

2021 ASCFG Seed Trial Report

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Every flower has a story and every story has a beginning. Many of the cut flowers we grow were brought into cultivation so long ago we no longer know how their stories started. Dianthus, stock, and snapdragons fall into that category. Native to various parts of Europe and the Middle East, these species were likely being cultivated before writing developed, and have been grown for centuries.

We know more of the story of the marigold. The Aztecs used it for ceremonies, decorations, and medicinal purposes, and began the selection and development process that led to it becoming such a popular plant. It caught the attention of Spanish invaders, who were looking for gold and found floral riches. They brought it back to Spain in the 1500's, and from there it was distributed around the world, including Africa and eastern Asia, and later to America, on the same continent from which it came. Meanwhile, in Mexico, marigold cultivation continued and the flower became associated with the Mexican holiday of Dia de los Muertos (Day of the Dead). In the United States, the Burpee Company took notice of the marigold and began offering many improved varieties. In 1954, David Burpee made one of the most successful marketing moves in horticultural history by announcing that the company would pay \$10,000 for the first white marigold flower. The prize was claimed in 1975 by Alice Vonk of Sully, Iowa.

Fast forward to today and the marigold has gone from a stalwart bedding plant to one of the most important specialty cut flowers, a development not everyone is happy with due to its fragrant foliage—but that story can wait for another day. Which leads us to the cultivars in this year's Trial, one of which is called **'White Swan'** (AmeriSeed). Alas, 'White Swan' is not truly white, but a cream color, which many Trialers thought was great. One commented that "I couldn't get enough of this little gem, the color was a perfect cream yellow that matched just about anything you put it with." Another was more direct, exclaiming, "Loved it!!!"



'White Swan'

Photo Shannon Jones

'White Swan' produced an average of 6.4 stems per plant that were about 16 inches long, with some Trialers getting up to 3-foot stems. The downside was that its flowers are much smaller than the typical cut marigolds, and the plants were not as tall or vigorous.

The top-scoring marigolds in the Trial were **'Garuda Deep Gold'** (AmeriSeed) and **'Garuda Yellow Improved'** (AmeriSeed). They produced 7-8 stems that were 20-21 inches long. Plants were tall and reliably provided many large, full flowers in bright colors. One Trialer commented that 'Garuda Yellow Improved' was "our favorite marigold of the year, by far!" It should be noted that these cultivars, as well as all of the other marigolds, had a good postharvest life of 9 to 11 days.

Lisianthus has definitely made the big time as it is now one of the most important cut flowers in the industry. Its story starts in the south-central prairies of the United States and northern Mexico, where it is a relatively uncommon wildflower. Finding them in the wild is always a treat with their simple, but lovely five-petaled flowers. Just as plant explorers from the U.S. and Canada have brought back plants from other countries, Japanese plant enthusiasts noticed the lisianthus, and started growing and

developing it. The first cultivars were offered commercially in 1933. With their work and that of other breeders, the somewhat generic purplish-blue hue of the native lisianthus has become an astounding array of colors (from white to brown, including green and bicolors); flower sizes (from the tiny Doublini to full-size); flower shapes (bell or open); petal styles (simple or frilly); and petal numbers (from single to heavily doubled). It has steadily grown in popularity across all floral markets.



Lisianthus Medley

Photo Rachael Ackerman



'Celeb 2 Madonna'
Photo Jamie Sammons

ruffled" light pink flowers with a darker rose edge were well liked by many: "AMAZING COLOR. I will definitely be growing this variety again. The petal shape and color were stunning. There's not much I don't love about a lisianthus and this one exceeded my expectations."

With a broad range of colors from green to dark purple or brown, almost any color can now be found in lisianthus, but orange is still unique. Alas, while 'Little Summer 1 Orange' (Gloeckner) had lovely flowers, they were not orange, but, as one Trialer put it so eloquently, "shades of rose, cream, and apricot". Regardless, the color was well liked by many with one stating it was "wonderful and unique." Note that this cultivar was one of the shortest in the Trial with stems averaging only 14 inches.

Another species that used to be regularly dissed for being difficult to grow is campanula. Growers have learned to navigate its quirks in order to produce long stems of striking bell-shaped flowers. It generally does best in tunnels or greenhouses when grown under cool temperatures and short days for a while, to get the plants up to size before flowers are initiated by long days. This year **campanula** 'Champion II White' (Sakata) was one of the top-scoring cultivars with 21-inch stems (up to 30 inches long for at least one Trialer) and an average of 4 stems per plant. It also had the longest



'Champion II White'
Photo Bob Wollam

What has also changed with lisianthus is the level of producers' experience with it. When it was first introduced into the ASCFG Trial Program, few growers had knowledge of this sometimes finicky plant, resulting in low scores and justifiably cranky comments. Well, no more. 'Celeb 2 Madonna' (Gloeckner) was the top-scoring cultivar with an average of 3 stems per plant that were a respectable 19 inches long, although a couple of growers were able to harvest 30-inch stems. The "highly double, deeply

vase life of any species in the Trial, ranging from one to three weeks, with an average of 13 days. Comments from Trialers include, "This was an exceptional variety. Very well accepted by customers. Excellent vase life also; was a great performer in bridal bouquets." and "Tall stems. Straight stems (even without netting). Multiple florets per stem. Easy to grow and harvest."

Campanula's life story illustrates the concept of "annualization", which is the process of converting a true biennial or perennial to an annual crop through breeding or production methods. In this case, campanula originally required both long days and cold temperatures to flower, but breeders were able to create cultivars that require only long days. John has a special connection to this species in that two of his graduate students, Todd Cavins and Theresa Bosma, performed the research to work out the production and postharvest methods, thus paving the way for it to become a major cut flower.

The annual aster's story starts in China (hence its other common name, "China aster") where it was domesticated centuries ago into a stunning array



'Little Summer 1 Orange'

Photo Rachael Ackerman

of colors and flower shapes. With long, straight stems and an excellent vase life, annual aster became an important cut flower in many parts of the world, including the United States and Canada. However, issues with diseases and changing consumer tastes eventually led to decreased production. Both spray and single-stem types are available; the spray types have continued to be produced, especially overseas. Single-stem forms are most striking, and it is wonderful to see seven cultivars from American Takii and Sakata in the Trial. All performed well, yielding 6-7 stems per plant, with average stem lengths of 15-18 inches. Some Trialers reported stems up to 30 inches long. Our favorite was **'Azumi XL Red'** (Sakata) which was the tallest for us and had rich dark red flowers. Note that it was the last one to flower for us. The top-scoring cultivars overall were **'Azumi XL Rose'** (Sakata), **'Azumi XL Red'**, and **'Mum Deep Purple'** (American Takii). Regarding the latter cultivar, one Trialer said, "Highly uniform plants and blooms. Large blooms reached 2-3 inches wide. Dark purple color is attractive. Plants held up well during a hot spring and a very wet July/August". As with other species in this report, asters are modestly photoperiodic and perform best when grown in tunnels or greenhouses under 14+ hr long days for the first 4 to 5 weeks.

On one hand, **salpiglossis** seems like a prime candidate for cut flower fame, considering its large, multi-colored flowers that come in a wide variety of gorgeous colors. On the other hand, it can be a weak-growing plant, and the foliage is sticky, no fun for harvesters. Add the fact that



Aster cultivars
Photo Shannon Algieri



'Café au Lait' blends with other flowers.

Photo Shannon Jones

the name sounds like a part of your throat and it is no surprise that salpiglossis is rarely grown for cuts. So, it was with anticipation that we welcomed salpiglossis **'Café au Lait'** (Takii Europe) for 2021. The unique brown and yellow color was a focus of many of the comments and truly illustrates the cliché that beauty is in the eye of the beholder. One Trialer said, "I absolutely loved the color of this one, it went so well with the popular rusty hues that clients are asking for". Another stated emphatically, "UGLY brown color". Plants produced an average of 2.5 stems each, and while one grower got up to 17-inch stems, the average was about 12 inches. Trialers also commented on the sticky foliage and weak growth. What was interesting for us is that at least one Trialer mentioned growing other cultivars of salpiglossis: "Normally my salpiglossis does pretty decent and keeps sending up more blooms throughout the season." So, for those wanting a unique and beautiful flower, give salpiglossis a try!

One of the authors, John, has a long history with helichrysum. He was fascinated with them in seed catalogs. As a teenager, he grew and harvested them, and laboriously wired individual flowers, which he sold to a local florist. Fast forward to 2021 when we had two cultivars in the Trial. **'King Size**

Frosted Sulphur' (Takii Europe) was tall, productive, and vigorous. Trialers noted the unique flowers: silvery buds open to pale lemon-yellow to silver blooms. Trialers harvested an average of 5 stems per plant, which averaged 21 inches long. One recommended pinching when young to produce multiple stems that were not as thick as the main stem. The second helichrysum was **'Granvia Gold'** (Suntory Flowers), a cutting-propagated cultivar. While most folks thought it was too short, averaging only 12 inches long, the large bright yellow flowers were a hit.



'King Size Frosted Sulphur'

Photo Shannon Algieri



'Granvia Gold'
Photo Renee Clayton

With all the divisions in the world today it is not surprising that we have a few in the cut flower industry as well. It appears that the dianthus growers have settled into two camps—those who prefer the hybrid Amazon cultivars for their long, strong stems and heat tolerance, and those who like the traditional cultivars for their broad range of colors.

While all four cultivars in the Trial performed well, **'Amazon Lavender Magic'** (BloomStudio) was the top-scoring cultivar for all the reasons growers like the series. Plants produced an average of 7 stems each, which were 17 inches long. As with others with the “magic” name, flower clusters included individual florets ranging from pale to dark lavender pink. The top traditional dianthus was **'Sweet Neon Purple'** (BloomStudio), which actually had very similar stats to the 'Amazon Lavender Magic'. The vibrant fuchsia color appealed to many, but not all, as some thought it was hard to work with.

Celosia, snapdragons, stock, and sunflowers are staples of the specialty cut flower industry, and as with past years we had a number of each in the Trial. The highest-scoring celosia was **'Sunday Gold Improved'** (BloomStudio) with 17-inch stems (up to 30 inches for at least one Trialer) and 6 stems per plant. Growers loved the uniformity, strong growth, and beautiful gold color.

All the snapdragons did well, with **'Potomac Pink Dark'** (BloomStudio) getting top scores for strong stems, uniformly sturdy plants, and “Great shade of pink!”. Very close behind was **'Maryland Rose'** (BloomStudio).

Both stocks scored well this year. This one-cut-and-done species produced 19–20-inch stems with some Trialers getting stems over two feet long. **'Canneto White'** (American Takii) was noted for its high percentage of doubles and full spikes. Trialers especially loved the color of **'Milla Light Pink'** (Evanthia); one wrote that “petals opened in a dusty rose shade and lightened to a delicate pink.”

Two of the three sunflowers, **'Double Sunking'** (Takii Europe) and **'Sunrich Orange Summer DMR'** (American Takii) made it into the top ten for the Trial. Both typically produced one cut that averaged 3+ feet long on uniform, sturdy plants. 'Double Sunking' was noted for its “full and fluffy” double flowers, which one grower said were, “Very forgiving regarding harvest stage, which is great—they can be cut very tight or left to bloom more on the plant and still have a great vase life.” 'Sunrich Orange Summer DMR' has a classic dark center and orange petals. The DMR stands for downy mildew resistant, which appealed to at least one Trialer, who wrote, “Disease resistance! Classic sunflower form with the addition of good plant health.”

Based on the combined ratings score (market appreciation + repeat again + ease of cultivation), the top ten cultivars will be nominated for the ASCFG Cut Flower of the Year: Campanula 'Champion II White', Dianthus

'Amazon Lavender Magic', Marigold 'Garuda Deep Gold', Marigold 'Garuda Yellow Improved', Snapdragon 'Maryland Rose', Snapdragon 'Potomac Pink Dark', Stock 'Canneto White', Stock 'Milla Light Pink', Sunflower 'Double Sunking', and Sunflower 'Sunrich Orange Summer DMR'.

Interpreting the Trial results: The numbers reported are averages of all the respondents, and many factors will affect the success of any cultivar. Our participants grow and harvest trial plants using several methods. After looking at the average, check the range of responses listed below each number to see how the cultivar performed at its best and its worst. If the range of responses in the ratings is 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 'Grow Again Rating' is particularly important because it indicates if the Trialer would take the time, money, and space to actually grow the cultivar again. Review the trial results carefully. If a variety sounds interesting, but did not appear to do well, try it anyway; it may work well for you.

Acknowledgments: Thank you to each of the 20 evaluators who returned their Trial reports! We very much appreciate the time it takes to do the Trials. We want to especially thank Bob Wollam from Wollam Gardens for being the first Trialer to submit his evaluations! Thank you to the seed companies for providing the plant materials. 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. A special thanks to Jen Kalinowski for growing our transplants this year.



Trial Snapdragons
Photo Rachael Ackerman

Photos: This year a number of our Trialers sent photos, including Rachael Ackerman, Shannon Algieri, Renee Clayton, Melissa Fischbach, Shannon Jones, Susan Miller, Jamie Sammons, Bob Wollam, and Susan Wright. Some were just spectacular, and we included as many as possible in this report. Thank you, thank you!

Participating Trialers

Shannon Algieri

Stone Barns Center for Food
and Agriculture
Tarrytown, NY
Zone 7A

Linda Chapman

Harvest Moon Flower Farm
Spencer, IN
Zone 6

Renee Clayton

Wild Scallions Farm
Timberlake, NC
Zone 7

Connie Dam-Bijl

William Dam Seeds
Dundas, ON
Zone 5

John Dole

NC State University
Raleigh, NC
Zone 7b

Michelle Elston

Roots Cut Flower Farm
Carlisle, PA
Zone 6b

Jennifer Feddema-Gerryts

Wendalane Farms
Wellandport, ON
Zone 5

Melissa Fischbach

Wild Hollow Farm
Ashland, WI
Zone 4

Janet Foss

J. Foss Garden Flowers
Chehalis, WA
Zone 7b

Morgan Hopkins

Urban Buds: City Grown Flowers
St. Louis, MO
Zone 6b/7a

Barb Jewell

Island Meadow Farms
York, PEI
Zone 5b

Cathy Jones

Perry-winkle Farm
Chapel Hill, NC
Zone 6a

Shannon Jones

Broadfork Farm
River Hébert, NS
Zone 4b

Liz Krieg

Maple River Farm
Bethel, VT
Zone 4

Joy Longfellow

Johnny's Selected Seeds
Fairfield, ME
Zone 5a

Karen Pendleton

Pendleton's Country Market
Lawrence, KS
Zone 5b

Jamie Sammons

Jayflora Designs
Fonda, NY
Zone 5

Jen Syme

Syme Family Farm
Broad Brook, CT
Zone 5B

Bob Wollam

Wollam Gardens
Jeffersonton, VA
Zone 7a

Susan Wright

Shady Grove Farm
Vilas, NC
Zone 6



Photo Jamie Sammons

Participating Companies

American Takii

Salinas, California
www.takii.com

Takii Europe

De Kwakel, Netherlands
www.takii.eu

AmeriSeed

Lompoc, California
www.ameriseed.net

BloomStudios

West Chicago, Illinois
www.bloomstudios.com/en-us

Evanthia Seeds & Plants

Monster, Netherlands
www.evanthia.nl/en

Fred C. Gloeckner & Company

Harrison, New York
www.fredgloeckner.com

Sakata Seed America

Morgan Hill, California
www.sakata.com

Suntory Flowers

Westlake, Ohio
www.suntoryflowers.com

Summary of Comments. The number in the parenthesis is the number of Trialers who made the same comment. Comments from different individuals are separated by a “;”. Note: many respondents did not make specific comments on each cultivar and in a few cases, comments have been shortened because of limited space.

Aster ‘Azumi XL Blue’

(Sakata Seed America)

Good Qualities: Deep rich color (3); Nice fluffy heads; These Azumi asters grew taller and more prolific than the Chamois asters I usually grow, more usable stems, less prone to aster yellows disease, will definitely grow again!; Full flowers, fairly tall stems; Long vase life.

Problems: For blues, our customers prefer the traditional yellow-centered asters like Matsumoto; We had no success with this cultivar, plants were seeded early, bumped up into 50 cell trays, and, went into the ground big and healthy, we planted them in a high tunnel with the idea of extending harvest time in the fall, all were watered and fertilized regularly, despite our efforts, no plants grew beyond 6 inches in height and all died, after sitting in the ground, not growing, for months; Some had a lot of



‘Azumi XL Red’
Photo Shannon Algieri

branching clustered at the top, preferred asters with elongated branching.

Similar Cultivars: ‘Standy’, ‘Fan’, ‘Gala’.

Postharvest Recommendations: CVBN.

Comments: We adored ‘Azumi White’ and would love to see a soft shell pink too, but the bright magenta (rose and red) and the purples were not as distinctive; We did not disbud and we got multiple shoots per plant. Flowers started with yellow centers and then turned into poms. We harvested with yellow centers; it was great to have these jewel-toned blossoms in our August market offerings, asters have such consistency in their production which is appreciated.

Aster ‘Azumi XL Red’

(Sakata Seed America)

Good Qualities: Beautiful jewel-toned color in August; Tallest aster we have grown, less prone to aster yellows disease; Long vase life; Tallest of the six asters in the Trial.

Problems: We had no success with this cultivar, plants were seeded early, bumped up into 50 cell trays and went into the ground big and healthy, we planted them in a high tunnel with the idea of extending harvest time in the fall, all were watered and fertilized regularly, despite our efforts, no plants grew beyond 6 inches in height and all died, after sitting in the ground, not growing, for months; Yellowing and dying back

leaves; Red was not the most popular color; Last one to flower of the six in the Trial.

Similar Cultivars: None listed.

Postharvest Recommendations: CVBN; refrigeration after harvest.

Comments: None listed.

Aster ‘Azumi XL Rose’

(Sakata Seed America)

Good Qualities: Beautiful color (2); Had the best stem and branching stem stretch, tallest aster we have grown, less prone to aster yellows, would definitely grow again and ditch the other aster types we grow that always get diseased and are too short; Consistent bloom size, good strong stems which hold the blooms upright, no disease issues, vigorous plants, excellent bouquet addition, a favourite; Long vase life.

Problems: We had no success with this cultivar, plants were seeded early, bumped up into 50 cell trays and went into the ground big and healthy, we planted them in a high tunnel with the idea of extending harvest time in the fall, all were watered and fertilized regularly, despite our efforts, no plants grew beyond 6 inches in height and all died, after sitting in the ground, not growing, for months.

Similar Cultivars: None listed.

Postharvest Recommendations: CVBN (2); Refrigeration between harvest and use; Keep stems harvested, when harvested fully open the vase life is shorter, especially in warm weather.

Comments: Less clumpy branching at the top of the flowering portion; We did not disbud, allowed more stems per plant: The asters were excellent this year, I did not disbud due to lack of time, we did, however, pinch the central stem prior to going out to the cold frame, they were field grown, no irrigation, began producing late July from an April 13 sowing, the growing season suited them along with lack of disease or insect worries, this colour was useful, nice and bright and preferred it to the red in this series, having dealt with disease in previous years it was a delight to have some positive results this year, we did have a long harvest window from this



‘Azumi XL Blue’
Photo Jamie Sammons



Photo Jamie Sammons

variety, I did not count in the shorter stems we harvested in the above numbers, a good aster for us and would grow again if seed should become available, I often wonder if some of the aster problems I've encountered in previous years could have been related to seed-borne diseases.

Aster 'Azumi XL White'

(Sakata Seed America)

Good Qualities: The flowers are sitting nicely facing upward on strong stems, the white bloom has some yellow undertones showing more yellow as it matures, this was a good producer and our #2 fav aster in the trial, good vase life and repeat blooms, free from disease, healthy strong foliage, worked well in bridal bouquets; Bigger, fluffier heads than the ones we usually grow (Bonita, Matsumoto, Fujimi), nice bright, clear white, perfect for wedding work, no disease; Tallest mum we grow, white color is an easy sell to florist, less prone to disease; Long vase life.

Problems: None; We had no success with this cultivar, plants were seeded early, bumped up into 50 cell trays and went into the ground big and healthy, we planted them in a high tunnel with the idea of extending harvest time in the fall, all were watered and fertilized regularly, despite our efforts, no plants grew beyond 6 inches in height and all died, after sitting in the ground, not growing, for months; White tended to brown quickly.

Similar Cultivars: Somewhat similar to 'Gala', 'Standy', 'Matador' but the white is way cleaner and brighter.

Postharvest Recommendations: CVBN; Refrigeration.

Comments: This was a really productive aster which we harvested almost daily, field grown no irrigation, I would suggest harvesting regularly, older blooms will shatter easily, frequent harvest and support netting recommended, all the asters in the trial were exceptionally healthy this season—a combination of ample rainfall, cool temps in July, and lack

of insects and disease. Looking forward to growing again as seed becomes available, a very useful aster; Did not disbud which allowed more flowers per plant; We will definitely grow 'Azumi White' again!

Aster 'Large Flower Light Blue'

(American Takii)

Good Qualities: Great color (5); All staff members loved this aster, I think we harvested every available stem in the field, even the shorter side shoots were used in small bouquets (I did not include the shorter side stems in the marketable stem count), bloom size and stem length, together with excellent vase life; Fluffy petals; Plants were uniform and healthy; Robust grower; Long vase life.

Problems: Was a bit of an odd blue, we grow a ton of asters, prefer traditional dark purple (=blue) or more blue/lavender shade (=light blue), wanted more branching multi-cuts; As blooms opened, individual ray petals fold out and backward at the tips, giving a distinct look that I have not seen in other aster varieties, they look a little messy or windblown, especially when compared to the Tower series, where the ray petals all curl in one direction; Branching is a bit too clumpy around the flowering top; Did not survive; Too short, recommend as a hoophouse crop, one stem cut meant a cluster of flowers, but not productive enough in field; Struggled more than the other six in the Trial.

Similar Cultivars: None listed.

Postharvest Recommendations: Harvest when ready, keeping older flowers removed greatly extends the number of usable stems available, harvest into clean water after stripping and sorting stems, store in #2 grower solution in cooler for up to 5 days; Refrigeration.

Comments: This was #1 staff favourite in the Trial this summer, in fact all the Trial asters were outstanding, the best we have had for many years, the bloom size was excellent for bouquet work, I did grow a few in the hoophouse, however, I did not see any difference apart from a slightly longer stem, the light blue was a bit more compact than the others in the Trial, they were sown on April 13 in 144 cells, transplanted to 50 cells and then to the field June 8, we did pinch all of the asters, they were grown in the field through black bio, no irrigation, netting a must, they produced well for us from late July through early September. I did not have any insect or disease issues as we have had most years—in fact, I was almost ready to quit growing asters altogether, I think the combination of weather/ample rainfall and good seed and always good luck made it possible, every year is different, I hope this seed will be on the market soon, a welcome addition, I did not "disbud" due to limited time, they were pinched only once, removing the central stem around 2 weeks before transplanting in field; Grew in high tunnel, I always avoid asters/*Callistephus* due to aster yellows and *Fusarium*, but had decent results with these; This variety bloomed at the same time as 'Mum Flower Shape Deep Red', but earlier than 'Mum Flower Shape Deep Purple' in our trials; Germinated seeds were bumped up into

50 trays to allow plants to develop into big, strong, healthy plugs before transplanting, despite this effort, almost all plugs died very soon after transplant into a high tunnel, disappointing.

Aster ‘Mum Flower Shape Deep Purple’

(American Takii)

Good Qualities: Great blue/purple color (6); Nice fluffy flowers; Highly uniform plants and blooms, large blooms reached 2-3 inches wide, plants held up well during a hot spring and a very wet July/August; Good strong stems held upright, long bloom window; Long vase life.

Problems: Did not survive; Wish side shoots were long enough to cut multiple stems, we still harvested it as a single plant, like we do with more compact varieties; Flowered short, in a cluster, got a few single stems and then middle cluster, would be better in a hoop house.

Similar Cultivars: None listed.

Postharvest Recommendations: Refrigeration after harvest (2); CVBN; Keep harvested, do not let flowers get over mature, store in #2 grower solution in cooler no more than 4 days for optimum vase life.

Comments: Grew in high tunnel, I always avoid asters/*Callistephus* due to aster yellows and *Fusarium*, but had decent results with these; Germinated seeds were bumped up into 50 trays to allow plants to develop into big, strong, healthy plugs before transplanting, despite this effort, almost all plugs died very soon after transplant into a high tunnel, disappointing; We had an unseasonably dry June, it's possible the mum-flowered ones would have been taller with longer side shoots in a more normal growing season (although all our annuals are on irrigation); Everyone loved this aster, the rich purple is always a welcome addition to bouquets, they were not disbudded due to lack of time, pinched out central stem only prior to going to cold frame, field grown no irrigation, support netting a must, this was a good one for us, would recommend and grow again should seed become available.

Aster ‘Mum Flower Shape Red’

(American Takii)

Good Qualities: Dark cherry-red blooms were attractive (4); Highly uniform plants and flowers, fully double, productive plants held up well during a hot spring and a very wet July/August; Great fluffy blooms, truly did look like a spring-blooming mum; 2-inch flowers; Long vase life.

Problems: Did not survive; Harvest whole plant, only one cut, wish side shoots were longer for multi cuts, too bright for spring, would want to grow later in summer next time; None.

Similar Cultivars: None listed.

Postharvest Recommendations: Cool.

Comments: Grew in high tunnel, I always avoid asters/*Callistephus* due to aster yellows and *Fusarium*, but had decent results with these; This variety bloomed about 10 days earlier than ‘Mum Flower Shape Deep Purple’ in our trials, while the varieties appeared very comparable in bloom form and plant habit, there was a noticeable difference in days to maturity; Germinated seeds were bumped up into 50 trays to allow plants to develop into big, strong, healthy plugs before transplanting, despite this effort, almost all plugs died very soon after transplant into a high tunnel, disappointing; We had an unseasonably dry June, it's possible the mum-flowered ones would have been taller with longer side shoots in a more normal growing season (although all our annuals are on irrigation)

Campanula ‘Champion II White’

(Sakata Seed America)

Good Qualities: Beautiful, pure white bloom (3); Tall stems (2); Straight stems (even without netting) (2); Easy to grow (2); This was an exceptional variety, very well accepted by customers, excellent vase life also was a great performer in bridal bouquets; Multiple florets per stem, easy to harvest; Blooms easily, blooms fast, easy to germinate; 5-day germination rapid growth on sturdy plants, 4-inch spacing in tunnel, fabulous smaller blooms in large numbers per stem, long-lasting stem.



‘Champion II White’

Photo Shannon Jones

Problems: White flowers readily show water/weather damage (2); I struggled with getting the seeds germinated, I had only about a 50% success rate but that might have been something I wasn't doing right on my end; Not really a problem but something to be mindful of—do not let them become root bound, restricting the root system will lead to short stems; ZERO.

Similar Cultivars: Similar to other florist campanula.

Postharvest Recommendations: Harvest when several blooms are open, keeps exceptionally well in cooler for long period, 2 weeks +; CVBN; Keep bells from getting squished while in cooler.

Comments: I've never grown campanula before but I loved this flower and I think the designers loved it more, you can never have enough good white options for wedding designers! and I ended up getting smaller side shoots after cutting the main stem off (probably not cutting it deep enough) which was also grabbed up by them; This was an excellent plant for us this year, we started in the greenhouse, great germination and was grown in a hoop house (recommended), I have tried growing in the field and I would not

recommend this, hoophouse/tunnel only, we tagged a few of our CSA bouquets that contained this campanula and asked our members to give us feedback, it was the same result from everyone—customers loved it! vase life was exceptional, although there were many great seed varieties in the 2021 Trial, this one is top 3, I did sow it again in August with hopes of getting it to the hoophouse for a fall crop, although it germinated well, regrettably I was too busy to get it in the ground, I would try this again next year and make sure it is planted in timely fashion, highly recommend this one, a winner; For us, this was the rock star of the ASCFG Trial! it was absolutely loved by employees and customers alike, and far out-competed our other campanula that was planted much earlier! stems were tall and straight, with multiple florets per stem, absolutely beautiful! we planted in a high-tunnel in the later part of spring and did very little other than water it, and it did wonderfully, we would absolutely grow again! plants sent up one main stem that always exceeded 2 ft. in height, followed by multiple, smaller, sub stems per plant, these sub stems were generally just over a foot in height, we LOVE Campanula ‘Champion II White’!!!; Typically I am not a fan of campanula but this one I liked, it was a great addition to our early summer market bouquets, customers liked it; This was my favorite Trial plant this season, I was leery to plant it because I’ve never done well with campanulas from seed, and especially planting so late, I usually do plugs and set them out in November or December, these germinated well and grew well and bloomed well, while they weren’t as bushy and big as our November plugs, they bloomed right after they finished, and they were very nice, and easy to manage, and we grew some outside, and they were awesome, I say that because I’ve had good luck in the past growing them only in a high tunnel or protected; After first harvests, we went through a very rainy period with high humidity and the plants quickly got diseased and then totally melted down quite quickly; WINNER WINNER CHICKEN DINNER!

For us, campanula ‘Champion II White’ was the rock star of the ASCFG Trial! It was absolutely loved by employees and customers alike, and far out-competed our other campanula that was planted much earlier! Also: WINNER WINNER CHICKEN DINNER!

Celosia ‘Act Diva’

(Evanthia)

Good Qualities: Unique burnt red/orange color (5); Very fast to mature and easy to grow, no leaf spots; Sturdy, definitely we will grow this again; Tight curl within the fan-shaped form; This was a good celosia as it did not get ridiculously large, the stem stayed nice and slim and the bloom remained happily on the plant, I was often asked about them in the field, I think they would also be worth testing as a tall bedding plant, the bloom is resistant to weather and upright on strong stems, might have been a bit large for average bouquets, however, it was often chosen by customers to be adding into their bouquet, a healthy plant no disease issues; Good germination of seed.

Problems: Short stems (3); Despite being planted in

a high tunnel, this cultivar never grew beyond three or so inches tall, then, when harvested, they would flop over, rendering the cut absolutely useless; Our customers were not as excited about color, but it would be good for certain design work, especially the “moody, fall” look; Large head, too large for market bouquets, we tried to sell them by the stem instead; After transplanting, the seedlings never grew; Some stems were stocky, shorter than other celosias we grew; Okay color, though there are better ones out there that have clearer shades; one stem cut, not very strong.

Similar Cultivars: Neo series.

Postharvest Recommendations: Dried flower; Keep water very clean, we do not store in cooler, recut stems often.

Comments: We love the Act series! wish the seed was cheaper, I’d try this one again late fall for its color; Not crazy about this variety; Love this; This was a very uniform variety, often with the larger celosias they tend to be irregular, ‘Act Diva’ was very consistent for bloom size, also held up to very strong winds without netting whereas many others would succumb to wind, this was one of the top ten for us in the 2021 Trial, would grow again; We made the mistake of pinching back the main shoots early on and there was absolutely no regrowth; I am a little baffled at what happened with these, the seedlings looked so good, then they just sat in their row and languished.



‘Act Diva’

Photo Rachael Ackerman



Celosia 'Sunday Gold', 'Sunday Bright Pink Imp', 'Sunday Yellow Imp', Reprise Violet, 'Act Diva'

Photo Rachael Ackerman

Celosia 'Reprise Velvet'

(Evanthia)

Good Qualities: The dreamiest color of cockscomb! (7), bright vibrant orange, velvety blooms or beautiful dark velvety burgundy purple color (*Editors' note: Trialers described the color quite differently.*); Good germination (2); Very tall (2); Straight stems (2); Also, as the nights got cooler, I noticed some side shoots had more of a soft coral color, fast to bloom, maximum uniformity, great head size, incredible!; Very fast to bloom, vigorous stems, no disease (leaf spots); We will try a late seeding for fall bloom next season; Easy to grow; Strong stems; Nice tidy size stem, slender but strong, would make a good back border bedding item, great in large arrangements especially in autumn, very uniform size, colour, and bloom time.

Problems: On the shorter side (3); A small portion (10%) had a seedier look to them where the seeds were more visible further down the neck of the cockscomb (this is a common problem in many varieties), I wish the seed were cheaper; After transplanting, the plants just languished; Despite be-

ing planted in a high tunnel, this cultivar never grew beyond three, or so, inches tall, then, when harvested, the neck would flop over, rendering the cut absolutely useless; None!; Head size was too hard to incorporate into market bouquets, we sold by the stem instead; Variability of stem length among plants; Not sturdy; Color is a brownish red, yucky tone, one stem cut then it is done.

Similar Cultivars: Bombay.
Postharvest Recommendations: Stored in our cool cellar rather than cooler, which is a bit warmer; Do not put in cooler, we keep ours quite cold and celosia, like zinnias, does not appreciate the cooler temperatures, important to change water often and recut stems.
Comments: If the seed were cheaper, I'd grow millions of them!; Harvest on time, the color fades to brown quickly; A single plant of this variety bloomed, had 4 flowers, they were lovely, but all the other plants just sat in their row—they didn't even die, just didn't grow or flower, still a little baffled with these; Disappointed, as I was looking forward to having this color of celosia going into the autumn months, germinated easily, but never grew; Superior to other burgundies we've grown in vigor and disease resistance; Celosias often don't do super well in our climate, though this year was better than many others for them; We made the mistake of pinching back the main leader stem after transplanting: no regrowth!; We liked this one, but liked 'Act Diva' better for its coppery colour, the 'Reprise Velvet' was more common, it had the same good qualities as the Act, and was perhaps had a bit larger bloom, to avoid any issues of

being root-bound, I delayed planting until May 21, they were planted in the field, no irrigation June 20, bloom time was similar to the 'Act Diva', very uniform.

Celosia 'Sunday Bright Pink Improved'

(BloomStudio)

Good Qualities: Great bright pink color (6); I used this color more than I thought I would, great for summer bouquets and even got it to blend into fall-themed bouquets too, great addition to the farm; Popular at farmers' market, good fast germination of seed; Good branching; Multiple cuts per plant; Such a robust prolific bloomer; This one was my favourite colour in the series—a bit later to bloom compared to the other colours but worth the wait, also several inches taller than the other varieties, 'Bright Pink' is a welcome filler addition to market bouquets, easy to germinate and grow, no insect issues; I grouped the Sunday cultivars together because they all had similar characteristics, 'Bright Pink' was our favorite, already ordered more seed for next year, our employees called it Bubble Gum Pink, this was the most popular color; Very uniform plants and bloom shape, contained, upright plants are productive, sturdy straight stems, easy to harvest and process; We loved this flower, color popped in straight bunches, set off bouquet colors beautifully.

Problems: Sunday Series tend to be on short side (3); Relatively short harvest window, 1 month; This variety was slower to mature compared to other Sunday varieties by 7-10 days; None.

Similar Cultivars: 'Sunday Bright Pink' (2); we grew this side-by-side with regular 'Bright Pink', which has been available for several years, I was under the impression that this was an improved variety, but could tell absolutely no difference, perhaps it is the original same seed?
Postharvest Recommendations: Refrigeration; Keep water clean, do not store in cooler if below 45F, harvest early or late in day; Placed in Hydraflor, then FloraLife, then cooler.

Comments: If only the Sunday celosias kept blooming, I would have loved them, as it was, I enjoyed harvesting

*If only the Sunday celosias kept blooming,
I would have loved them—as it was,
I enjoyed harvesting for a month and
all too soon the plants fizzled.*

for a month and all too soon the plants fizzled; Such a bright pink, hard to work with in arrangements but as single-stem bouquets midsummer, it was popular at our farmstand sales; This was a top ten for us this year, employees and customers appreciated the bright colour and texture, unfortunately, we had a damaging wind storm in early September caused it to topple over leaving much of the crop unusable, the others all remained upright, would recommend planting in a sheltered spot if possible, a hoop or tunnel would be ideal, will be field growing again next season, as with the other celosia I sowed the seed later, May 28 and set out to the field in less than 4 weeks to keep actively growing, preventing root growth severely effects the stem length; first harvest good, second harvest too short, good color; Absolutely loved the 'Bright Pink Improved'!

Celosia 'Sunday Gold Improved' (BloomStudio)

Good Qualities: Amazing gold color (5); Shapely flower heads, good germination of seed and strong seedling growth; Really stood out in the field, loved it for fall creations; Multiple cuts per plant; Uniform plants and uniform plume shape; Reliable upright growth; Strong and tall, good side shoots even without pinching, no disease; I grouped the Sunday cultivars together because they all had similar characteristics; A bit longer stems than 'Sunday Yellow'.
Problems: Only a month harvest window; Sunday series tend to be on the shorter side; We planted in May and the gold was more of a fall tone; None.
Similar Cultivars: 'Sunday Gold'.
Postharvest Recommendations: Placed

The Cut Flower Quarterly

in Hydraflor, then FloraLife, then cooler.
Comments: The color is great—bold and attractive (3); This was a crew favorite for the color, and for how it stood out in mixed bouquets; Ease of growing and popularity at the farmstand sales; We will definitely try this one again at a later planting date for September harvest; first planting was acceptable, second planting too short!

Celosia 'Sunday Green' (BloomStudio)

Good Qualities: Pliable, soft lime shade (4); Green paired well with most color combos (2); Germinated easily, large, full, flower plumes; Tall stems with usable side shoots, unpinched, nice

feather plume form, full head; Very nice shape; Good fast germination; Makes a good filler; The muted color makes it a valuable element for events work, great upright growth; I grouped the Sunday cultivars together because they all had similar characteristics; Good length.

Problems: Any secondary shoots (branching after initial cut) grew to only 1-3 inches long, making this a "one and done" cultivar; Sunday series just don't get as tall as I would like; Our supermarket customers prefer deeper, more saturated colors; Got some kind of disease in the field, spots all over foliage, keep in mind we had 30 inches of rain in an 8-week period!; Green was our least favorite color of the Sunday cultivars; Insipid green color, shows age fast, just not a satisfying color shade compared to other Sundays.

Similar Cultivars: 'Sylphid', but Sunday is more vigorous.

Postharvest Recommendations: Refrigeration.

Comments: Though this cultivar was easy to germinate and grow, and the initial cuts from the plants were nice and tall (enough), with a nice color and large flower, I likely wouldn't grow



Celosia Sunday

Photo Jamie Sammons

again, as we did not get the branching and subsequent cuts off of each plant as we do with the other celosia varieties that we grow; I think with pinching, this may produce many tall and wonderful shoots; Nice shape, but none sold, this color is out of vogue; A little too muted flower color for sale of straight bunches; Made a good filler, germinated and grew well, did have some spotting on leaves, possible cause excessive rainfall and lack of sun, may be happier in a hoop or tunnel, sowed May 28 and transplanted from a 50-count cell to bio plastic, no irrigation, stems stayed upright without netting, later in the season we added stakes and 2 rows of string to help keep from sprawling over the edge of the beds, easy to grow; first planting was acceptable, second planting too short!

Celosia ‘Sunday Purple Improved’ (BloomStudio)

Good Qualities: Really nice clear plum flower color (5), that stood alone or set off any flower it was mixed with; Good, fast germination of seed; Reliably upright stems; I grouped the Sunday cultivars together because they all had similar characteristics, but we found that this one went by faster than the others; Sent up multiple side shoots on each stem; Sturdy stems, uniform and upright plants; Easy to grow, good bouquet filler; Center cut was gorgeous, nice head form and size.

Problems: Too short (2), but still usable; Relatively short harvest window, 1 month; Stem length decreases after first harvest; Sunday series don’t get as tall as I would like even after pinching; Weaker than others; Plants were slightly shorter compared to other Sunday varieties; We did not pinch this at planting, and there were no harvestable side shoots, would like to try pinching next time, otherwise cost of seed is not justified for single cut plant; Real spindly, ratty looking, useless.

Similar Cultivars: ‘Sunday Purple’, We saw little difference from ‘Sunday Cherry’.

Postharvest Recommendations: Refrigeration; Keep water clean and recut stems often, we do not store in cooler, does not appreciate cold temps.

Comments: I found this cultivar was taller than expected, height and bloom times were consistent through the series except for the pink, which was a little taller and later to bloom than the other colours in the series.

Celosia ‘Sunday Yellow Improved’ (BloomStudio)

Good Qualities: Beautiful bright yellow color (2); Nicely shaped flower head, good seed germination; This was a good filler, we didn’t tend to use it as much, preferring the deeper ‘Sunday Gold’ instead; Reliably upright stems; I grouped the Sunday cultivars together because they all had similar characteristics, ‘Yellow’ was nice; Good length on initial cut, easy to germinate and grow; Plants were vigorous, healthy and tall; This variety had more “fluffy” heads than the other feathery Sunday series, still a plume shape, but more frizzy; we liked its uniqueness, nice clean green foliage.

Problems: Relatively short harvest window, 1 month; Any secondary shoots (branching after initial cut) grew to only 1-3 inches long, making this a “one and done” cultivar; Sunday Series tend to be too short even after pinching; Dull and muddy color; Bloom shape was not uniform, plants bloomed in a range of irregular shapes, from plumes to crests, color tone also varied across this variety, thick stems were harder to harvest and bunch compared to other Sunday varieties, most of the Sunday varieties performed very well for us this year—this variety seems to be an outlier; Was slower to mature than all other Sunday varieties planted at the same time, oddly, this particular variety was very hard to strip (stems had better adhesion?).

Similar Cultivars: ‘Sunday Yellow’

Postharvest Recommendations: Refrigeration.

Comments: Produced well from late July through early to mid-September, wet weather in September caused some browning and fading on the blooms, perhaps consider a hoop or tunnel for this series of celosia especially if the area is prone to excessive rainfall, a good healthy plant, sown May 21 and planted to field from 50-cell count, no irrigation

or support netting, string support was used on outer perimeter to keep plants upright; Although this cultivar was easy to germinate and grow and the initial cut yielded a stem of good usable length, I likely would not grow this cultivar again simply because we were not able to get the subsequent cuts from it that we get from our other celosia varieties; The color is great, and the plant vigor and height were also good, but the wide range of plume shapes and thick stems made this variety difficult to harvest; I think if we grew a large quantity of this variety, we’d notice a big difference in time required to harvest due to difficulty stripping stems; Tall, non-typical to the others, soft, baby yellow in color.

Dianthus ‘Amazon Lavender Magic’ (BloomStudio)

Good Qualities: Great colour (6), useful for blending in bouquets, especially because of the changing bloom colour; Strong stems (4); Tall stems (2); Prolific (2); Blooms over a long period of time (2); Long vase life; Cut and come again, good market flower, sold on its own; Vigorous and healthy plants, very uniform and full 2 to 4-inch wide blooms; Reliably upright stems and plants, beautiful flower shape.

Problems: Too short (2); Perhaps grown in hoop or tunnel would add more stem length, like all dianthus stripping stems is tedious, as each leaf needs to be removed one at a time, if this is not done carefully the stems will snap easily, this is not directed to this cultivar but to all cut flower dianthus in general.

Similar Cultivars: I thought it was fairly similar to ‘Amazon Rose Magic’, there was definitely a lavender hue to the mix of colours in the flower head but you had to look closely, on a quick glance you wouldn’t think there was any difference between the two; Performance is consistent with other varieties in the Amazon series.

Postharvest Recommendations: CVBN; Refrigeration.

Comments: Rain was really detrimental to this plant, probably better grown indoors; Nice pink and white bicolor, although not lavender at all as the name



'Amazon Lavender Magic'

Photo John Dole

spreading, the Amazon series had none of these problems, I found that interesting! will stick with my Amazon series!

Dianthus 'Sweet Neon Purple'

(BloomStudio)

Good Qualities: Colour—so bright!!! (6); Small size of flower heads made them good for market bouquets; Prolific, providing multiple cuts per plant; Good market flower, sold on its own; Same great plant habit and bloom time as rest of Sweet series; Nice stems, good production, blooms a long time, great for mixed bouquets; Tall, vigorous and healthy plants, very uniform blooms; Reliably sturdy, upright stems, great stem stretch, early bloomer.

Problems: Not as tall as other varieties of dianthus grown, though each plant did produce multiple successive stems following the first cut, they got increasingly shorter and thin/flimsy, stems broke easily, though this is true of all dianthus; I am a diehard Amazon dianthus grower, the Sweet series did not impress me, shorter and much smaller headed blooms than what I am used to growing, had a lot of rot of blooms due to our 30 inches of rain over the growing season, but that happened to all of our field-grown dianthus varieties; Shorter, hard to put into bouquets because of stem length, colors can be very vibrant and hard to work into color palettes, more of a market flower, not a good event flower because of bright color combos; I had a

would imply, nice large heads; I think these dianthus are more suited to spring or fall crops as they seemed to mind the heat, causing them to mature quickly, we grow the biannual Sweet William and use a lot of this flower early in the season, with the time-consuming stem stripping, we are more likely to look for another flower instead, this dianthus would make a good bedding plant with some regular deadheading; Nice to have a flower marketable as decor and edible; Performed the best of all the varieties of dianthus! good germination success, produced multiple stems per plant and, more importantly, these secondary stems remained tall and thick/sturdy, grown in a high tunnel.

flower, not a good event flower because of bright color combos, rain was detrimental to the blooms, probably better grown indoors; I am a diehard Amazon dianthus grower, the Sweet series did not impress me, shorter and much smaller-headed blooms than what I am used to growing, had a lot of rot of blooms due to our 30 inches of rain over the growing season, but that happened to all of our field-grown dianthus varieties.

Similar Cultivars: None listed.

Postharvest Recommendations: Refrigeration.

Comments: This color is a gorgeous addition to the Sweet series; We grew it in a covered greenhouse, we love it and it was worthy of greenhouse real estate!;

Dianthus 'Sweet Cherry'

(BloomStudio)

Good Qualities: Beautiful rich red color (5), almost a neon red, which at first I didn't like but with the yellow gold of sunflowers it looks great; Long stems, large blooms; Good market flower sold on its own; Large main marketable stem to harvest, and then 3-5 smaller side shoots; Uniform plants and flowers; Sturdy, reliably upright stems; Small size of flower heads made them good for market bouquets.

Problems: Shorter, hard to put into bouquets because of stem length, colors can be very vibrant and hard to work into color palettes, more of a market

Dianthus 'Sweet Neon Purple' really lives up to its name, shining from across the garden, our staff fell in love with it immediately: it added cheer during a rainy week.

Grew in a high tunnel; Had all of my Sweet trial growing right next to all of our Amazon series in the field in many succession plantings, lost a lot of the Sweet series as young plants (not flowering yet) due to the excess moisture, also some developed odd foliage spotting, we ripped a lot of those out for fear of

hard time getting a nice stem, I found I had to pick extremely early with hardly any colour showing otherwise some of the florets would look damaged, not sure if this was because of weather or that they just age quicker, I had it growing in the same row as the Amazon dianthus and have never had that problem with



'Sweet Rose Magic'

Photo Jamie Sammons

that variety, the stems were also shorter than my Amazon plants; The very bright bloom color can be challenging to pair with other, softer springtime colors.

Similar Cultivars: Dianthus 'Amazon Purple'.

Postharvest Recommendations: CVBN; Refrigeration.

Comments: This variety really lives up to its name, shining from across the garden, our staff fell in love with it immediately: it added cheer during a rainy week; Had all of my Sweet trial growing right next to all of our Amazon series in the field in many succession plantings, lost a lot of the Sweet series as young plants (not flowering yet) due to the excess moisture, also some developed odd foliage spotting, we ripped a lot of those out for fear of spreading, the Amazon series had none of these problems, I found that interesting! will stick with my Amazon series!; Good, not great, relatively prolific, producing multiple stems per plant, though these stems were often short and flimsy, overall, does not compete with other varieties of dianthus grown; I'm not sure why anyone would grow this variety when they could grow the Amazon variety, bloom time from seed seemed the same so I just couldn't find a quality that made them worthwhile.

Dianthus 'Sweet Rose Magic'

(BloomStudio)

Good Qualities: Attractive globe-shaped blooms with a mix of white, pink, hot pink, and cherry red florets (7); Small size of flower heads made them good for market bouquets; Nice shape, nice stems, no complaints, bloomed a long time; Prolific, producing multiple harvestable stems per plant; Good market flower, sold on its own; REALLY tall! nice strong stems; Highly uniform plants and blooms, consistent with other Sweet varieties.

Problems: It's not a super easy sell for us, not sure why, great for long-lasting mixed bouquets, though I am a diehard Amazon dianthus grower, the Sweet series did not impress me, shorter and much smaller headed blooms than what I am used to growing. Had a lot of rot of blooms due to our 30 inches of rain over the growing season, but that happened to all of our field-grown dianthus varieties; Secondary shoots were often flimsy and thin; Shorter, hard to put into bouquets because of stem length, colors can be very vibrant and hard to work into color palettes, more of a market flower, not a good event flower because of bright color combos, rain is detrimental to this plant, blooms rotted; White shades browned easily, perhaps due to rain in field; I had a hard time getting a nice stem, I found I had to

pick extremely early with hardly any colour showing, otherwise some of the florets would look damaged, not sure if this was because of weather or that they just age quicker, I had it growing in the same row as the Amazon dianthus and have never had that problem with that variety, the stems were also shorter than my Amazon plants.

Similar Cultivars: 'Amazon Rose Magic'; Comparable in appearance to 'Sweet Pink Magic', but with more red/cherry tones.

Postharvest Recommendations: CVBN.
Comments: I prefer 'Sweet Rose Magic' to 'Sweet Pink Magic', having the darker red tones in 'Sweet Rose Magic' made this variety a little more versatile for making mixed bouquets; Had all of my Sweet trial growing right next to all of our Dianthus Amazon series in the field in many succession plantings, lost a lot of the Sweet series as young plants (not flowering yet) due to the excess moisture, also some developed odd foliage spotting, we ripped a lot of those out for fear of spreading, the Amazon series had none of these problems, I found that interesting! will stick with my Amazon series!; Grown in a high tunnel.

Helichrysum 'Granvia Gold'

(Suntory Flowers)

Good Qualities: Amazing yellow color (4); Great for drying (2); Healthy foliage; Large bloom up to 3 inches, I planted this in three locations: in hoop house, in sunbelt with drip line irrigation, and in the field through bio plastic with no irrigation, the bloom production was equal in all locations, exposure to the elements for the majority of the growing season did not seem to cause any problems, the hoop house planting was still blooming in November, although considerably less production, support netting for this crop was not required; Branched on its own, dried it all and sold in the fall, held its color very well!; Nice big heads, one main stem with 3-5 flowers per stem.

Problems: Too short (4), sometimes customers bought them anyway; Finishes too early; Not as many longer single-stemmed flowers; Our other strawflower reached normal height just fine.

Similar Cultivars: None listed.

Postharvest Recommendations: Dried flower.

Comments: Love this; The color really glowed, dried great and the florist I sold to loved them, and didn't care if they were short; The liners arrived well established, I transplanted to 4-inch pots to hold them until they could be planted to the hoop and outdoor locations, in hindsight I would have used a larger pot, perhaps 6-inch, as they are quite vigorous, after planting they seemed to stay very compact and covered in blooms, I felt as this time they were more of a bedding plant than a cut, and also wondered if I had left them in the 4-inch pots too long and they had become root bound, I completely removed blooms and buds from half of the plants in the hoop house to see if that would promote some new, longer stems, the stems seemed strong and held up well compared to the seed strawflowers that occasionally tend to droop over, by late July the stem length had improved on all the hoop plants, we used them in our medium bouquets, these popular large yellow blooms were impressive and stood out from the seed varieties, having them early in the season before the seed varieties were ready was



'King Size Frosted Sulphur'

Photo Renee Clayton

a bonus, having the option to use dry or fresh also a bonus, I removed the shorter blooms throughout the season and dried the heads, would make a good container plant, but would require deadheading to keep the old shattered blooms removed, certainly a good producer, would be an excellent contender for a cut flower if the stems were longer, healthy plant no disease issues, despite the shorter stems I will be ordering a few plugs for 2022.

Helichrysum 'King Size Frosted Sulphur'

(Takii Europe)

Good Qualities: Large flowers (6); Strong/vigorous plants (5); Nice cream color (3), not stark white, can blend with most anything; Tall (2); Welcome addition, ivory with a hint of very soft lemon yellow, giving it a soft glow, the blooms were plentiful, produced continuous stems from mid-July thru October, dries to a lovely creamy ivory which blends well with every colour, healthy plant despite a very wet September, no insect issues, still a few stems mid-November; Productive, unique and interesting color combination—silvery buds open to pale lemon-yellow to silver blooms; Tall, nice pure white.

Problems: The color is a sort of dirty white (2), white with yellow tinge, is it white? is it light yellow? was not super

prolific; Low germination; None; We don't know how to harvest, seemed to brown/mold pretty quickly, early, tall, needed netting.

Similar Cultivars: White strawflower.

Postharvest Recommendations: Remove most of the leaves; Make sure the stems are mature prior to harvest, otherwise the stem will not support the flower; Hang dry after using in fresh arrangements; Easy peasy if cut at the right time.

Comments: Interesting color (3); and described perfectly as "frosted sulphur", is a great color for dried things; Good for weddings, but not a favorite at farmers' market, the flowers were the largest I have ever seen for any strawflower I have grown; Long-lasting and dries; Didn't care for the color at all!; We grew this variety alongside our main strawflower crop, field grown in bio plastic, greenhouse sown May 9 and transplanted to field June 12, growth habit similar to all the King size varieties, would recommend cutting deep into the plant when harvesting the first stem, which is typically thick and heavy in all seed *Helichrysum bracteatum*, going forward we will pinch central stem prior to transplant to encourage early branching and perhaps avoid that heavy first stem, keeping the flowers harvested encourages production, very useful in



'Granvia Gold'

Photo Jamie Sammons

bouquet work for added interest and texture; The white has a slight yellow; This variety dries well, similar to other strawflower varieties, as blooms dry, the flowers darken to a more solid lemon-yellow color; It was hard to classify the colour—it was white but yet a tinge of yellow in it, so the wedding designers wanted a purer white and didn't like this, it was fine for market; We had disease in our helichrysums, which caused the plants to die prematurely, otherwise the number of stems would have been higher.

Lisianthus 'Arosa 3 Pure White'

(Gloeckner)

Good Qualities: The snowy white is amazing (3), even when grown outdoors; The pure white flower head was large, the stems were not able to support the flower head; Perfect spiraling centre looks like a hybrid tea rose; Can't go wrong with a white lisianthus; Extra-large frilled, cup-shaped flowers, good germination, robust seedlings and robust stems, for a lisianthus, pretty easy to grow from seed; Highly uniform, buds have a delicate rosebud appearance; Sturdy stems, lovely flower, great vase life; Loved it.

Problems: Germination was very slow and the seedlings were the tiniest of all trialed lisianthus, growth was slow; We had thrips both inside and out in spite of



'Arosa 3 Pure White'

Photo Rachael Ackerman

spraying, we will try them in pots next year; Rain easily damages white petals if grown outside; Difficult to germinate. *Similar Cultivars:* None listed.

Postharvest Recommendations: None listed.

Comments: Not a significant addition to the white lisianthus cultivars available; The Arosa lisianthus were the best and put out more stems; We had so much rain this season that it damaged a lot of our blooms, lisianthus is very prone to rain damage; These flowers were absolutely stunning in an all-white wedding I designed in August, it will be hard to grow any other white lisianthus after growing this one!; Nice-sized bloom, tidy, clean bright white, will search for available plugs for 2022; This white really stood out for its color!

Lisianthus 'Arosa 3 Red'

(Gloeckner)

Good Qualities: Good germination (2); Robust seedlings (2); Good grower; Looks like a rose with tight form: almost like a hybrid tea rose; Long lasting; Beautiful antiqued dark pink, robust stems; I don't grow a lot of darker colours because of the discolouration of the petals from moisture (I grow everything outside) but I loved this colour, it was a nice rich red/burgundy and had darker spots along the edge of the petals, I think from the weather, but I thought that added to the uniqueness of the colour, the buds were gorgeous before they opened as well, it looked great in mixed bouquets; The red color is interesting—a little darker and more dramatic than the softer lisianthus colors, highly uniform plants and blooms.

Problems: The color is a hard sell; Once open the blooms were discolored with almost streaking of the color, I would pick it more in the bud stage instead, on the shorter side of how I like lisianthus; The color didn't sell well for me, customers didn't seem to love it as much as the blushes and pastels, petals showed rain damage easily; I sell most of my lisianthus to wedding designers and it was not a popular colour for that sales outlet; We had thrips both inside and out in spite of spraying.



'Arosa 3 Red'

Photo Susan Miller

Similar Cultivars: None listed.

Postharvest Recommendations: None listed.

Comments: If I had the market for this color, I would grow it again, but I grow within specific color ranges for my client base; Red grown in the field is generally a problem here with marking and colour variation, this shade of red was lighter than 'Rosita Red'; A beautiful lisianthus! A favorite with farmers' market sales; Color very close to 'Doublini Rose'.

Lisianthus 'Can Can Purple'

(BloomStudio)

Good Qualities: Velvety dark blue colour! (4); Robust growth (2); Fast and easy germination (2); Numerous buds and flowers at ends of stems; Flowers open all at once on long stems; Good seedling growth; Strong stems; Tall stems, full stems; Long vase life; Robust seedlings and transplants.

Problems: On the short side; Color too dark for my client base; Difficult to germinate; We had thrips both inside and out in spite of spraying; Not tall enough or enough blooms per stem, 2nd flush not looking strong or tall enough.

Similar Cultivars: 'Arena Purple' for colour and flower shape/size; The colour was similar to any other purple I've grown in the past.

Very full frilly blooms; I will definitely be growing this variety again, the petal shape and color were stunning, there's not much I don't love about a lisianthus and 'Celeb 2 Madonna' exceeded my expectations.



'Corelli Light Lavender'

Photo Jamie Sammons

Postharvest Recommendations: Cool.
Comments: Really liked this one, already ordered seeds for next year!; 'Can Can Purple' is an easy-to-grow, strong plant, I like how the stems carry multiple flowers, I wish this cultivar came in more colors; An all-around good classic purple lisianthus, a decent fall flush of shorter stems from this variety; I stopped growing purple since I grow all my lisianthus outside and they spot, this spotted a bit but I didn't notice nearly as much (but that might have just been because of the weather that I was having this summer), the stems were so large

and full that I should have double netted, it was profitable for market because of how full the stems were, designers didn't ever need this colour; Straight upright stems, unique color wasn't as beloved as a garden plant color, however, it was very useful for weddings with purple color theme requests.

Lisianthus 'Celeb 2 Madonna'
 (Gloeckner)

Good Qualities: Beautiful pale pink (5), light pink blooms have a dark rose edge—this color is interesting and versatile; Strong stems (2); Stem length, high germination rate, robust seedlings, fluffy flower form; Very full frilly blooms; I will definitely be growing this variety again, the petal shape and color were stunning, there's not much I don't love about a lisianthus and this one exceeded my expectations; Gorgeous frilly blooms in an ever so popular, good producer of fall side stems; The blooms were a good size; Highly double, deeply ruffled blooms, healthy plants; Multi-petaled; Favorite of the three, 3rd flush great, love, love, love!!

Problems: ZERO; Germination of seeds a little more erratic; Unique colour was not popular with designers; Difficult for us to germinate.

Similar Cultivars: No; 'Voyage Pink'; Bloom size and look was similar to Voyage lisianthus (2), although bloom size was slightly smaller compared to Voyage.

Postharvest Recommendations: None listed.

Comments: This is a delightful cultivar with fluffy, large flowers in a unique and

gentle pink/purple tone, very useful in design work, it was easy to grow and was robust and strident in its progress through the season, most impressive!; Excessive rain caused browning, and for some buds to rot without opening; This flower was just so lovely! on its own or it would just add magic to any bouquet and the frilly flowers were quite robust and great in boutonnieres!; I thought I would love this one but because there are different shades of colour on one stem (changes a bit as it ages), I wasn't able to sell very many to the designers, it worked fine in mixed bouquets, but since it didn't grow as full or tall as a series like Voyage, I didn't love it enough to grow again; A favorite for our florist crowd, perfect shade and abundant petals.

Lisianthus 'Corelli Light Lavender'
 (American Takii)

Good Qualities: Lovely color (3); Full frilly blooms (3); We have been hunting for a good lavender lisianthus, we may have found our new favorite in 'Corelli Light Lavender', we like the Corelli series a lot already and are happy that there is now a lavender in the series that we know is reliable; Long lasting like any other lisianthus, Corellis are a sure



'CanCan Purple'

Photo John Dole



'Flare Jade'

Photo John Dole

Comments: In general, my lisianthus got brown because of the rain during flower development, but the lavender especially showed the damage, I love this colour for blending with darker purple and green; We really liked this lisi, despite being started in late March we had some decent blooms, a staff and customer favourite! created lots of interest, will be looking for this one and more in the series if available for 2022, feel we would have had more stems if the plant was established earlier, no insect issues, a Special Lisi! one we were excited to be growing.

Lisianthus 'Flare Jade'

(BloomStudio)

Good Qualities: Soft creamy green blends well with other colours (2); Strong stems (2); Good germination and seedling growth, early bloomer; Tall, full stems; Upright stems; Multiple flowers open at the top of plant at the same time—great for market bouquets because they take up room.

Problems: I love a green lisianthus but found the colour a little neon, almost too bright or harsh; Colors kind of boring, customers prefer brighter-colored lisi.

Similar Cultivars: None listed.

Postharvest Recommendations: None listed.

Comments: Flower color could pass for cream or green, really very subtly different from 'Flare Yellow'; I should have double netted this variety, right when the stems were at their peak we got a good rain storm which toppled the patch, this variety is great for market bouquets, a good bang for your buck and the colour works well with bright, fun colours, the wedding designers didn't like it, 'Mia-chi Green' has a softer, more romantic look and colour and they preferred that; Lovely color for arrangements.

Lisianthus 'Flare Yellow'

(BloomStudio)

Good Qualities: Lovely buttery yellow-cream colour (4); Multiple flowers open at the top of plant at the same time—great for market bouquets because they take up room; Elegant form; Strong stems, good germination and strong seedling growth; Tall strong stems, lots



'Flare Yellow'

Photo John Dole

of blooms; Upright stems.

Problems: Colors kind of boring, customers prefer brighter colored lisi; A bit short and not very prolific.

Similar Cultivars: 'Arena Yellow'.

Postharvest Recommendations: Cool.

Comments: With all of our lisianthus, we had lots of rain just as the flushes of bloom opened, so the flowers got mushy and brown; I sold these both to designers and to market, it worked well for both and there were a lot of blooms on each stem so a stem went a long way, should have double netted it because they got heavy, it doesn't have quite as soft a look to it which I think I prefer but it bloomed at a time when my other yellows weren't, so I liked it for extending the availability of what I could offer; Lovely flower.

Lisianthus 'Little Summer 1 Orange'

(Gloeckner)

Good Qualities: AMAZING COLOR (5), beautiful, delicate blooms in shades of rose, cream, and apricot; Loved how tiny the blooms were, super cute! (3); Smaller heads made them perfect for boutonnieres, corsages, flower crowns! (2); Excellent cut flower!; Strong stems, strong blooms; Great color and smaller blooms are versatile compared to some

winner; Big blooms with surprisingly strong stems holding the bloom upright, recommend growing in hoop or tunnel for best results; Nice stems.

Problems: I've never grown a lisianthus that grew so short, I used only a handful of stems that I could use in a short mason jar bouquets, I actually had this already growing from my own seed order so I had two plantings seeded at different times and both were extremely short; Hard to start from seed; We had thrips both inside and out in spite of spraying, this one was the worst with bugs; These were a little shorter than our other Corellis, but that is probably due to grower error unless that is something seen across the board in these trial results.

Similar Cultivars: The lavender colour was similar to any other lavender I've grown, the blooms were full and multi-petaled, I haven't grown another lisianthus in that colour with that type of bloom.

Postharvest Recommendations: We grew this one in the hoop house, you have to decide whether or not to harvest with one bloom out or cut that bloom off and wait for more to open, if left too long the humidity in the tunnel increases despite open sides, still had some browning on the blooms due to the humid conditions; Cool.

of the larger varieties; Very floriferous. *Problems:* Plants were shorter than other lisianthus (2); None; Can't find a source for 2022 growing season; A smaller plant, needs even more attention to weeding; Plants were tiny at germination, grew larger slowly but were robust once they got going, the plant did not grow to significant height but did bloom, it was beautiful but too short to sell; Colour fades in heat and with age.

Similar Cultivars: Dublini lisianthus; No.

Postharvest Recommendations: None listed.

Comments: I liked this one so much I already ordered seed for next year, this was a winner!; I really loved working with this flower, and it kept having side stems in the fall, that, though short, were just so perfect for small arrangements and wearables; I loved these little blooms, I think it really depends on your market for this one, the blooms are smaller so for a farmers' market they won't be showy but for design work they offer a different size that will hold up well on nice strong stems, I liked pairing then with other lisianthus in a mixed bouquet because they had a different feel to them, I was hoping for the colour to be a bit lighter orange/light brown but they were more apricot to me—still pretty—just always looking for a moodier flower



'Megalo 3 Orchid'

Photo John Dole

for those designers; I would have liked longer stem length on this lisianthus, the unique color and flower form would be useful in the industry; I loved using this variety in bloom and bud as filler with the larger lisianthus colours, also got rave reviews from my customer who grows and sells lisianthus.

Lisianthus 'Megalo 3 Orchid'

(Gloeckner)

Good Qualities: Very pleasing light lavender (4); Strong stems (2); Outstanding germination, large, robust seedlings, large plant size; Large flowers; Healthy and uniform plants; We really liked this one, it did bloom quite late in the season so would not recommend for areas hit by early freezing temps; Large full blooms, great height.

Problems: None; We had thrips both inside and out in spite of spraying; Germination a little erratic; Colour is more like lavender than orchid, which was disappointing.

Similar Cultivars: Looks like many other lilac-colored lisianthus blooms; I don't have a lot of lavender lisianthus experience to compare to **but it was similar to the lavender** I had been growing; 'Voyage 2 Lavender', although blooms are not quite as full or deeply ruffled as 'Voyage 2 Lavender'.

Postharvest Recommendations: None listed.

Comments: I liked this cultivar very much and used it in a late wedding, this cultivar came at the perfect time for event work and was a strong workable stem, it looked delicate, yet was a beast and carried the wedding floral work forward; The last lisianthus to bloom from the Trial, a good one to extend the flowering season; Another fancy lisi with great colour, and stems, perhaps a bit late for us when starting from seed, if plugs are available in 2022 we will be ordering some; Nice, taller, flimsy stem, soft color, single petals.

Marigold 'Devi Deep Gold'

(AmeriSeed)

Good Qualities: Great gold color (6); Tall stems (5); Sturdy stems (2); Nice growth habit, a keeper; Huge prominent flowers (2); Long, straight, stems; Highest yield per plant of any of the marigolds we grew; This was I feel tied for first place in the marigolds this season, super strong stems, impressive blooms, amazing vase life of more than 2 weeks, combined with self-supporting stems made for excellent results, overall plant height was close to 4 ft. with fully double blooms 3.5-4 inches, as we had no frost until November the blooms were still of decent quality; Vigorous plants, uniform, wide full gold blooms, earlier to bloom by 7-10 days compared to 'Garuda' and 'Mishka Deep Gold';



'Little Summer 1 Orange'

Photo Rachael Ackerman



'Devi Deep Gold'

Photo Shannon Jones

Prolific bloomer; Took a frost without a problem; Large bloom, healthy plant; Real nice.

Problems: Got leaf spots very early, would not grow again; Flowers suffered more from petal discoloration than other varieties; Stems can have a tendency to snap—seem less sturdy compared to 'Mishka Deep Gold'.

Similar Cultivars: All golds; Comparable in color and bloom form to 'Coco Gold', although 'Coco Gold' is earlier to bloom; 'Garuda Deep Gold', 'Mishka Deep Gold'.

Postharvest Recommendations: We find marigolds easy to hydrate in clean water, place in #2 grower solution after cleaning stems, stores in cooler.

Comments: Would grow again if seed is available, limiting available nitrogen when growing these tall cut flower marigolds has its rewards—stronger stems; I couldn't tell much difference between most of the marigolds I grew this year, all seemed healthy, easy to grow, good stem length, and easy to mix into all market bouquets.

Marigold 'Garuda Deep Gold'

(AmeriSeed)

Good Qualities: Tall (6); Large flowers (4), some very close to 4 inches; Good bright colour (3); Strong stems (3); Best and favorite gold this year; Multiple heads per stem; Long harvest

window; Long straight stems; Flowers were nice and full; Slightly longer stem than 'Garuda Yellow Imp.', dries well, overall plant height was 46 to 48 inches; Vigorous plants, uniform, wide full gold blooms; Large, healthy plant; Nice stems with few branches that required stripping, vigorous plants; Real nice.

Problems: The latest gold variety in the Trial—many plants lodged in heavy July rains before plants reached peak production, stems tended to snap a little more with this variety, heavy blooms seemed out of proportion with thin stems on some plants, None.

Similar Cultivars: 'Devi Deep Gold'.

Postharvest Recommendations: We find marigolds easy to hydrate in clean water, place in #2 grower solution after cleaning stems, store in cooler; Placed in Hydraflor, then FloraLife, then cooler.

Comments: Another great marigold and garden workhorse; The Garuda marigolds were the ones we kept going to, they kept us in constant supply for bouquet additions, good strong necks and great stem length, top three in marigold trial 2021, all the marigolds were grown in soil, no added fertilizer or compost, no mulch, support netting or irrigation, however, we did have ample rainfall and consequently unfavourable conditions for spider mites (our #1 insect

to typically bother marigolds), I think it is a combination of these factors which made for a successful season, and yes, luck is always appreciated!; There was nothing wrong with this marigold, very healthy and easy to grow and worked great with my fall flowers; I think 'Garuda Deep Gold' was my favourite.

Marigold 'Garuda Yellow Improved'

(AmeriSeed)

Good Qualities: Bright yellow color (5), the color is wonderful!; Sturdy/strong stems (5); Beautiful large blooms (3); Tall (3); Long straight stems (3); Long vase life (2); Big plants; Vigorous and uniform plants, blooms are full and uniform; Reliable stems, prolific bloomer; Easy to grow; Our favorite marigold of the year, by far!; Responded well to a deep pinch at transplant, good necks, dried well, the pinched plants had significant numbers of clean, even stems compared to unpinched, would recommend pinching at transplant rather than doing it later, often a person is busy and misses the ideal opportunity; Real nice.

Problems: Petals susceptible to black spotting; Yellow got spots on petals more easily than orange in late season; None, loved it as a good yellow marigold.

Similar Cultivars: Comparable to 'Giant Yellow', although color is slightly



'Garuda Deep Gold'

Photo John Dole



'Garuda Yellow Improved'

Photo John Dole

darker and ‘Garuda Yellow’ bloomed about one week later in our field.

Postharvest Recommendations: We find marigolds easy to hydrate in clean water, place in #2 grower solution after cleaning stems, store in cooler.

Comments: Great yellow marigold, productive over a long haul; This is a very bright colour—like a flashing neon light, it made for a punch in my market bouquets but overall it took a special customer who liked how bright it was and that it was a marigold (okay with smell) compared to more of my customers who prefer a softer, more romantic bouquet; We loved this cultivar! it was our favorite type of marigold this year, probably ever! love, love, love!; ‘Garuda Yellow Improved’ was one of our top three marigolds, the large blooms were a great bouquet addition, we seemed to cut mostly from the two Garuda cultivars and the ‘Devi Deep Gold’, ‘Mishka Deep Gold’ was also a good one, however, it did fall over on us during the windstorm, whereas all other varieties remained upright, ‘Garuda Yellow Improved’ is an excellent variety and would recommend it.

Marigold ‘Mishka Deep Gold’

(AmeriSeed)

Good Qualities: Strong/sturdy (5); Great deep gold color, vibrant (4); Tall plants (4); Nice big blooms (3); Long, straight stems (3); Very double, healthy plants; Resists petal damage, long harvest window; Healthy plants; Smaller blooms averaged around 2.5-3 inches; Prolific bloomer, robust grower; Vigorous plants reached over 48 inches in our trial, uniform gold blooms, better quality than most in our planting; Good branching and strong side shoots, fairly little leaf spotting.

Problems: None! (2); Not a robust plant, hard to get a good usable stem from plant, don’t like the shape—too bushy; Late disease; Was the slowest of the marigolds to attain good cutting height; This one actually toppled over on us in early September while the others in the trial remained upright, for this reason it may not be as strong as the other varieties...



‘Mishka Deep Gold’

Photo John Dole



‘Narai Orange’

Photo John Dole

If I was going to grow a marigold just for garlands, ‘Narai Orange’ might be it—large flowers, on short plants that don’t need staking, and such a fast bloomer, flowers 6 weeks after transplanting.

ies... or it could have been just where the wind caught it; This variety bloomed a little later than some other gold varieties, tall plants were quick to lodge during heavy July rains; Heavy heads snapped a lot in a bad storm.

Similar Cultivars: ‘Jedi’; Color comparable to ‘Devi Deep Gold’ and ‘Garuda Deep Gold’; As good as ‘Oriental Deep Gold’, our favorite gold marigold.

Postharvest Recommendations: We find marigolds easy to hydrate in clean water, place in #2 grower solution after cleaning stems, store in cooler.

Comments: Solid workhorse of a marigold, I harvested quality stems for 3 months from an early April transplanting, young plants also decently cold tolerant and withstood a late frost; This was our favourite of all the marigolds

we grew; As it did topple over, I did not use it after early September; I couldn’t tell much difference between most of the marigolds I grew this year, all seemed healthy, easy to grow, good stem length, and easy to mix into all market bouquets; Will definitely grow again; Last planting they were first, big and beautiful, real nice.

Marigold ‘Narai Orange’

(AmeriSeed)

Good Qualities: Huge flowers! (5); Very productive (3); Nice orange (3), best orange this year; Took heat of the summer great; Tall straight stems; Compact plants just covered in flowers, a really fast bloomer, first trial marigold to bloom; Great plant vigor, long vase life; Beautiful full 2.5-4-inch-wide blooms



'Sumati Orange'

Photo John Dole

and healthy vigorous plants; Strong stems, healthy plant.

Problems: Plants were short and stems were not long enough to use for cuts (4); Didn't take cold weather well—it was the first to have dark leaves; Such a compact plant, to get a decent stem length, I had to cut most of the plant, but each stem had so many flowers it didn't take many to have a nice bunch; Late disease; Too many side branches and foliage to strip off cut stem, leaving wounds that I'm sure affected vase life.

Similar Cultivars: 'Sumati Orange' (2), these two varieties were very comparable.

Postharvest Recommendations: We find marigolds easy to hydrate in clean water, place in #2 grower solution after cleaning stems, store in cooler.

Comments: If I was going to grow a marigold just for garlands, this might be it, large flowers, on short plants that don't need staking, and such a fast bloomer, flowers 6 weeks after transplanting, the stem count doesn't accurately convey the productivity of this variety; Bloom quality and color were excellent, so it's possible this variety may work for growers producing marigolds for blooms only, not for stems; I couldn't tell much difference

between most of the marigolds I grew this year, all seemed healthy, easy to grow, good stem length, and easy to mix into all market bouquets; With the very impressive cultivars Garuda and Devi, 'Nari Orange' was outclassed, a good variety but did not have the presence of the two aforementioned.

Marigold 'Sumati Orange'

(AmeriSeed)

Good Qualities: Love the deep orange color (7); Very productive (2); Medium size flowers (3); Large size flowers (2); Really does not smell like other marigolds (for those who dislike this); Double flowers; Tall, straight stems; Productive for over 3 months; Robust grower, long-lasting vase life, great for cut flower use and botanical dyeing, appreciate its value in pest control in the garden, farmstand customers loved it; I pinched half at planting as a trial to see if the stems would have more single blooms, I did see a noticeable difference in all varieties and will use this practice going forward, 'Sumati Orange' responds well to a deep pinch at transplant to encourage single (non-branching) stems, the neck area seemed reasonably strong and bent neck was minimal; Beautiful full 2.5-4 inch-wide blooms and healthy vigorous plants; Strong sturdy stems.

Problems: Short plants (7); Color lacks vibrancy of typical yellows/golds—did not seem to have as much use for us, greatly reduced vigor vs. other marigold varieties, developed leaf spots far earlier than 'Chedi Orange' or 'Oriental Deep Gold'—we mowed them down at least a month before the others, shorter than many other varieties, we had low Japanese beetle pressure this season, but still the beetles preferred this variety; Could be darker shade of orange; Slower to begin blooming, last marigold in the trial to bloom; Some leaf spots developed earlier than other marigolds, dense plants made harvest more challenging; Most marigolds have a vulnerable neck as it is hollow, reducing the nitrogen available helps with the soft neck; Late disease.

Similar Cultivars: Very similar to 'Na-

rai Orange Improved'; The bloom was very similar to any of the other orange marigolds in the Trial.

Postharvest Recommendations: We find marigolds easy to hydrate in clean water, place in #2 grower solution after cleaning stems, store in cooler; Placed in Hydraflor, then cooler.

Comments: I loved this marigold, maybe it was the orange color, or the plant height is just right for good stem length without really needing much staking, also least susceptible to petal spotting in the Trial, I had very few reject stems from these plants, just about every flower was marketable; This variety air dried well, it remained upright without support, I grew the marigolds in the same area as the suns, sheltered from the north and west winds, no irrigation, no added soil amendments, we did have ample rainfall and the plants were rarely stressed, they did not have any insect pressure, I am trying to introduce both customers and staff to get over the marigold stigma, they are an excellent, long-lasting, easily-grown flower that produces lots of usable stems and for these reasons deserves some positive recognition, especially for autumnal bouquets; Bloom quality and color were excellent, so it's possible this variety may work for growers producing marigolds for blooms only, not for stems; This plant was so short, I cut it only the last week of the season when I really needed some blooms and found a few stems worthwhile for some small bouquets in my second succession of it.

Marigold 'White Swan'

(AmeriSeed)

Good Qualities: Great cream color (8), a different color for marigolds; I couldn't get enough of this little gem, the color was a perfect cream yellow that matched just about anything you put it with, it's a great size bloom and long lasting too, I can't wait to grow even more next year, customers loved it!; Smaller size, good shape and doubleness, consistent cream colour throughout season; Prolific, lots of color in the garden; First marigold to bloom (though petered out first as well);

This was an interesting marigold addition, it actually had a pleasant scent; It bloomed quickly, in fact the easiest to boom in the Trial, the creamy colour was easy to incorporate into bouquets; Rigorous grower, prolific bloomer; Long stems for a cream-colored variety, uniform creamy blooms are highly double, very light sweet fragrance to the blooms—this variety does not have the typical “marigold” smell; I liked the smaller bloom size; First to flowers of the cultivars in the Trial.

Problems: Too short (7); Small flowers (6); Light colour shows browning more than the yellows and oranges (3); Lack of vigor, low number of flowers per plant vs. many other marigold varieties, early onset of leaf spots, we mowed these down at least a month earlier than ‘Chedi Orange’ planted at the same time, we did not find this white/cream as useful as the other flowers that serve the same purpose (lisianthus, feverfew, asters); Washed-out bloom color; Late disease; Low germination success; After the first month of harvest, stems started to get spindly and had more trouble with petal spotting; Got diseased and then died early in season, while all the other marigolds were hitting their stride, the foliage just melted out early while other marigolds kept going until frost, the flower

planting of the ‘White Swan’; The elusive search for a white marigold is still alive and well, not a strong marigold, apparently attractive to voracious bunnies; Teeny, worthless.

Similar Cultivars: None listed.

Postharvest

Recommendations: None listed.

Comments: Didn’t grow enough of it, loved it!!!; Because we make mostly supermarket bouquets, we prefer bolder and more saturated colors; Had high hopes for this one but was not impressed; Earliest to bloom of the marigolds in our trial, was not completely consumed by Japanese beetles like other white varieties in the past; We appreciated the color of this cultivar, however, the stems were short and the blooms small; It was fun to try a white marigold; Best cream-colored marigold I have ever grown, by far!; I was disappointed when this plant became infected with disease, the staff actually



‘African Bride’

Photo Melissa Fischbach

the field in late June, for each variety I deeply pinched half of each tray in hopes of cleaner stems, with ‘White Swan’ I was unable to determine if this had any effect on the number or length of stems, due to the disease pressure, I grew all the marigolds in a fertile field with no added fertilizer or amendments, same conditions as the sunflowers with no irrigation or mulch; Lovely garden plant, the plant grows quite tightly packed, so for cut flower production, some elongation in the plant would be helpful; Even though my stems were shorter, I probably used this variety the most of all the marigolds, the colour allowed easy use throughout the summer without the bouquet looking too “fall”, I’m always looking for more options of flowers that can go in the cooler and that have a great vase life and can be mixed with other summer blooms easily and I thought this did, I just needed to use it in my shorter, mason jar bouquets, but that’s a popular size bouquet for my farmers’ market so I was happy.

Nigella ‘African Bride’
(Takii Europe)

Good Qualities: The bloom ocular was pleasing and the seed pod attractive; Beautiful flowers, love the contrast between the petals and stamens; Nice color and sturdy; Nice pods, I prefer more striping, but these are acceptable.

Problems: Poor germination (3); None (2); Not a lot of vigour, the plants remained

White Swan (was) the best cream-colored marigold I have grown, by far!

doesn’t really stand out, medium-sized plants; This variety for some reason succumbed to a disease when it was approaching full flower, I was watchful towards the other marigolds in the trial but none were affected, it was planted between other blocks of marigold, I did not apply any preventative fungicides to any of the marigolds, seeing it did not affect any others I wondered if it may have been a seed-borne disease, whatever it was totally killed the entire

liked using this small flower, and I am always happy when they will use a marigold, the blooms were small but the stems seemed strong including the vulnerable neck, it was certainly easy to germinate and quick to bloom, would like more information on what may have affected this plant, if it happened to anyone else, and find any preventative measures to take if growing again, as with all the marigolds in the Trial I planted directly into 50 cell trays May 21 and transplanted them to



'Café au Lait'

Photo Susan Miller

Beauty is in the eye of the beholder of salpiglossis 'Café au Lait': "I absolutely loved the color of this one—it went so well with the popular rusty hues that clients are asking for." and "I just couldn't get over how unappealing this brown color was!"

short, I have grown this variety in the past and prefer to grow the more obliging *Nigella damascene*; Sometimes needed staking, stems not always very sturdy.

Similar Cultivars: Seed pod of *Nigella* 'Transformer' is similar in shape.

Postharvest Recommendations: Never used nigella fresh, we grow for the pods, cut, hang, and dry.

Comments: The seed pod of this variety may be of interest to a dried flower enthusiast and the bloom colour is interesting, I found for my own use, it would be a variety I can do without, if we had better germination, the results may have been different, they were germinated indoors and transplanted to the field, I would not recommend direct seeding unless you had good quantities of seed available; I look forward to planting it for overwintering as my overwintered nigella tend to have stronger stems and be taller.

Salpiglossis 'Café au Lait'

(Takii Europe)

Good Qualities: Lovely unique color (5), blooms opened in shades of red and copper, with some yellow; I absolutely loved the color of this one, it went so well with the popular rusty hues that clients are asking for; Lasts well, unusual.

Problems: Stunted growth, did not grow well (4); Sticky stems (2); Poor/erratic germination (2); UGLY brown color! short vase life; didn't grow that well for me. I think the rainy went sea-

son we had didn't help. We had a lot of disease in the field this year, normally my salpiglossis does pretty decent and keeps sending up more blooms throughout the season, this variety gave me only a few usable stems and didn't rebloom; Slow growth of seedlings, they just petered out on me; not a strong candidate for commercial cut flower production; Didn't like the color, stinky as well.

Similar Cultivars: None listed.

Postharvest Recommendations: Refrigerate.

Comments: The color of this variety is unique, but not very versatile, combined with the short stems, I'm not sure I would grow this again; This was my first time growing salpiglossis and the ease of growing made me purchase seeds for next year, but in much prettier colors! I just couldn't get over how unappealing this brown color was!; It was nice to have something different, and beautiful; I was very excited about this variety early on because I've liked growing deep purple salpiglossis in the past, but this variety's colour ended up looking like a layer of yellow overlaying the purple to create the brown (and I could often see both yellow and purple in the blooms), it was less usable than I'd hoped; Found the colour to be an acquired taste—was actually expecting a creamy shade and was surprised by the dark colour, might be a good one for a designer who works out of their own garden, too delicate for everyday bouquets, might be of interest also to a home gardener for fall colour, I have tried salpiglossis in the past and

had the same results—too delicate for bouquet use.

Snapdragon 'Costa Summer Lavender IV'

(Evanthia)

Good Qualities: Beautiful soft lavender color (2); The stems were the thickest I've ever had with a snapdragon, they were so strong! the head size of the blooms/buds was also lovely, larger than previous varieties I have grown, they were the tallest of all my snaps this year; Plants produced tall, strong stems in an interesting, muted purple color that proved very popular; Excellent germination and strong growth of seedlings; Easy colour to blend with in bouquets; Love the Costa Series, Lavender is one of the most popular colors sold; Tall stems, early bloomer; Nice strong stems, long and full flower column; Tall vigorous plants, beautiful blooms in shades of purple and lavender, well-balanced blooms; Robust.

Problems: Stems not as strong as 'Potomac' but still a great bloom, low germination success rate; Odd color, neither lavender nor pink.

Similar Cultivars: 'Potomac Lavender' (2); Similar color to 'Rocket Lavender'; 'Opus Lavender' color is comparable; 'Apple Blossom', which seems better.

Postharvest Recommendations: None listed.

Comments: I grow everything outside without the aid of a greenhouse, these were the nicest snaps I've ever had in terms of stem strength, bloom size, and length of stems, I really loved them!; Plants would really benefit from pinching.



'Costa Summer Lavender IV'

Photo Melissa Fischbach



'Legend Yellow Improved'

Photo Melissa Fischbach

Snapdragon 'Legend Yellow Improved'

(American Takii)

Good Qualities: Brilliant, bright yellow color (5); Very sturdy plant (2); Good grower, fast to bloom, easy from seed, pretty; Florets are well spaced on the stem, bright colour is consistent through summer; It was the first of all my snapdragons to bloom; Tall; Uniform plants with well-balanced blooms; Awesome first blooms, wimpy afterwards.

Problems: The only problem is that the yellow color is too fluorescent (3), and it's hard to sell, but I look forward to the day when yellow fluorescent will be the hot color and I hope I'm ready;

Not nearly as tall as other field varieties, much shorter than Potomac varieties, not tall enough for me to consider growing again; Weak, thrips; Really long, skinny tips, really easy to snap off, unfortunately, long bloom column which was great, but made it hard to handle and transport; Bottom blossoms turned orangey with blotches as they aged; Plants were short

compared to most other varieties in this planting, but most other varieties were Group 3 varieties, so I would expect this one to possibly be taller in a different planting slot.

Similar Cultivars: 'Legend Yellow'; Color similar to 'Potomac Yellow'.

Postharvest Recommendations: Cure in cooler before use, strip leaves, use a tall bucket to support full stem length.

Comments: Again and again, I am always impressed with the strength and robust sturdiness of snapdragons and this one especially, so strong and upright, we just consistently cringed at the color; I don't think Group 1 snapdragons are meant for summer growing in North,

and they don't look as full as a Potomac variety, I might not be comparing apples to apples though; I found the colour really bright, I don't mind yellow and it was okay for market sales, but was not at all popular with my designers/florists who prefer a more buttery yellow if they ever (which is rare) want a yellow; Nice color; At first, in the field, the yellow seemed fluorescent to me and I was worried it would be too bright, but once I mixed it in with other flowers, it really added a nice brightness; This very bold yellow is one of my least favorite snapdragon colors, however, for those who do appreciate this color, this is a good variety.



'Maryland Rose'

Photo Melissa Fischbach

Snapdragon 'Maryland Rose'

(BloomStudios)

Good Qualities: A nice mid-dark pink, deep but very soft color (5); Strong thick stems (4); This snap produced lots of stems, didn't seem stressed with heat, worked great in market bouquets, very similar in colour to 'Potomac Dark Pink', would describe as a compact version of 'Potomac Pink Dark'; Dense, compact flower, Real nice.



'Canneto White'

Photo Shannon Jones

Stock 'Canneto White' was a dream machine—this will remain in my rotation.

Similar Cultivars: The color of this variety falls between 'Potomac Pink' and 'Potomac Cherry Rose'.

Postharvest Recommendations: Make sure there are at least 3-4 sets of florets open, if cut too early, they tend to curve

Comments: Nice color; We grew this next to the 'Maryland Rose' also in the Trial, it was basically identical in colour, but the stems of the 'Maryland Rose' were much shorter, the Potomac kept reblooming for us all summer, it was the favourite snap of the 2021 Trial, outstanding in large arrangements, we

grow in black bio mulch in the field with no irrigation, this year we had ample rainfall and very few insect issues, I did have a serious outbreak of downy mildew which I believe came from some imported snap plugs, it was possibly the worst disease problem I have ever dealt with, and was extremely infectious, I lost (destroyed) 70 trays of my main season snaps ready to go to the field, which was devastating, for some reason the two snaps I mentioned above did not succumb to the disease, I am not hinting they were resistant—I think just luck, they were sown a bit later and were not in contact with the other trays, hopefully we can recognize this is a very serious problem; We grow only the Potomac series for snaps here and have for years, these are great to add to the Potomac lineup!; Performance is consistent with the rest of the Potomac series—uniform, productive, a nice overall variety.

Snapdragon 'Potomac Pink Improved' (BloomStudios)

Good Qualities: Great light-medium pink (4); strong sturdy stems (2); Uniform height throughout all three varieties; Even colour throughout the season, well-filled spikes; Tall; Attractive standard pink snapdragon.

Problems: We had a huge problem with tarnished plant bugs and they loved the

snaps, had stunted blooms and disfigurement; Not quite as tall or uniform as 'Potomac Dark Pink'.

Similar Cultivars: I didn't notice much difference between 'Potomac Pink' and the Improved.

Postharvest Recommendations: None listed.

Comments: We grow only the Potomac series for snaps here and have for years, these are great to add to the Potomac lineup!; Nice color.

Stock 'Canneto White'

(American Takii)

Good Qualities: High percentage of doubles (5), loved having 90% double flower on the crop; Sturdy (3); Beautiful white colour (2); Tightly-packed fluffy florets (2); Very full; Nice full tower of blooms, even after 2+ weeks of 90+ degrees in the spring!; Tall stems; Nice early bloomer; Easy to grow, very non-demanding; Well programmed, only one cut, no second cuts.

Problems: None (2); My flower heads weren't huge and not super tall stems but I think that is possibly since I did not grow them under cover and possibly could have had them in the ground a week or two earlier; A bit top-heavy bloom for the stem to support, and the crop had variable bloom time; A bit shorter than other varieties in the same planting; Some got ugly before opening enough to cut.

Similar Cultivars: 'Cheerfulness'; The dense structure of the florets is similar to 'Iron White', but the whole inflorescence was larger than we typically get with the Iron series.

Postharvest Recommendations: Cure by refrigeration.

Comments: Low survival rate among plants; Very easy to germinate; I planted in the second succession in my high tunnel. My first succession gets taller but I wanted to trial in a middle succession; White is always an easy sale, even the

Problems: Not as productive as 'Rocket Series'.

Similar Cultivars: Similar color to Potomac Pink'; similar in colour only to 'Potomac Pink Dark'.

Postharvest Recommendations: Always cure in cooler before use in bouquets and arrangements.

Comments: Exceptionally sturdy plant, with robust flowering heads; for a bouquet product this variety worked very well, recommend, nice rich colour, as we had disease issues with most of my snaps, we cut every stem they produced, field grown with no irrigation.

Snapdragon 'Potomac Pink Dark' (BloomStudios)

Good Qualities: Dark pink florets (5), have no gold or white coloring on them; Sturdy (3); Good fill within the spikes, survived summer weather; Strong, thick stems, would most likely get taller if grown indoors or started earlier; Very vigorous, stems were strong and easy to keep upright in the field; Uniform height throughout all three varieties; Easy to clean, tall, healthy and vigorous plants; Favorite.

Problems: We had a huge problem with tarnished plant bugs and they loved the snaps, had stunted blooms and disfigurement; Not as dark of color as the name would imply.



'Milla Light Pink'

Photo Shannon Jones

singles looked great! 'Canneto White' was a dream machine—this will remain in my rotation.

Stock 'Milla Light Pink'

(Evanthia)

Good Qualities: Gorgeous, soft, gentle pink (7), petals opened in a dusty rose shade and lightened to a delicate pink; Plants were sturdy/vigorous (3); Good for events, great fragrance; Even the singles were useful; Easy to germinate; Double blooms.

Problems: Didn't produce; Height, stems a bit slender (though still strong and straight), could be a good thing; Zero.

Similar Cultivars: 'Apple Blossom', which seems better.

Postharvest Recommendations: Refrigeration after harvest.

Comments: Good germination and the seedlings looked great when field planted early June; It averaged four inches shorter than the other stock varieties we grow, I planted it in the second succession in our high tunnel in the spring, the first succession stock are always taller but I wanted to see how it performed in a middle succession planting. Some singles (much more than 'Canneto White' which had almost none) but a good rate of doubles; This is a stock that is very useful in the wedding/events rotation, the color is gentle, I could have sold an entire greenhouse full of this; We are big fans of these blooms and we'll seek them out regularly, great for bridal and events.

Sunflower 'Double Sunking'

(Takii Europe)

Good Qualities: Beautiful double flowers (4); Easy to grow and after the main stem, most plants had usable side stems from an early planting; Sturdy, robust; Customers loved the double fuzzy centers, much taller than some other double sunflower varieties, strong heads don't get floppy; Full and fluffy, nice bright color with green center; Uniform 5-7 inch wide flowers are bright and attractive, multiple cuts of 12-24-inch stems; Beautiful deep gold double sunflower,

was a huge hit with our farmers' market customers, very forgiving regarding harvest stage which is great, they can be cut very tight or left to bloom more on the plant and still have a great vase life, nice to not have to stress about getting the sunflowers at the perfect stage every single day; Well received.

Problems: Took a long time to bloom

(3), longer to bloom than other varieties; Plants never grew more than 6 inches in length, got a tiny bud, then died; The seedlings seemed weaker when small than my other sunflower seedlings (though they grew into strong, healthy plants).

Similar Cultivars: 'Starburst Greenburst'; Similar to 'Goldy Double' with respect to color and bloom form.

'Double Sunking' is a beautiful deep gold double sunflower, and was a huge hit with our farmers' market customers; very forgiving regarding harvest stage which is great—they can be cut very tight or left to bloom more on the plant and still have a great vase life.

Postharvest Recommendations: CVBN.

Comments: Great sunflower, the main stems made for fun bunches and the side stems were excellent in mixed bouquets.

Sunflower 'ProCut Peach'

(Sunflower Selections)

Good Qualities: I loved the peachy color! (3); Easy to grow (2); Fit in well with our market bouquets; Everyone loves a sunflower, all ProCut varieties are great; Plants bloomed very quickly! seeded on 3/10, transplanted on 4/13, and first flowers 5/16—30 days from transplant, almost in time for Mother's Day!; Nice, earliest of the Trial sunflowers, some like it, some thought it too pale.

Problems: Doesn't match the name. I would expect a more peachy color



'Double Sunking'

Photo Shannon Jones



'ProCut Peach'

Photo Renee Clayton

(2); A bit wimpy; Flower size smaller for a sunflower than I typically like, diminutive-sized centres (which can be a good thing); Plants never grew more than 6 inches in length, got a tiny bud, then died; The cucumber beetles (and every other pest) loved these petals, I grew plenty of sunflower varieties the bloomed in May-June, and only this one got its petals chomped by pests.

Similar Cultivars: 'Premier Peach'.

Postharvest Recommendations: Same as other sunflowers; CVBN.

Comments: 'ProCut Peach' is a nice sunflower that is a nice variation from gold and yellow.

Sunflower 'Sunrich Orange Summer DMR'

(American Takii)

Good Qualities: Classic bright yellow sunflower with large dark center (2); A nice basic sunflower, we don't have downy mildew so I can't say if it was resistant or not; Strong; Nice, solid sunflower; Disease resistance! classic sunflower form with the addition of good plant health; Consistent bloom window—within 4 days; Tall, uniform plants; Earlier to bloom.

Problems: Nothing really strikingly novel about this variety; Head size was smaller than regular 'Sunrich Orange' blooms; Nothing outstanding.

Similar Cultivars: Appears identical to 'Sunrich Orange Summer' (2), and is comparable with respect to bloom time; 'Sunrich Orange' (2).

Postharvest Recommendations: CVBN; Harvest early morning or evening, I often dry store sunflowers with good results, in this instance I would not place in water but lay stems flat in a box and store in

the cooler between 36-38 F, for fresh use I harvest when petals are just lifting, for dry storage I usually like a bit more open, the neck is usually weak at the earlier bud stage, adding a few more hours is helpful, to rehydrate the dry stems, recut and place in fresh water, they seem to be fine without hydrator added, tried both and no noticeable difference, they are typically ready to use within 90 minutes, surprisingly, they have a longer shelf life than a fresh cut, I'm referring to all suns not just this variety although Sunrich DMR series is the main one we grow.

Comments: Plants never grew more than 6 inches in length, got a tiny bud, then died; We are big fans of the Sunrich series, this one was great and we will add it for next growing season, with the amount of rain that we received this year (30 inches in 8 weeks) this variety is great to have in our toolbox to try to beat Mother Nature!; We had a

lot of downy mildew in our sunflower patch, so the DMR varieties stood out for their vigor and well-formed flowers; Sunrich series is #1 for us, bonus with DMR added feature, days to flower can vary depending on daylength, may take longer for earlier sowings and usually right on for later sowings, after first week of August they take longer to mature, dry stores well, all were sown into 200 cell Speedling trays and hand-planted to field, when sown at same time as 'Sunrich Orange DMR', they bloom a few days earlier which helps with succession production; This was just another orange/deep gold standard sunflower, I'm sure the sunflower connoisseurs out there could really highlight the differences between these "plain" sunflowers, but I can't, I have my favorite ('Vincent') and nothing is ever as perfect as them; I appreciated that it bloomed sooner but the heads were too small, I had it growing next to 'Sunrich Orange' which is my usual variety, planted at the same spacing and the blooms were noticeably smaller, maybe if I spread them out more it would have solved the problem but then I'm giving up more space.



'Sunrich Summer DMR'

Photo Shannon Jones

Tanacetum 'Orinoco'

(Evanthia)

Good Qualities: Great color—creamy blooms open to gold at the center and have some green tones (5); Great filler (2); Nice look; cute little blooms; Interesting double bloom; I really loved this variety! color that went well with everything, we cut and used it as much as possible, customers love that it doesn't have a yellow pollen center; Height, strong stems, full flowers filled out bouquets well, colour/bicolour was nice and complemented a lot of different colour palettes; This color is versatile and pairs well with a wide range of other crops and colors when making mixed bouquets, plants are productive, highly uniform and healthy; Nice full spray 4-6 inches wide, beautiful lacy flower heads, major winner in my book—really nice texture and full strong flower heads, dries well also!; Excellent germination and strong growth of seedlings; Our favourite of all the matricaria we grew, excellent germ and vigour, pleasing colour that lasted well, did not brown.

Problems: Short (2), hard to cut; None (2); Pick on time, will go by and brown up quickly; This variety was later than most other *Tanacetum* varieties by as much as 12 days; Young plants seemed especially susceptible to rust infection, after transplanting, the plants really struggled and half died, I did grow them in a hoophouse; We didn't have great yield, did not grow bushy and tall as we would have liked; Make sure it is netted.

Similar Cultivars: Similar to 'Magic Lime Green' (2), but more finely textured petals, and bigger heads and 'Orinoco' is later to bloom; Similar to 'Snowball Improved', however, the trial variety much superior.

Postharvest Recommendations: Make sure it is mature to prevent premature wilting.

Comments: Field grown, this feverfew was quite short, however, we typically perennialize our feverfew so, I suspect that it will be much taller next year, it got "burnt" by the sun just as it was beginning to bloom because we got it out into the field too late and it didn't



'Orinoco'

Photo Susan Wright

appreciate the hot summer sun, the look of the blooms was very nice, all in all, we did not have great success with this item, however, this is likely due to late planting and it being first-year growth so, I suspect that it would do much better under more favorable conditions, thus, I wouldn't write this cultivar off just because of our lack of success with it this year; Stem length is fairly short when grown in full sun, so in the future I will try adding shade cloth, I was surprised that the colour was so yellow: when I checked on Google the colour looked more creamy-white; Didn't grow enough!; Overall a great variety and excellent color; We feel the issue was our soil, too wet and high organic material for this plant; We rated this matricaria as the best one yet, the only stems we did not harvest were on the edges of the bed as they were not

netted and were crooked, we sowed this variety twice, a few weeks apart and was equally impressed, today (November 14) the plants are very lush and green and show lots of promise to overwinter, I am hopeful as I do not see it listed by any seed company for purchase 2022, I just wanted to mention the matricaria from 2020 trial 'Baya', who I wasn't impressed with due to the short stem length over wintered here very hardily in 5B with no cover, the stem length this year far exceeded 2021 to a very useful 20-24', I don't know if this interests you or not, there never seems to be a follow up on overwintered plants, I was quite surprised at the difference, our winter was good with almost zero winter kill, they were cut in early July and again in mid-August, plants are still looking good today.

Table 1. 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 shown in the range line, all respondents gave the same rating.

Species and cultivar	Yield (stems/plant)	Stem length (in.) ¹	Market appreciation rating ²	Ease of cultivation rating ²	Grow again rating ²	Average postharvest life (days)
Aster Azumi XL Blue	7.3 1-18	17.8 12-30	4.0 3-5	2.8 1-5	4.0 1-5	6.5 6-7
Aster Azumi XL Red	6.8 4-10	17.7 12-24	4.3 4-5	3.0 1-5	3.8 1-5	6.5 6-7
Aster Azumi XL Rose	7.3 4-14	15.4 12-20	4.6 4-5	3.7 1-5	4.3 1-5	7.3 7-8
Aster Azumi XL White	6.9 1-18	17.8 12-30	4.4 3-5	3.7 1-5	4.0 1-5	6.5 5-8
Aster Large Flower Light Blue	5.7 1-11	15.0 10-20	4.3 4-5	2.5 1-5	3.8 1-5	7.3 7-10
Aster Mum Deep Purple	6.6 1-18	15.7 12-24	4.3 4-5	3.3 1-5	4.1 1-5	7.4 6-10
Aster Mum Red	3.2 1-9	16.7 12-20	4.5 4-5	2.3 1-4	3.5 1-5	8.5 7-10
Campanula Champion II White	3.7 1-8	20.7 14-30	4.7 4-5	4.7 4-5	4.1 3-5	12.8 7-21
Celosia Act Diva	1.0 1	17.7 3-30	3.0 1-5	2.3 1-5	3.2 1-5	10.0 7-14
Celosia Reprise Velvet	1.2 1-3	21.4 2-60	3.8 1-5	2.9 1-5	3.8 1-5	10.3 7-14
Celosia Sunday Bright Pink Improved	7.1 1-20	16.4 8-29	3.8 1-5	3.8 1-5	4.3 3-5	7.8 6-10
Celosia Sunday Gold Improved	6.2 1-12	16.8 10-30	4.0 3-5	3.9 1-5	4.4 3-5	7.2 6-8
Celosia Sunday Green	6.0 1-15	16.3 10-24	3.3 2-5	3.0 1-5	4.5 3-5	6.7 5-8
Celosia Sunday Purple Improved	5.3 1-10	16.3 8-28	3.6 1-5	3.4 1-5	4.0 1-5	6.7 6-7
Celosia Sunday Yellow Improved	5.7 1-10	18.5 10-30	4.1 2-5	3.2 1-5	4.3 3-5	6.4 5-8
Dianthus Amazon Lavender Magic	7.3 1-12	17.2 12-24	4.6 4-5	4.3 3-5	4.7 4-5	9.6 6-14
Dianthus Sweet Cherry	5.2 1-12	16.2 8-23	4.3 3-5	3.8 2-5	4.3 3-5	5.0 5
Dianthus Sweet Neon Purple	6.8 1-12	17.1 8-24	4.4 3-5	3.8 1-5	4.6 4-5	7.7 6-10
Dianthus Sweet Rose Magic	6.3 1-10	16.7 8-23	4.3 3-5	3.4 1-5	4.5 4-5	10.0 10

Species and cultivar	Yield (stems/plant)	Stem length (in.) ¹	Market appreciation rating ²	Ease of cultivation rating ²	Grow again rating ²	Average postharvest life (days)
Helichrysum Granvia Gold	5.5 1-10	12.0 8-16	3.8 2-5	3.2 1-5	4.6 4-5	13.0 12-14
Helichrysum King Size Frosted Sulphur	5.1 1-14	21.3 12-33	3.8 3-5	3.7 2-5	4.2 2-5	13.3 7-18
Lisianthus Arosa 3 Pure White	2.1 1-5	18.9 12-30	4.1 2-5	3.7 1-5	2.9 1-5	11.1 10-14
Lisianthus Arosa 3 Red	1.7 1-5	18.5 9-30	3.6 2-5	3.0 1-5	3.1 1-5	14.0 14
Lisianthus Can Purple	1.7 1-4	18.2 14-32	4.1 2-5	3.1 1-5	3.3 1-5	12.4 10-14
Lisianthus Celeb 2 Madonna	3.0 1-6	18.7 10-30	4.7 3-5	4.2 2-5	3.3 1-5	12.0 10-14
Lisianthus Corelli Light Lavender	3.1 1-5	14.4 6-20	3.7 1-5	3.3 1-5	3.4 1-5	10.6 7-14
Lisianthus Flare Jade	1.8 1-5	18.2 11-20	4.5 4-5	3.8 3-5	3.2 1-4	10.7 10-14
Lisianthus Flare Yellow	1.9 1-4	17.6 13-20	4.3 3-5	3.4 2-5	3.3 1-4	11.0 10-14
Lisianthus Little Summer 1 Orange	2.0 1-10	14.1 6-28	4.4 3-5	4.1 3-5	3.3 1-5	12.0 10-14
Lisianthus Megalo 3 Orchid	2.3 1-6	17.8 12-30	4.0 2-5	3.2 1-5	3.2 1-5	11.0 7-14
Marigold Devi Deep Gold	7.3 3-12	21.9 12-33	4.2 3-5	4.0 1-5	4.3 2-5	11.7 7-21
Marigold Garuda Deep Gold	8.1 3-12	20.6 12-34	4.3 3-5	4.1 3-5	4.6 4-5	9.3 7-14
Marigold Garuda Yellow Improved	7.4 3-10	21.0 12-34	4.3 3-5	4.4 2-5	4.5 4-5	9.1 7-14
Marigold Mishka Deep Gold	6.6 3-12	20.5 6-36	4.1 3-5	3.8 1-5	4.5 4-5	9.4 7-14
Marigold Narai Orange	6.8 2-10	18.8 12-30	4.0 3-5	3.0 1-5	4.5 3-5	10.6 6-21
Marigold Sumati Orange	7.2 1-16	16.8 8-30	3.9 1-5	2.8 1-5	4.5 3-5	9.1 7-14
Marigold White Swan	6.4 2-12	15.9 12-36	3.4 1-5	2.9 1-5	3.9 2-5	8.9 6-14
Nigella African Bride	5.1 1-19	19.0 8-30	3.7 3-4	3.6 2-5	3.5 3-4	6.7 5-8

Species and cultivar	Yield (stems/plant)	Stem length (in.) ¹	Market appreciation rating ²	Ease of cultivation rating ²	Grow again rating ²	Average postharvest life (days)
Salpiglossis Café au Lait	2.5 1-5	11.7 8-17	2.3 1-4	2.0 1-5	3.0 1-5	5.3 3-7
Snapdragon Costa Summer Lavender IV	3.8 1-6	25.8 18-47	4.2 2-5	4.4 3-5	4.0 2-5	8.0 8
Snapdragon Legend Yellow Improved	3.7 1-6	21.6 14-30	3.1 1-5	2.7 1-5	4.2 3-5	7.7 5-10
Snapdragon Maryland Rose	4.8 2-10	22.7 14-30	4.2 1-5	4.1 1-5	4.6 4-5	8.5 6-12
Snapdragon Potomac Pink Dark	4.8 1-18	26.8 12-30	4.4 1-5	4.6 1-5	4.3 1-5	7.6 5-21
Snapdragon Potomac Pink Improved	3.9 2-10	25.9 18-41	4.3 3-5	3.9 1-5	4.1 3-5	6.7 5-7
Stock Canneto White	1.0 1	20.2 10-28	4.6 4-5	4.2 1-5	4.2 2-5	11.3 6-21
Stock Milla Light Pink	1.0 1	18.6 12-26	4.3 3-5	4.5 3-5	4.5 2-5	13.7 10-21
Sunflower Double Sunking	1.8 1-4	36.0 8-62	4.8 4-5	4.0 1-5	4.5 2-5	8.3 7-10
Sunflower ProCut Peach	1.0 1	39.5 24-45	3.9 3-5	3.1 1-5	4.1 2-5	7.3 7-8
Sunflower Sunrich Orange Summer DMR	1.0 1	42.0 24-60	4.5 3-5	3.8 1-5	4.7 2-5	8.3 7-10
Tanacetum Orinoco	4.1 1-10	16.0 8-24	3.6 1-5	3.5 1-5	4.0 2-5	8.8 5-12

¹Data shown are from the respondents who harvested stems. Some Trialers may have not harvest stems because they were too short. The stems, not the Trialers.

²1 to 5 scale with 5 being the best; market appreciation ratings are based on sales to wholesalers, retailers and/or final consumers.