

Volume 25, Number 1 Winter 2013

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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Polly Hutchison

Ah, January, the season of “Ooh, that sounds pretty.” and “Let’s try adding that market/truck run/major new client”. Most of us are less busy in January, and idle hands can make for busy summers. The catalogs, the seed trials in this very volume, the articles we’ve been saving to read more thoroughly all combine to tease us into new crops, and the fiscal reality of the farming life leads us to try new income streams and improve the ones we are in. Gotta love it! As my companions have heard me say before, “We farm because we bore easily”.

For the folks who trekked to Tacoma for the National Conference last November, we have a whole bunch of things to try for 2013. Thanks ever so much to all the generous folks out in Washington who opened their farms to us nosy farmers, or came and presented on topics it took them years to master, or just got us on and off the buses or into the sessions on time! The conference committee did an amazing job of bringing us the beauty, agriculture and the fabulous food of the Pacific Northwest.

Thanks also to Kasey Cronquist of the California Cut Flower Commission for a fantastic keynote, a real call to arms. You can see a video of the talk under the Events tab at the ASCFG web site (see 2012 Presentations). The creators of The Fifty Mile Bouquet each gave terrific talks about Slow Flowers. You do own a copy, right? Joan Thorndike of Le Mera Gardens gave a copy to each of her florist clients at the end of last year.

All in all, the conference is an amazing resource, a time to get face to face with other growers who aren’t your competition and share ideas and tips, and learn those 3 or 4 things that are really going to help you back home to make a better living.

I spoke to a lot of members at the conference about the meeting plans for 2013, and there seemed to be some confusion, so I’ll lay it out here. Face-to-face meetings are one of the very best things we offer through the ASCFG, and yet we have a lot of members who just don’t come out, or come rarely. The board and staff have worked hard to find out what we can do to reach more folks in this way: surveys, board retreat on planning, brainstorming session at the Reston Conference. We made a decision to try stronger local programs for one year and see if that brought more of you to the table. The folks who come to National regularly know how great it is. We miss the rest of you!

The plan is to “super-size” our regional meetings into intensive conferences across the country: Texas, North Carolina, Ohio and New England. This puts a two-day conference closer to you with a variety of programs. We’d really like you to come to more than one. I know I’ll be at the first and the last for sure, and maybe more. We’ve set the dates for the spring and fall to avoid the crazy months, and we have fantastic speakers and tours. A quick editorial viewpoint (all the the information and specifics will be up on the website and in your inbox by the time the CFQ hits your mailbox):

- Blanco, Texas, with the main part of the meeting at the Frank and Pamela Arnosky’s farm, some of our most famous specialty cut growers. Old home days for long-term members, and a great way to see a larger farm operation, with great sessions.

- Raleigh, North Carolina, at the seat of cut flower research for the U.S. Equipment, tours and plant diseases, and a view into postharvest research. This is applicable country wide due to the rigorous work by John Dole and his team. Incredibly valuable stuff!

- Wooster, Ohio, where we’ll go literally seeding to sale of some of our most popular and pain-in-the-butt crops in specialty cuts. Great speakers, tour of some very cool folks.

- Saunderstown, Rhode Island where we’ll have two tracks: our ever-popular grower’s school format with lots of hands-on learning and a track on the business and record-keeping end of farming.

All the meetings will have ample time for networking and gabbing and catching up and meeting people and all the parts we love the best. We will have great partnerships with vendors that are some of our best experts in these areas as well. And for the national conference junkies out there, just hold the 2014 conference at the resplendent Longwood Gardens close to your heart. I hope to meet many new people next year, and warm my heart with familiar faces, no matter where you are. Please save the dates and come to at least one meeting for 2013. Our strength as an organization is ALL of you.

King's Mums



'Flor Grande'



'Hagoromo'



'Mystic'



'Shelbers'



'Shirley Primrose'

'Flor Grande'

We received 'Flor Grande' from Ted King's collection. As the name implies, it is a large and grand flower with draping lower florets. The pale yellow color has a creamy hue. Grow as a disbud; tall. Flower October 30-November 20.

'Hagoromo'

In Japanese, "Hagoromo" can be a word describing a purple ornamental kale with frilly edges. Our purple and lavender flowers are large incurves, but for some growers the petals resemble a hairdo of curlylocks. The plant grows vigorously and the stems are strong and straight. Best as a disbud; tall. Flower October 25-November 17.

'Mystic'

'Mystic' is reminiscent of an early morning with mist settling in a valley. This spider has many fine, thin petals which are a bluish pink with pale yellow tips. Stems are very tall with many laterals. Disbud; tall. Flower October 25-November 18.

'Shelbers'

This large bold pink spoon is beautiful when grown as a disbud. The light pink petals contrast nicely with the darker pink spoons. A tall, robust grower with strong stems, 'Shelbers' will be exciting to grow either for show or as an addition for the hobbyist. Best as a disbud; tall. Flower October 25-November 18.

'Shirley Primrose'

This lovely yellow incurve has travelled from across the pond to join our collection. Typical of the British style, this flower is large with a tousled look to it. You'll have fun growing it to look like its cousins in the UK. Disbud; tall. Flower October 15-November 16.

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Scabiosa ‘Night and Day’™ (Thompson & Morgan)

Striking contrast of pure white and almost black blooms with a delicate fresh fragrance. Easy, hardy annual for field grown cut flowers or mass landscaping. Plant height about 36 inches.



‘Night and Day’

Nigella ‘Miss Jekyll’ (Hem Zaden)

A traditional cottage garden favorite, brought back by popular demand. Delicate flowers bloom above dainty, fernlike foliage and are followed by inflated red-stripped seed pods in the fall. Charming cut flower for bouquets and dried seed pods add interest to floral arrangements. Seed can be direct sown successfully in the field. Plant height about 20 inches. Colors include Double Mix (double blooms in blends of rose, pink, blue, white and some bicolors), Indigo and Light Blue.



‘Miss Jekyll’

Advantage Series

Lisianthus Advantage™ Series (Takii)

Large, fully double, middle-late series produces a large number well-shaped blooms. Long, thick and strong stems are better suited to production under high temperature and long day conditions. Plant height about 28 to 34 inches. Available colors are Cherry Sorbet, Green, Purple and Yellow.



‘Shrimp Cocktail’

Leonotis nepetifolia ‘Shrimp Cocktail’ (Floragran)

First-year flowering, shrubby, semi-woody plant produces soft tangerine flowers with deep orange tips. The unusual-looking flowers are borne in whorls spaced evenly along tall, stiff upright stems. After blooming plant continues to grow up through the flower. Novel cut flower. Plant height about 6 feet.

Sunflower ‘Double Shine’ (Kieft)

Striking, professional sunflower produces fully double, 8” golden-yellow flowers on strong stems. Pollen-free flowers have excellent vase life. Suitable for greenhouse or outdoor production. Stem length will vary with light and spacing. Plant height is about 60 inches outdoors and 70 inches in the greenhouse.



‘Black Olive’

Fancy Series

Larkspur Fancy Series (Sahin)

Tall cut flower series that includes ‘Fancy Blue Purple’ and ‘Fancy Rose Striped’. Blue Purple is a unique and vibrant color combination of blue and purple flowers. Rose Striped produces striped, double flowers in shades of pink, rose and red all showing stripes on the petals. Strong eye-appeal for fresh market cut flowers. Plant height about 47 inches.

Capsicum annuum ‘Black Olive’ (Seeds by Design)

2012 AAS Winner! The AAS judges were impressed with this beauty as it was a real standout, especially in hot and humid southern gardens. All season long, sturdy plants keep an upright habit with draping, dark foliage. The dark purple-black fruit appears in small clusters along the stems, maturing to red as summer progresses. In color from seedling stage until frost, it provides a great color splash for containers, borders or cut flowers in mixed bouquets. Plant height in garden 18 to 24 inches.



‘Double Shine’

Zabo Plant



'Amateras'



'Arsenal'



'Tabledance'

'Metropolitan'



'Lodi'



'Zambesi'

LA-Hybrid Lily 'Amateras'

We have finally found a variety that has all the attributes necessary to be a great fall season lily. Some of you might have grown it already, but we haven't spotlighted it until now. It's a tried and true variety—a consistent and predictable performer. Use 14/16 bulb size in the summer to keep the bud count up. Use 16/18 sizes if you really want a knockout. 'Amateras' is a semi-exclusive variety for Zabo Plant.

Asiatic Hybrid Lily 'Arsenal'

Talk about new and unique! Also an exclusive Zabo Plant variety. This is by far the brightest bicolor any of the Asiatics and L-A hybrids currently on the market. Several ASCFG members trialed it in 2011 and 2012, and came back with rave reviews. It has excellent bud count and is rich flowering, even in the smaller 12/14 sizes. It handles the summer heat very well. 'Arsenal' should be considered for the ASCFG candidate short list of outstanding 2013 flower bulb varieties.

OT-Hybrid Lily 'Tabledance'

This is one of the most promising varieties out of the Mak breeding stable. This seedling was selected about 5-6 years ago, identified as the next best pink OT-hybrid lily. The flower color is very even all across the petals. 'Tabledance' does have great bud count in the 14/16 sizes which makes it very attractive for all types of growers. It has great, balanced flower bud presentation, and the flower buds color up nicely in pink.

Oriental Hybrid Lily 'Metropolitan'

This new selection could be the ultimate replacement of Stargazer/Starfighter. Its one challenge is that it does take a long time to come into bloom, about 120 days. All its other attributes are very positive: upfacing flowers, nice foliage shape, and almost dark red flowers with a white edge. The stem is very sturdy, making it perfect for winter forcing. 'Metropolitan' is a very nice 'oriental' red flower, but it is not the ultimate Christmas red color. 'Metropolitan' is worth a try as it has come through the tests in Holland with high grades.

Oriental Hybrid Lily 'Lodi'

This is our improved 'Acapulco' choice. At Zabo Plant we are very optimistic about this deep pink variety. It has great big flower buds that turn into nice big flowers. It is always up facing, even in the hot summer growing periods. Oriental 'Lodi' has already been tested by Bill Miller and his research team at Cornell University. http://www.flowerbulbs.cornell.edu/forcing/cut_lilies/lodi.htm

O-T Hybrid Lily 'Zambesi'

'Zambesi' is a very promising white O-T hybrid, selected in 2009. Although it can have some blush-pink streaks in its flowers in the lower light level periods, it turns out to be a spotless snow white in the summer. It has a perfect shape bloom of any lily out there. The bud count is good, flowers are upward facing. 'Zambesi' could be your replacement for that 'white Oriental' type that that loses its flower size in the summer heat.

Emerald Coast Growers

Echinacea 'Cheyenne Spirit'

Jazz up your assortment with 'Cheyenne Spirit' and grow multicolored coneflowers without blowing the budget on pricy, delicate, tissue-cultured propagules. This tough, cheerful seed mix includes gold, scarlet, orange, rosy-red, cream, purple and yellow. Line out liners for pried beauty from the first year. Grows to 30" tall. Hardy in Zones 4-9.

Echinacea 'Magnus Superior'

Like 'Magnus', only more so! This offspring of the former Perennial Plant of the Year shows its superiority with a more robust habit, longer, sturdier stems, and bigger, pinker flowers. Grows to 3' tall. Hardy in Zones 3-9.

Helianthus 'Sunshine Daydream' PPAF

Lots of double, domed, dahlia-like golden yellow flowers on long, strong, nearly-leafless stems. This sun-loving native forms tall, shrubby plants, 5-6 feet tall and 2-4 feet across. Plants are durable and carefree. Watch for powdery mildew in cool, humid conditions, generally late in season when flowering is finished. Hardy in Zones 4-8.

Sedum 'Autumn Fire'

Pack even more joy into your bouquets. Big flower heads on super-sturdy stems start pale pink, mature to rich red and finish rusty russet. 'Autumn Fire' holds its color longer than the familiar sedum you're probably already growing, and tolerates heat better, too. Grows 2-3 feet tall. Hardy in Zones 3-9.



'Cheyenne Spirit' 'Magnus Superior'

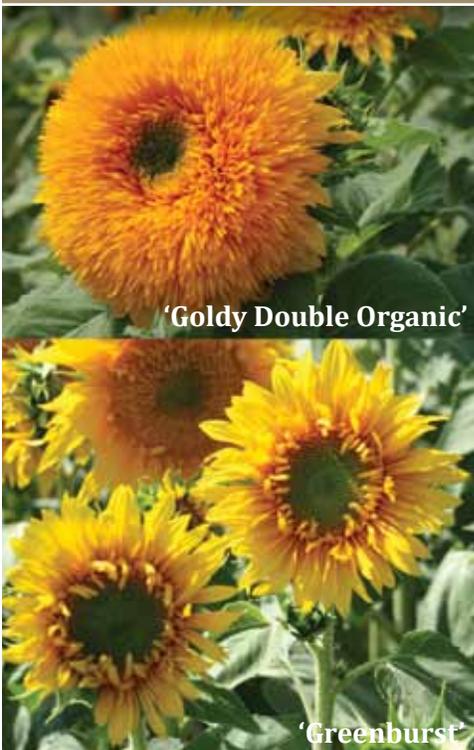


'Sunshine Daydream'



'Autumn Fire'

Harris Seed



'Goldy Double Organic'

'Greenburst'

Sunflower 'Goldy Double Organic'

This longtime favorite is available in organic seed! Large fully double flowers are produced on sturdy branching plants. Flowers open up semi-double, then mature to fully double, so they can be cut and sold in different stages of maturity. Matures in approximately 45-50 days.

Sunflower 'Greenburst'

The semi-double flower form and clean green to yellow disk really caught our eye in our summer trials. A prolific producer, this is a great item for high density plantings, where the branching habit will be suppressed and offer you single head cuts. When spaced further apart, branches produce additional secondary flower heads. Matures in approximately 45-50 days.

Plants Nouveau



Hydrangea 'Everlasting Harmony'

'Everlasting Harmony' is a strong plant adorned in long-lasting soft pink and cream flowers. In a harmonious parade of color, aging to a deeper pink or blue tone with green edges, depending on soil acidity, then fading to a soft celery green. 'Harmony' is the perfect color for pastel June weddings, new loves and new babies. It also makes the perfect forced plant for Easter and Mother's Day.

Hydrangea 'Everlasting Amethyst'

'Everlasting Amethyst' has sturdy, long-lasting flowers held high on thick, upright stems that begin fuchsia pink or violet blue, depending on soil acidity. The flowers age to a reddish-pink or violet-purple, with lime green markings, and last in saturated colors for weeks on the plant or in a vase. Their final color, lime green, a new favorite of many brides, will last in a vase for weeks and won't wilt when used in bouquets – even without water for over 10 hours! Amethyst is truly a designer's gem.

Hydrangea 'Everlasting Ocean'

'Everlasting Ocean' is the perfect color to welcome a brand new baby girl. Many long-lasting, baby pink, cupped flowers with ruffled edges give the appearance of a bundle of pink umbrellas tied in a bow. Designers will covet these unusually soft pink, delicately ruffled blooms. As they age, the flowers settle into a darker shade of pink and creamy white, and finally lime green with dark pink edges.

Hydrangea 'Everlasting Jade'

'Everlasting Jade' is as lovely in the garden as it is in a vase or as a potted plant. Flowers open the softest lime green and age to a saturated deep green with fire engine red tips. The parade of colors is long and the blooms hold their shape and form for months. Jade is large, yet softly colored and super long lasting.

Hydrangea 'Everlasting Garnet'

'Everlasting Garnet' is covered in saturated, gem-colored flowers on a well-branched and sturdy plant. Blooms are supported by thick, upright stems emerge bright, reddish-pink or blue, depending on soil acidity, fade to a deeper pink with green highlights, aging to bright lime green with pink edges. Flowers last for weeks on the plants, in the garden, and as a cut flower. A true jewel, mix the fuchsia blooms of Garnet with soft blues, purples and oranges for a bold and trendy design.

Hydrangea 'Everlasting Revolution'

This is quite possibly the perfect hydrangea. Perfect for cuts, pot forcing, in containers on a patio, or in the garden, this plant does it all! The small, incredibly stiff flowers begin medium pink or blue and fade to magical color combinations of deep pink, maroon and true blue, adding green highlights as they age. The small size allows for flexibility in bouquet design and the blooms can last without water for many hours. It truly is an amazing new selection.

Hypericum 'Kolmades Magical Desire'

'Everlasting Desire' dons long-lasting, peachy-pink fruits reminiscent of a basket of freshly picked ripe peaches. This rust-resistant selection will add a bright, yet soft color to your autumn planting and decorating palette. Pair 'Desire' with deep maroon and blue blooming plants for a bold combination.

Hypericum 'Kolmaref Magical Red Flame'

Long-lasting, fire engine red fruits pair perfectly with autumn's oranges, maroons and yellows. 'Everlasting Flame' is a rust-resistant selection adorned in plump, elongated fruits that show well against the dark green foliage in late summer and early fall. It's also perfect for holiday bouquets and winter weddings!

Hypericum 'Magical Victory'

The fruits on this rust-resistant selection look like mini Granny Smith apples. Shiny and leaf green with a plump, round shape, they are sure to please even the most discerning customer. The fruits are incredibly showy, displaying well against the grass green foliage. Pair 'Magical Victory' with purple flowers and foliage for a super stylish and trendy combo.

Echinacea 'Southern Belle'

The color saturation on each bloom of 'Southern Belle' is unbelievable; a true magenta. This new selection is the first of our Conefections series to name the long-lived *Echinacea tennesseensis*, with its floriferous and long blooming period, one of its parents. Blooms resemble a fancy party skirt and last for weeks before fading to a softer pink. The blooming period may very well be the longest of any hybrid introduced, and the long, sturdy stems make it perfect for cuts.

Echinacea 'Pink Sorbet'

Winner of a prestigious award for 2012 at the Netherland's largest plant show, the Plantarium, 'Pink Sorbet' is a grower's dream. Deep pink blooms fade to a lovely soft pink – nothing dirty about them, and the strong, sturdy stems make this selection perfect for cutting. The cut and come again blooms will produce flowers all summer long and into early fall.

Snowberry 'Magical Pride'

Snowberries make excellent cuts for floral arrangements. 'Magical Pride' is a well-branched, upright form with plump, dark pink berries that cluster along the stems. These long-lasting fruits make perfect accents for Valentine's Day, Easter, Mother's Day and wedding florals. Plant in irregular groupings or as an informal hedge for a readily available supply of cut stems for floral arrangements in late summer and early fall.



'Magical Desire' 'Magical Victory'

'Kolmaref Magical Red Flame'

'Pink Sorbet'

'Southern Belle'

'Magical Pride'

American Takii



'Chantilly Velvet'

Snapdragon 'Chantilly Velvet'

The Chantilly series is an open-faced, Group I-II snapdragon, with a longer vase life than other varieties. It is extra early and blooms 110 to 130 days after sowing. Stem length is 4 to 4½ feet. Velvet is the newest addition, bringing the number of colors available in the series to ten.

Lisianthus 'Arena II Blue Flash', 'Area II Light Pink', 'Arena III Baby Pink'

Three new colors are being added to the Arena series. The Arena series is less sensitive to short stem length under long-day conditions, is less sensitive to rosetting in plug cultivation, and has very double flowers on strong stems. The colors that make up the series are classified by group, with group I being the earliest to flower, group IV the latest.

Larkspur 'Cannes White'

A new addition to this beautiful series. The Cannes series is disease resistant when compared to other varieties. Warm temperatures and long-day conditions induce flowering. White joins Blue Picotee, Crystal Pink, Deep Blue, Lilac, Purple Picotee and Rose Stripe.

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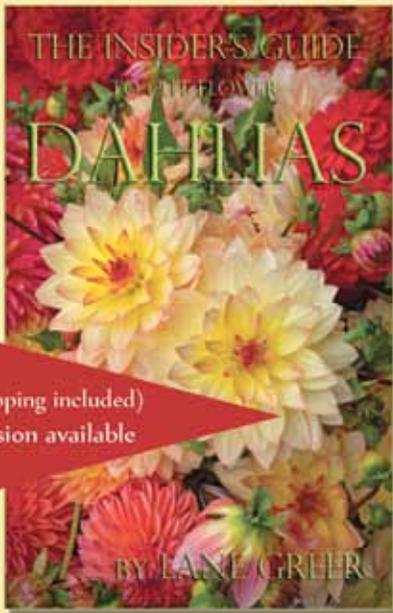
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2012 ASCFG CUT FLOWER SEED TRIALS

JOHN M. DOLE, HALLEY M. GRANITZ,
ALICAIN CARLSON, AND JUDY M. LAUSHMAN

This year's Trial featured a modest number of new varieties, along with several standard cultivars for comparison. Of the four celosia cultivars, 'Dark Rose' (Genesis) and 'Sunday Orange' (Kieft) scored the highest. Both were heralded for their color – deep rose for 'Dark Rose' and vibrant "light tangerine to pumpkin orange" for 'Sunday Orange'. One trialer called 'Dark Rose' "a real show-stopper!". 'Dark Rose' featured a nice rose color to the leaf edges, large heads and long stems averaging 21 inches overall, but up to 4 feet for one trialer. One trialer had good results from pinching plants early. 'Sunday Orange' was shorter with stems up to 24 inches long. As with most celosia, plugs are sensitive to anything that checks their growth, especially excessive drying and holding too long in the plug flat. If growth is checked, flowers will form prematurely and stems will be short.

For productivity it is hard to beat gomphrenas. To be honest, after harvesting tons of stems for many weeks, its productivity may switch from being a positive trait to a negative one. 'Qis Carmine' and 'Qis Red' (Kieft-Pro-

Seed) in this year's trial were no different – at NCSU we harvested close to 80 stems per plant over the season and the overall average for the trials was around 20 stems/plant. Stems lengths ranged from 12 to 24 inches, depending on how stems were harvested. Both cultivars were lauded for their color as well

While not as productive as gomphrena, African marigold 'Jedi Orange' (Gloeckner) still produced many stems, averaging 11 stems/plant and up to 43 stems/plant at NCSU. Stem length averaged 18 inches with some as long as 42 inches. Trialers loved the orange/gold color, season-long productivity and excellent vase life. For many growers

'Vincent Choice' had a double row of petals, providing a fuller flower, and an insurance policy if a petal or two falls out or is damaged.

and customers marigolds are an acquired taste due to their scent; however, other trialers were okay with the fragrance and one trialer even called it a "great citrusy fragrance". Another trialer commented that "the fragrance was not the typical marigold smell - it

was milder". Many growers over the years have tried and abandoned cut marigolds due to their odor, weak necks, excessive branching, and low interest by florists. If you are one of these, you may want to try them again. One trialer noted that "I am not a big fan of marigolds, but this one changed my mind." and another stated that "Customers loved these, have to admit I would not have planted marigolds as cuts if not for this trial."

Stocks have been cultivated as a cut flower for centuries, but are a bit fussy about their growing conditions. They are a cool-season crop, but not fond of really cold winters. This limits where and when they can

far." Most trialers harvested one stem per plant, averaging 16 inches. Several trialers reported 20-inch stems.

As with most years we had several sunflowers in the trial: 'Goldy Double' (Genesis), 'Vincent Choice' (Sakata/Gloeckner), 'Vincent Fresh' (Sakata/Gloeckner), and 'Sunbright Supreme' (Sakata/Gloeckner). 'Goldy Double' was the most unusual with fully double flowers and a green center when first opened that filled in when the flowers were fully mature. One trialer noted that "Florists liked it best when cut early while center still slightly green, customers liked fuzzy petals." The extra flower buds near the top were a distraction for many. While

'Goldy Double' is not a true branching type, it might work well when young plants are pinched.

'Vincent Choice' and 'Sunbright Supreme' had the standard pattern of orange-yellow petals and dark centers. However, 'Vincent Choice' had a double row of petals, providing a fuller flower, and an insurance policy if a petal or two falls out or is damaged. 'Vincent Fresh' had a golden green center.

be grown. Stock 'Carthago White' (Takii Seed), on the other hand, did very well in the trials. One trialer noted that he was "Amazed; this actually bloomed in August in the Northeast.", and another said "This is definitely the most promising stock I've tried so

All four sunflowers scored fairly well in postharvest with trialers reporting an average vase life of about a week and a half. Here at NCSU we also had a vase life of 8 to 10 days. Most growers reported stem length of up to 60 inches, but a couple harvested the side shoots, with much shorter stems. When planted in the summer at NC State 'Vincent Choice' flowered first (with 'ProCut Orange'), 'Vincent Fresh' second (with 'Sunrich Gold'), and 'Sunbright Supreme' flowered last, by approximately 2½ weeks after 'ProCut Orange' and 'Vincent Choice'. 'Goldy Double' is also a late-flowering sunflower. At Cornell, Chris Wien reported that 'Vincent Fresh' and 'Vincent Choice' are moderately sensitive to short days in seedling stage,

but that 'Sunbright Supreme' is quite short day sensitive.

In summary, we had 24 cultivars from 5 companies. Based on trial results, the top five 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 2012 trials gomphrena 'QIS Red' and four sunflowers 'Goldy Double', 'Sunbright Supreme', 'Vincent Choice', 'Vincent Fresh' 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 and many factors will affect

the success of any plant species. Our participants are growing and harvesting the trial plants in a wide variety of ways. 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 24 evaluators who returned their trial reports and to the seed companies for providing such great cultivars. Congratulations to Suzanne Royer, Earths Phocas, for being the first trialer to return her evaluations. We would also like to thank Ingram McCall for taking care of the North Carolina State University portion of the trials and Brigitte Crawford, Laura Daly, Benjamin Brindis, Blair Lane, and Diane Mays for assisting with the NCSU trials. In preparing the report we have edited the participants' comments for space and clarity; apologies if we've altered the tone or content of anyone's comments.

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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.

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www.takii.com

Photos in this article by
John M. Dole and
Halley M. Granitz

CARTHAMUS

Carthamus 'Dark Orange-Red' (Genesis)

Good Qualities: Nice color (5); Very tall (2); Fragrance, this cultivar flowered more uniformly than the other cultivars that we grew this year; Healthy foliage, tallest in our trials with long side branches, good for late use because it blooms later than the others; customers loved it, not much pollen, the double flowers could be cut more mature and still looked good; Darker than other orange; None; Healthy, held flowers better than others and dried nicely.

Problems: Did not germinate; Some malformed main flowers, I think it's day length sensitive, which means less flexibility in scheduling; Two attempts to grow this resulted in 12-inch high plants with tiny ugly flower heads covered with rust; Found the first bloom was past by the time the rest were out, made the flower (which had at least 4 stems) look tired, foliage was spotted and yellow, perhaps had a fungus issue, I did not harvest many stems; I've never had much luck growing carthamus and this year was no exception, the first planting bloomed very short for me and the second planting got some disease; All but a handful of plants succumbed to a late killing frost (Zone 4); Zero yield, plants dried up despite frequent watering, we had 10+ days of 100+ degree temperatures in early July, I think it was too much for the plants; None.

Similar Cultivars: 'Orange Grenade' (2).

Postharvest Recommendations: Cut well-hydrated plants in evening and condition overnight in solution with acidifier, sugar, and bleach; I cut when four-five blooms were opened. (See also Postharvest article in this issue for more information.)

Comments: This was the best carthamus I grew; UGH! big waste of my precious time; Transplant plugs early or direct seed; I have grown carthamus for 3-4 years and this was my last attempt, looks super in catalogs but not in my field or bucket; I had a complete crop failure, they germinated fine but when I planted them out in the field they died; Gopher predation destroyed most of this crop; 100% germination; The orange-red was awesome and everyone at my market wanted to know what it was; used the orange in wedding work also and I really liked it at a very early bud stage.

Carthamus 'Grenade Orange' (Kieft-Pro-Seed)

Good Qualities: Great color (4); The plants germinated quickly and were all the same size; None; Use fresh or dried; Great plant height.

Problems: All but a handful of plants

succumbed to a late killing frost (Zone 4); Flowers were small, short stemmed, pale; Needs to have netting, they are top heavy and hard to handle, they are very prickly, and the spray does not flower uniformly; Tried direct seeding and transplants, initially it looked like the direct seeded plants were going to perform significantly better, but ultimately none produced saleable stems - plants stayed very short, some didn't branch at all, bloomed very short, leaves turned brown, plants refused to grow, complete failure; The first flower deteriorated very quickly so as the majority opened there were others that looked dead, I had to remove the tufts so it didn't look so bad; Branching habit, center blooms and fades before others bloom; I've never had much luck growing carthamus and this year was no exception, the first planting bloomed very short for me and the second planting got some disease; Rust.

Similar Cultivars: 'Orange Red'

Postharvest Recommendations: None suggested. (See also Postharvest article in this issue for more information.)

Comments: I had a complete crop failure, they germinated fine but when I planted them out in the field they died; Major fail - 2 attempts resulted in ugly stunted flowers; Gopher damage early, pinched (munched) by bunnies gave stems that produced well and had little branching (past the pinch); Consistency - every plant bloomed the same day and same height; 100% germination; The orange was awesome and everyone at my market wanted to know what it was, used the orange in wedding work also and I really liked it at a very early bud stage.

Carthamus 'Grenade White' (Kieft-Pro-Seed)

Good Qualities: None (2); Germinated quickly, plants of same height; Adds variety to the carthamus; Easy to grow; Great plant height.

Problems: Dirty Laundry White when mature (5); Found the first bloom was past by the time the rest were out, made the flower (which had at least 4 stem) look tired, foliage was spotted and yellow - perhaps had a fungus issue, I did not harvest many stems; All but a handful of plants succumbed to a late killing frost (Zone 4); Needs to have netting, they are top heavy and hard to handle, they are very prickly, and the spray does not flower uniformly; Tried direct seeding and transplants - neither worked! white variety was even weaker and worse looking than the orange; Branching growth; Small flowers, pale, short stems, I've never had much luck growing carthamus and this

year was no exception, the first planting bloomed very short for me and the second planting got some disease; White tassels turn brown on first flowers before others open making it look dead, tassels can be plucked off, but is very time consuming.

Similar Cultivars: ‘Orange Grenade’; ‘Orange Red’.

Postharvest Recommendations: None suggested. (See also Postharvest article in this issue for more information.)

Comments: I have grown carthamus for 3-4 years and this was my last attempt, looks super in catalogs but not in my field or bucket; I’m inexperienced with this variety, so probably seeded it too early, and it WANTED to get planted out, we had 80 degree days then a couple of killing frosts in early May, I did NOT love the color, and the plant was bushy with unattractive leaves, so probably won’t try this again; Wasted a lot of time and got stunted ugly plants; Didn’t really like the color (or lack of it)!; I had a complete crop failure, they germinated fine but when I planted them out in the field they died; Didn’t sell any of this color; 100% germination.

Carthamus ‘Orange Head’ (Genesis)

Good Qualities: Bright, long stem with multiple flowers, buds continued to open; Blooms early.

Problems: All but a handful of plants succumbed to a late killing frost (Zone 4); Did not germinate; Short field life, need to cut as soon as begins blooming; Needs to have netting, they are top heavy and hard to handle, they are very prickly, and the spray does not flower uniformly; Zero yield, plants dried up despite frequent watering, we had 10+ days of 100+ degree temperatures in early July, I think it was too much for the plants; Found the first bloom was past by the time the rest were out, made the flower (which had at least 4 stem) look tired, found the foliage was spotted and yellow, perhaps had a fungus issue, I did not harvest many stems; Many leaves were infected with some sort of blight making them unmarketable, a few stems were ok and somewhat useful but most were not; Short plants; Two attempts to grow this, both resulted in stunted, tiny headed flowers with rust.

Similar Cultivars: None listed.

Postharvest Recommendations: Strip leaves. (See also Postharvest article in this issue for more information.)

Comments: I’m inexperienced with this variety, so probably seeded it too early, and it WANTED to get planted out, we had 80 degree days then a couple of killing frosts

PARTICIPATING GROWERS

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‘Dark Rose’

in early May; Needed to cut first flower off then would have at least 4-5 blooms per stem for sale; I am disappointed that I didn’t get to successfully grow this plant; I had a complete crop failure, they germinated fine but when I planted them out in the field they died; I have grown carthamus for 3-4 years and this was my last attempt, looks super in catalogs but not in my field or bucket; Waste of time; Gopher predation destroyed 99% of crop.

CELOSIA

Celosia ‘Dark Rose’ (Genesis)

Good Qualities: Deep rose color (13); Long stems (3); Strong stem; Good head size; These two varieties are real keepers, there wasn’t one customer who didn’t ask what they were when they saw them! I have to say that these were probably the most popular of everything I grew this year, they had a long cut life, bloomed consistently during the growing season, they are still blooming in early October; Nice leaf with rose edges, great stem length; The color is amazing - bright sharp pink that coordinates wonderfully with lots of other hot summer colors, I pinched the plants early and they produced tons of stems with just the right size heads for working into mixed bouquets, a real show-stopper!; Lots of stems, long term output; Small blooms for use in bouquets, added interest to bouquets; Nice rounded form; Comb attractive; Holds well on plant, bright color is long-lasting; Dramatic large lush head; Height; Good texture.

Problems: Only one usable stem, germination was poor; They get top-heavy when you don’t cut them consistently and they fall over, but they are still useable; Fans/blossoms very small; Was perhaps a little on the short side, but I didn’t mind; Like all
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celosias I try to grow it was too short; Foliage is yellowish; Large variability from plant to plant, comb variable in shape and size, late; Typical celosia - will head too soon if left in trays too long; Weak stem couldn’t hold up its heavy head, I don’t usually have to net celosia, but I think it would help this variety, variability of height; some bloomed very short with smaller head; This one needs a hard pinch when young, it got very tall and spindly when it got the normal 10 in. spacing.

Similar Cultivars: The color would be similar to ‘Bombay Pink’, but much easier to grow and more productive; ‘Cramers’ Amazon’; Kurume series; Sunday series, ‘Tornado Red’.

Postharvest Recommendations: Keep water clean to prevent (bleeding) and store out of out of the cooler; Cut well-hydrated plants in evening and condition overnight in solution with acidifier, sugar, and bleach; Chrysal CVBn. (See also Postharvest article in this issue for more information.)

Comments: Flower size not consistent; Big thumbs up!; Great in bouquets!; Would like to grow again, had a very hot dry summer and had the best celosia result ever, very pleasing variety, cut the central stem and develop many useful sides; Most of the primary flower stems were fasciated; There are better varieties of this type; Both side stems and center flowers make good cuts; I would call this more red than “rose”; Insect damage to much of the crop, possibly thrips; Cut main stem and then harvested side shoots for small bouquets

Celosia ‘Sunday Orange’ (Kieft-Pro-Seed)

Good Qualities: Excellent, vibrant color (17), ranging from light tangerine to pumpkin orange; Good any time of year, neon type quality; These really stand out in a flower arrangement, I loved them and so did my customers, these plants kept producing all season long and are still blooming; The plumes very fluffy/full but not too big, it is an orange that really goes with just about any color, especially a rich pink; Great-looking flower; Very branching plant, used a lot in smaller arrangements and bouquets, bloomed early and kept producing all season; Beautiful full plume; Great plume celosia, good branching when pinched; Light green foliage and bright orange plume, earliest in trial; Form.

Problems: Short stem length (6); Not very productive; One usable stem per plant; Seemed a bit more sensitive to stems rotting after cultivating around transplants when they were very young, I know this can be a problem with all celosia, but I lost more of

this variety than others, in a bed where all factors were pretty much the same; Pinching helped make the stems taller; I had several succession plantings and none got over 18-inch; None; Like all plume types, doesn’t keep well on plant.

Similar Cultivars: Sparkler series; ‘New Look’.

Postharvest Recommendations: Clean stems, #2, do not put in cooler; Cut well-hydrated plants in evening and condition overnight in solution with acidifier, sugar, and bleach. (See also Postharvest article in this issue for more information.)

Comments: This was one of our favorites; Color was perfect for this year’s market, everyone was looking for oranges in my area; Can’t emphasize enough how much my store clerks and customers liked this color; Would like more stems/plant but will probably try this again; Would like to try this one again, with a more serious pinching early on, love the color palette of these...wish they had taller stems; Despite it being so short for me, I will still grow again as the color is just so outstanding, hoping it will be taller next time; Loved the color! it was a great addition to arrangements and bouquets; Would like to see a longer stem for use in larger bouquets, however, the colour and performance made it one of my top 3 choices in the trials this year. We had a very hot dry summer, and that may have affected the stem length, sowed May 12 and transplanted to 50 cell, out to



‘Sunday Orange’

field through bio black plastic June 22, no irrigation, started cutting early August, cut some today Oct 11; Needs to be combined with other vivid colours to sell well as a bouquet; Probably the best flower in the trials; Might benefit from early pinch?

Celosia ‘Sunday Wine Red’ (Kieft-Pro-Seed)

Good Qualities: Awesome color (7), these really stand out in a flower arrangement, I loved them and so did my customers, these plants kept producing all season long and are still blooming; Robust plant, very consistent development, but slow to set flowers, left in the field all summer and they produced an entire second round of decent length stems in late summer; Very long vase life; Gorgeous hot red/orange tight plume on deep maroon, shiny leaves, strong stems, with pinching, nice length stems; Nice length; Nice form; Plumes are manageable size, foliage is also dark, which adds contrast to bouquets; Well branching; Attractive dark red leaves, stem and bright red plume; Color of foliage; Leaves and flower are red, adds depth to bouquets; Definitely a deep wine red that is nice especially with autumn flowers, nice size plume for mixed bouquets.

Problems: Very short (5); Kinda dark; Color is very deep red and not at all vibrant, by the time the somewhat small flower heads are fully developed they are beginning to look too dark and even a bit dry, customers weren't so quick to select this variety in midsummer, may be better in fall; Not similar to the orange color in plume shape; Doesn't hold well on plant; Did not germinate; I had several succession plantings and now got more than 18-inches tall.

Similar Cultivars: ‘New Look’.

Postharvest Recommendations: Cut well-hydrated plants in evening and condition overnight in solution with acidifier, sugar, and bleach. (See also Postharvest article in this issue for more information.)

Comments: Found this one very dark, 98% of people like bright and I felt it made things look very dark and perhaps dull, the foliage was a nice change but the bloom way too dark for us as a cut, may be useful as a contrast bedding plant, it was easy to grow and stayed upright without support, excellent germination as with all the celosia in the trial, sowed May 12, transplanted to 50s and to the field June 22, good main stem, the sides much shorter. I may give this a second chance, it was quite short, but I loved

I have to say that ‘Dark Rose’ and ‘Tornado Red’ celosia were probably the most popular of everything I grew this year; they had a long cut life, bloomed consistently during the growing season, they are still blooming in early October.

the color, shape and vase life; Fantastic color blossom and foliage - but very dark altogether in a bouquet, will definitely want to grow this again, far and away my favorite of the four celosias in my trials; As with all of the celosia we found almost no pest problems!; ‘Wine Red’ is quite different from ‘Sunday Orange’; Promising and worth another look; Grew well.

Celosia ‘Tornado Red’ (Genesis)

Good Qualities: Bright fuchsia colour (11); Large heads (2); Height; Initial bloom had sturdy stem and medium size flower; These two varieties are real keepers, there wasn't one customer who didn't ask what they were when they saw them! I have to say that these were probably the most popular of everything I grew this year, they had a long cut life, bloomed consistently during the growing season, they are still blooming in early October. More of a burgundy than red; The bloom size was very useful, my top 3 of the trial choices for colour and size of bloom, many, many side shoots for smaller bouquets as well, would definitely grow again; Nice head size except the central head was too large; Many usable side stems; Dark red showy comb; Color holds well on plant, long lasting cut; Good texture.

Problems: Too short (6); After cut first flower, additional flowers were not uniform, some were the “brain” shape while others were more like plumes; For the second year in a row, these were just too short to cut; Very short, got no usable stems except a few I dried and used on wreaths; They get top-heavy when you don't cut them consistently and they fall over but they are still useable; Fan/blossoms generally small; Some weak stems, shape is inconsistent; Thick, some plants had little or no branching, comb variable shape; Usual celosia - will head in trays if left too long; Variable forms - some crested, some wheat-type; Did not germinate.

Similar Cultivars: Taller than ‘Toreador’,

‘Amazon’, ‘Toreador’; Kurume series, Sunday series.

Postharvest Recommendations: Remove most leaves; Clean water and #2 Chrysal, no cooler; Perhaps if I would have pinched it I would have had better stem length; Beware of stems that flop over, could be because stem is flattened and head is heavy; Cut well-hydrated plants in evening and condition overnight in solution with acidifier, sugar, and bleach; Chrysal CVBn.

Comments: Just was not uniform in flowering; It was almost unusable because of the short stems, but the color was great so we used it in some arrangements in smaller vases where it was addition; I grew this cultivar last year and had better developed cockscomb heads last year than this year, perhaps the high summer temperatures delayed normal head development; Second year in the trial, appreciated by viewers both years; I would call this color more “dark rose” than red; Cut main stem and then harvested side shoots for small bouquets

DIANTHUS

Dianthus ‘Volcano Mix’ (Genesis)

Good Qualities: Beautiful color assortment (6); Easy to grow; Nice stem length, great in postharvest; Enjoyed the colour range, more pink and pink blends that are not available in the Sweet series, good germination and plant vigour, stems were good in smaller bouquets and table pieces for wedding work; Nice scent, long lasting and bloomed all summer; Blooms in heat and has a scent, well-shaped heads; Grew great.

Problems: Too short (5); Germination was poor; Small flower heads, individual florets turn brown quickly; Lots of tiny stems; Faded blossoms made so many stems unusable, the dead blossoms didn't seem to self-clean in the way that, say, the Neon series seems to; Stems not as thick as Amazon Neon series.

Similar Cultivars: Comparable with Sweet series, but not quite as tall.

Postharvest Recommendations: Used only water; Treat with AVB then to Chrysal #2; Cut when first started to open into Floralife Professional or hard water. (See also Postharvest article in this issue for more information.)

Comments: Did well with the warm summer in the Northeast, planted 4/10, saw blooms approximately 9/1; We have had a wet spring, so we had some root rot, then we had several days in a row of triple

digit heat and the plants stopped growing; I would recommend this as a terrific medium height bedding plant, the plants blossomed for a very long time, standing up to cooler early autumn temps, they look much better in a mass from a distance than close up, because of the unattractive faded petals on each blossom head; May grow it again for an early planting just to get the color variations, but would not grow for later plantings; I had a complete crop failure. They germinated fine but when I planted them out in the field they died; Although this was an easy plant with great colour mix, it bloomed at the same time as lots of other flowers that seemed to make it to the bucket instead, it was a good flower, but not a favorite with our staff...and we all know if they don't care for it, you're not going to see it in too many bouquets.... will, however, like to grow it again as it offers some great colours, and very long-lasting stems after cutting, a longer stem would be nice, but our dry weather could have affected growth...no irrigation; Did very well in extreme heat; I treated this as a biennial, so it just went in the ground; Pretty blooms, but we had so much other stuff blooming when the dianthus was that it was left behind and picked when we had time, I did like it for wedding work.

GOMPHRENA

Gomphrena 'Qis Carmine'

(Kieft-Pro-Seed)

Good Qualities: Excellent deep rose color (17); Very prolific flowering (4); Super bouquet filler (2); Planted in March and still producing usable flowers; Similar to 'Fireworks', but a bit more red; Customers love the gomphrena, it is a unusual-looking flower, but beautiful; Put a little pop in a bouquet, nice long, not-too-branched stems; This cultivar is much easier to harvest than most gomphrena as the stems were straighter and not as leafy, customers really loved the color, good head size; Easy harvest, long-lasting blooms, no pests, full growth kept down weeds; Long harvest window, good stem length, no insect or mildew issues, very easy plant; Long-lasting in bouquets, good shape; Cute; Tall stems; Relatively straight stems, the more you cut, the more you get, maintains good color when dried, tallest of all my gomphrenas, except 'Fireworks'; Best gomphrena I ever grew! stem length and flower size.

Problems: Stems break easily (3); Took 4 months to start producing usable flowers; Germination only 50 percent; It was very productive for a few weeks but then fizzled

out, other varieties of gomphrena in the field kept going much longer, succession plantings are a must; As the plants aged the lower part of the bloom browned and the shattered easily; Variable vase life; A pain to cut; Sheds bottom "petals" if cut too late; None.

Similar Cultivars: All other gomphrena.

Postharvest Recommendations: Used only water; cut well-hydrated plants in evening and condition overnight in solution with acidifier, sugar, and bleach; Cut when little yellow florets appear overall, before bottom carmine seeds start to dry and shed; Place in 2 inches of water; Cut when mature into plain water; Harvested into CVBn. (See also Postharvest article in this issue for more information.)

Comments: Gorgeous pink color with yellow accent (2); Somewhat fragile stems common to this type of gomphrena; My intern started harvesting this and didn't count the stems but we picked TONS of these every week all season long from one planting; Love the number of stems, liked having fairly long stems; Has great ornamental value in the garden as well, this plant was voted one of the favourites by visitors to this summer's trial garden; Grows in drought without need for additional irrigation; Customer called color "raspberry"; Treat addition to bouquets, especially fall bouquets with celosia.

Gomphrena 'Qis Red' (Kieft-Pro-Seed)

Good Qualities: Awesome color (12); Very productive (4); Very tall, strong stems; Best gomphrena I ever grew!; Great stem length and flower size; Nice filler; Customers love the gomphrena, it is a unusual looking flower but beautiful; Customers like the little yellow flecks; Straight stems and easier to harvest without so many leaves like other types; Held up well - stems didn't break while we worked with them, nice stem length, good growth helped keep weeds down, no pests, great addition to bouquets; Goes well with the orange/coral trend, nice large bloom, very healthy, and long bloom window, still cutting October 11; Color worked really well with zinnias ('Uproar Rose', 'Queen Lime', Benary's Giant Mix), and with dahlias in the amber colors, short stem length is fine for the short bouquets I make for farmers' market sales, grew very well from direct seeding! it grew so robustly I thought it must be a weed! glad I didn't pull it out!; Long-lasting in arrangements, good filler; Cute; Tall stems; Relatively straight stems, the more you cut, the more you get, maintains good color when dried, slightly larger heads than 'Qis Carmine'.



'Qis Carmine'

Problems: Stems break easily (2); None; Germination only about 50 percent; It is a trial to harvest since the stems are easily broken; Stems not as strong as QIS 'Carmine'; Was pretty productive for a few weeks but then quickly fizzled out, definitely need to plant successions for longer harvest window; As the plants aged the lower part of the bloom browned and then shattered easily; Some worm damage shortly after the plants started to bloom; Pain to cut; Bottom petals shed easily; Did not germinate.

Similar Cultivars: All gomphrena are pretty much the same; Virtually identical to 'Strawberry Fields' and 'Flashing Light'.

Postharvest Recommendations: Cut when mature into plain water; Used only water; May need chlorine tablet?; Cut well-hydrated plants in evening and condition overnight in solution with acidifier, sugar, and bleach. (See also Postharvest article in this issue for more information.)

Comments: Sold well as straight bunches and blended well in summer bouquets; Color is an orange-red and not a true red; My intern started harvesting this and didn't count the stems but we picked TONS of these every week all season long from one planting; Held up well, even in extreme heat and drought; Harvested by the handful, too tedious to cut individual stems.

LARKSPUR

Larkspur 'Galilee Carmin' (Genesis)

Good Qualities: Attractive dark pink color (4); Great vase life; Salmon colour not as useful to us, nice long blooms on good stems, good harvest window with lots of useful sides, the main central stem was very long and strong; Beautiful flower; Strong stem; Good doubleness and floret placement.

Problems: These darker blossoms got spotted more easily with rain/dew; Root rot reduced plant stand at harvest in this high tunnel trial; Were awesome - 3 feet tall, I had raves from my customers. I grew them in the field and

was pretty disappointed in the result, I could not use them because they were too short. Had I grown them in the hoop house, I think I would have been able to use them; None.

Similar Cultivars: 'Sydney', 'Qis Carmine'.

Postharvest Recommendations: AVB then place in #2.

Comments: All but 10 plants succumbed to a late killing frost, we had 80-degree days that sort of fried them, then a couple of killing frosts in early May, I did love the color; If you want trialers to grow larkspur, please send in the fall, fall-sown larkspur performs much better (Authors' note: we agree completely and have tried to get the seed earlier, but have been unsuccessful.), this seed came too late for even early spring planting so it failed to germinate when I put it in; Similar to standard 'Sublime' series in earliness and productivity; Poor seedling survival; Not as good vigour as Qis.

Larkspur 'Galilee Pink Perfection' (Genesis)

Good Qualities: Nice light pink (4); Good stem length (2); Favorites White and Pink Perfection, nice long blooms on good stems, good harvest window with lots of useful sides, the main central stem was very long and strong; Good form; Good stem strength; Great vase life; Good doubleness and stem fill; Mostly single, some double, strong stems, better in early spring than late spring, next year I will plant in fall; Beautiful flower.

Problems: None; Root rot wilted plants at flowering in this tunnel trial; Sheds if cut too late; Disappointed in the result, I could not use them because they were too short, had I grown them in the hoop house I think I would have been able to use them.

Similar Cultivars: 'Sydney', 'Qis Pink', Qis series.

Postharvest Recommendations: AVB then place in #2.

Comments: White was excellent and I felt the best colour in the series, a favorite; All but ten plants succumbed to a late killing frost, we had 80-degree days that sort of fried them, then a couple of killing frosts in early May; If you want trialers to grow larkspur, please send in the fall, fall-sown larkspur performs much better, (Authors' note: we agree completely and have tried to get the seed earlier, but have been unsuccessful.) this seed came too late for even early spring planting so it failed to germinate when I put it in; Vigour not as good as Qis.

Larkspur 'Galilee Salmon' (Genesis)

Good Qualities: Nice long blooms on good stems, good harvest window with lots of

useful sides, the main central stem was very long and strong; Good color, strong stems; Good doubleness and floret placement on stems; Tall stems; Beautiful flower.

Problems: None; Salmon colour not as useful to us; colour is between 'Carmine' and 'Pink Perfection', not really salmon; Affected by root rot in this tunnel trial; This was the first time I have grown larkspur, I grew larkspur in the hoop house early which were awesome - 3 feet tall, I had raves from my customers, I grew them in the field and was pretty disappointed in the result, I could not use them because they were too short, had I grown them in the hoop house I think I would have been able to use them.

Similar Cultivars: 'Sydney', Qis.

Postharvest Recommendations: AVB then place in #2.

Comments: All but two plants succumbed to a late killing frost, we had 80-degree days then a couple of killing frosts in early May, I did love the color; White was excellent and I felt the best colour in the series, a favorite; If you want trialers to grow larkspur, please send in the fall, fall-sown larkspur performs much better, this seed came too late for even early spring planting so it failed to germinate when I put it in; Poor seedling survival; Overall vigour not as strong as Qis.

Larkspur 'Galilee White' (Genesis)

Good Qualities: Favorites were White' and 'Pink Perfection', nice long blooms on good stems, good harvest window with lots of useful sides, the main central stem was very long and strong; Beautiful flower; Vase life was 10 days; Good doubleness and floret placement on stems.

Problems: This was the first time I have grown larkspur. I grew larkspur in the hoop house early which were awesome - 3 feet tall, I had raves from my customers, I grew them in the field and was pretty disappointed in the result. I could not use them because they were too short. Had I grown them in the hoop house I think I would have been able to use them; None; Suffered from root rot like the other varieties in the trial: in high tunnel

Similar Cultivars: 'Qis White' (2); 'Sydney'.

Postharvest Recommendations: AVB then place in #2.

Comments: White was excellent and I felt the best colour in the series, a favorite; All but two plants succumbed to a late killing frost, we had 80-degree days then a couple of killing frosts in early May; Poor seedling survival; Vigour not as good as Qis.

LISIANTHUS

Lisianthus 'Arena II Kilimanjaro'

(Takii Seed)

Good Qualities: Very nice pure white flower (2); Such beautiful blossoms - customers think they are roses.

Problems: Poor germination; The number of months and hours of care growing these from seed - YIKES!; Pretty wimpy compared to the 1-2-3 whites I grow, but I did get a late start with this seed so it may be due to that, would look for plugs the next time instead of trying from seed. Just as difficult to grow from seed as most other lisianthus; None.

Similar Cultivars: Similar to many other lisianthus series.

Postharvest Recommendations: None listed.

Comments: I planted the seed 2/20, as of 9/18 I have 5 plants that survived and none of them have bloomed, they are approximately 6 inches in height; All but 40 plants succumbed to a late killing frost, we had 80-degree days that sort of fried them, then a couple of killing frosts in early May - that said, these are magnificent and the white stays fresh; Got the seed too late to make a real go of this since lisianthus are so slow to germinate and grow, I would take that into consideration when weighing my comments, I was actually impressed with how well it did considering the late start.

Lisianthus 'Falda II Yellow' (Takii Seed)

Good Qualities: Pretty yellow (2); RUFFLED! the petals are adorably ruffled and the color is a really nice soft yellow that goes well with white and ivory, excellent for wedding work, seed germinated relatively "easy" for lisianthus, still spotty but at least 50% without any fuss; The frillier blossom edge was lovely.

Problems: Poor germination (2); Mine weren't very productive or tall, but I think that is due to a very late start; The off-white "yellow" color was muddy; None.

Similar Cultivars: None listed.

Postharvest Recommendations: None listed.

Comments: Germination was extremely poor and only one seedling made it through summer, they were planted 2/20, as of 9/18 they are approximately 6 inches in height and no sign of budding; Got the seed too late to make a real go of this since lisianthus are so slow to germinate and grow, I would take that into consideration when weighing my comments, I was actually impressed with how well it do considering the late start; All but six plants succumbed to a late killing frost, we had 80 degree days that sort of fried them, then a couple of killing frosts in early May.



'Jedi Orange'

MARIGOLD

Marigold 'Jedi Orange' (Gloeckner)

Good Qualities: Beautiful orange/gold color (12); Season-long production (4); Excellent vase life (3); Insanely productive! (2); Excellent germination (2); Large flowers (3); Very uniform in both stem length and size through the entire season; Dark green foliage, hearty plants, minimal pest issues; Grew vigorously, the first cut was awesome the stems and heads were very strong, the color was neon orange it glowed at night, really!; Tall, long stems, few to no malformed or bad flowers; Nice size bloom, great vase life; Great citrusy fragrance; They shoot out new blooms literally overnight. The heads are large and ruffled and the color true-marigold-orange, very tall - shoulder height, absolutely no pests or diseases; Fully double; Good-sized flowers, not too heavy on marigold smell; Early bloomer; I loved this plant! I will definitely grow this every season, the fragrance was not the typical marigold smell - it was milder, my customers loved the flowers, I also had some yellow-flowered plants and they are just as wonderful as the orange ones, I've always used a lot of zinnias in my bouquets but I found myself using these marigolds much more often than the zinnias! this is definitely a keeper.

Problems: Definitely needs support/netting (3); Strong scent (3); Stems are flimsy; The later cuts, the heads would easily break; Lowest side branches were somewhat fragile and broke under their own weight; Sometimes have weak necks; Excessive branching - making short stems or long stems with odd angled branches, perhaps I should have nipped the centers very early to get long stems; None; Stems aren't straight, foliage got black fast; Too branching and too

short of stems to harvest; Tended to fall over if not planted close; Japanese beetles loved eating it; Head size smaller than some, like 'Narai Orange', less productive than 'Optiva Orange'; Plants ruined by botrytis-like mold in August, I have never seen marigolds get mold before, this is a probably deal-killer for me in terms of planting again; Foliage sparse - more like French marigold than African marigold, long skinny stems - couldn't decide whether to cut many shorter stems or a few long scraggly ones, most flowers were smaller scale (1.5 in.) and a few large (3 in.).

Similar Cultivars: Coin series; 'Crackerjack'; No.

Postharvest Recommendations: Use caution with the stems, some necks are weak; Harvested into CVBn; some flowers lasted several weeks, even when sitting in the discard bucket in full sun; Just used plain water; I cut well-hydrated plants in the evening and condition overnight in acidified water with sugar and drop of bleach, these had no problems; Strip most foliage. (See also Postharvest article in this issue for more information.)

Comments: I am not a big fan of marigolds but this one changed my mind, my customers loved the scent when I added it to the mixed bouquets at the farm market, the flower shops in my area were not interested in it; Great marigold, nice color for midsummer, long productive period, nice tall, long stems with multiple flowers; These just kept pumping out the stems all season from the same planting, would have gotten even more but we had an early frost that took them out; I want to try these again, and try to get the long stems, the blossoms do need to be picked at the right time, quite mature, or they look muddy and don't keep opening or turning that gorgeous bright orange, the limited number of stems/plant I noted is because my market ended, not because the flowers

'Jedi Orange' marigolds just kept pumping out the stems all season from the same planting, would have gotten even more but we had an early frost that took them out.

stopped blooming!; I really wish I could use these but they didn't work so well with wedding designs, marigolds are just a bit too "pedestrian", though I did use them in a few centerpieces and liked them well enough, they are amazing plants and I may well grow them again just for my garden, I think

these might be nice for mixed fall consumer bouquets so I don't want to put people off of them, just not good for weddings; Good as a filler for bouquets, didn't sell on its own as a bunch; Grew four varieties of marigolds this year, very hot dry summer and spider mite was in full throttle, this variety was the only one to survive a severe mite attack. The bloom wasn't as double as some others but it has very good vigour to withstand the mite attack, therefore, rates high for that reason alone, colour was good also; There isn't a lot of interest locally in this plant as a cut flower; Great addition to bouquets, foliage held up well when included as filler with the flowers; Colour is not as deep as 'Kees Orange', but it is earlier to bloom; Marigolds are still a tough sale to florists, sold well in mixed bouquets in farmer's market; Grows well in high tunnel, starts flowering in late June, vs. early August in field; Customers loved these, have to admit I would not have planted marigolds as cuts if not for this trial - but I will probably look for a different cultivar; I really liked this one; Nice plant but never outstanding for me, height wasn't all that great either, I like flowers I don't have to bend way over to pick. 'Jedi Orange' marigolds just kept pumping out the stems all season from the same planting, would have gotten even more but we had an early frost that took them out.

SNAPDRAGON

Snapdragon 'Chantilly Purple' (Takii Seed)

Good Qualities: Great color (5); It was a different look for my customer, I usually have Rocket series, it tolerated the dry summer in the northeast extremely well, it is now fall and it is still blooming!; Great stem length; Beautiful nice shape, love the open-faced flowers, so did the customers, nice stems, good for mixed bunches and straight bunches; Quite early, blooming with the rest in the series; Open blossoms; Very beautiful open snapdragon, it yielded well all summer and into fall from one planting; Beautiful floret form; Productive and early, attractive open-faced flowers; Strong stems.

Problems: Shorter than Rocket series; In postharvest, the buds open almost white instead of purple; Only about half of the plants reliably produced really full stems; It is not purple, the color is a deep magenta or fuchsia, not as vigorous as Opus series or as tall; Stems too short, especially under hot conditions, some flower bud inhibition, maroon color is lighter and more faded in new buds opening in the vase; None.

Similar Cultivars: Other Chantilly colors.

Postharvest Recommendations: Did best if rested in cooler for 24 hours prior to sale; I always treat snap with Chrysal AVB then to Chrysal #2, store in cooler at 38 degrees; Harvested into Floralife professional or hard water mix; strip leaves. (See also Postharvest article in this issue for more information.)

Comments: It seems more suitable for landscaping than cut flower; Much taller than the others in the series, I did not think it would get as tall as it did and failed to use support netting, so had less than ideal stems, also do not have much demand for “dark” coloured snaps in summer, also it was planted later in the ‘second’ planting, transplanted to 50 cell trays and planted through black bio plastic, no irrigation; Greenhouse grown.

STOCK

Stock ‘Carthago White’(Takii Seed)

Good Qualities: Clear white (3); Amazed, this actually bloomed in August in the northeast; Strong stems, good fragrance; Was really impressed that these produced anything for me, stock does not do well in our short and often hot springs here but it actually grew nicely and produced some nice stems, I will try again with starts planted out earlier under low tunnels and/or in the hoop house, this is definitely the most promising stock I’ve tried so far; Four out of 50 singles, fragrant, long full bloom, easy to grow, customers loved it, wish I had planted a lot more; Clean white spikes with dark foliage; Nice stems, pretty.

Problems: None; Not overly productive but no stock ever is here, the fragrance was a bit foul in my opinion - certainly not sweet or perfume-y, my employee thought it smelled like cardamom but I’m not sure, it wasn’t so bad that it was off-putting but it was noticeable; Lower fading blossoms distract from the usefulness of the stem over time.

Similar Cultivars: ‘Cheerful White’, Other stocks.

Postharvest Recommendations: None listed. (See also Postharvest article in this issue for more information.)

Comments: I will certainly grow this one again, the best result I have ever had with stocks, planted thru black bio plastic 6 by 8 inches, no irrigation; Due to weeds and extreme drought, we did not get to see this variety at its best; First time I grew it in a hoop house, much better results; I should have netted these, the stems bent and I lost length, these don’t have the wow factor on their own, but all I had to do was have a customer bend over to smell, and that bouquet was sold!

The Cut Flower Quarterly

SUNFLOWER

Sunflower ‘Goldy Double’ (Genesis)

Good Qualities: Attractive double orange (5); Stem held well, unique look; The buds! Oh my, are the buds exquisite, any grower selling to florists should grow these just for the sculptural buds, I never use sunflowers in wedding work here in the city (just doesn’t sit well with clients), but I actually used the buds from ‘Goldy Double’ to rave reviews because they are so amazing, the fully formed flower is also very funky, in a good way; Awesome sunflower! My customers loved them in arrangements, very eye-catching; Market customers enjoyed its different appearance, it seemed to keep on

producing side stems and stayed looking good for a very long time, I think it would be good for a home gardener who would enjoy the long harvest window, my first ones still have colour; The double form with the green center was a huge hit with my buyers; Many side shoots were usable for farmers’ market bouquets; Long stems when pinched; Customers loved it held well on plant pollenless; Used as spray; Vigorous, healthy, very nice form, smaller leaves toward tops; Florists liked best when cut early while center still slightly green, customers liked fuzzy petals.

Problems: Malformed flowers (2); Stems were a bit short for sunflower sales, some contracted downy mildew; Very thick stems, I would grow at a closer spacing next time; It wasn’t a problem for me since I used all the shorter side buds, but I could see it being a problem for growers selling straight bunches - the side buds are up close to the terminal flower so they could make a bunch really awkward, maybe pinching would help that?; Not a consistent plant, had perhaps 20 out of 50 that were nice single stems, these came back and produced many sides, some had very short stems around the central bloom, late to bloom, the later plantings were not as long lived on the plant, the earlier planting produced the best flowers; Planted in 18 in. spacing and 6 in. spacing to see if it would branch and how head size might be affected, only about 80% germination in both spacings, branched in both spacings, but neither produced usable length stems, secondary stems were also very weak with 4 in. heads, neglected to record time to harvest, but it was substantially longer than other trial sunflowers - may 10-12 weeks to harvest all; Side stems were too long on some for sprays, would prefer shorter

internodes for a really nice looking spray effect; removed terminal bud to have better side flowering, did not get quite figured out when to remove terminal bud to have shorter side stems; Very late coming into flower (about 90 days); Sometimes branched, liked best as single cut, bloomed shorter later in season during heat; Smaller flower heads than expected.

Similar Cultivars: ‘Teddy Bear’ (3) but it’s so much cooler!, slightly taller; ‘Double Quick Orange’ (larger than ‘Double Quick Orange’) or ‘Giant Sungold’ (smaller than

The buds! Oh my, are the buds exquisite.
Any grower selling to florists should grow
‘Goldy Double’ just for the sculptural buds.

‘Giant Sungold’); ‘Golden Cheer’, a later version of ‘Double Quick Orange’.

Postharvest Recommendations: Cut when first begin to open, if you wait until fully open, the center petals turn brown; Cut when terminal flower is unfurling its petals, store in solution of chlorine pill and preservative; Cut well-hydrated plants in evening and condition overnight in solution with acidifier, sugar, and bleach; Cut when half open. (See also Postharvest article in this issue for more information.)

Comments: My customers were not as impressed with this one as they were with



‘Goldy Double’

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‘Vincent’ from Sakata Seed; Loved! Coolest sunflower ever!; Very popular at the trial garden’s open house; Most customers preferred the traditional sunflower, may plant a few next season but just a few; Crazy cluster of 4-6 blossoms atop each strong stem, on some, I cut out the first blossom (4 in. stems) and let the rest mature - one stem was a bouquet all on its own! I will grow these again; Harvested about 75 days from planting; Hold well in cooler if cut early; Nice for a double; Would love to see someone develop a nice spray type sunflower with smaller heads that would work well in bouquets; Loved this one, beautiful flower head, strong plant and good height. The buds! Oh my, are the buds exquisite. Any grower selling to florists should grow ‘Goldy Double’ just for the sculptural buds.



‘Vincent Choice’

Sunflower ‘Sunbright Supreme’
(Sakata/Gloeckner)

Good Qualities: Beautiful, traditional sunflower (9); Strong stems (2); Very tall, large flower heads even with 6 x 6 in. spacing; These three sunflowers varieties (with ‘Vincent’s Fresh’ and ‘Choice’) were off the chart! they were absolutely gorgeous! I didn’t have enough of them! they had long stems, the right size for arrangements and very striking; Petals and disk ratio are excellent, no other sunflower other than ‘Sunbright’ has quite the same ‘look’; Good size for bouquet making, faces stay fairly upright; Tall stems and great form as well as wonderful vase life; Short production time, dependable performer, day length neutral; When grown in our summer, this is a tall, unbranched.

Problems: None (2); Some contracted downy mildew; Probably too large for some growers; Maybe a little too tall; Pretty boring, it just seems like every other sunflower, the flowers weren’t consistent for me...if you were scheduling a crop to cut all at once, this one had a lot of stragglers, I also seemed



‘Sunbright Supreme’

looking shrunken next to the others, they were still use-able but they just were very different; Misshapen flowers; Stinkbugs love it!; This variety is extremely sensitive to short days in the seedling stage, it has been around for years, and still has that problem, it should not be grown if the daylength at time of sowing is around 12 hours or shorter, if it is, the plants will be very early, flowering 50 days from sowing, with short stems and many small buds and a small main flower.

Similar Cultivars: ‘Sunrich Orange’ (3); ‘Sunbright’; Loads; Vincents and Procut; This is the standard for pollenless sunflowers.

Postharvest Recommendations: Need to cut just as flowers begin to open; Used only water, cut in bud, store in a solution of chlorine pill and preservative; Experimented with dry storage this season, and found the re-hydrated blooms lasted longer than stems stored in water in the cooler, found the stem were pale and all foliage had to be removed, but I was very pleased to have an option for keeping blooms useful, sometimes there are more stems than you need, it is a good method to be able to take advantage of; I harvested at the first sign of opening and placed into the cooler to store for a wedding, they held great for ten days and opened and looked wonderful, used Floralife Professional; Harvested into CVBn and/or Chrysal 1; Flowers lasted several weeks, cut well-hydrated plants in evening and condition overnight in solution with acidifier, sugar, and bleach.

Comments: Overall sturdy, reliable sunflower; Definitely will grow this again;

Grew ours this year with no chemical fertilizers, other than in the greenhouse before transplanting to field, they were a good height, 65% of our sunflowers are sown in 72’s and 200 speeding trays, the rest are direct sown in field, final sowing for ‘Sunright Supreme’ this season was July 24, extremely dry and hot summer causing a delay in germination, cutting them now (October 7); I will grow this again; These were among our first sunflowers of the season, customers were excited to see them; These were very similar to the Procut, but I did like the flower head, picked them very tight and held in the cooler, all flowers opened and was very pleased with the results; We did a late-season trial this year, it was earlier to bloom than ‘Sunrich’ and later than Vincent and Procut; One of the two main sunflowers we grow; I plant these on 9-in. centers and plan on single flower stems; Old workhorse flower.

Sunflower ‘Vincent Choice’ (Sakata/Gloeckner)

Good Qualities: Wonderful brown center with clear medium yellow color petals (7); Early flowering (2); Double overlapping petals makes full flower, faces slightly upward; There was nothing particularly great about this cultivar, true standard sunflower that grew reliably and was on schedule; Good germination, nice head position on the stem; Very nice sunflower, leaves under the flower head nice size (not too large) and very clean and sharp looking; Nice sturdy stem and neck, easy to grow, all around LOVED it!; The petals were rounded, which gives this sunflower a more sophisticated and clean look, the heads were small enough to work into bouquets but also large enough to stand alone in a straight bunch; OK standard sunflower; Rebloomed for a second, smaller cut; Very nice tall strong stems and clean blossoms; Upright heads are good for bunching, interesting rounded petals; Small plant and flower with dark center and long orange petals with blunt tips, flowering at 56 days after sowing; Harvested 60 days after planting, plants grew to about 4 feet tall, one bloom per stem; These three sunflowers varieties (with ‘Vincent Fresh’ and ‘Sunbright Supreme’) were off the chart! they were absolutely gorgeous! I didn’t have enough of them! they had long stems, the right size for arrangements and very striking; About 90% germination in holes 6x6 in. in landscape fabric; Strong stem, multi branching.

Problems: None (3); Not that this is a “problem” per say, but the reason I’m not more keen on this cultivar is that it’s just the

same old boring sunflower as so many other cultivars already out there; It seemed to be a bit smaller than other sunflowers, I think it needs fewer seeds per foot; Deformity in many flowers, could not use a lot of the flowers; Short, many side buds near flower; Day length sensitive - less flexible; Moderately short day sensitive, flower buds on stem look unattractive; Occasionally drops a petal when handled; Traditional brown center yellow/orange petals not different enough to be a novelty sunflower which command higher prices.

Similar Cultivars: Many (2); 'Sunbright' and 'Procut', None that I've grown; 'Vincent Fresh'.

Postharvest Recommendations: Chlorine pill and preservative; Used only water; Pick in bud, store in solution of chlorine pill and preservative; Harvested into CVBn and /or Chrysal 1, flowers lasted several weeks; Cut well-hydrated plants in evening and condition overnight in solution with acidifier, sugar, and bleach; Cooler at about 40 degrees; CVBn tablet in cutting and shipping buckets.

Comments: I like it even though some stems were rather small and needed more stems to make the bunches equal to other cultivars, but it has a lot of potential; Perfect size with 6x6 spacing; Definitely will grow this again; I'm not a sunflower fan, but this one was unique enough that I think I will actually grow it again; I will probably stick with the Procuts and 'Sunbright Supreme', I was not overly impressed with the Vincents because of so many deformities in the flower heads, I was really disappointed in these varieties; We did a late-season trial, this was the earliest to bloom in our patch, attracted the interest of local cut flower growers; Started in greenhouse and transplanted to field may have caused the short stem length; This is close enough to a regular sunflower, but just different enough to interest customers; Should be grown at higher density to get rid of stem buds; Was not as full as 'Vincent Fresh' and did not have as many usable stems, needed to cut first flowers in order to get longer stems for sale.

Sunflower 'Vincent Fresh' (Sakata/Gloeckner)

Good Qualities: Rich yellow color with green center (11); Early flowering (2), 54 days after sowing; Great vase life, strong stem, customers couldn't get enough of them; Nice sturdy stem and neck, easy to grow, all around LOVED it!; These three sunflowers varieties (with 'Vincent Choice' and 'Sunbright Supreme') were off the

chart! they were absolutely gorgeous! I didn't have enough of them! they had long stems, the right size for arrangements and very striking; Fantastic - especially with amaranthus 'Opopeo'; Nice rounded petals and good matching centre disc, upright heads are good for bunching; Unique head shape; Long petals with blunt tips; Fresh upright double overlapping petals, my best-selling sunflower this year; Nice height and bloom size for bouquet work, very uniform, in looks and timing; Harvested 60 days after planting, plants grew to about 4 feet tall, one bloom per stem, excellent companion to 'Vincent Choice'; Had harvested almost all within 7 weeks of planting, stems not too thick but nice and sturdy, green center makes them a novelty so which allow me to keep my pricing up at \$.80/stem and compete against the large growers selling at \$.25/stem; Strong plant and stems.

Problems: None (2); A lot of flowers seem distorted when they open. I don't see any noticeable insect damage to cause this so not sure what it is, also, the terminal flower blooms way before the side shoots and the side shoots never develop a longer stem after the terminal is removed, so while this may be a "branching" variety (not sure if it is considered such), you really only get one saleable cut off of it, maybe pinching early would help?; Had to cut first 2 buds in order to get longer stems for sale; It seemed to be a bit smaller than other sunflowers, I think it needs less seeds per foot; Some deformity in flowers, could not use some; Short, many buds near flower; Young flower buds on stem are unsightly, variety prone to early petal drop, moderately sensitive to short days in seedling stage: flowers a week early in 12 hr. daylength; Only about 67% germination, heads can get 8-10 in. which is a little large for bunches.

Similar Cultivars: 'Procut Gold' (3); 'Procut Yellow Lite' (2); Similar to 'Teddy Bear' in look but a much larger plant; 'Sunbright' and 'Procut'; 'Vincent Choice'; 'Procut Orange', however I like this one better.

Postharvest Recommendations: Cut in bud, store in solution of chlorine pill and preservative; Handled well in cooler and also cutting fresh and selling at farm market; Flower petals curled or "furred" a bit when refrigerated, this made the flowers visually less appealing to most customers, making them look a bit old even when they were fresh; Just used water; Harvested into CVBn and /or Chrysal 1, flowers lasted several weeks; Cut well-hydrated plants in evening and condition overnight in solution with acidifier, sugar, and bleach; Floral

preservative; Cooler at about 40 degrees; One CVBn tablet in cutting bucket and another in retail bucket to keep bacteria at bay worked beautifully.

Comments: Definitely will grow this again (2); This was a true find, my flower shops were actually ordering ahead for any I had available; Great sunflower good germination and grew well, might need more space between seeds; Love this sunflower; Good rebloomer, got a nice, smaller second cut; Great addition to bouquets, however, I will probably stick with the Procuts and Sunbright; Part of a late-season trial, these were the first to bloom, attracting attention from customers; Started in greenhouse and transplanted to field may have caused the short stem length; A nice cultivar to make a standard; Grow at higher density than the 9 in. x 9 in. I used here; Although a nice sunflower, I found it needed a larger center and the petals are quite round, I like the 'Sunbright' look.



'Vincent Fresh'

2012 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)
Carthamus 'Dark Orange Red' Genesis Seed	2.3 1-20	21.3 8-42	3.0 1-5	3.2 1-5	3.0 1-5	10.0 9-14
Carthamus 'Grenade Orange' Kieft-Pro-Seed	1.0 1-10	19.1 5-28	3.0 1-3	2.1 1-4	3.0 1-5	5.0 -
Carthamus 'Grenade White' Kieft-Pro-Seed	2.3 1-10	19.3 5-36	1.5 1-2	1.4 1-3	3.0 1-4	- -
Carthamus 'Orange Head' Genesis Seed	2.1 1-5	18.8 12-32	2.3 1-4	2.3 1-5	3.3 1-5	8.0 4-8
Celosia 'Dark Rose' Genesis Seed	6.6 1-35	20.6 10-40	3.8 1-5	3.8 1-5	4.1 3-5	11.4 7-16
Celosia 'Sunday Orange' Kieft-Pro-Seed	6.3 1-14	15.1 7-21	4.4 1-5	4.3 1-5	4.3 3-5	10.4 9-15
Celosia 'Sunday Wine Red' Kieft-Pro-Seed	7.2 2-18	15.4 7-21	3.2 1-5	3.5 1-5	4.2 1-5	11.0 8-14
Celosia 'Tornado Red' Genesis Seed	3.3 1-13	16.1 8-28	3.8 1-5	3.3 1-5	4.3 1-5	11.0 8-14
Dianthus 'Volcano Mix' Genesis Seed	5.2 2-12	13.2 8-24	3.4 1-5	3.4 1-5	3.8 1-5	11.1 9-16
Gomphrena 'Qis Carmine' Kieft-Pro-Seed	15.4 6-77	17.2 10-24	4.1 2-5	4.4 2-5	4.7 2-5	12.4 9-21
Gomphrena 'Qis Red' Kieft-Pro-Seed	17.7 6-80	17.1 12-24	3.9 1-5	4.4 2-5	4.5 1-5	13.6 9-21
Larkspur 'Galilee Carmin' Genesis Seed	1.7 1-6	22.8 10-33	3.7 2-5	3.3 2-5	3.7 2-5	7.7 -

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

2012 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)
Larkspur 'Galilee Pink Perfection' Genesis Seed	1.6 1-6	23.5 10-33	2.8 2-5	3.9 3-5	3.8 3-5	7.7 -
Larkspur 'Galilee Salmon' Genesis Seed	1.3 1-6	24.9 10-33	3.5 2-5	3.3 2-5	3.7 2-5	6.5 -
Larkspur 'Galilee White' Genesis Seed	1.2 1-6	25.3 10-42	3.5 2-5	3.5 2-5	3.7 2-5	7.7 -
Lisianthus 'Arena II Kilimanjaro' Takii Seed	1.3 1-3	15.3 12-18	4.0 4-4	4.0 1-4	2.8 1-4	11.0 -
Lisianthus 'Falda II Yellow' Takii Seed	1.3 1-3	14.5 9-18	4.0 3-4	3.7 1-5	2.8 1-4	- -
Marigold 'Jedi Orange' Gloeckner	10.6 1-43	17.6 7-43	3.7 1-5	3.8 1-5	4.6 1-5	10.8 6-17
Snapdragon 'Chantilly Purple' Takii Seed	4.8 1-21	18.1 14-25	3.7 2-5	3.5 2-5	3.9 2-5	8.1 7-10
Stock 'Carthago White' Takii Seed	1.2 1-5	16.2 12-23	4.0 2-5	3.9 2-5	3.9 3-5	7.8 7-11
Sunflower 'Goldy Double' Genesis Seed	2.2 1-10	35.6 11-60	4.1 2-5	4.1 2-5	4.7 4-5	9.4 8-14
Sunflower 'Sunbright Supreme' Sakata/Gloeckner	1.6 1-13	39.1 11-60	4.4 2-5	4.5 1-5	4.9 4-5	8.9 5-12
Sunflower 'Vincent Choice' Sakata/Gloeckner	1.1 1-5	33.7 12-48	4.1 2-5	3.9 1-5	4.9 4-5	8.9 7-14
Sunflower 'Vincent Fresh' Sakata/Gloeckner	1.5 1-14	31.2 11-48	4.5 2-5	4.2 2-5	4.9 4-5	8.5 4-11

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

POSTHARVEST TREATMENT OF SPECIALTY CUT FLOWERS

North Carolina State University Report for 2012

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This project was supported by the Association of Specialty Cut Flower Growers Research Foundation, the NCDA Specialty Crop Grant Program, and numerous suppliers. The authors would like to thank Diane Mays, Laura Daly, Benjamin Brindis, Blair Lane, Brigitte Crawford, and Iftikhar Ahmad for assisting with growing and harvesting the cut flowers.

were sorted into four uniform groups and bundled for postharvest vase life evaluation.

Bundles were placed into their first solution, hydrator (Floralife Hydraflor 100 Pretreatment at 1 ounce per gallon) or no hydrator (deionized water) for four hours. Then they were transferred to a second solution, holding solution (Floralife Professional Fresh Flower Food at 1.3 ounces per gallon) or no holding solution (deionized water) for 48 hours. Hydrators are intended to promote rapid water uptake and do not include sugar, while the holding solutions have sugar to promote long vase life. The four resulting treatments were:

1. Hydrator only (no preservative)
2. Holding preservative only (no hydrator)
3. Hydrator, then holding preservative
4. De-ionized water only (control)

Once pretreatments were done, each stem was placed in its own mason jar with 300 mL of deionized water to simulate conditions in consumers' homes. Temperature was kept steady at $68 \pm 4^\circ$ F with 200 fc light for twelve hours per day. Stems were checked daily and terminated once they reached an agreed-upon stage of expiration, usually when greater than 50 percent of petals were desiccated or heads bent over to less than a 90° angle. Vase life was recorded for all stems.

What We Found

Ageratum 'Blue Horizon'

'Blue Horizon' was cut when more than half of flowers in the head were fuzzy, and terminated when more than half of the florets were brown or wilted. The average vase life was 8.7 days and vase life was unaffected by preservatives.

Agrostemma 'Purple Queen'

'Purple Queen,' the most commonly grown agrostemma for cuts in North Carolina, produced an average vase life of 9.2 days when cut just after buds showed color (but before they opened). A hydrator plus a holding solution increased vase life by an average of two days over just water.

Amaranthus 'Green Flowered' and 'Hot Biscuits'

Though these two amaranthus varieties are quite different, both fared comparably in postharvest evaluations. Pendulous, spring green 'Green Flowered' averaged 9.9 days and upright 'Hot Biscuits' clocked in at 10.6 days. Both lasted longer with a combination of hydrator and holding solution, which added an average of almost six days of vase life.

Ammi majus

The false Queen Anne's lace we tested lasted an average of ten days in the vase. Using a holding solution added two days over untreated stems. This old favorite

As part of our yearly ASCFG cut flower trials, we conduct vase life studies on cultivars and varieties that show potential as future mainstays on growers' lists. This year, thanks to a joint NCDA and USDA grant, we also had the opportunity to evaluate some cultivars that are already widely grown in North Carolina. A total of 38 annual and perennial cut flowers from 20 different genera were evaluated for postharvest vase life.

What We Did

Trial varieties were planted sixteen plants per plot, four plots per variety. All marketable flowers were cut, measured, and recorded in the field three days per week. Up to 60 stems per variety

is a great standby as a frothy, lacy filler, but growers beware! The sap causes skin to become photosensitive and blister in the sun. Make *Ammi* the last thing you cut before coming in from the field to minimize sun on exposed skin.

Asclepias ‘Silky Formula Mix’

‘Silky Formula Mix,’ with its tall, sturdy stems and enthusiastic production throughout the season, happily provided stems long into fall. The mix of oranges, deep reds, and yellows looked right at home in hot, summer bouquets and bountiful autumn harvest arrangements alike. Overall, average vase life was over ten days, and neither hydrating nor holding solution provided any significant increase.

Astilbe ‘August Light’ and ‘Bridal Veil’

Our first-year astilbes got off to a difficult start this year; Canada geese just couldn’t resist a taste of the succulent new leaves as they emerged from the soil, pulling up the plugs along the way. Needless to say, the bare-root plants were each planted several times before they could take root. Despite the circumstances, they bloomed quite well and we were able to obtain an average vase life of 6.2 days for ‘Bridal Veil’ and 5.9 days for ‘August Light.’ Although ‘Bridal Veil’ performed similarly across all treatments, ‘August Light’ lasted an average of 3 days longer with a holding treatment.

Celosia ‘Dark Rose,’ ‘Sunday Orange,’ and ‘Sunday Wine Red’

‘Dark Rose’ was the only comb-type celosia in vase life trials this year, and at an average of 16.5 days in the vase, it did not disappoint. Treatments did not show any advantage with ‘Dark Rose.’ The two ‘Sunday’ cultivars both lasted over 10.5 days and did better with a holding solution. Their flowers were terminated when more than 50% of the head was either blackened or wilted.

Cosmos ‘Double Click,’ ‘Sonata Mix,’ and ‘Versailles’

Cosmos were cut as soon as the bud began to open and before petals unfurled. ‘Double Click’s mix of frilly, sometimes variegated blossoms was a favorite

among our growers. However, cosmos’ reputation of a short vase life holds true for ‘Double Click’ and ‘Versailles.’ Both lasted an average of only 5.3 and 5.8 days respectively. ‘Sonata Mix’ held on for a few more days and averaged 7.8 days in the vase. All three varieties performed best when a holding solution was used.

Dianthus ‘Amazon Neon Duo’ and ‘Volcano Mix’

Both cultivars of dianthus were cut when more than three florets were open per flower head. Flowers were terminated when more than 50% of flowers were desiccated or had fallen off. As dianthus are known, ‘Amazon Neon Duo’ and ‘Volcano Mix’ were among the longest lasting flowers on our grow list. ‘Volcano Mix,’ which was planted earlier in the season than ‘Amazon Neon Duo,’ lived an average of 16.6 days after cutting. ‘Amazon Neon Duo’ was just behind with 15 days in the vase. Both were unaffected by treatments.

Gomphrena ‘Qis Carmine’ and ‘Qis Red’

The ‘Qis’ gomphrenas, with their long, slender, easy-to-strip stems and open growth habit, were this year’s marathon runners. There were a few stems that lasted over a month and still had not rooted out! Vase life of ‘Qis Carmine’ vase life was 19.3 days, while ‘Qis Red’ averaged 16.7 days. Stems were terminated when their necks bent to less than a 90° angle or the flower fell off. Both were unaffected by treatments.

Lily (*Lilium*)

‘Merostar’ and ‘Conca D’or’

Both lilies were field grown and suffered some abuse at the beaks of Canada geese. However, of the remaining plants, each lasted right at 13 days after harvesting. Stems were cut when buds began to ‘color up’, but were not yet open. ‘Conca D’or’ had three to four very large,



Cosmos ‘Sonata Mix’ and Zinnias ‘Blue Point Salmon Rose’ and ‘Blue Point Lilac’

Gomphrena ‘Qis Red,’ top, and ‘Qis Carmine,’ bottom



heavy creamy butter yellow and white trumpets per stem. ‘Merostar’s stems were a bit more petite, with four to five smaller white and magenta flowers. Blooms were terminated when most petals were abscised. Interestingly both were unaffected by treatments, probably due to the fact that we used general floral preservatives. In other tests we have done, lilies responded very well to flower foods specifically designed for lilies - keeping the foliage green and allowing the buds to open up.

Marigold (*Tagetes*) ‘African Jedi Orange’

‘African Jedi Orange’ was a bountiful bloomer with large, clear flowers that decreased in size over the season. Average vase life was just over 10.5 days, but use of a holding solution bumped the number to over 13 days. Flowers were terminated when they began to blacken in the centers.

Nigella ‘Miss Jekyll Blue’

Nigella is known for its dried pods for a reason. Almost as soon as we cut the flowers their beautiful sky blue petals



Scabiosa 'Black Knight'

shattered. The other buds in the spray still opened, so that helped extend vase life to 6.3 days. Performance was similar across all four treatments. 'Miss Jekyll Blue' harvested at pod stage from another experiment is still looking great four months later. The pods have distinctive purple stripes that stay true even after drying.

Safflower (*Carthamus*) 'Dark Orange Red,' 'Grenade Orange,' 'Grenade White,' and 'Orange Head'

'Dark Orange Red' was by far the longest-lasting *Carthamus* tested this year, lasting an average 8.9 days after harvest. 'Grenade White' followed with 5.9 days, then 'Grenade Orange' and 'Orange Head' with 5 days each. All four cultivars' longest lasting treatment was a combination of hydrator and holding solution.

Scabiosa 'Black Knight' and 'Olympia Mix'

Both *Scabiosa* 'Black Knight' and 'Olympia Mix' are highly favored for their richly-colored flowers atop long stems. They are not large-flowered scabiosas like the 'Fama' series, yet their impact on a bouquet is undeniable. We all agree that 'Black Knight's' consistently deep, velvety, almost black pincushions are a lovely contrast beside almost any other selection from this year's trials. It fared well with an average 8-day vase life, and 'Olympia Mix' averaged 6.8

days. Blooms of the latter are slightly larger, with colors that range from white to the palest pink to lavender to a deep purple that rivals 'Black Knight.' Both cultivars lasted the longest with a holding solution.

Snapdragon (*Antirrhinum*)

'Chantilly Purple'

'Chantilly Purple,' an open-faced snapdragon, had a vase life of 9.7 days. With a holding solution, blooms lived over one day longer than untreated stems. Flowers were cut when more than three florets were open and terminated when more than 50% of flowers were desiccated or the stems were bent to less than a 90° angle.

Stock (*Matthiola*) 'Carthago White'

'Carthago White' was the first cultivar in this year's trials to bloom. It is a double-flowered stock, but a few plants turned out single as is expected. This stock's vase life averaged 7.3 days. It performed similarly regardless of postharvest treatment and was terminated when more than 50% of flowers in the stalk desiccated.

Sunflower (*Helianthus*)

'Goldy Double' and 'Sonja'

'Goldy Double' flower heads appeared after most single type sunflowers had already been harvested, atop nearly six-



'Goldy Double'

foot, sturdy stems. It is worth the wait for those large, fluffy golden orbs to begin to unfurl. First is the outer ring of flat petals reminiscent of a classic sunflower, followed by layer upon layer of serrated disc flowers. As these disc flowers open toward the center, the bright green disappears little by little until the entire flower head is one fuzzy, golden ball. On average, their vase life was 8.5 days. 'Sonja' is a miniature sunflower perfect for smaller arrangements and bouquets. Its center is a deep, contrasting black. 'Sonja' lasted 9.4 days after harvest. Both lasted the longest with a holding solution.

Yarrow (*Achillea*) 'Fireland' and 'Strawberry Seduction'

We harvested both yarrows when pollen was visible, the recommended cutting stage for optimum vase life. Flowers were terminated at greater than 50% desiccated petals or wilted florets. 'Fireland,' with an average vase life of 6.9 days, had tall, straight stems and muted, rusty red flower heads perfect for fall arrangements. 'Strawberry Seduction' had shorter, but sturdier stems with showier crimson blooms. Its average vase life was 7.7 days. Both showed an average two-day increase in vase life with the use of a holding solution versus water.

Zinnia 'Benary's Giant Deep Red,' 'Blue Point Golden Yellow,' 'Blue Point Lilac,' and 'Blue Point Salmon Rose'

All four zinnias grown this year were large, double-flowered types. Flowers were harvested when disk flowers opened and terminated once more than 50% of ray petals shriveled or if the neck bent to less than a 90° angle. 'Blue Point Golden Yellow' outlasted the rest with an average vase life of 9 days, followed by 'Blue Point Lilac' with an 8-day run. At 7.6 days, 'Blue Point Salmon Rose' trailed closely behind and 'Benary's Giant Deep Red' came in at 6.3 days. All four performed best when treated with a holding solution.

<i>Genus 'Cultivar' or species</i>	No Hydrator, No Holding (water only)	No Hydrator, Holding	Hydrator, No Holding	Hydrator, Holding	Stems Treated per treatment	Statistical Significance?
<i>Achillea</i> 'Fireland'	5.9	7.9	6.0	7.9	15	Yes
<i>Achillea</i> 'Strawberry Seduction'	5.4	9.7	5.5	9.9	15	Yes
<i>Ageratum</i> 'Blue Horizon'	7.4	9.8	8.7	9.0	15	No
<i>Agrostemma</i> 'Purple Queen'	8.1	9.7	8.7	10.0	15	Yes
<i>Amaranthus</i> 'Green Flowered'	6.9	11.0	10.5	11.0	15	Yes
<i>Amaranthus</i> 'Hot Biscuits'	7.6	11.4	8.2	15.0	14	Yes
<i>Ammi majus</i>	8.5	10.6	9.5	11.0	15	Yes
<i>Antirrhinum</i> 'Chantilly Purple'	8.5	10.7	9.1	10.0	15	Yes
<i>Asclepias</i> 'Silky Formula Mix'	9.9	11.1	9.3	11.0	15	No
<i>Astilbe</i> 'August Light'	4.2	7.3	4.3	7.8	15	Yes
<i>Astilbe</i> 'Bridal Veil'	6.4	6.7	5.2	6.5	15	Yes
<i>Carthamus</i> 'Dark Orange Red'	8.3	8.4	8.9	9.8	15	No
<i>Carthamus</i> 'Grenade Orange'	5.2	5.2	3.9	6.6	9	Yes
<i>Carthamus</i> 'Grenade White'	6.2	5.1	4.7	7.8	12	Yes
<i>Carthamus</i> 'Orange Head'	3.9	5.3	4.9	6.0	13	Yes
<i>Celosia</i> 'Dark Rose'	17.1	18.3	14.9	16.0	15	No
<i>Celosia</i> 'Sunday Orange'	8.5	12.5	10.7	12.0	15	Yes
<i>Celosia</i> 'Sunday Wine Red'	9.5	11.9	9.5	12.0	15	Yes
<i>Cosmos</i> 'Double Click'	4.7	6.2	4.8	5.6	15	Yes
<i>Cosmos</i> 'Sonata Mix'	6.9	8.3	7.1	8.9	15	Yes
<i>Cosmos</i> 'Versailles'	4.8	6.1	6.3	5.8	15	No
<i>Dianthus</i> 'Amazon Neon Duo'	15.4	15.0	14.3	15.0	15	No
<i>Dianthus</i> 'Volcano Mix'	17.8	16.1	16.1	16.0	15	No
<i>Gomphrena</i> 'Qis Carmine'	24.0	17.3	17.9	18.0	15	No
<i>Gomphrena</i> 'Qis Red'	16.3	18.5	16.7	15.0	15	No
<i>Helianthus</i> 'Goldy Double'	7.5	9.5	7.7	9.5	15	Yes
<i>Helianthus</i> 'Sonja'	8.2	9.1	10.1	10.0	15	Yes
<i>Lilium</i> 'Merostar'	13.7	13.3	13.6	12.0	7	No
<i>Lilium</i> 'Concad'or'	13.3	13.0	12.6	13.0	10	No
<i>Matthiola</i> 'Carthago White'	6.9	7.4	7.4	7.5	12	No
<i>Nigella</i> 'Miss Jekyll Blue'	6.1	6.3	6.5	6.1	15	No
<i>Scabiosa</i> 'Black Knight'	7.3	8.7	7.5	8.8	15	Yes
<i>Scabiosa</i> 'Olympia Mix'	5.8	6.9	6.8	7.8	15	No
<i>Tagetes</i> 'African Jedi Orange'	8.1	13.9	8.2	13.0	15	Yes
<i>Zinnia</i> 'Benary's Giant Deep Red'	5.5	7.1	5.7	6.9	15	Yes
<i>Zinnia</i> 'Blue Point Golden Yellow'	6.5	11.8	7.2	11.0	15	Yes
<i>Zinnia</i> 'Blue Point Lilac'	7.1	8.7	6.6	9.6	15	Yes
<i>Zinnia</i> 'Blue Point Salmon Rose'	6.9	8.7	6.4	8.5	15	Yes



25 Years - Four Celebrations

Knowledge is Flower Power!
March 17-18, 2013
J.C. Raulston Arboretum/NCSU
Raleigh, North Carolina

Knowledge is Flower Power

North Carolina is a leader in the U.S. cut flower industry. It boasts almost 40 ASCFG members, who produce a wide range of floral products, from annuals and perennials to woodies and grasses. Cut flowers are enjoying a renaissance at farmers' markets, through florists and events buyers, and play a large role in the movement to local products. Growing conditions vary greatly from mountains in the west to piedmont in the east, allowing growers to produce almost year-round.

North Carolina State University is recognized as the only university in the United States with a comprehensive research program on greenhouse and field cut flowers. The program includes new cultivar evaluations, production studies, postharvest experiments, and marketing analysis. In cooperation with ASCFG, NCSU coordinates the National ASCFG Cut Flower Trial Programs.

Tours will include cut flower growers Peregrine Farms and Wild Hare Farms, as well as the J.C. Raulston Arboretum, a nationally acclaimed garden with one of the largest and most diverse collections of landscape plants adapted for landscape use in the Southeast. Plants especially adapted to Piedmont North Carolina conditions are collected and evaluated in an effort to find superior plants for use in southern landscapes.

Start your 2013 season off with inspiration and information!

Sunday, March 17

Tours: Wild Hare Farm, Peregrine Farm, and the J.C. Raulston Arboretum. Evening social event TBD.

Monday, March 18

8:00 a.m. Welcome to North Carolina!

John Dole, NCSU, and Charles Hendrick, Yuri Hana Flower Farm, Conway, South Carolina

8:30 a.m. New Cuts to Consider, John Dole and Alicain Carlson

Learn about the newest cut flower releases for 2013, and decide which are right for your lineup.

9:00 a.m. Breeding Disease-Resistant Cut Zinnias, Julia Kornegay, NCSU

The NCSU zinnia breeding program is evaluating and using a diversity of species to create a disease-resistant cut zinnia.

9:30 a.m. State of the Cut Flower Industry, Halley Granitz, NCSU

What is the current situation of the domestic grower today, and how do you fit in the larger picture?

10:15 a.m. Plant Problems Solved, Brian Whipker, NCSU

Brian will teach us how to identify the most common diseases attacking cut flowers, and suggest solutions for them.

11:00 a.m. Care and Feeding of Cosmos, Dahlia, and Dianthus, Jared Barnes, NCSU

Some flowers are fussy eaters. Learn the best fertilization practices for a few of the most popular crops.

11:30 a.m. Bed Makers and Other Timesavers, Lisa Ziegler, Gardener's Workshop Farm, Newport News, Virginia
Lisa Ziegler is well known for her innovations which make her job easier and her business more productive. She'll explain how she developed them and how they work.

12:30 p.m. Lunch (included)

2:00 p.m. Bouquet Making, Pat Murray

2:45 p.m. Weeds, Joe Neal, NCSU

Weeds can eat up a grower's profit, as they take time to and effort to eliminate. Joe will discuss control in both field and greenhouse operations.

3:45 p.m. When Should I Harvest, and How do I Handle My Flowers?

Iftikhar Ahmad, NCSU

Learn what happens to vase life when flowers are harvested at different times of the day. Also, learn which homemade floral recipes really work, and how to handle cut 'Fire' Chief Celosia, 'Sovereign' Gold Coin African marigold, and 'Chantilly Yellow' snapdragon.

4:15 p.m. How Bacteria are Affecting Your Postharvest and What to Do About It, Alicain Carlson, NCSU

Learn how to increase vase life by preventing bacterial growth.

4:45 p.m. Temperature monitoring for Greenhouses and Coolers, Mark Thomas, Wild Hare Farm

How to install an economical temperature monitoring solution for greenhouses and coolers using your home's internet connection. This implementation will include real time web page views for multiple locations, text and email notification for temperature exceptions, plus data logging of temperatures for up to 30 days.

5:15 p.m. Wrapup and Thoughts for the Future, John Dole, NCSU

Find lodging and registration information at www.ascfg.org

GERMINATION CHAMBERS

Do Sweat the Small Stuff

Joe Schmitt
Fair Field Flowers

It's January, your greenhouse is icy cold and you have 20 flats of early crops to start, preferably at 70 degrees. Or it's late March, the weather outside won't settle, and there is no room anywhere for that next succession of plugs to be sprouted. Or, maybe it's August, 100 degrees in the shade, 140 in the greenhouse, and you still have one last round of starts to get going. Wouldn't it be great to have a place set aside, just for that purpose, that delivers perfect results absolutely any time of the year? Well, I do, and you can too.



Chamber with view of thermostat and water supply

Germination chambers, or sweat chambers as they are sometimes called, are simply compact controlled environments for sprouting seeds (known as Stage 1 in the growth of plants), providing the constant temperature and humidity that the majority of the seeds we use require. They deliver amazingly fast, uniform and predictable results every time. Set at 70F, my chamber reliably achieves uniform germination as follows: achillea and calendula 2 days, amaranthus, gomphrena, helianthus and zinnia 3 days, celosia and dianthus 4 days, snapdragons 5 days. You will save on seed costs, greenhouse space and fuel outlays, and quickly wonder how you ever got along without one.

The essential elements of a germination chamber are a submersible heat source with temperature control, a water source, insulation, suitable shelving for your plug trays, and access – some sort of door. You may wonder about light. Don't seeds need light to germinate, or in some cases dark? Not to worry. The light

needed to trigger germination in most cases is so minimal and transitory as to be almost unavoidable. And the dark? Well, that's why we cover seeds, isn't it? Once germinated, your trays are immediately removed from the chamber. It is definitely not for growing on (unless it's yeast you're growing – my chamber is fantastic for raising bread dough).

Got a few thousand bucks worth of spare change burning a hole in your pocket? For \$2300 to \$4500, you can have a professionally designed, fully assembled, wheel-mounted germination chamber delivered to your door, ready to connect to a water source and to plug in. If that fits your budget and your production system (number and size of your trays), it is the easy way to go. You will likely be happy with the results and should see a quick return on your investment. If you are cheap like me, however, and have the skills or can fake it, you will want to build your own. The cost of materials for mine was in the neighborhood of \$450.



Thermostat sensor

If you are even cheaper than that, I have heard of very rudimentary chambers constructed around a stock water immersion heater/de-icer but you would have to assure it does not have a built-in thermostat that typically cycles off at 40 degrees (I found one that claims to have an 80 degree upper limit).

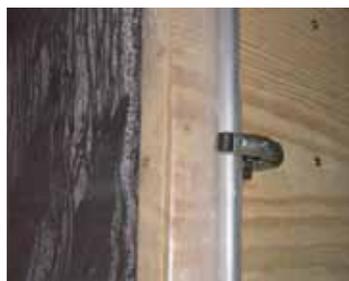
Consider first where your chamber will be located. It can literally be anywhere that you have a spare 10 square feet or so, but some spots are better than others. Ideally, you'll position it efficiently in the flow of your production from seeding to growing on. Then there's the water source and an outlet for power. One other consideration is what to do with the inevitable puddle of condensate. For tha

that problem a floor drain is ideal, but you could also buy or fashion a deep drip pan to catch the moisture. Last is the issue of excess sun. If a spot in your greenhouse or tunnel works best, you will need additional insulation to prevent the chamber from overheating.

My chamber is located in my basement, where all of my seeding and initial growing on is done (about 80,000 plugs in a typical season), a matter of a few steps between each of the operations there. No direct sun, so no overheating issues. It is next to a floor drain, where the plug trays are watered in after sowing, so no water source or water disposal issues. Measuring 32" X 48" X 80", it is sealed to use minimal materials, to fit around a stainless steel evaporator pan, and to accommodate 33 Speedling plug trays or 44 chain pot trays at a time. Since all my trays are rigid, I need nothing more than pairs of rods for shelving, in this case 3/4" PVC water pipe (non-corroding), stiffened with 1/2" electrical conduit inserted inside, capped with PVC caps, and held up by a



100 tray chamber with roll-up door



Latch detail

single stainless steel screw in each end. For flimsier trays, like most 1020 inserts when used alone, you would need welded wire, expanded metal or plastic grid shelving. Just keep corrosion in mind. The goal in any case is maximum exposure of all sides of the trays to the warm moist air.

The box itself is made of 2" foamboard insulation, top, bottom, back and sides. Only the two sides are covered in 3/8" exterior plywood, glued on, for rigidity and shelf support. The interior is lined with polyethylene sheeting to make cleaning and sanitizing easier, and the door is nothing more than a flap of the same poly, taped along the "hinge" edge, reinforced along the "latch" edge with a piece of metal conduit, and latched with a pair of screen door snubbers.

The evaporator pan, of course, along with a suitable thermostat, is the key component of a germination chamber. I purchased mine (about \$320) from a chamber manufacturer, complete with a 1000W, 120V heating element (\$20 purchased separately) and a float valve (\$3.00) for automatic water makeup. This option is still available provided, I was told, that they have orders for at least ten units pending. You could also have your local welding shop

build one for you, or, if you're the sort of person comfortable playing with a toaster in the bathtub, by all means make one yourself. Just be aware that the sticker shock of the cost of a ready-made unit is much less permanent than the other kind.

Likewise for the thermostat. While I cobbled mine together from separate components, for safety, peace of mind and very little additional cost (about \$40), you can purchase a ready-made portable thermostat with an extended sensor and a "piggyback" plug. The extended sensor is necessary because you want the thermostat located outside of the chamber, but the temperature controlled on the inside.

Last, a bi-metal probe thermometer (\$13), similar to a meat thermometer, is important for monitoring the actual temperature and accuracy of the thermostat.

Whatever approach you take for your chamber, from the tricked-out Lexus to the rusted-out microbus on blocks, the most important ingredient for its success is you. Germination chambers need unflinching daily attention, if for only a few minutes, ideally twice a day. It's a short check list to be covered:

1. Temperature – Too high? Too low? Tweak the thermostat.

2. Water level – Is the heating element completely submerged? It will burn out instantly if left high and dry. Always have a spare on hand for that inevitable day that the float sticks from lime buildup or the neighbors' kid shuts off the wrong side of the wye at the faucet.

3. What's sprouting – it is imperative that you get a germinated tray out and into high light ASAP. A half day too long in the dark will produce very rapid etiolation, spindly worthless seedlings unable to hold up their own heads. Even better, you should develop careful records of your own results in your germinator and remove trays just before they are due to emerge.

4. Stage 2 – Place your sprouted trays in high light and continued warm temperatures until all cells have completely emerged. You do have a Stage 2 area, don't you? No? Then that's a subject for another day.



Chamber with six Speedling trays

Sources

Complete units: <http://sezsd.com/>

<http://www.carolinagreenhouses.com/page/page/1689188.htm>

<http://www.hummert.com/ProductList.aspx?C=42A&Title=Propagation%20>

Equipment:

Evaporator pan assembly: <http://sezsd.com/> (group order – 10 units)

Portable thermostat: <http://www.kkcontrols.com/pothwse.html>

Float valve assembly:

<http://www.grainger.com/Grainger/wwg/search.shtml?searchQuery=2X768&op=search&Ntt=2X768&N=0&GlobalSearch=true&sst=subset>

Probe thermometer:

<http://www.grainger.com/Grainger/wwg/search.shtml?searchQuery=2A625&op=search&Ntt=2A625&N=0&GlobalSearch=true&sst=subset>



“From Seed to Sale”

October 7-8, 2013

OSU-OARDC Shisler Center

Wooster, Ohio

Plants. It’s all about the plants. Follow each speaker as he or she discusses the processes used to produce a flower crop, starting with variety selection and scheduling, through planting, growing-on, pest and weed control, harvest, postharvest handling procedures, all the way to marketing, pricing, and design. Field and hoop house options will be covered.

The Secrest Arboretum is a gem in the middle of Ohio’s scenic Amish country, and makes the perfect setting for plant enthusiasts. Wooster is an easy drive for those in the Midwest, Southeast, and Mid-Atlantic states.

Wrap up your 2013 season with inspiration and information!

Monday, October 7

1:00 – 5:00 p.m. Tour of Secrest Arboretum with Director Ken Cochran

Ken Cochran is the perfect tour guide for the ASCFG. Not only are woody ornamental plants his life’s blood, his research provides a valuable experience for “what works” as a cut flower.

6:00 – 9:00 p.m. Reception in Secrest Pavilion

Tuesday, October 8

Shisler Auditorium

8:00-8:15 a.m. Welcome

8:15 a.m. Sunny Meadows Flower Farm Review

Steve and Gretel Adams are young flower growers who farm just outside Columbus. Learn the secrets of their production and marketing successes.

9:00 a.m. Winterberry and Other Branches

Ken Cochran, OSU/OARDC, Wooster

Ken Cochran will lead a panel discussion on winterberry and other cut branches. Growers will talk about production and marketing, research, and use in event design.

10:00 a.m. Lily

Dave Dowling, Farmhouse Flowers & Plants, Brookeville, Maryland

11:00 a.m. Willow

Kent Miles, Illinois Willows, Seymour

12:00 p.m. Lunch included

Concurrent Sessions

1:00 p.m.

Hydrangea
TBD

Peony
TBD

2:00 p.m.

Sunflower
Kent Miles, Illinois Willows, Seymour

Dahlia
TBD

3:00 p.m.

Dianthus
Joe Schmitt, Fair Field Flowers
Madison, Wisconsin

Lisianthus
Steve and Gretel Adams
Sunny Meadows Flower Farm
Columbus, Ohio

Anemones

Frank and Pamela Arnosky

They say the only thing between Texas and the North Pole is a barbed-wire fence. While we Texans normally enjoy a mild Mediterranean-type winter climate, strong cold fronts, affectionately known as “Blue Northers”, can come sweeping down out of Canada and drop the temperatures 40 degrees or more in a 24-hour period. It’s not uncommon to go from 70s during the day to the teens at night. Throw in a 35-40 mph wind, and plants effectively “freeze-dry” in the field. While we plant thousands plugs of overwintering annuals and biennials in the field each winter, this kind of weather rules out any actual flower production that is not under cover.

Our winter flower production takes place in unheated greenhouses (high tunnels) which allow us to take advantage of the high light levels here, while buffering some of the cold temperatures. We have twenty-two greenhouses, and although we grow crops ranging from delphinium, stock and sweet peas to lilies and tulips, our main winter crops are anemones and ranunculus. These two crops are our “cash cows,” so to speak.

Anemones are well adapted to winter production. They like cool days, high light, and short day length. They’re productive, bring a good price, and they are all the rage right now as a wedding flower. There are some great varieties available as corms that have high production and a fast crop time.

We do all our anemone production from corms, and we grow the Israeli varieties from Yodfat (yodfat.co.il). Older

publications will tell you to avoid corms because they carry disease, but the newer varieties are one-year-old corms, and they are clean and vigorous. The advantage of using corms is that flowering is much faster and production much higher than that of seed-grown varieties. With seed varieties, you can expect to take 4 to 6 months to come into production. With corms, we start cutting 2 months after planting, and within 5 months we are finished with the crop. Production is at least 10 stems per corm.

We grow the Galilee and Jerusalem series. Galilee has a bigger flower but Jerusalem has more stems. Red is by far the most popular color, so about 50% of our production is red. Other colors are blue, pink, violet, burgundy, and white along with some bicolors. We order size 5/7 cm, but 4/5 cm will also do well. They are adapted to spending the summer in a dormant state in the deserts of the Middle East, so they arrive looking like little hard raisins. They will need to be pre-chilled before planting.

Anemones are planted in the fall. We order our corms well in advance since they usually sell out. We get ours from Fred C. Gloeckner & Company. The corms will need one month of pre-chilling in the cooler before planting, so arrange your delivery date accordingly. When they arrive, soak the corms for 24 hours in 5-gallon buckets, leaving them in the mesh bags they arrive in. The growing instructions will say to keep the water dripping in the buckets for some circulation, but we have too many



‘Galilee Red’ is one of the Arnoskys’ best sellers.

buckets to do that. We just change out the water after 12 hours and fill them up with fresh water. The corms will swell to 3 times their size, so make sure the mesh bag is loose or they will literally split the bags open.

The next morning we add a little fungicide to the buckets to help control *Sclerotinia* fungal growth while they are in the cooler. We put ¼ teaspoon of Strike in each bucket, mix it up well and let them soak one more hour. Then the bags are set into empty bulb crates and allowed to drain until they are almost dry.

The instructions from Yodfat will tell you to pack the corms in moist vermiculite, either in the bag or loose, but we chill our corms without packing material. One of the problems you'll encounter during the cooling period is the growth of fungus, most likely *Sclerotinia*, if the corms are too moist. You'll see a cottony, bluish-white mold growing on the corms, and it can quickly ruin a whole batch. We put the bags in bulb crates with no packing. This keeps them drier. The crates are then slipped into old soil mix bags that have perforations already in the bag. This is important, as you want some air flow in the bags. A low-sided bulb crate will slip perfectly into a soil mix bag. The bags are not tied, but loosely draped at the end of the crate, so there is a little more air flow. The key is keeping the corms hydrated, but not wet. The bulb crates are set into our cooler and kept at 36 degrees for about 4 weeks. We check them weekly for mold or dehydration. Remove any moldy corms right away. If they are starting to shrivel a bit, soak the corms again for a few hours and return them to the cooler.

Check the corms frequently for sprouting near the end of the month. If a few corms are showing roots or shoots, they are ready. You don't have to wait for them to sprout in the cooler, but if you see sprouts, don't wait to plant them. The roots are delicate and damage easily.

We plant all our corms in four-foot wide beds in unheated houses. Anemones like a well-drained soil with good fertility. We till in cottonseed meal as fertilizer, at 50 pounds per 800 square feet. Cottonseed meal typically runs about 6 percent nitrogen. There are four rows to a bed, one foot apart, and the corms are planted six inches apart down the row. Good air flow is essential, so don't plant them any closer. We mark the planting rows

by dragging a small half-moon hoe up and down the bed four times. We make a shallow furrow no more than an inch deep. Keep the corms moist while you are working with them. We fill a 5-gallon bucket with water in the greenhouse, and we dip the bags of corms into the water to keep them wet. We then pour out a small number of corms into a 1-gallon bucket and use that to carry the corms down the row. The corms have a scaly spot that indicates the bud at the top, and are usually pointy on the bottom, but not always. We set the corms six inches apart in the furrows, planted about a half-inch deep, working two rows up the bed at a time, and cover the furrows with our hands as we go.

Water the beds well after planting. The worst thing is to let the beds dry out following planting. The corms will shrivel and go dormant again. We hand-water the beds immediately, and then we set out two lines of T-tape per bed and irrigate for

24 hours. After that we irrigate as needed, keeping the soil moist, but not waterlogged. Corms should sprout in about a week to ten days.

Anemones are short-day plants. We plant starting in late October. We must wait for the soil temperatures to cool as warm soil can send the corms back into dormancy. We plant two crops, about one month apart. Long spring days trigger the plants to go back into dormancy. Anemones like cool temperatures, and can even freeze occasionally without damage, but night temperatures of 45-55F are ideal. If there is a chance of freezing in the houses, we will cover the plants with row cover. Daytime temperatures should not get above 80 degrees. Anemones like full sun, but here in Texas the winters are very bright, and we get a better quality stem using 30% shade cloth on the houses.

Good air flow is critical to success, and we open the sides of the houses most of the time for good ventilation. The biggest challenge is *Sclerotinia*, the same fungus that can attack the corms during chilling. It loves to grow in dark, moist conditions, and if the plants get too crowded or weeds fill in between plants it can spread like wildfire. You will first see yellowing leaves, then notice a white cottony fungus at the base of the plants, and the stems will rot at the soil level.



After soaking, the corms are packed dry into bulb crates and wrapped in a perforated bag.



Anemone in the greenhouse one month after planting.

Sometimes the whole plant will just collapse. Chemical controls have not been very effective for us. We irrigate only on bright sunny days, and keep the weeds at bay. Henbit is a terrible winter weed for us. It grows fast and smothers the anemones, and then it dies back and provides a base for the sclerotinia to grow on.

Aphids can attack the flowers. They get inside the buds and you don't see them until the flowers open. Get an early jump on controlling them so they don't build up in numbers. In warm areas like Texas, cucumber beetles remain active all winter, and they can really chew up the flowers. Our best defense has been to harvest in the bud stage to beat them to it.

Our plants begin blooming in late December, and continue through March. Postharvest handling of anemones is very easy. They are tough, forgiving, and have a long vase life. For local sales, we try to wait until the flowers have just opened before cutting, but for shipping, we will cut in bud, just before they open. A little experience will show you when the bud is tight but about to open. Avoid open flowers when the pollen sheds. We cut the stems at the soil level using Felco pruners. We will gather a handful, usually about 50 stems, and slip a rubber band around the base before placing them in a bucket of plain water. This keeps the stems from slipping down into the water, and splaying out in the bucket, and the band makes them much easier to process later. We store the stems in the cooler in buckets of Chrysal #2 holding solution. They will store for a week or more.

We pack 10-stem bunches, sleeved and bar-coded. Local deliveries are packed 10 bunches to a bucket and shipped in holding solution with a tablet of Chysal CVB chlorine. We also dry-ship anemones in boxes. Sleeved bunches are layered 20 to a box, packed in newspaper. They ship well in a box and are easily rehydrated. Overall vase life can be more than a week, and anemones continue to grow and expand in the vase. Customers love them!

Don't think anemones are just for the South. Back in the early 1900s, high-quality anemones were grown in "hothouses" in upstate New York. Given good ventilation and moderately good light, anemones can be a successful cool season crop just about anywhere.



Pam and Elena harvesting.

*Frank and Pamela Arnoskys
are the owners of Texas Specialty Cut Flowers.
To see their farm in person, register for
"On the Farm", March 4.*



“On the Farm”
March 4-5, 2013
Texas Specialty Cut Flowers
Wimberley, Texas

Frank and Pamela Arnosky are legends in the American cut flower world. They carved their farm out of the Texas Hill Country in 1990, and have built it into one of most renowned and respected flower companies in the industry. A fierce dedication to high quality and consistent product, combined with their innovation and generosity, have made Texas Specialty Cut Flowers a must-see location for all commercial growers.

Join us for an on-farm meeting to see firsthand their production methods, in hoophouses and in the field. Learn about harvest and postharvest handling of a huge variety of crops. You'll come away with more information from this one-day session than you'd ever believed you could. If you have time, come early for an informal social event the evening before, and stay after for a half-day tour.

Start your 2013 season off with inspiration and information!

Sunday, March 3

7:30 p.m. Optional dinner at Mi Tierra, San Antonio

Catch up with old friends and make new ones at this San Antonio landmark.

Monday, March 4

7:00 a.m. If you're riding the bus to Texas Specialty Cut Flowers, meet at the Fairfield Inn by 6:45 a.m. Bus leaves promptly at 7:00 a.m.

8:30 a.m. A Year on the Farm

Frank and Pamela Arnosky will describe a typical season at Texas Specialty Cut Flowers. Learn their methods of propagation and seedling production, growing-on, postharvest handling, and marketing.

10:30 a.m. Break

10:45 a.m. Woody Ornamentals as Cut Flowers

Meng Meng Gu of Texas A&M will speak about the latest developments in the use of woody plants.

11:45 a.m. Lunch (included)

1:00 p.m. Tour

Texas Specialty Cut Flowers is made of three farms. We'll tour two of them in the afternoon. At the "Market Farm", we'll see greenhouse ranunculus, anemone, sweet pea, stock, delphinium, lilies and other winter flowers, along with cold frames full of spring annuals such as larkspur, centaurea, snapdragon, and lisianthus. In the field we'll see spring annuals nearing harvest and the first plantings of summer annuals such as sunflowers.

At the "Home Farm" we will tour the greenhouses showcasing cut flower plug production, more cut flowers, and bedding plants for the retail market. We will also see the packing facilities and discuss the post-harvest handling challenges of a Texas climate as well as packing and shipping methods for both buckets and dry-pack boxes.

4:30 p.m. Regroup for question and answer, and group discussion.

5:00 p.m. Bus leaves Texas Specialty Cut Flowers

Tuesday, March 5

8:00 or 9:00 a.m. Optional tour of HEB Floral and San Antonio Botanical Garden

Meet the bus at the Fairfield Inn at TBD a.m. No personal vehicles allowed on this tour.

Noon Return to Fairfield Inn.

Find lodging and registration information at www.ascfg.org

A New Look at Ornamental Peppers

H. Chris Wien and Michael Mazourek

Ornamental peppers have been a relatively minor component of fall cut flower arrangements, their colorful fruit-bearing stems generally confined to small bouquets or decorations on fall wreaths. Their drawbacks have been relatively short stems, a tendency for leaves to wilt when put in a vase, and the drudgery of having to remove all the leaves. There are, however, pepper species that don't have these disadvantages, and we had the opportunity, with ASCFG Research Foundation funding, to test them. We grew 27 lines of *Capsicum baccatum* and *C. frutescens* after having seen their attractive and showy plants in 2011. We hoped to identify plants with showy fruits, good fruitset, and sturdy, erect and easy to defoliate stems. The 2012 planting was encouraging, so here is our progress report.

We started the seed on April 20 and transplanted to the field on June 6. We planted 2 rows of plants spaced 12 inches apart in the row on our 4-foot beds. 'Cappa Conic' from Harris Seeds served as the standard to which the new lines were compared. The new lines flowered about 3 weeks later than the standard, but then grew vigorously until maturity. They tended to be tall and wide, and those with larger fruits fell over after late summer rains. We concentrated our attention on lines that remained upright without support, and had prominent fruits. On September 21, we measured plant size, and harvested several stems for vase life testing. The accessions that stood out in all these tests are shown in the illustrations and in the table, below.

In the growing conditions of 2012, the plants in this trial were challenged

by higher than normal temperatures in midsummer, which probably delayed fruit set and stimulated more stem and leaf growth. As a result, the plants produced stems that averaged 4 feet in length, more than long enough for large bouquets. With the wide spacing used, each plant produced 15 to 20 stems. Of most interest was the fact that all of the selected lines remained turgid in the vase for three weeks after harvest, without wilting of the leaves. We evaluated leaf fall of the cut stems at the end of 5 weeks, and several showed at least partial leaf loss. The trial therefore indicates that these lines can be harvested when the fruits are attractive and showy, and used in bouquets directly, or stored as cut branches for a couple of weeks. That proved useful for us this year, as we encountered a killing frost in the field on October 13. In a later season, some of the lines should lose their leaves by the time of stem harvest, but this needs to be tested further.

If these results hold true in other years, these pepper lines should be a significant addition to material useful for fall bouquets. We hope to test these lines again in 2013, and to share a few seeds of each with the ASCFG trial program network, so that others can also evaluate them.

Acknowledgements: We thank the ASCFG Research Foundation for making this project possible, and Priscilla Thompson and Gretchen McDaniels for expert assistance.

Table 1. Promising pepper varieties for use as cuts in fall arrangements.

Variety no.	Stem length of harvested stems (in.)	Stems per plant at harvest	Leaf loss at harvest
11	48	16	Old lvs.
17	49	19	Slight
10	50	18	None
12	50	18	Slight
13	49	20	Slight to complete
16	46	18	None
22	51	18	None
23	57	19	Slight to complete
25	52	15	None
Cappa Conic	40	18	None: leaves wilted

Chris Wien is Professor of Horticulture at Cornell University.

Contact him at hcw2@cornell.edu

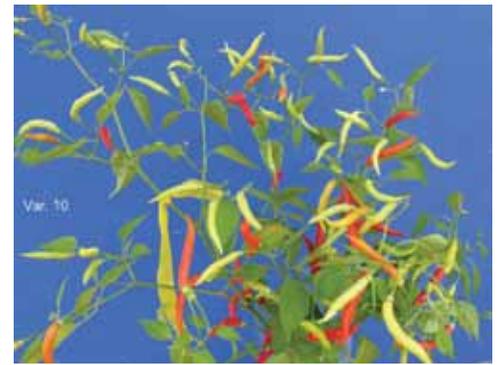
Observations on Promising Lines:



Var. 1 (PI 159252): Large mounded bush with small, round, yellow immature fruits that ripen red. Showy, good branch strength. Has tendency to drop immature yellow fruit after 2-3 weeks in vase.



Var. 7 (PI 260506): Large bush with purple stems and purple fruits, with relatively long internodes and low fruit number per plant. Attractive in mixed bouquets. Leaf drop varies from plant to plant.



Var. 10 (PI 441525): Erect upright bush with erect, thin fruits that are yellow when immature, and red after ripening. Looked good fresh, but failed to lose leaves with time in the vase.



Var. 12 (PI 441542): Blunt pale yellow fruits on broadly erect plant. Slight leaf drop in the vase.



Var. 13 (PI 441552): Oval, pendent green fruits maturing red, hanging from sturdy branches. Some branches had significant leaf loss in vase.



Var. 16 (PI 441575): Erect sturdy branches with small pointed fruits. Fruit color varies from yellow with pink bluish in immature stage to red when mature. Leaves were retained without wilting after 5 weeks in the vase.



Var. 22 (PI 441530-2): Erect sturdy plant with round, pendent fruits that are yellow when immature, turning red at maturity.



Var. 23 (PI 441530-1): Long, thin fruits on broad plants. Fruits yellow when immature, red at maturity.



Var. 25 (PI 441589): Sturdy erect plant with long thin fruits, green when immature, red when ripe. Leaves did not come off during 5 weeks in vase.

The Best-Laid Plans

Janet Foss

THANK YOU, but the real gem in my business has been the ASCFG, so I am taking this time to acknowledge the ASCFG Outstanding Service Award I received at the Tacoma Conference. I must admit the award made the whole week a lot of fun. My entire Lewis County community was awestruck when the press release Judy sent was printed in the local newspaper.

Thanks to my friend Bev Burrows for the awesome speech, which had to be hard for her, since she doesn't know all of you. I wondered why Diane had invited her to Tacoma. It didn't make sense then, but now I know why! Everyone needs a friend like Beverly, I am truly blessed.

While deciding what to say about all this, I couldn't help but reflect on my life growing flowers, and the importance of the ASCFG in my success.

The ASCFG connections I have made have given me insight and new ideas for production and growing ideas. The organization's meetings have energized me for another season time after time.

I was young and just married when I started growing flowers, and didn't have much money, especially for dues for a new association, nor could I see its importance. First to be published were the Georgia Reports, which evolved into Gatherings, and finally, *The Cut Flower Quarterly*. I loved the early conference

proceedings (before PowerPoint), which I read and reread, and still refer to occasionally.

I often reflect on attending a local farming workshop with Joe Seals, the first president of the ASCFG, and owner of the The Cutting Garden, which was my favorite seed source. I still miss it. Joe challenged us to move above the hobby stage. I decided I wanted to be serious about flower growing, but not a manager of employees, which is still a top priority.

You must understand that I was and really am still an introvert. I used to have nightmares about selling flowers, worried horribly that no one would buy them. The first few years, fear controlled my life so much I wouldn't go out in public unless my husband was with me. When

I suggested to my husband that I wanted to attend the 1991 National Conference, I was pretty sure he would say no, but he thought it might be a good idea, though he didn't think I would really go. I flew to Cleveland, Ohio, much to his and my surprise. Wow, it was a big deal in my life. I predetermined I would not be a wallflower and I would have fun and I would learn and I did. I've made friends all over the country and it changed my business and my life for good.

The connections I have made have given me insight and new ideas for



production and growing ideas. The organization's meetings have energized me for another season time after time. Some years and some circumstances in our life make continuing on difficult, but with the help and encouragement I received from fellow growers I've been growing and selling flowers for over thirty years.

Even the Seattle Wholesale Growers Market was conceived at an ASCFG Regional Meeting, which provided the opportunity for a conversation about a growers' co-op to be held. It's actually hard to find like-minded people to pull something like this together, and although many started out for it, it was quickly weeded down to a few willing to work on it, all ASCFG members. I have to say it's been the most exciting flower selling adventure I've ever been a part of. While I knew some of these people before, I really know them now.

Because of the ASCFG I've been to the National Arboretum in Washington D.C., Chanticleer Garden in Pennsylvania, the J.C. Raulston Arboretum, Plant Delights Nursery, many cut flower farms and

wholesale floral houses around the country, and several other wonderful places.

Some of the best things I've learned about growing from meetings and conferences include:

- Grasses. At one conference I learned about a new switchgrass which cost about five dollars for a four-hundred foot row. It turned into fifteen hundred dollars in sales. I used some of that profit to attend the conference the following year. Since then, I have found many grasses that make good cut flowers and extend to the season for our farm, both early and late. I used them both fresh and dried, for which they last quite a while, and their many sizes, forms, and textures make them ideal for cut flowers.

- Benary Giant zinnias have been beautiful and productive for us; the colors and health of the plants have been outstanding. We've learned about conditioning and how to make them last well as a cut flower. Zinnias are forever popular. While zinnias like a climate a little warmer than the Pacific Northwest, I always thought they did pretty well here, until I was at Ralph Cramer's farm in Pennsylvania and wow his zinnias were tall!

- I remember when the Grace godetias first came out. What an improvement they were over other varieties! Customers loved them, they lasted very well, and had clear awesome colors. Godetia is still an early-season favorite, a great wedding flower, and a farmers' market favorite.

- Believe it or not, sunflowers were once a real specialty crop. They could be hard to condition, especially at farmers' markets, where wind and sun quickly wilted them. Then came pollenless sunflowers, and day neutrals, and all kinds of new colors, and sunflowers moved to the commodity market, yet they are still appreciated by many as a seasonal, locally-grown flower. Locally grown they are fresher, more colorful, longer lasting—they exude the freshness and bounty of the season that only sunflowers can.

- Annual dianthus has also seen major improvements. They are now being bred with stronger, longer stems and more vibrant colors, although I think there is room for colors more keeping with current

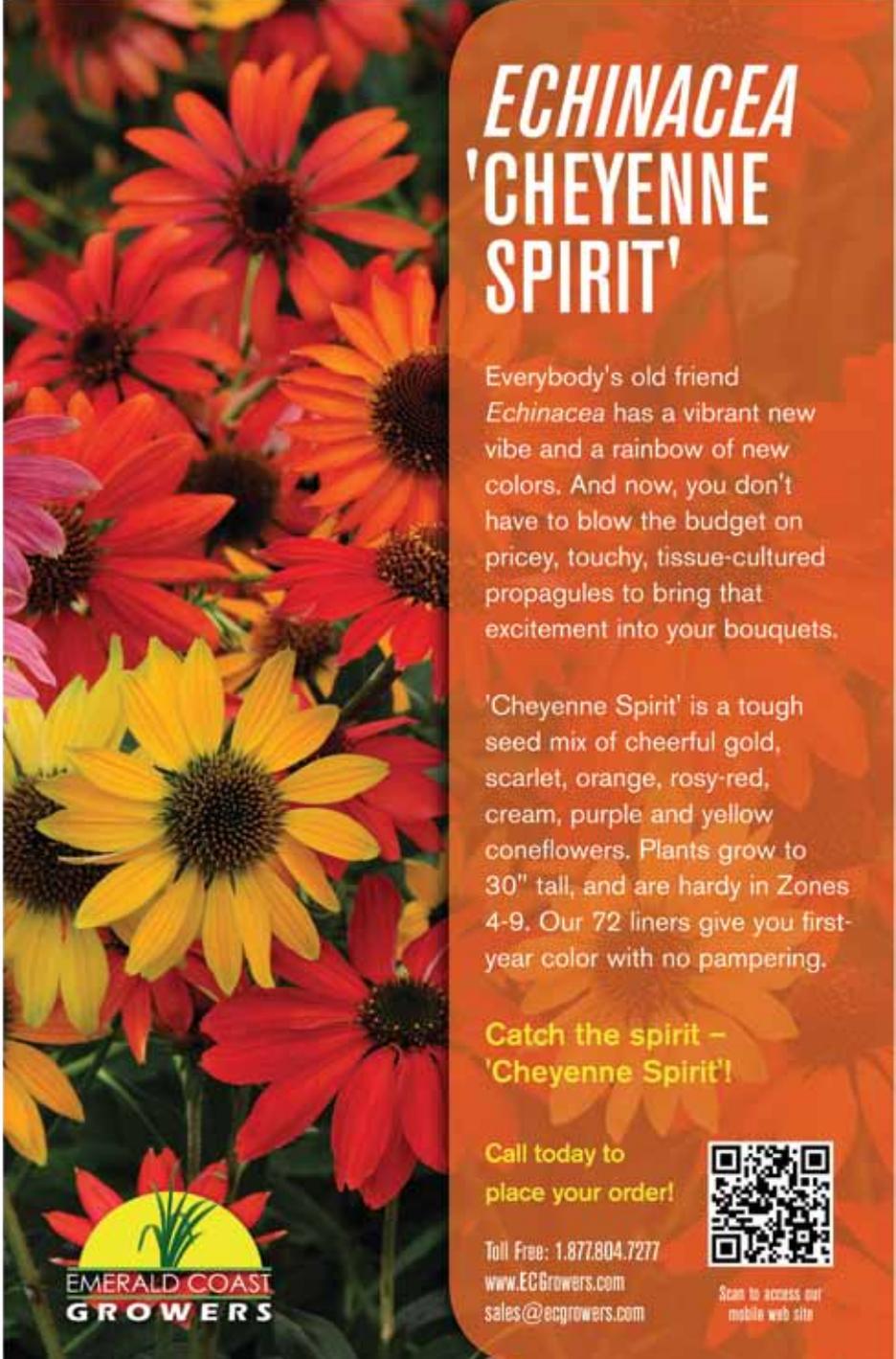
floral trends: more pastels, and true corals, for example. We have switched almost all our dianthus to annual types, like the Sweet and Amazon, which are easier to grow.

Others flowers I grow which I can attribute to the ASCFG are agrostemma, ageratum, clematis, roses, rudbeckias, Iceland poppies, hollyhocks, and many of the woodies.

Thank you, ASCFG, and all your members for all the great times, for keeping cut flower growing challenging

and giving me fresh ideas, for support during all the good and difficult times. I've had no regrets; there is very little that I haven't done that I wish I had.

*Janet Foss, J. Foss Garden Flowers,
is a specialty cut flower grower
in Chehalis, Washington,
and a long-time contributor to
The Cut Flower Quarterly.
Contact her at jfoss-garden@tds.net*



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Just Makes You Think

Gay Smith

Some terrific insights were shared during the ASCFG National Conference last November. Here are my notes on only a few of them.

“If customers don’t know your story, they don’t have anything to go on except price.” That concept smacked me on the back of the head and rang so true, I almost fell off my chair!

Telling your story is one way to get a leg up on the competition and win the interest of buyers. Having been a wholesale buyer more than a few times in my floral career, I’ve heard stories from smug colleagues about successfully pounding down a

grower’s price before agreeing to purchase. Telling your story is an excellent way to counter such behavior. Prepare a list of features and benefits—your back story—on what is involved in producing quality blooms. This way you are ready to defend your price position and squelch adversarial posturing.

Don’t assume your buyer knows why your product is better than the next guy’s. For example, what postharvest treatments do you use to ensure quality all the way to the end? Do you offer consistent bunch sizes? Do you test various solutions to find which one gives best

vase performance? If so, let your customer know about your practices. Keep in mind, many products arrive at wholesalers and retailers in dirty buckets and polluted tap water. Yours don’t.

Explain the research and communication in which you engage as part of making selections to offer the best varieties available. Do you plan production so color assortments change with the seasons? Make sure the buyer knows so he (and his sales staff) can inform his customers. Don’t assume your buyer has a clue about best handling methods for new products. One example is cut clematis, which is showing up in floral designs as a cool new bloom, yet most designers don’t know how to treat it.

Story Matters Here

Today’s ubiquitous answer to almost any question—“Google it”—indicates that consumers are as intrigued by the back story as they are about the product. Make sure it’s interesting with a big dose of panache because the competition is fierce! Stroll through the wine and beer aisles to see striking examples

of edgy labeling. How about gourmet salts touting stories of French cuisine and Himalayan adventure, all subtly shifting consumers’ decisions away from price as the primary purchasing component to falling in love with the story featured on the label, the product origin, or the brand? The back story sets the platform; brand recognition, logos and company name keeps your business in front of buyers’ eyes.

My Google search gave this definition for brand: The idea or image of a specific product or service with which consumers connect. Marketing expert Seth Godin puts it this way, “Just as it takes more than the hat to be a cowboy, your brand is more than the design of your goods. A brand is the set of expectations, memories, stories and relationships that, taken together, account for a consumer’s decision to choose one product or service over another.”

Great quote, considering our products stoke the fires of emotions from forgiveness and gratitude to hope, love, and sympathy. Since 1953, Interflora has featured the Mercury Man logo and the slogan “Say it with Flowers”. If you need inspirational



stories, read *The 50 Mile Bouquet*, written by Debra Prinzing with photos by David Perry. It's available through the ASCFG.

Another thought-provoking question was "Does the beauty go all the way to the bottom of the vase?" Maybe it is more realistic to ask the question this way: does the value go all the way to the bottom of the vase? Regardless of the phrasing, always define beauty and value in terms of your customer, or as mentioned by one of the speakers, "Know the difference between adding value versus value-added".

Gens X and Y vs. the Boomers

Adding value for Gen X and Gen Y crowds likely means customizing their purchases. Just as when ordering at Starbucks, this group knows exactly what they want and expects it on demand, but has little interest in details like longevity of blooms. For these folks, it's all about "now". On the other hand, if your customers are baby boomers, value-added means information on longevity expectations, furnishing colors and textures that create interesting bouquets, offering a food packet and care information for home use.

The last quote I want to share from Tacoma was "Are you creating a scent and petal journey?" What an engaging question—one that takes the mind in a million directions.

These quotes represent just a few of the wonderful perspectives shared at the conference. I don't know about the Monday Growers' School, but the weather behaved and sunshine accompanied us as we toured the Skagit Valley on Wednesday. Diane and the conference committee did a terrific job providing stimulating topics, punctuated with speakers' insights, all of which happened under the calm and super-organized skills of Judy and Linda.

Bev Burrow's stories toasting Janet Foss for receiving the ASCFG Outstanding Award were a riot. After Dennis Westphall serenaded the group with songs about flowers and seeding equipment, Dave Dowling's auctioning mastery lured almost \$10,000 out of members' pockets to support floriculture research. Thank you all for another fun and thought-provoking ASCFG conference. Now, talk about a story!

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Why are YOU an ASCFG Member?



The ASCFG supplies information and inspiration to growers of cut flowers.
What a group of generous people!

Jana Lamboy
Hastings Field, Geneva, New York

How to Not Go Wrong with Peonies

Stanton Gill

Peonies are one of most popular cut flowers grown. Once you get past the initial establishment, they're relatively easy to grow, and rewarding at any market. With their long-lasting, colorful blooms, peonies are also popular with customers, and are frequently used in wedding bouquets and large floral arrangements.

A Maryland grower told me that the first year of peony production is waiting. The second year is additional waiting. The third year and every year after that, stand back, because peonies take off like a rocket.

Well, you know that an entomologist saying all these kinds of things about a plant is probably leading toward discussion of some group of insects that feed on those plants. I would not want to disappoint you, so let's talk about one of the insects you'll want to keep out of your peony production beds – armored scale.

Normally, we think of scale insects pest of woody plants. You would assume that since peonies are herbaceous perennials they could not support an armored scale population, but they can and do.

In October of 2012 I received a sample of peony stems covered with an armored scale. When I searched the literature I found that peony can be attacked by several armored scale species. The three most frequently found are prunicola scale, *Pseudaonidia triolitiformis*, peony scale, *Pseudaonidia*

paeoniae (also called Japanese camellia scale), and fern scale, *Pinnaspis aspidistrae*. It is no surprise that these three pests originated in Asia, but have managed to spread across the United States, infesting many species of plants besides peonies.

Here is the uplifting part. You can prevent these scales from becoming problems in your production facility with a little monitoring and early detection, and safe insect growth regulator control materials.

Peony Scale *Pseudaonidia paeoniae*

This scale has been reported to kill branches if an infestation is allowed to build up. The female's cover is what you'll probably see since it is one of the largest life stages. It's circular to

pop off the cover and expose the insect's body underneath. The female scale's body is yellow, and she is slightly oval. Work done by McComb and Davidson in Maryland in 1969 found one generation per year with crawlers in late May to mid-June. Males pupate in August, and mated females are what overwinter. Pruning off old foliage with the scale on it and destroying the foliage is one of the best non-chemical sanitation methods. This pest can tolerate temperatures down to -15F (Sel 'Deshova, 1972) so it's pretty hardy in most parts of the United States. When crawlers are present in May, one of the better controls is to apply one of the two insect growth regulators, Talus or Distance.

White Prunicola Scale *Pseudaulacaspis prunicola*

The white prunicola scale went bonkers on the East Coast last summer. The CMREC lab had never received so many scale-infested plant samples as it did in 2012. It is common on skip laurel and lilac, but is polyphagous, which means it feeds on just about anything. This includes peony, which

we saw in October when we received a sample of peony with a heavy infestation of white prunicola scale.

Just like the peony scale, the females are circular and convex, but the difference is the female cover looks

A Maryland grower told me that the first year of peony production is waiting. The second year is additional waiting. The third year and every year after that, stand back, because peonies take off like a rocket.

oval, and highly convex; brown on the bottom, an orange to yellow center. It looks a little like a sunny-side-up fried egg with the white part being browned. The male covers are smaller, elongated and brown. With armored scale you can

white and the center cap is yellow. Going back to my egg example, it would look like a sunny-side-up egg that Julia Child cooked: perfect white with an egg center. The males are elongated and bright white. The cluster of males will catch your eye.

This scale produces three generations per year here in Maryland, starting in May and continuing until fall. Don't let this one build up on your peony or you will regret it. Use the same control methods as for peony scale.

Fern Scale *Pinnaspis aspidistrae*

This scale looks very different from the other two. The female's light brown cover is elongated, and more oyster-shell shaped. Males are small and white-felted. We have received lots of samples of this insect on ferns, liriopse, and mondo grass, but it thrives on peony. We have found two generations per year. In the second generation many of the females migrate down into the crown of the plant

to overwinter, so removing old infested foliage many not wipe out a population. Watch for crawlers in May to June, and again August through September. Talus or Distance applied at crawler periods are effective control.

For most scale pests, an application of 3% horticultural oil in the spring when temperatures are 50-55F for at least a week should suppress a population.

If you find any scale on your peony plants, please email me a photo.



Prunicola scale on peony stem. The female cover is round and convex, like dinner plates stacked on each other.

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Megan Bame

FreezePruf: Spraying for Freeze Protection

FreezePruf is a commercially available product recently marketed to improve both freeze avoidance and tolerance. The developer promotes up to a five-degree protection for flowers, leaves and fruit, though the level of protection varies with plant material. This study, carried out at Oklahoma State University, aimed to evaluate FreezePruf on tomato leaves, pepper and celosia seedlings, tomato fruit and bermudagrass crowns and stolons. (For the purposes of *The Cut Flower Quarterly*, this review will focus on the celosia experiments.)

Three-week-old 'Kewpie Orange' celosia seedlings were sprayed with deionized water

(control) or DI water and FreezePruf 24 hours prior to low temperature exposure. The experiment took place in a convection chamber, which was cooled rapidly to 0°C, then cooled at 2°C per hour to -20°C.

No significant difference was observed in the mean freezing temperatures of celosia seedlings sprayed with water (-6.1°C) or FreezePruf (-6.2°C).

Anderson, J.A. 2012. *Does FreezePruf Topical Spray Increase Plant Resistance to Freezing Stress?* HortTechnology, 22(4):542-545

Hydrating Dried Tuberos Roots of Ranunculus

Ranunculus asiaticus may be grown from seed or from dried tuberos roots. Plants grown from roots flower faster and more profusely. Hydrating the dried roots prior to planting is common practice to improve uniformity and to facilitate fungicide application. This research evaluated how hydration temperature effects plant growth.

Three experimental designs were carried out. In Experiment 1, roots were submerged in tap water at 5, 17, 23, or 35°C for 24 hours, followed by a 5-minute soak in a copper sulfate biocide. In Experiment 2, roots were submerged in tap water at 5, 10, 17, 20, 25, 30, or 35°C for 24 hours, followed by a 5-minute soak in a copper sulfate biocide. In Experiment 3, roots were submerged in tap water at 5, 15, 25, or 35°C for 24 hours, followed by a 5-minute soak in a copper sulfate biocide. Evaluation criteria included percent survival, plant height, shoot dry weight, number of flower stems,

and a visual quality ranking assigned on a 1-5 scale.

The hydration model indicated that water uptake was faster in warmer water. At room temperature, soaking for 24 hours before potting was considered sufficient to hydrate the tubers. In all three experiments, percent survival increased with hydration temperatures up to 20°C (15°C for Expt. 3) and decreased as hydration temperatures increased beyond that.

Considering the other evaluation criteria, this study suggests water temperature monitoring is an important factor when hydrating *R. asiaticus* and should be maintained between 15 and 25°C. Determining the temperature of your water source is important, since tap water may be cooler and other sources (such as water in a greenhouse) may be warmer.

Cerveny, C.B., W. B. Miller, T. Bjorkman and N.S. Mattson. 2012. *Soaking Temperature of Dried Tuberos Roots Influences Hydration Kinetics and Growth of Ranunculus asiaticus (L.)*, HortScience, 47(2):212-216.

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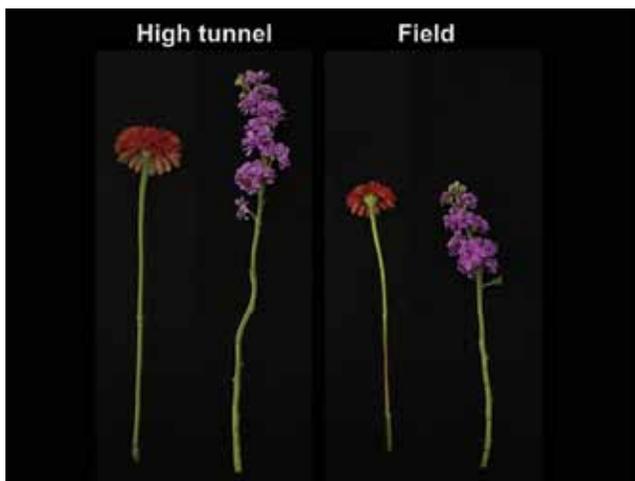


High Tunnel vs. Field Production of Some Cut Flowers

High tunnels are relatively low-cost structures often used for season extension, rain protection, and reduced disease. With a lower daily light integral (compared with field production), cut flowers typically develop significantly longer stems in high tunnels. Researchers at Purdue University evaluated 10 specialty cut flower cultivars in field and high tunnel production. They compared weekly yield and quantified other differences that could be attributed to the different production systems.

Cultivars evaluated were: *Antirrhinum* ‘Rocket Red’, *Celosia* ‘Chief Red’, *Dianthus* ‘Amazon Neon Cherry’, *Matthiola* ‘Katz Lavender Blue’, *Zinnia* ‘Benary Giant Scarlet’, *Dahlia* ‘Karma Thalia Dark Fuchsia’, *Eustoma* ‘Mariachi Blue’, *Helianthus* ‘Sunrich Yellow’, *Antirrhinum* ‘Potomac Orange’, and *Helianthus* ‘Premier Lemon’.

Significantly longer stems were observed on the plants grown in the high tunnel for these cultivars: *Antirrhinum* ‘Potomac Orange’ and ‘Rocket Red’, *Eustoma*, *Matthiola*



and *Zinnia*. The number of stems harvested per square meter was significantly higher for *Antirrhinum* ‘Potomac Orange’, *Celosia*, *Dianthus* and *Zinnia*. While the stem caliper of *Matthiola* and *Zinnia* was greater, stems of ‘Potomac Orange’ was smaller in the tunnel. The small caliper stem combined with the longer stem length resulted in stem support problems. Reduced time to harvest was also observed for *Celosia*, *Dahlia*, *Dianthus* and *Helianthus* ‘Premier Lemon’.

While this study demonstrated several benefits of high tunnel production over field production, it also noted that the benefits are cultivar-specific, suggesting a greater need for further research on additional specialty cut flower cultivars.

Ortiz, M.A., K. Hyrezyk and R.G. Lopez. 2012. Comparison of High Tunnel and Field Production of Specialty Cut Flowers in the Midwest, HortScience, 47(9):1265-1269.

Petal Blackening and Flower Opening in Lotus

Previously, research has looked at the effect of exogenous ethylene on petal blackening in cut lotus flowers. This study aimed to evaluate other hormone classes: auxin, cytokinin and gibberellin with a goal of delaying early petal blackening and promoting bud opening.

The flower buds of *Nelumbo nucifera* spp. *Nucifera*, cv. *Saddabutra*, were harvested at the normal commercial stage and held at room temperature. Vase life was defined as the period until half of the visible petals showed black patches. The flower was defined as “open” if the petals at the tip leave an opening. Two treatment methods were used for the application of the hormonal chemicals. In Experiment 1, the chemicals were included in the vase water at the onset and not replenished. In Experiment 2, the chemicals were applied as a 3- to 12-hour pulse treatment.

The study found that the hormone treatments tested had no effect on bud opening. However, pulse treatments of GA3 and thidiazuron showed promising results with delayed petal blackening. Interestingly, the effect seemed to be dependent on the time of year indicating a seasonal cultural effect.

Imsabai, W. and W.G. van Doorn. 2013. Effects of auxin, gibberellin, and cytokinin on petal blackening and flower opening in cut lotus flowers (Nelumbo nucifera), and Technology Postharvest Biology, 75:54-57.

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GROWER PROFILE

Cathy Rogers, Bloomin' Joy



Cathy Rogers considers herself a little spoiled, or perhaps incredibly lucky. Her foray into the cut flower industry wasn't exactly planned, but the pieces have fallen nicely into place over the years as she's built a business that supplements the family income, and allows her to share a passion for flowers through community development projects.

Cathy is a graduate of the Culinary Institute of America. Her first career included working at a bakeshop, serving as chef for a Cornell sorority, private cooking and catering, including weddings. It was her experience with weddings that helped her establish early on that she did not want to work weekends in the flower trade.

Grazing in the Grass

It was nearly 20 years ago when Cathy took a job with a retail perennial farm across the street from her home when her youngest son started kindergarten. She was particularly drawn to the ornamental grasses and early on established that as her niche. She developed a slide show for garden clubs and became the self-appointed local expert on ornamental grasses. While performing the regular maintenance of cutting the grasses down, she wondered if florists would be interested in using grasses. They were, but she also decided to add more color by growing and offering perennials and annuals as well and her business, Bloomin' Joy, was born.

Here's where the good fortune comes into play. Years ago, she was reading a magazine article about a plantsman at

Yale University who said that when *The Cut Flower Quarterly* arrived, he sat right down and read it cover to cover. She had never heard of the Association, but looked it up online. As it happened, there was going to be a 2-day workshop at the 4-H center only a couple miles from her home, which she describes as being in the "middle of nowhere." The line-up of speakers included Bob Wollam, MaryLee Johnson and Mimi Davis. Cathy recalls, "They shared what they knew on the topic, which was a lot. It was fascinating and I was amazed at how generous they were with their knowledge. I thought 'these are my people,' and I joined the Association." She says she often finds herself at conferences, on the bus, trying to listen to two conversations at once to glean as much as she can from fellow growers.

She also acknowledges her location has contributed to her success. Burnt Hills is 15 miles south of Saratoga Springs, "a huge economic engine in the summer because of the racetracks, performing arts center, and the college." She is able to sell nearly every stem she cuts to two florists, one in Saratoga Springs and one local. In the event they become backlogged with grasses, she takes the bunches home, hangs them in the attic, and sells them as dried stems in the fall to those same florists. She cuts and delivers just twice a week in a Honda Odyssey. Cathy explains that the Odyssey's third seat folds down into a well in the floorboard. By leaving the seat up, she can accommodate 4-foot stems in the well of the Odyssey.

Friendly Fire

Her season starts in mid-March, when she begins sowing seeds, and lasts through first frost in early October. Her hoophouse, used for season extension, is connected to her home. In fact, for the most part, her landscape beds serve as her flower fields. With less than an acre in production, it's a manageable size for her to handle with minimal



assistance. She says, “Grasses aren’t fussy. They can be used as groundcovers or in difficult spots.” During the New York winter, she enjoys watching the dry grass sway in the wind and bring life to a frozen landscape. She cuts the grasses back or burns them. Burning, she explains, takes only a few minutes and leaves no clean-up tasks.

While the drought doubled her water bill this past year, Mother Nature’s critters were the real nuisance—woodchucks to be exact. Quite the trapper, Cathy caught nine woodchucks this year.

Cathy grows some potted perennials and grasses for an annual plant sale and will grow plant material specifically for the florist in Saratoga Springs in 2013. While she’s not looking to expand, she does tweak her offerings and find different ways to utilize her growing space. She plans to add herb bouquets next year for her florists and a local restaurant. The idea was inspired by watching television cooking shows where they grab a bunch of fresh herbs to chop for their recipe.

Her best-selling specialty cuts include: hydrangea ‘Limelight’, peonies, dianthus (Neon series), goldenrod ‘Golden Fleece’ (before they bloom), campanula ‘Freya’, Rudbeckia triloba, Baptisia australis, Chasmanthium latifolium, Calamagrostis brachytricha, Panicum ‘Shenandoah’ and Achillea ‘Moonshine’.

Despite the fact that she doesn’t provide floral services for weddings, she did make an exception for her son. She says his wedding, held in her backyard among the flower beds, was one of the highlights of her career. It was a culmination of sorts for her business venture. Flower farming was a business she developed because it allowed her to stay at

home with her boys, Justin and Lucas, while also contributing to the family income. As her son stepped out to build his own family, he quite literally walked among the flower beds that played an integral role in raising two fine young men.

Community Service Important

Another highlight was participating in a teen agriculture program called Roots and Wisdom in nearby Schenectady. The urban youth grew flowers for a flower bouquet CSA they named Soul Bloomz. She reflects, “When you show these children that they too can take flowers from seed to harvest, it’s rewarding. When you see the spark of pride and accomplishment wash across their face when they then create a gorgeous bouquet—especially the boys—it becomes a spiritual experience.”

Building community through horticulture has been an important part of Cathy’s life since 2002, when, in the aftermath of 9/11 she started a local beautification project, “Town in Bloom.” With support from the Rotary Club, she just celebrated 10 years of helping make the town of Burnt Hills a little brighter with public plantings of flowers.

What does Cathy do in the off season? She heads South for warmer weather, but she’s already looking forward to the return trip in March. She’s planning a stop in Raleigh, North Carolina, for the “Knowledge is Flower Power” ASCFG event. What a great way to start the season!

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NORTHEAST

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'Tis the season for Reflection, Change, Growth and Renewal

Reflection: It isn't going to hurt your back or strain your knees. You don't need sharp pruners or any special computer program or app. Grab your favorite drink and snack. Do yourself, your business, and your family this favor.

There are three basic ways to make proactive change: 1) Stop doing something that isn't working; 2) Keep doing something that is working; 3) Try doing something new.

Trimming away some things that you have always done a certain way can be intimidating. "It worked when I first started". "But that's what I grow in this spot." "People used to be crazy about them." Just the thought that you may be dropping something that you have some amount of historical comfort in can be reason alone not to change. But is that ultimately helping you be more profitable, happy or fulfilled? No.

On the other hand, sometimes reflection upon a year can make you decide to keep doing something. Even though it might be seen as a non-change, it is proactive, because you have consciously decided that it is contributing to your financial and/or emotional sustainability.

And as far as trying something new, that's the most fun part! There is so much out there for system changes, variety changes, styles, and ideas, and the ASCFG is overflowing with them! Be assertive about changes, creative about ideas for growth, and Voila! You have charted a new path for your farm business.

"Anyone can steer a ship, but it takes a leader to chart the course."

-John Maxwell

Without a doubt, reflection, change, growth, and renewal are vital parts of a successful business, a happy home, and a fulfilling existence. I took a quick poll of some of our Northeast members to find the changes they're planning. I hope you are inspired by these and sparked to make changes of your own as well.

This year I won't be:

- Open every day. I need to retain a day for sanity and family time.
- Planning another gomphrena variety trial for 2013. My helpers threatened to quit if I do another one!
- Growing so many varieties of annuals. I lose track of them and have no follow-through as to what I liked and didn't like.
- Fertilizing sunflowers. I found that to be the reason why their blooms were too big and plants were falling over.
- Pushing the envelope in everything we do. We are downsizing to what we can actually produce within our means. Grow to sell out, not have surplus.
- Selling flowers at the same prices I've had for years. I need to increase my prices to reflect my increased costs.
- Tempted to plant bupleurum or larkspur after early May. Stem length is too short if planted late.
- Winging my selling tactics at my farmers' market stands. I need to take the time to have a marketing plan for each of my markets.
- Transplanting sunflowers. Direct sowing is much more cost effective.
- Delivering for free. I will be charging a flat rate \$3 delivery fee per stop regardless of order size.
- Harvesting sunflowers on a Sunday instead of canoeing with my family. I have hired a Sunday worker.
- Growing zinnias. We'll miss them, but they just don't hold up as long as the other flowers we have in our bouquets.
- Growing dahlias and tuberose. Getting too old to dig them each year. Growing safflower and nigella. Can't get the timing right and it gets overrun by weeds

This year I'll be continuing what works or trying new:

- Anemone and ranunculus in the tunnel: pre-sprouted by mid-December, and protected until mid-March.
- Planting flowers of the same type together.
- Requiring orders for the coming weekend to be in by Tuesday.
- Planting glads, more dahlias, more sunflowers, more peonies and lilacs.
- Using landscape fabric in my perennials.
- Planting more agastache hybrids (Color Spires series). Hyssop 'Coral' and Hyssop 'Orchid' were both still blooming in mid-October, 'Black Adder Anise' was still blooming in late-October. They made excellent fillers and customers kept commenting on the wonderful smell.
- Planting more Gaillardia aristata 'Oranges & Lemons', and Penstemon strictus 'Midnight Blue' (because both continue blooming after frost).



- Adding beehives.
- Creating an Agricultural Commission for my town.
- Giving dahlias and tuberose more space to grow.
- Selling extra plant plugs at farmers' market.
- Growing more Karma 'Fox Orange'.
- Using seaweed to mulch my perennials.
- Sowing hens & chicks in 50-cell trays to keep them small for corsage and related wedding work.
- Enjoying what I do more and have time for some other non-farm things too.
- Working smart and efficiently, rather than just working hard.
- Having a quick-hitch system for my tractor.
- Using a Coolbot to save money on electricity to my walk-in cooler.
- Using dahlias, celosia, and cutting mums to extend my season.
- Planting more hardy perennials.
- Using preventative spray program with Serenade or Bordeaux for lilies.
- Delegating weekly flower harvest and bouquet making to allow more experienced workers to do wedding work.
- Growing more grains (of all kinds) and fancy mums for October and November sales.

Best of luck to fellow growers, designers and flower enthusiasts! Utilize all that the ASCFG has to offer on its community forum, meetings and member connections.

These examples of real-deal changes fellow members are making for 2013 are thanks to: Chris Wien (Cornell University), Melissa Glorieux (Aster B. Flowers), Paula Gilman (Fernwood Farm), Jana Lamboy (Hastings Fields), Barb Jewell (Island Meadow Farms), Chas Gill (Kennebec Flower Farm), Suzanne Notler, (Blazing Star Farm), Nicole D'Agata (Painted Tulip Floral & Event Design), Jim (Kelly Emerald Farm), and Carolyn Snell (Carolyn Snell Design).

"Without continual growth and progress, such words as improvement, achievement, and success have no meaning."

-Benjamin Franklin

MID-ATLANTIC

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A new year is always such an exciting thing. Possibilities, opportunities, promises of what's to come. I've always been a glass-half-full kind of person. 2013 brings exciting new things for the ASCFG, with the main one being a change

in format for our conferences. Instead of the usual Regional Meetings in spring and National Conference in fall, we are trying smaller events in lieu of both. Each mini-conference has a different "personality" so far and should provide a larger range of dates, locations and topics to choose from than one large conference would. The shorter time frame of each allows us to learn new things and interact with other growers with less time away from the farm. I am excited about the possibility of getting to go to many meetings, hear speakers on a wide range of topics, and spread this out throughout the year. These "refreshers" should prove to be just the recharge I need in both spring and fall!

In the meantime, the planning, lists, spreadsheets and catalogs are in full effect here. Six months ago, we moved to a new house. After relocating and downsizing my farm, I am now taking on my new yard. A little over an acre of full-to-partial shade and I am in heaven! Having moved from the land-of-no-trees (our old house was built in the middle of a former soybean field), these huge oak and pine trees are not only beautiful, but are providing me with a whole new playground. I am trying every type of fern I can get my hands on and hellebores will cover a sloping hill by the time I'm finished. Every type of hydrangea has been added throughout the landscape beds and every perennial that I've never been able to grow in hot sun is on my list! I hope you are as excited as ever about your lists and spreadsheets this year, and I hope to see you all at one (or more!) of our meetings.

SOUTHEAST

Charles Hendrick

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My Regional Report is a reflection on the 2012 National Conference, though as I write, I continue to reflect on what I experienced and heard. Last year's meeting in Tacoma was well attended and seminars were informative and thought provoking.

Typically, my memory faded after two weeks, but the information I gained has been enduring, and it helped that I took good notes! The following is a compilation of just a fraction of the information shared.

Kasey Cronquist, CEO/Ambassador of the California Cut flower Commission, talked about the Battlefield of Flowers. This statistic continues to echo in my ears: South America ships 35 cargo planes full of flowers to Miami, Florida every week. Yep—35 cargo planes a week! It irks me that our government gave South American growers financial assistance to begin cut flower production. Even so, being growers of locally grown product helps us all tremendously. Kasey stressed the importance of being who we are: producers of fresh, locally-grown product. He stressed the importance of label identification on each flower bouquet sold, and how working together as a cooperative or association greatly benefits us. We must continue to build strong personal relationships with our customer base and continue to grow high quality flowers. Consumers are looking for locally grown, and want to support and buy locally grown.

Ko Klaver gave an inspiring talk about farming, which he pointed out is definitely not a 9 to 5 job, in fact it is a 5 to 9 job! Isn't that so true? 5 A.M. to 9 P.M. on many days is

the life of a farmer. We face many challenges. What do I want my farm to look like? What do I grow? How do I grow it? Where do I sell it? How do I market my product? What is our game plan? We must be serious about our business, and adaptable to change! Ko advised that we grow a wide variety of flowers, and that we be smart growers. Be one step ahead of the competition. Be diversified always; try to sell to multiple

outlets and not just to florists or just to farmers' markets. Continue to educate ourselves about new products. Stay excited about being a cut flower grower! And lastly, stay connected to the ASCFG. ASCFG members are like an extended family and are willing to share their experience and assistance

Gloeckner's bulb specialist Ron Beck shared everything you ever want to know about lilies. He encouraged us to try parrot tulips and double-flowering Lilies. Ron suggested that we explore Cornell University's website as an excellent reference source on these topics.

Go to <http://www.flowerbulbs.cornell.edu/>

Robin Stockwell, owner of Succulent Gardens in Castroville, California, gave an excellent talk about succulents, and made beautiful wreaths using his succulents. Visit his website at <http://sgplants.com/> for some succulent eye candy.

The National Conference exceeded my expectations when it came to learning and experiencing new ideas, and I definitely came away re-energized! It was fun visiting old friends and making new ones. Just listening and networking with other growers "grows" us too!

Speaking of growing as a grower, please make plans to attend the meeting at the J.C. Raulston Arboretum at North Carolina State University on March 17 & 18, 2013. The theme is "Knowledge is Flower Power." An excellent slate of speakers is planned, and we look forward to seeing many of you there!

In closing, I want to thank Diane, Dennis, Janet and everyone else on the conference team in Washington for a doing a great job. I very much enjoyed my first visit to the West Coast. Other than a 22-hour adventure getting home, I would do it all again tomorrow. Take care everyone, and hope to see you in March!



MIDWEST

Kent Miles

Illinois Willows

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Wow, what a conference we had in Tacoma last November. For those who did not attend, here are some highlights I found interesting. I'm that sure that I have overlooked some.

Monday started with an early bus trip to Jello Mold Farm with our hosts Diane and Dennis. This was my first trip to the Northwest. The climate and beauty of the scenery were spectacular, compared to the flat fields of Illinois. With the tour of the farm, Dennis explained about their composting with the use of fish. That is one that I'll never forget.

Janet Foss took us to the one of the hoopouses that was involved with cut mum production. I found it interesting to hear Janet's description of how they were growing them. I was very impressed with what I'll call the "barn", i.e. cooler, packing shed, and upstairs meeting room. I like the setup they had with regards to the packing room and cooler. Due to the close proximity of the beds and the 'barn', bringing in product to be processed and then put in the cooler was all completed in a short distance. Upstairs we had a presentation from Robin Stockwell, from Succulent Gardens. Robin told us about his nursery that is composed of succulents. He discussed propagating, and designing/installing succulent in landscapes and fixed design elements. His photos were detailed. After Robin's portion of the program, we had a brief time to network and then enjoyed a wonderful lunch.

Back on the bus, we left Jello Mold Farm and headed to the WSU Extension Center, and had Ron Beck from Gloeckner give the first presentation. Ron spoke about bulbs: tulips, lilies, and specialty bulbs like ranunculus and anemones. After Ron's session, we got to hear Ralph Thurston from Bindweed Farm. This was my first time hearing Ralph talk about his farm and his bulb production. Ralph was very informative, and I was able to take the information back and try a few procedures here in Illinois.

We got back to the hotel for a reception. Debra Prinzing and David Perry each gave a presentation of their book *The 50 Mile Bouquet*. The stories and photographs discuss the rise of the local flower movement. Afterwards, there was a book signing and more networking.

Tuesday we started off with the keynote speaker Kasey Cronquist from the California Cut Flower Commission. Kasey discussed what California has done with growers and branding their flowers nationally. The topic really spoke to me on how I, a small farmer from Illinois, could begin branding my flowers.

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Marketing and branding continue to be important areas which we try to improve upon. It makes me question how can I get my message expressed to my own customers, wholesalers, farmers' market customers, and retailers, regarding our products and how they differ from imports.

The remainder of the day was scheduled with concurrent sessions. It would have been nice to have a clone so all sessions could be attended. I decided to go to "Sexy Flowers: Hellebores and Gloriosa Lilies." Speakers Riz Reyes and Patrick Zweifel were very knowledgeable and informative about these crops.

After lunch I went to the postharvest session with John Dole and Gay Smith. I always pick up new information on postharvest applications. Following with a high tunnel session, speakers Ralph Cramer, Polly Hutchison, and Ralph Thurston gave their personal experiences with the do's and don'ts that they have used in their own operations. Questions and answers followed the panel.

To close the day was the trade show with reps from vendor companies. It was a jam-packed day in the hotel with sessions and networking.

Wednesday, we got back on the buses for a start at the Seattle Wholesale Growers Market. A co-op market of growers in the region all under one roof in the historic Rainier Brewery building.

Then off to Skagit Gardens and Choice Bulb Farms ending the day at Maplehurst Farm. We all enjoyed a delicious meal featuring local foods and beverages.

Overall, I brought back ideas that may or may not be applied to us here in Illinois. With going to a conference or other meetings, you see and learn how farming is done in a locale that one may not be familiar with. Between tours, sessions, and networking, you can bring home just a few tricks that can be tweaked to meet your customers' needs and make a difference in your farm operation.

Distance, and being off the farm, doesn't have to stop you from selling flowers. While I was at the conference, I had received two wholesaler orders and one order from a retailer before I returned to Illinois. Selling while you are off the farm at a conference is a bonus!

The catalogs for seed and plugs have been arriving the past couple of weeks. Decisions, decisions, decisions will be completed soon on what new items we will offer this upcoming season.

Our outdoor farmers' market here ended the first Saturday in November. We are fortunate to have an indoor market that runs until the week before the Christmas holiday. The big surprise this year has been the dogwood crop. All varieties are selling very well in all grades. By the beginning of December we had only a few bundles of cardinal tips left in the cooler. In the past we had finished the dogwood crop by Valentine Day sales.

This year was the first time to offer ilex to wholesalers, and we were sold out by Thanksgiving. We sell ilex by the bunch, i.e. tips, medium and single stems (tall). As of the first of December, our sales were up with our seasonal fresh wintergreen, and red curly willow wreaths.

We are finishing up some of the details for our meeting slated for October 7-8, 2013. Overall, there will be four meetings in different areas of the country. The goal of holding four smaller meetings instead of one large one is to increase attendance. We are hoping that more people will be able to attend one of the meetings held closer to their home, instead of having to travel halfway

across the country. The theme for the Ohio meeting will be "From Seed to Sale" and consist of speakers addressing a variety of crops. Presenters will inform us on what it takes to produce that crop from seed to sale and all points in between. Varieties, growing operations and marketing that crop, who you sell it to, like retailers, wholesalers, farmers' market customers, or internet sales. Crop presentations will include annuals, woodies and perennials. We will meet at OSU's Secret Arboretum at in Wooster, Ohio. Watch for upcoming information.

In closing, keep your mind open and flowers will flourish.

SOUTH-CENTRAL

Rita Anders

Cuts of Color
ritajanders@cvctx.com



When I came home from the ASCFG National Conference in Tacoma, I was greeted by three of my grandchildren. What a homecoming! My daughter had called me as I was getting on the plane, needing me to babysit, and wanted to know when I'll be back. I told her not till around nine and that she should call her dad to watch them till I arrived. I read stories and played until we all crashed at 10:30, which was way past all our bedtimes, but that's what grandparents get to do. It's nice to keep them and then get to send them home. The next morning I was off to my deliveries and back home to get flowers ready for a nice size function on Saturday. No rest for the weary.

The National conference in Seattle was well attended with full tour buses and packed educational conference meetings. Diane Szukovathy and Dennis Westphall from Jello Mold Farm in Mount Vernon deserve a huge pat on the back for a job well done. Also thank you to all their volunteers that helped and kept things moving. Good job.

I posted pictures on the ASCFG Community Network. The pictures give a small look at our tours and some of the interesting things we saw and some of the growers in attendance. This reunion of growers from many states is a wonderful opportunity to network with other growers and suppliers. Relationships are made that will last for a long time and it always nice to put a face to a name. The ASCFG is a wonderful group of folks and I guess that's because we all love talking about our flowers and things that make us happy.

Seattle was a world apart from Texas, and everything was extremely wet and as someone from Texas, I was wondering how anyone gets anything planted here. We embarked for 2 days on buses and what a sight we saw. Mountains were always in the distance and either misting rain, cool or foggy conditions were amidst. There wasn't much growing there that would stand the heat of Texas but it was wonderful to see. It had just frosted one week before we arrived and most crops were finished. I sure would have like to actually seen the peonies in bloom or the house of 'Café Au Lait' dahlias. It also would have been nice to come a couple of days early or better yet, stay a few more days. I wasn't ready to come back home to all my work.

Last fall was a really long one, with no frost, and we were still able to pick zinnias, sunflowers, lilies, gomphrena (dang stuff won't die), broom corn, celosia and marigolds through November. We did succession plantings and tried to get everything to go till Thanksgiving while hoping we didn't get that early frost and that's what happened. It also appears a dreaded drought has set in again because everything is turning brown due to no moisture, and we're not seeing the normal winter green.

We slowly cleaned out crops as they finished and worked in our new crops. We have Karma dahlias, ranunculus, anemone, sweet peas, lupines, ageratum, African blue basil, snapdragons, delphinium, and campanula planted in unheated or minimally heated greenhouses to be harvested in January.

We also have ornamental cabbage, calendulas and dianthus planted in our outside beds. There are many crops we will be direct seeding in our beds in the next couple of weeks which include larkspur, bells of Ireland, coreopsis, *Centaurea cyanus* and bupleurum. We will also direct seed poppies, cosmos and *Rudbeckia triloba*.

We also start seeds to statice, scabiosa, dill gallardia, salvia blue bedder, fennel and orlaya and transplant out into the beds in early March.

I want to encourage everyone to attend the meeting on March 4th and 5th at Texas Specialty Cut Flowers in Blanco, Texas, where you will see all these crops and more. Frank and Pamela Arnosky are longtime members of the ASCFG and pioneers in growing cut flowers here in Texas. They are very well known for their book *We're Gonna Be Rich!* and numerous years of columns in *Growing for Market*. The Arnoskys will be hosting an entire day touring their two Texas farms which consist of greenhouses, farm buidings and fields of flowers.

A few of the topics they will offer will be growing methods, postharvest and marketing options. All ASCFG members are encouraged to attend the 2013 meetings, as there will be no national conference in 2013. The next National meeting will be at Longwood Gardens in 2014.

Happy growing and see you in Blanco.

Growing for Market

cut flowers in every issue



Temptress poppies and peonies by Erin Benzakein, GFM Contributing Editor and owner of Floret Flowers, Mt. Vernon, Washington

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WEST and NORTHWEST

Paula Rice

BeeHaven Farm

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The Perfect Pricing

With all the factors involved in pricing your flowers, it really comes down to one thing: what is someone willing to pay? I don't have any specialty market niches (other than the fact that, by being a flower farmer, I am one). But what I mean is, I don't have a particularly well-off area that I can market my flowers to a few and make a great living. At least I haven't discovered it yet. I'm in rural north Idaho and in order to make this business "go where no one has gone before" I sell to everyone and anyone.

My pricing is not marked up because I know my customers are wealthy and can afford it. (I actually don't know if they're wealthy. If I look only at the purchases, I really couldn't tell the rich from the not rich.) They all buy a few flowers every week to enjoy and will be back again next week. So in recognizing that, my pricing strategy needs to reflect that reality, while maximizing my earning potential as much as possible. We all want that, right?

For this discussion I'm talking farmers' market prices.

Up to this point in my business (trying to get established and known), my whole pricing strategy has been geared to get people to try my product, and to grow my customer base. What does that mean? Well, finding a price point where people were willing to try my flowers. When I started this market there were two other flower vendors and they never even sold a quarter of what they brought and probably didn't even sell \$100.00

worth of flowers in a day. So I knew I had an uphill battle to establish myself as a flower vendor and my flowers as a high-quality, long-lasting, worth-your-money purchase.

I strategically priced those first bouquets at \$7.00 each and I kept that price for three years, building my customer base and expanding the farm as needed. Flowers sold but it didn't happen by itself. It required a knowledgeable and energetic farmer exclaiming "You won't be disappointed, I guarantee it." Well, business grew and my flowers became more in demand but the cost of producing flowers had risen, so I needed to raise my prices. I raised my price to \$10/bouquet and invested in a bouquet stand to help "showcase" the flowers. I noticed only one customer who stopped buying but who continued to stop and enjoy the flowers and conversation. It took me three years to get this frugal, German fellow to buy bouquets again. But he was the exception, overwhelmingly, everyone knew they were getting a real value for their money.

Today, my customers are driving me, and I cannot stress enough how important it is to keep your eyes and mind open. Don't hold yourself back by not recognizing trends within your own



little circle—see change and meet the demand. I noticed requests for custom bouquets were on the rise so I began to experiment with offering a few ready-to-go \$15.00 bouquets. Last year I scrapped the \$15.00 bouquet and I went to market with \$10 and \$20 bouquets, and almost always sold all the \$20.00 bouquets, along with a lot more special orders of \$25.00-\$35.00 worth of flowers. By watching my customers and trying to provide them with what they want, I'm growing, and surpassing goals I never thought I'd reach.

And I'm ready to go to the next level. Unfortunately, with this being my first Regional Report, and I'm turning it in late, and I'm afraid I may have too many words and am over my column length, I'll have to continue "My Pricing Dilemma" in the Spring issue. Until then—happy winter planning

Why are YOU an ASCFG Member?



ASCFG members have access to the best and most current information and resources pertaining to growing and selling cut flowers. This includes all of its amazing members!

*Audrey Blecha
Ted's Last Stand Farm
Gordonsville, Virginia*



“Strictly Business”
November 3-4
Robin Hollow Farm
Saunderstown, Rhode Island

There is no doubt, business is not as glamorous as dahlias or stock or lisianthus or lilies. But, a little attention paid to the business aspects of your farm can significantly contribute to the beauty—and profitability—of your farm. We’ve created a vibrant two-day Growers’ Business School program that will mix some hands-on field techniques and tours with classroom-style business training, and we promise to make it all as glamorous as possible. It’s going to be fun and informative! It’s long since time to take care of your business!

Define or redefine your goals, make a successful marketing strategy, create crop plans that will meet your marketing strategy, learn how to easily assess changes, and how to make adjustments each year to keep you progressing to your goals. There will be two tracks, and a chance to jump from beginners track to advanced track and vice versa, if you vary in your need levels for the different topics.

Take it upon yourself to get you and your business where you dream them to be! Growing cut flowers successfully is not just about being busy, it’s about business too, and everyone can use a few tips to advance them in that realm. Every type of grower and cut flower scale is capable of a successful business. Join us!

Sunday, November 3

Tour of Robin Hollow Farm. Polly and Mike Hutchison’s five-acre flower farm is a center of dynamic cut flower production. They grow using only sustainable or organic methods. Their flowers are sold at farmers’ markets, and for weddings, events, and through a CSA.

Polly and Mike’s years of experience in the vegetable world have given them a broad range of professional expertise which they have successfully translated to cut flowers. Their use of high tunnels, cultivating tractor, and mulches produce the highest quality cut flowers.

The farm tour will include a focus on high tunnel production, discussion of soil health, fertilization, irrigation, and mulching, as well as a hands-on session on seeding and propagation.

Monday, November 4

If you’re just getting your feet wet (or dirty) in the cut flower world, and are looking for basic information, we’re offering a beginner track for you. If you’ve been growing cut flowers for some time, and are thinking about expanding your business or improving efficiency, there’s an advanced track for you here as well.

The beginner track will include sessions such as goal setting, creating a marketing strategy, pricing and income tracking, and production and profitability of specific cut flower crops.

The advanced track will examine record-keeping, reviving your existing marketing strategy, and much more.

Sessions will be presented by experienced cut flower growers, and other industry leaders.

We’ll mix it up with some open discussions and problem solving, as well as fun social events.

Look for lodging and registration information at www.ascfg.org

The ASCFG Welcomes its Newest Members

Hillary Alger

Johnny's Selected Seeds, Winslow, ME

Shannon Algieri

Stone Barns Center, Tarrytown, NY

Kathy Baker

Gray Owl Farm, Palmer, AK

Jana Bell

Mulino, OR

Laura Bigbee-Fott

Whites Creek, TN

Angi Black

ARTZ Company, Fulton, IL

Tim Bouffard

Bulb Trading Company, Hockessin, DE

Patricia Bowman

Cape May Cut Flowers, Cape May

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Cheshire, CT

Sarah Castillo

Sparks, MD

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OSU Secrest Aboretum, Wooster, OH

Mim Davis

Lincoln University, St. Louis, MO

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Greenisland Flowers, Portadown,

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Katie Fleet

Kirkwood, MO

Rebecca and Sam Fox-Krogstad

Talk to Me Peonies, Anchorage, AK

Kimberly Fulford

Forget Me Never Florals, Trenton, SC

Sarah Garton

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Harris Family Farm, St. Thomas, ON

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Rebecca Slattery

Persephone Farm, Indianola, WA

Heather Thomas

HeatherLily, Inc., Cleveland, OH

Scott Vergara

Woodland Gardens, Burley, WA

ASCFG Research Foundation News



Funds Raised for Cut Flower Research

The 2012 National Conference closed on a high note, with the Live Auction for the ASCFG Research Foundation. Auctioneer Dave Dowling was in fine form, bartering with attendees for the highest bids he could wring out of them. ASCFG members responded generously, ultimately raising more than \$10,000

for cut flower research. Thank you to everyone who donated materials, and to those who made the bids.

Tax-deductible donations to the ASCFG Research Foundation can now be made online. Click on "Academic Research" under the Research tab.

2012 Outstanding Service Award

One of the highlights of the 2012 National Conference was the presentation of the ASCFG Outstanding Service Award to longtime member Janet Foss. Readers of *The Cut Flower Quarterly* recognize her from her popular column, "Janet's Gems". Members in the Northwest know her as a founding member of the Seattle Wholesale Growers Market. Anyone who has attended an ASCFG meeting in the last 23 years ago has heard her speak, share, and participate at every level.

Janet was surprised not only by her selection, but the presence of her mother and sister, and the humorous and moving tribute made by her good friend Bev Burrows. She received a rousing standing ovation.

An ASCFG member for more than 23 years, Janet has served on the Board of Directors, contributes to this magazine, and has spoken at and hosted several ASCFG meetings. She is also a founding member of the Seattle Wholesale Growers Market.



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2013 Cut Flowers of the Year



Fresh
Stock 'Katz Cherry Blossom'

From a series named for PanAmerican Seed product manager Philip Katz, this cultivar is was noted by growers for its uniform flowers and consistent stem length. Its improved heat tolerance and fast crop time compared to traditional column stocks allow it to be grown earlier and later in the season, and by growers who are not usually able to produce it in warmer climates. Tunnel production is recommended for overall improved quality and for weather protection. Floral designers appreciate its subtle coloring and delicate fragrance. Five percent of PanAmerican Seed's worldwide net seed sales of the Katz stock series will be donated to PanCan for Pancreatic Cancer research.



Woody
Symphoricarpos 'Amethyst'

This native plant produces small white flowers in summer, and masses of hot pink berries which ripen into the fall. It's relatively easy to cultivate as a cut flower crop, with fruiting stems as long as 60 inches. Fruit form on the current season's growth. Plants tend to spread via underground suckers when they settle into a prime spot. Stems are harvested when most of the fruit is well colored; waiting too long might result in the older fruit turning brown.



Bulb
Ranunculus 'Super Green'

"Funky" and "avant garde" describe this unusual cultivar, which combines the bright, cheery colors of traditional ranunculus with green, leafy inner "petals". 'Super Green' is available as a mix or in individual colors. As with traditional ranunculus, plants grow best in cool weather and are particularly well suited to minimally or non-heated tunnels during winter and spring. Stems grow up to 24 inches. Vase life can be 5 to 10 days, if the hollow stems are handled carefully. Jennie Love, of Love 'n Fresh Flowers in Philadelphia, says " 'Super Green' flowers are very sturdy and hold up extremely well for detailed designs like corsages and hair combs. The unique coloration of the green centers is perfect for being highlighted in these pieces and often elicit excited comments from my clients." A western grower likes its long harvest window, as flowers become more intensely green as they open.

Cut Flower Grower's Handbook

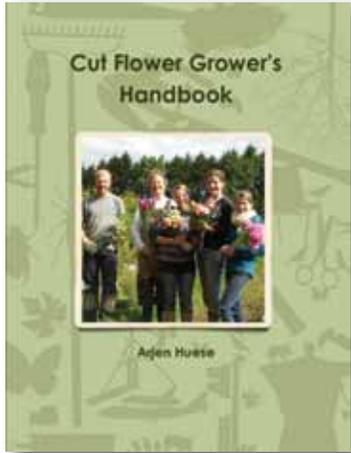
Reviewed by Debra Prinzing

Arjen Huese

Available through Lulu.com

Paperback, 108 pages, full color throughout

ISBN 9781291193244 \$53.03



ASCFG member Arjen Huese is the grower at Wealden Flowers (www.wealdenflowers.co.uk), a six-acre cut flower farm in East Sussex, U.K., that he owns with his wife Margaretha Huese. The farm produces a wide range of flowers, fillers and foliage—from alliums to zinnias—selling thousands of stems to flower shops and wholesalers in the Brighton area each year. A veteran grower of 20 years, Huese teaches short courses in small-scale cut flower production and he serves as the course leader for the Biodynamic Horticulture Training at Emerson College.

Huese wrote the *Cut Flower Grower's Handbook* to serve a growing audience of small-scale cut flower growers in the U.K. The book fills an educational void, because until now there hasn't been a reference book for British flower farmers. Consider it the U.K. version of Lynn Byczynski's *The Flower Farmer*.

Huese generously shares production, marketing and financial examples from his own flower farm, providing worksheets and formulas to help the reader with everything from crop scheduling to projected gross margins for specific varieties. The financials, by the way, are expressed in the British pound sterling, so not necessarily relatable to North American growers. But those figures are easy enough

to convert to U.S. or Canadian dollars for the motivated reader. Even if you skip the financial details, there is plenty in this book to help inform and inspire a new grower.

The author highlights many challenges facing the British specialty cut flower market, which parallel what is happening in the U.S. According to Huese, “. . . slowly the tide is turning and consumers and florists in the U.K. are starting to become aware of the environmental and human impact of this bizarre (import) system. Across the country a new generation of small-scale flower growers is starting to emerge to take advantage of this increase in demand for locally grown, British cut flowers.”

Huese maintains that demand for locally-grown flowers is larger than the supply. He writes, “. . . the shops who pride themselves on quality, freshness and a personal service struggle to get hold of

UK-grown flowers because they are not widely available from the wholesalers. So customers can walk into a Waitrose or Marks & Spencer's and see buckets full of flowers adorned with Union Jacks, but when they want a bespoke bouquet from their local flower shop they are rarely able to buy British. Many florists are painfully aware of the issue and welcome supplies from a local grower with open arms. Here lies a huge opportunity for a new breed of flower grower. The production of cut flowers and foliage for a local market is a generous niche that is waiting to be filled.”

As a flower farmer who makes twice-weekly deliveries, serving eight flower shops, Huese is a role model for emerging growers. He uses Wealden Flowers and its business format to demonstrate to a new generation of younger farmers that growing flowers is a viable option in today's flower marketplace.

Debra Prinzing is a Seattle-based design writer, author of The 50 Mile Bouquet, and member of the Seattle Wholesale Growers Market board.

Find her at www.debraprinzing.com

Why are YOU an ASCFG Member?



*For the information and inspiration.
Couldn't do it without you. Thanks!*

*Barbara Jewell
Island Meadow Farms, Prince Edward Island*

FROM the DIRECTOR

Judy Laushman

Twenty-five years ago, the Democrats nominated Michael Dukakis for President, while the Republicans chose George H.W. Bush. The Soviet Union began to withdraw from Afghanistan in May, and the Iran-Iraq war ended in August. Pete Maravich and Glenn Cunningham died; Rihanna and Adele were born.

And in a small meeting room of a Chicago hotel, the ASCFG came to life.

I have been paging through back issues of *The Cut Flower Quarterly*, and reminiscing about endless bylaws discussions at long-ago Board of Directors' meetings, trudging around flower farms in pouring rain or scorching sun at Regional Meetings, working 14-hour days at National Conferences, proofreading *Quarterly* submissions until my eyes ached, wrestling bundles of hand-sorted-by-zip-code magazines into heavy canvas bags and heaving them up onto the post office loading dock, and listening to countless potential members telling me

they want to grow cut flowers "Because it looks like so much fun!"

Then I see that a member has scribbled across her renewal form "Thanks for everything you do for us!". I remember laughing so hard with two Board members that we were asked to leave a Hallmark store in Denver. I think about watching from the registration desk as meeting attendees enthusiastically greet each other for the first time in months—or maybe for the first time ever, in person—and immediately connect with the shared experience of being a specialty cut flower grower. I picture the many ASCFG members who have welcomed me, and sometimes my family, into their homes across the country.

About 1500 people have come and gone through the ASCFG in 25 years. Many are still growing cut flowers, many have moved on to other careers, some realized that flower growing is not always as much fun as it looks, many have retired

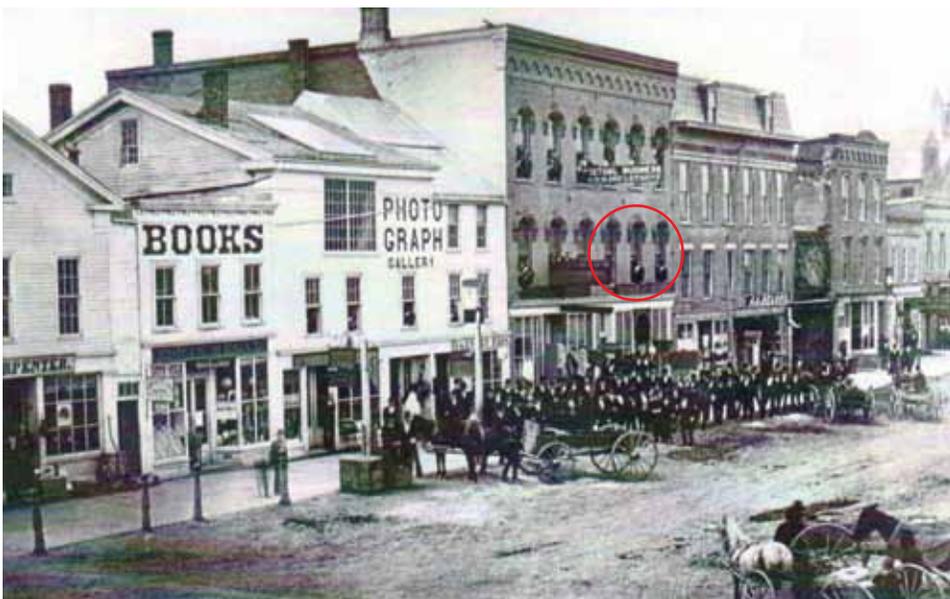


from the business life, and some have left us forever. Fond memories remain of people like Cees Kieft, Phillip Katz, Max Lee, Buck Godwin, Cathy Sutcliffe, Molly Tietze, and Mel Heath.

At the last conference, an industry member expressed some amazement to me that the ASCFG was still going strong, compared to other organizations that were losing membership, or had folded completely. When I told him that members sometimes write me personally to tell they're retiring, or no longer growing cut flowers, and that's why they were not renewing their membership, he thought I was kidding.

I kid sometimes—well, frequently—but the fact is that the passion, creativity, and generosity that ASCFG members bring to their own businesses pours over into, and continues to drive this organization. It would not exist without that passion.

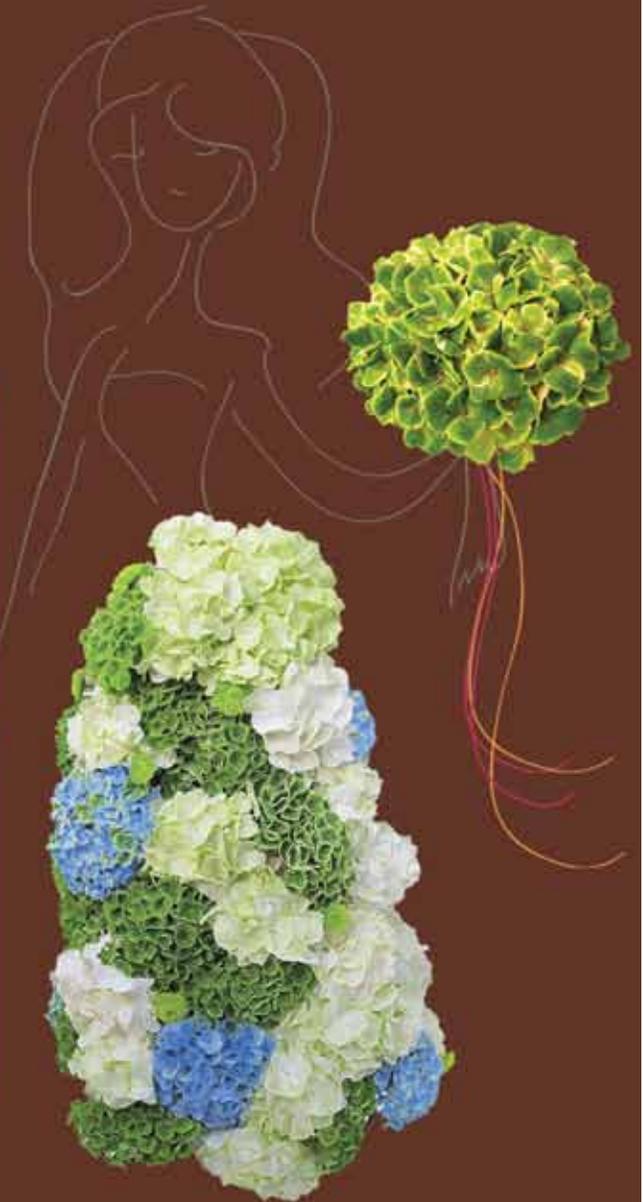
Those people who met in Chicago in 1988 probably had no idea that the mission they were establishing that day would still be adhered to today: to help cut growers of specialty cut flowers produce and sell a better crop. It's a testament to all of you that it still stands.



The ASCFG moved into this office space in 1989.

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