Francisco and start up a really robust workshop program. How do I gain momentum with this branch of my business while not neglecting the work I have to do on the other ends?

I hope that sharing some of these inquiries specific to my plan will be of interest to some of you as you work out your plans. Where do you find balance between passion and money and time? Where does your workflow stall and get caught up in bottlenecks, and what can you do to eliminate them? What should you grow more of—or less of? And how is your ordering and availability process working for both you and your customers?

Thanks for reading, and for your support of the ASCFG. Again, I'm honored to be serving on the Board and can't wait to connect with you.



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Meet the ASCFG's Newest Members

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Paula Fisher, Garden Bee Farm, Walnut Cove, NC
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Stephanie and Eldon Harding, Clear Creek Farm, Oklahoma City, OK
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Clara Qualizza, Wildwood, AB
Laura Beth Resnick, Butterbee Farm, Pikesville, MD
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Rachel Ryall, Crophorne Farm, Delta, BC
Bethanye Satterwhite, Even Pull Farm, McMinnville, OR
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Tamara Stahlman, Kaufman, TX
Patricia Stern, FlowerGardens, Atlanta, GA
Debra Wright, Prairie Harvest Organics, Byers, CO

ASCFG Mentor Program Off to a Grand Start

In its inaugural year, the Mentor Program has created five mentor-mentee matches, pairing up new growers with experienced farmers. After an involved application process and an extensive review of 65 mentee applications, the following partnerships were created.

Erin Dake of Main Street Blooms in Northfield, Connecticut will be paired with Missy Bahret, Old Friends Farm, Amherst, Massachusetts.

In Tennessee, Sarah Ervin of Southerly Flower Farm, Chattanooga, and Linda Doan, Aunt Willie's Wildflowers, Blountville, will work together.

Amanda Cook of Cook's Market in Lawrence, Kansas will be mentored by Jamie Rohda of Harvest Home, Waverly, Nebraska.

Mentee Pressly Williams, Renfro Farms in Matthews, and Mentor Leah Cook, Wild Hare Farm, Cedar Grove, were chosen from North Carolina.

Janine Grothe, To Be Garden Farm, Lakeport, California, will learn from Dru Rivers at Full Belly Farm in Guinda, California.

All the growers involved are enthusiastic about working together, and, as learning goes both ways, to gain knowledge and experience from each other. They'll keep us posted as they communicate through the year, and visit each other's farms.





2016 ASCFG Spring Growers' School

MARCH 6-7

BATON ROUGE, LOUISIANA

Sunday, March 6 EVERYONE STARTED SOMEWHERE

It seems that the speakers on today's panel have been growing flowers their entire lives! Learn how these top-notch flower farmers have built their businesses from the ground up (so to speak) and how they continue to flourish as commercial growers.

8:00 – 9:30 a.m.

Hit the Ground Running: Growing Annuals and Making Money Your First Year

Frank Arnosky, Texas Specialty Cut Flowers, Wimberley

The bulk of production for newer growers will naturally be seed-grown annuals. They are easily available, they're inexpensive and they're fast. But what do you do when all your zinnias bloom at the same time and you've got eight more weeks left in the season? Frank will walk you through the basics of choosing the right varieties, seed starting, field production, and succession planting to ensure a long and profitable season. We will also cover some basics of drip irrigation so you can set up a simple system and coast through the ups and downs of our increasingly crazy weather.

9:30 – 10:30 a.m.

Getting Started with Perennial and Woody Plantings

Jennie Love, Love 'n Fresh Flowers, Philadelphia, Pennsylvania

One of the most critical investments you can make as a new grower is selecting and planting key perennial and woody crops. Jennie will outline how she decided on what to plant first, and how she laid out her plantings so they would be very low maintenance and highly productive over the years, greatly adding to the value of her business' bottom line. This talk will focus as much on the "how to" of perennial and woody crop systems as it does on the selection of specific varieties.

10:45 – 12:00

High Tunnel Basics: Getting the Most from This Valuable Real Estate

Barbara Lamborne, Greenstone Fields, Purcellville, Virginia

You have it built—now what? What should you plant in there, and when? How do you maintain the best environment to keep those plants happy? How do you avoid sad soil? Barbara will share what she has learned growing in four tunnels for nine years.

12:00 – 1:30 p.m.

Lunch on your own.

1:30 – 2:30 p.m.

The Brightest Bulb in the Crate Demystifies the Procurement Process, and Talks Bulbs Too

Dave Dowling, Ednie Flower Bulb Co., Fredon, New Jersey

Learn where and how to get the stuff you need to make your farm grow. Get a clear explanation of the broker/grower relationship. Discover what varieties of bulbs are best for cut flowers and your bottom line. Learn how to choose the right bulb crop for your growing conditions and your marketing strategy.

2:30 – 4:00 p.m.

The Roots of a Great Farm

Lisa Ziegler, The Gardener's Workshop, Virginia Beach, Virginia

Learn how your farm can become more self-sustaining and healthy with each passing season. Lisa will share the methods she follows for soil care and nutrition, pest management, and how to include cover crops on your farm.

4:00 – 5:00 p.m.

Postharvest: The Last Talk of the Day, but the Most Important One of Your Business

John Dole, North Carolina State University, Raleigh

Learn the practical - and most current - details of maximizing the vase life of your cut flowers.

5:30 – 7:00 p.m.

Dinner on your own

7:00 – 9:00 p.m.

Cash bar

Mimi Davis Duschack and John Dole will host a lively open microphone session, giving you a chance to ask even more questions and share your stories. Don't miss it!



Monday, March 7 FLORAL FINESSE AND FLAIR

Now that you know how to grow and handle your cut flowers, what's next? Learn from a master marketer the best way to present your product across a range of markets. Then, our three floral design sessions will cover the perfect bouquets for grocery and markets, what's trending now with wedding bouquets, accessories, and reception arrangements—all accomplished with live design demonstrations.

8:00 – 9:00 a.m.

Marketing: Quality, Constituency, and Charisma

Mimo Davis Duschack, Urban Buds, St. Louis, Missouri

Before you sow your first seed, know where that flower will be sold. This session will discuss direct marketing to florists, farmers' markets, and wholesalers. Covering topics from the first "cold call" to being a cornerstone of your farmers' market, whatever your target market may be, we will talk about how to add the sparkle to your business to make customers want to buy to your flowers.

9:00 – 10:15 a.m.

No More Tangles: Harvesting for Bouquet-making

Diana Doll, Stray Cat Flower Farm, Burlington, Vermont

Making bouquets for market and grocers begins with attention to harvesting for easy flow from bucket to bunch. Keeping a comfortable pace and minimizing bottlenecks gets you out of the field and into the shade of the assembly line before you and your flowers start wilting! We'll show you our bouquet line setup, and in a live demonstration, the process we use to produce display-ready, customer-friendly, grab-and-go bouquets.

10:30 – 12:00 p.m.

Grow Like a Farmer, Sell Like a Consultant:

Today's Emerging Wedding Floral Designers

James DelPrince, AIFD, PFCI, Mississippi State University, Biloxi

You've grown it, with all the science, luck and love from your heart, now a bride wants you to arrange and deliver it. You are not only a grower any more, you are a florist in the 19th and 20th century sense of the word, "a producer of cut flowers and ornamentals who arranges flowers for occasions." Are you ready to be not only a horticulture scientist, but a horticulture artist as well - a floral designer? If so, great, but do not be a "starving artist"!

Many growers have an affinity for design, but do not possess the critical feature for success: sales skill. In this program, learn techniques to guide brides (and their mothers) toward win-win wedding florals showcasing your gorgeous plant materials and style, and make the bride want what you offer, not the misinformation and hollow dreams of pure social media. Learn some great techniques in floral designing with a live demonstration of wedding flowers.

12:00 – 1:30 p.m.

Lunch on your own

1:30 - 3:30 p.m.

Floral Artistry for the Grower

Rita Anders, Cuts of Color, Wiemar, Texas

What's the best way to work with brides? What about cooperating with other vendors, event planners, and venue managers? Wouldn't you love a wedding worksheet that lays everything out for you? Rita will share hers with you, along with her favorite farm-grown flower varieties for boutonnieres, floral crowns, and wrist corsages. Her session will include a construction of a bridal bouquet; with 45 weddings in 2015 under her belt, you know it will be beautiful!

Register online at www.ascfg.org or call (440) 774-2887.

Registration is limited to 100 attendees.

Member rate (both days) \$250

Non-member (both days) \$350

Member rate (Sunday only) \$150

Non-member (Sunday only) \$200

Member rate (Monday only) \$100

Non-member (Monday only) \$150

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Timeless Advice from 1922 and 2016

Judy M. Laushman



I recently paged through Fritz Bahr's classic *Commercial Floriculture: A Practical Manual for the Retail Grower*, first published in 1922. Several passages from a section called "The Retail Grower and His Business" struck me as familiar, and I realized that many articles in this issue of the *Quarterly* contained remarkable echoes of his writing.

"First of all, find out what is in most demand in the locality in which you want to do business. Grow or have for sale that for which there is already a demand. *Don't try to make people buy what you think is best for them.* See **Lennie Larkin, page 63.**

"Making a show counts for more than anything else. The retail florist's business is a show business in every sense of the work, so if you start with sufficient capital, have the show house and the store in mind before anything else.

"No matter how hot the Summer, always keep the display cooler full of stock, and vases and baskets filled with garden

flowers. What of it, if you do have to throw some of them away? Keep up a show every day of the year, and if you are starting out with only limited means, again have the show room or store first in mind. *"This is the idea: display to the very best advantage the stock for which there is a demand. Always have that in mind.* See **Dave Dowling, page 45.**

"Always figure out what it is best to buy ready grown, and what it is best for you to grow on. The man who has to buy every bit of bedding stock usually doesn't make much on it, so the more of it you can grow yourself, the better for you. *Usually there are certain things that will do better in one place than another, and it those that one should make a specialty of, rather than waste time insisting on growing others which cannot be done.* See **Tanis Clifton, page 57.**

"Always study conditions around you, what people want, what there is a demand for, or what you might create a demand for such as exists in other localities. Be ever on the outlook for novelties or

something out of the ordinary for the show house. *There are a lot of plants and flowers so old and long forgotten, that they are new to most of your customers.* See **Gay Smith, page 42.**

"Keep posted on what is going on in other parts of the country; read the trade papers; read the garden magazines; read good horticultural books; join the local florist club if there is one, or the nearest one to you. Join the S.A.F. and the F.T.D.A., and look to the large city retailer for the newest idea in floral art. *Visit, whenever you can, the large stores and the big greenhouse establishments of your neighborhood, and profit by their experience.* See **Frank Arnosky, page 4.**

"Go slowly. "Stop, Look and Listen". Don't overreach. Watch your step. Borrowed money never sleeps. *Work as many hours as necessary, but keep on thinking at the same time.* See **Lisa Ziegler, page 56.**

"A weak mind and a strong back make a good ditch digger, but never a florist. Too many men start and get dizzy from doing too well at the beginning. The man who never experienced any bumps as he went along, most likely will have them coming to him later on. In other words, if you don't get them before you are thirty, you'll probably get them later."

Every now and then it is necessary to look at what we are doing in the context of recent history. The ASCFG is lucky to have these leaders guiding us today.

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