



2015 ASCFG Cut Flower Seed Trials

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

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

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

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

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

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

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

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

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

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

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

Interpreting the trial results: The numbers reported are averages of all the respondents. Many factors will affect the success of any plant species. Our participants are growing and harvesting the trial plants using several methods. After looking at the average, check the range of responses listed below each number to see how the cultivar performed at its best and its worst. If the range of responses in the ratings is narrow and high, i.e., 3-5 or 4-5, the plant was a winner for most of the respondents and is likely to do well for you.

The 'Repeat Again Rating' is particularly important because it indicates if the trialer would take the time, money, and space to actually grow the cultivar again. Review the trial results carefully. If a cultivar sounds interesting, but did not appear to do well, try it anyway. The cultivar may work well for you.

Acknowledgments: A hearty thank you to all of the 21 evaluators who returned their trial reports and to the seed companies for providing such great cultivars. Congratulations to Nanette Dietmeyer for being the first trialer to return the evaluations again this year! We would also like to thank Alicain Carlson, Travis Hootman, Peyton Daly, Ben Bergmann, Brad Holland, and Tim Ketchie for assisting with the NCSU trials. In preparing the report we did a bit of editing of the comments for space and clarity; our apologies if we've altered the tone or content of anyone's comments.



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



'Doublini White' lisianthus is perfect for floral crowns.



Marigold 'Garland Orange'

PARTICIPATING GROWERS

GRETEL ADAMS
STEVE ADAMS
Sunny Meadows Flower Farm
Columbus, Ohio

INGRAM MCCALL
JOHN DOLE
North Carolina State University
Raleigh, North Carolina

RITA ANDERS
Cuts of Color
Weimar, Texas

JIM MERCER
Sheepscot Farm
Newcastle, Maine

LEON CARRIER
PlantMasters
Laytonsville, Maryland

CAROLYN SNELL
Carolyn Snell Designs
Bar Mills, Maine

TANIS CLIFTON
Happy Trails Flower Farm
Dennis, Mississippi

BARB STEFANYSHYN-COTE
Tierra Del Sol
Saskatoon, Saskatchewan

CONNIE DAM-BYL
William Dam Seeds
Dundas, Ontario

JENNIFER SYME
Syme Family Farm
Broad Brook, Connecticut

DAVE DELBO
Dave's Flowers
Elysburg, Pennsylvania

RODGER TSCHANZ
University of Guelph Trial Garden
Guelph, Ontario

NANETTE DIETMEYER
Fox Ridge Flowers
Crestwood, Kentucky

LINDA VANAPELDOORN
Take Your Pick Flower Farm
Lansing, New York

MICHELLE ELSTON
Roots
Carlisle, Pennsylvania

CHERYL WAGNER
Wagner's Homestead Farm
Belleville, Michigan

JOHNNY'S SELECTED SEEDS
Winslow, Maine
www.johnnyseeds.com

JUAN FEDDES
La Primavera Farm
Dundas, Ontario

CHRIS WIEN
Cornell University
Ithaca, New York

SAKATA SEED
Morgan Hill, California
www.sakata.com

PEGGY HUFF
Johnny's Selected Seeds
Winslow, Maine

SUSAN WRIGHT
Shady Grove Gardens and Nursery
Vilas, North Carolina

SEEDSENSE LTD.
Penrith, Cumbria,
United Kingdom
www.seedssense.co.uk

BARBARA JEWELL
Island Meadow Farms
Prince Edward Island, Canada

PARTICIPATING
SEED COMPANIES

AMERISEED
Lompoc, California
www.ameriseed.net

HARRIS SEEDS
Rochester, New York
www.harrisseeds.com

SUMMARY OF COMMENTS

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

CAMPANULA

Campanula 'Champion Pro Deep Blue' (Sakata)

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

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

Similar Cultivars: Champion.

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

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

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

DAUCUS

Daucus 'Dara' (Harris Seeds)

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



Daucus 'Dara'

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

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

Similar Cultivars: Ammi 'Black Knight'

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

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

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

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

LISIANTHUS

Lisianthus ‘Doublini Blue’ (Sakata Seed)

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

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

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

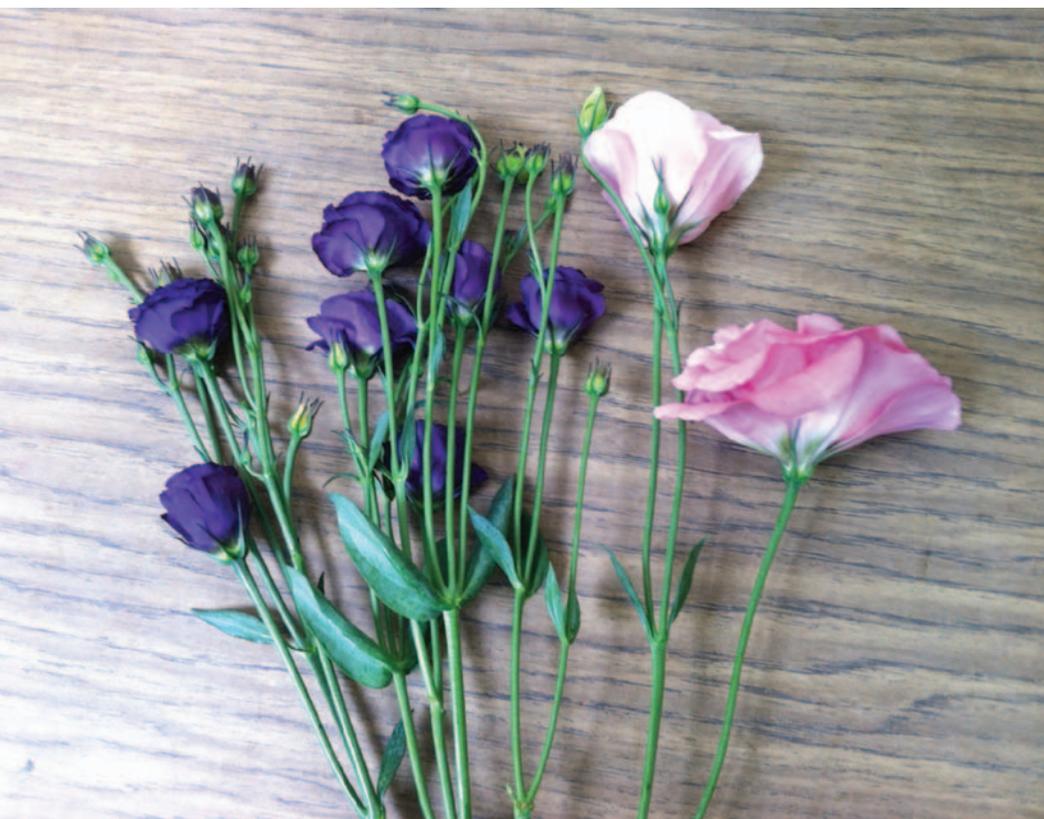
Similar Cultivars: None listed

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

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

Lisianthus ‘Doublini Rose Pink’ (Sakata Seed)

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



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



'Doublini Rose Pink' and 'Doublini White'



'Rosita 2 Blue Picotee'

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

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

Similar Cultivars: None listed

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

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

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

Lisianthus 'Doublini White' (Sakata Seed)

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

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

Similar Cultivars: None listed.

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

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

Lisianthus 'Rosita 2 Blue Picotee' (Sakata Seed)

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

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



Marigold 'Eagle Yellow'



Marigold 'Falcon Yellow'



Marigold 'Garland Orange'

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

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

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

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

MARIGOLD

Marigold 'Eagle Yellow' (AmeriSeed)

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

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

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

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

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

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

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

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

Marigold 'Falcon Yellow' (AmeriSeed)

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

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

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

Similar Cultivars: 'Gold Coin'.

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

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

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

Marigold 'Garland Orange' (Harris Seed)

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

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

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

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 'Falcon Yellow' produces big showy  
 blossoms that added lots of colour;  
 Flowers grow to 3-4 inches in diameter,  
 pleasing fragrance for marigolds.  
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cutability, vase life no., unfortunately very little interest from florists or farmers' market customers, they were fine if we included them in our bouquets but no one asked for them; Easy to grow and prolific, but not well received in our



Marigold 'Giant Orange'



Marigold 'Oriental Deep Gold'



Marigold 'Gold Storm'

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

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

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

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

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

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

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

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

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

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

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

Marigold 'Jedi Orange Plus' (AmeriSeed)

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

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

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

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

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

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

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



Marigold 'Jedi Orange Plus'



A sampler of marigold varieties
in the 2015 Trials

Marigold ‘Oriental Deep Gold’ (AmeriSeed)

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

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

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

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

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

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

Marigold ‘Storm Gold’ (AmeriSeed)

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

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

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

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

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

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

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

SUNFLOWER

Sunflower 'Helios Flame' (Harris Seeds)

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

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

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

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

that traditional sunflower harvest; Center disk oozed sap.

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

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

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



Sunflower 'Helios Flame'



Sunflower 'Starburst Greenburst'

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

Sunflower 'ProCut Brilliance' (SeedSense)

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



Sunflower 'ProCut Gold'

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

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

.....

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

.....

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

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



Sunflower 'ProCut Red'

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

Similar Cultivars: Perfect looking sunflower.

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

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

Sunflower ‘ProCut Gold’ (SeedSense)

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

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

Similar Cultivars: ‘Sunrich Gold’ (2);

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

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

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

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

Sunflower ‘ProCut Red’ (SeedSense)

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

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

Similar Cultivars: None listed.

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

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

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

Sunflower ‘Starburst Greenburst’ (SeedSense)

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

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

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

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

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

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

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

Sunflower 'Starburst Panache' (SeedSense)

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

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

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

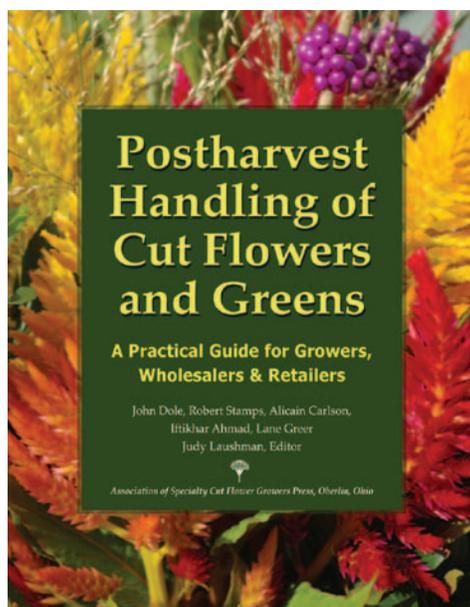
Similar Cultivars: 'Starburst Greenburst' (2); 'Double Quick' however, liked 'Starburst Panache' better.

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

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

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

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We need YOU as one of twelve participants in the first ASCFG Cut Flower Lily Trial! Contact Judy by January 31 at mail@ascfg.org for details.

2015 ASCFG Seed Trial Results. The first row of data for each cultivar is the average and the second row is the range of responses. Note when only one response is listed, either only one person responded for that category or several responded and all gave the same rating. The single highest score and the single lowest score in each category for each cultivar have been dropped.

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

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

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




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