

## **1997 ASCFG National Cut Flower Trials**

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John Dole

Oklahoma State University

This year was great year for the trial -- a number of interesting cultivars did well in the trials. Two selections of wheat celosia, 'Cramers' Rose' and 'Burgundy', from Cramer's Posie Patch, generated plenty of attention. Respondents loved the colors and ease of drying. The stems were long, strong and straight and the flower heads were large and did not shatter easily. This cut is versatile as it can be used both fresh and dried. A lack of uniformity among plants was noted by several respondents--some considered this a positive characteristic and others a negative.

Benary's *Achillea millefolium* 'Colorado' received some of the highest marks of the trial and flowered in the first year from seed. The vigorous pest-free plants and broad range of beautiful colors was mentioned by many participants. Because 'Colorado' is a perennial, results should be even better next year.

Of special note is the success of three species, snapdragon, stock and lisianthus, that often do not perform well in the trial because the trial seed is sent out in February, later than when most people start these species. However, Benary's Snapdragon 'Animation' series and Stock 'Goldcut' series, and Sakata's Lisianthus 'Tyrol' Series did very well in the trial. All members of the Animation series received high marks and were noted for their earliness (up to two weeks before Rocket series), long flowering period and heavy production. Earliness, uniformity, and color were also highlights of the 'Goldcut stocks. The 'Tyrol' series was lauded for its uniformity, long postharvest life, and vigor. It is great to see cultivars of these three beautiful species doing so well in the field trials.

Kieft has provided the dried flower industry with another color for one the workhorses of the industry with its new 'Carmine' Gomphrena. This cultivar received rave reviews for its vigor, productivity and long stems. Of course, the great color was mentioned by several respondents and 'Carmine' performed well both as a dried and as a fresh cut with a long postharvest life.

Delphiniums are in the news again with the cultivars Clear Springs Lavender, Light Blue, and Rose Pink from Pan American. The 'Clear Springs' mix was in previous trials and received high praise. The individual cultivars, especially Light Blue, have excellent germination and colors.

One of the cultivars I am personally very interested in is Campanula 'Champion', a European FleuroSelect Winner from Sakata. This distinctive fresh cut is available in pink and blue/purple and one of the common names is Canterbury Bells. The crop time is short and it prefers cool temperatures. As with several of our most popular cuts, the species can require precise care. It does not tolerate heat very well and stems are often too short. The species is photoperiodic and flowers more rapidly under short days. In fact, artificial short days in our greenhouses here at Oklahoma State University during plug production caused premature flowering of some of our plugs for the trial. We are currently

researching Champion Blue and Pink to determine optimum production methods.

A hearty thank you again to all of the evaluators who returned their trial reports and to the seed companies for providing such great cultivars. In preparing the report I have edited evaluator's comments for space and clarity; my apologies if I've altered the tone or content of anyone's comments. Thanks for making this service of ASCFG possible.

## **Participating Seed Companies**

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Cramer's Posie Patch  
116 Trail Road North  
Elizabethtown, PA 17022

Pan American  
P.O. Box 438  
West Chicago, IL 60186

Ernest Benary  
1444 Larson St.  
Sycamore, IL 60178

Sakata Seed America, Inc.  
18095 Serene Dr.  
Morgan Hill, CA 95037

Kieft Bloemzaden B.V.  
2209-B Bulson Rd.  
Mt. Vernon, WA 98273

## Trial Results<sup>1</sup>

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Company - Cultivar	Yield (stems/plant)	Stem length inches (cm)	Market appreciation rating <sup>2</sup>	Repeat again rating <sup>2</sup>	Ease of cultivation rating <sup>2</sup>
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### Cramer's Posie Patch

<i>Abelmoschus esculentus</i> Cramers' Okrazilla	6.5	.	2.5	3.0	5.0
<i>Artemisia annua</i> Cramers' Yardstick	4.5	39 (100)	4.0	3.6	4.3
<i>Celosia</i> Cramers' Burgundy	7.0	15 (39)	3.9	4.0	3.9
<i>Celosia</i> Cramers' Amazon	39.0	24 (61)	3.2	3.6	5.0
<i>Celosia</i> Cramers' Rose	8.9	17 (42)	4.0	4.2	4.6
<i>Nigella damascena</i> Cramers' Plum	7.6	11 (27)	3.1	3.6	3.6

### Ernest Benary

<i>Achillea millefolium</i> Colorado	5.4	15 (38)	4.6	4.5	4.9
<i>Antirrhinum</i> Animation Crimson	5.0	16 (40)	4.0	4.0	4.0
<i>Antirrhinum</i> Animation Deep Rose	14.2	15 (38)	3.8	3.8	4.8
<i>Antirrhinum</i> Animation Red	7.1	15 (38)	3.5	3.3	4.8
<i>Antirrhinum</i> Animation Yellow	6.0	18 (45)	3.8	3.5	4.3
Aster Compliment Salmon Pink	6.0	12 (30)	4.3	4.6	4.3
Aster Compliment White	4.6	8 (19)	2.4	2.4	3.6
<i>Salvia farinacea</i> Silver	13.6	13 (33)	2.2	1.8	4.1
<i>Salvia farinacea</i> Victoria	8.3	15 (38)	3.0	2.7	4.5
Stock Goldcut Rosy Red	1.0	13 (33)	3.6	3.6	5.0
Stock Goldcut White	1.0	13 (33)	4.0	4.0	4.5
<i>Veronica spicata</i> Sightseeing	0.8	10 (25)	3.8	3.5	3.8
Zinnia Oklahoma Mix	17.3	9 (24)	2.8	2.8	3.8

### Kieft

<i>Ageratum houstonianum</i> Red Top	15.1	17 (42)	2.7	2.2	3.9
<i>Armeria pseudarmeria</i> Joystick Lilac Shades	10.3	12 (30)	3.8	3.8	4.3
<i>Catananche caerulea</i> Cupid's Dart White	8.0	14 (35)	2.6	3.2	3.6
<i>Gomphrena haageana</i> Qis Carmine	19.5	12 (30)	4.0	3.6	4.1
<i>Helianthus</i> Eversun Deep Yellow	1.8	41 (103)	3.2	3.2	4.5
<i>Helipterum roseum</i> Pierrot	11.0	7 (18)	2.0	2.0	4.5
<i>Limonium hybrida</i> Mellow Yellow	1.0	13 (33)	4.0	4.6	3.5

<i>Papaver nudicaule</i> Meadow Pastels	8.0	11 (29)	3.3	2.8	3.8
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## Pan American

Delphinium Clear Springs Light Blue	2.5	15 (38)	4.6	4.3	4.5
Delphinium Clear Springs Rose Pink	1.0	22 (57)	3.3	2.7	3.6
<i>Helianthus</i> Del Sol	2.7	35 (89)	4.0	3.7	4.8

## Sakata

<i>Amaranthus</i> Aurora	0.6	28 (70)	1.5	1.8	4.3
<i>Campanula medium</i> Champion Blue	3.2	11 (28)	4.3	4.5	1.3
<i>Campanula medium</i> Champion Pink	3.8	12 (30)	3.7	3.7	3.9
Lisianthus Tyrol Blue	3.3	12 (30)	3.8	3.4	4.0
Lisianthus Tyrol Blue Rim	4.5	19 (47)	5.0	5.0	5.0
Lisianthus Tyrol Rose	3.3	15 (39)	4.3	4.0	4.3
Lisianthus Tyrol Rose Pink	3.6	17 (44)	4.3	4.0	5.0
Lisianthus Tyrol White	3.0	9 (24)	4.6	4.3	4.3
Stock Joy Formula Mix	1.0	13 (33)	3.0	3.0	4.0

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<sup>1</sup>Only the cultivars with three or more respondents are included. See comments for additional details on the cultivars not included.

<sup>2</sup>1 to 5 scale, with 5 being the best.

## Summary of comments

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For each species '+' refers to the good qualities of the cultivar and '-' refers to potential problems. The number in the parenthesis refers to the number of respondents who made the comment. If no number is present, then only one person made the comment. Comments by each individual respondent are separated with a ';'. Note: many people did not make specific comments on each cultivar and comments in some cases have been shortened and/or combined because of limited space or similarity to the comments of other participants.

### **Cramer's Posie Patch**

#### ***Abelmoschus esculentus* “Cramers' Okrazilla”**

- +Very different than regular okra. This stuff gets big and fat, pod split giving it a different look.
- Could not find a purpose for it.

**Additional comments:** Not similar to any other cultivars, produced approximately 3 pods/plant.

#### ***Artemisia annua* “Cramers' Yardstick”**

- + Flowered early than other cultivars (2). It is nice to use in crafts or in mix bouquets; I liked the fullness of each stem! I also like the texture of just the foliage in fresh arrangement; Drought resistant; Excellent height, very prolific; Nice fragrance, quite a conversation piece. Germinated well and fast in greenhouse. We also tried direct sow-but it was not successful for us; I love how this plant smells. I think it's very attractive as a filler in arrangements as long as it hasn't started to flower; No problems; Makes an excellent dried green when harvested in the seed stage (Late harvest).
- This is a nice plant from occasional use but the wholesalers view it as a green and you don't get a good price for it; Leaves close to main stem turned brown before they bloomed good, so they needed to be picked off--this could have been because we had so much moisture this season; Plant stems so large, quite a mess cleaning up in fall; I was never sure when to cut it or what it was supposed to look like. The blooms never opened-it was never like Ralph's picture at the conference--I think our weather is too moist; Looks like a big dumb weed if allowed to flower. These got attacked by spider mites in mid-summer.

**Additional comments:** I couldn't tell it was different from the other Artemesia I grew this year; Planted Sweet Annie 6 years ago, have been fighting it since, it came up all over our 20 acres, just what I needed--one that blooms and goes to seed a month earlier!; I felt it needs a hotter climate as it never looked crisp and fresh; This should be grown for a once-over harvest while juvenile or harvest before it begins to bloom then see if it will regrow. I waited too long to cut this plant-plants were too mature.

#### ***Celosia* “Cramers' Amazon”**

- +Beautiful color and foliage (3); Long lasting cut-good stem length; Produced earlier than Purple

Flamingo. It had a great vase life fresh. The color variation throughout the season was great. It dried so vibrant and shattered less than the other varieties. Produced over a longer period of time; Once it starts blooming, it does not quit. Millions of blooms. Good stems; The bicolor foliage was desirable in fresh arrangements. Foliage dried nicely.

- Flowers late (3); Too tall..flowers not particularly striking; Small flower spikes with extremely thick and tall stems; Wheat celosias such as 'Flamingo Feather' were more reliable than 'Amazon'.

**Additional comments:** This plant was the standout of this year's trial; Similar to Pink Candle or Flamingo Feather, but much better.

### **Celosia “Cramers' Burgundy”**

+ Great color (6); Dries well (2); Good form..good for mixed bouquets; Best dried crested celosia I've seen. Very opulent looking celosia. Rich and velvety; I like the dark rich burgundy dried, continuously produced and produced an nice mix of stem lengths; Even liked the foliage on them, everything about this plant was great!; Strong, straight stems; Heads got really big.

- They really must have support-but this is really not a problem; Seeds not all true. Not very tall; Color was not consistent--either the seed of this and Rose got mixed or they both produced same color of blooms. Flower spikes were small and stems very thick. Stems often grew crooked and contorted. Flower shape inconsistent too; Celosia is always a challenge-must overcome greenhouse damp-off problems. So sensitive to frost.

**Additional Comments:** Holds texture well when dried; The celosia was a complete surprise to us. It grew very well considering the amount of heat we had this season. However, it would probably not do so well in our typical climate. The center stem should be pinched back; Good germination.

### **Celosia “Cramers' Rose”**

+ Great color (6); I really loved the color and the fullness of the heads. I would have loved to had more; Good form; Fair germination-they took the field conditions very well-even standing water and water logged soils for weeks at a time-most impressive-handles heat well, clear, vibrant colors, sturdy stems; Nice addition to the colors in the Chief Mix series; People like it; Prolific.

- Variable (3); I only had 3 rose plants. The rest were burgundy so there must have been a mix up in seed; Not uniform in color...as much burgundy as Rose (Pink); These had many more disease problems on the foliage. Since most florists strip all the foliage it wasn't a huge problem but the initial look of quality was missing since the foliage looked so bad; Needs support; Small flower spikes with extremely thick and tall stems.

**Additional comments:** I don't know if the particular celosia can't take as much heat and /or if the leaf diseases are seed borne or a current soil condition I have. I will try it again though and see what it does in a different location; We loved it; This one didn't seem to be as vigorous as Burgundy and color sometimes looked a little washed out, maybe because the other one was so bright; This is a good plant..if they can get it more uniform; Used Treflan as a weed killer and many plants were stunted.

### **Nigella damascena “Cramers' Plum”**

+ Beautiful dried burgundy color (3) to the seed heads; Dries well (2); Very nice mixer for our mixed bunches. The variety had great germination but I have never had luck growing this species. A friend in the dried flower business took some of the plants and had good luck with them and they have been a marketable dried for her; The dark colored pods are excellent. High design potential. They also have a long vase life as a fresh cut; Many blossoms per stems; No problems.

- Seeded into garden but only 2% was “plum” colored, most of the plants must have reverted back to parent plants and were blue. Unlike my other nigella these had small 1/2 pods and spindly stems; Short-may have been caused by our excessive drought. It was irrigated but is never quite the same.

**Additional comments:** Could these be fall planted?; Fresh sales of seed pods were dismal, “too dark” was the comment, but it was the Queen of dried sales, people loved the “Victorian coloring”; It was too late to direct sow the seed in the spring and since I haven’t had luck with transplants I chose to plant the seed this fall so I will have results next year; Fair germination.

### ***Polygonium orientale* “Prince’s Feather”**

+ None listed.

- Little or no germination (5); I was disappointed because it sounded great. I saw some dried in Ralph Cramer’s booth and it reminded me of the wild smartweeds I dry; Tried planting this both in the greenhouses and in the field and had no luck either way.

## **Ernest Benary**

### ***Achillea millefolium* “Colorado”**

+ Beautiful colors in a broad range from red to peach to a beautiful light yellow and white (5); Attractive foliage (2); Larger flowers than other cultivars; The outstanding trial plant; The plants are pest free; Long vase life; They are a nice contrasting filler in arrangements; Very healthy and not as invasive; It does produce flowers 3 months after sowing and produces all usable stems; Had zero problems; Excellent potential for fresh cut; Seemed to have no problem getting established.

- Didn’t hold their form as well as the gold varieties (*Achillea filipendulina*) when air dried; Some florists had a little wilting problem with the Colorado yarrows. We are working on this; first year from seed didn’t bloom profusely but grew nicely; Very poor germination in field.

**Additional comments:** We’ll keep a close eye on this one over the next two years, it shows great market potential as a fresh cut, we will watch for fading of material that has been dried.

### ***Antirrhinum* “Animation Crimson”**

+ Great color (4); Bloomed earlier than “Rocket and “Panorama” snaps...good for fresh market; This was the best snap I’ve grown. No problems with disease and it also reblooms nicely; Good stem

length, heavy producer, excellent germination rate; Excellent vase life as a fresh cut flower, large flower heads; Long stems, tolerated frosts. Appreciated at the Farmer's Market.

- Color more fuchsia than crimson..okay but not real strong...florets a bit too widely spaced..and a bit thin stemmed; Not hardy as a field grown cut in this climate; Florists want giant stem length, not interested in our shorties, much cheaper from California.

**Additional Comments:** This was a great snap; Most of these cultivars did well, but this could be due to the amount of heat we had this growing season, our normal seasons would not produce such prolific growth; No wholesale market for snaps but a must for farm market stems and bouquets.

### ***Antirrhinum* “Animation Deep Rose”**

+ Early blooming snapdragon..good for fresh market; Great cutting snap with few disease problems. I never had any problems and I usually do; Excellent fresh cut, long vase life; This snap flowered earlier than my Rockets planted at the same time. Color is deeper than Rocket Rose. Blooms all summer!

- Not really a rose color...more like a pink with yellow throat; Not hardy as a field grown cut in this climate.

**Additional comments:** Similar to Rocket Rose; Great cut and fine rebloomer; Most of these cultivars did well, but this could be due to the amount of heat we had this growing season, our normal seasons would not produce such prolific growth.

### ***Antirrhinum* “Animation Red”**

+ Color (2); Mixes well with many other flowers; No disease problems, reblooms nicely; Excellent vase stem life as a fresh cut; Blooms well all summer. Late in August we chopped off most blooms and brought on a heavy mid-September/October flush. Tolerated several frosts; No problems.

- We cannot grow tall enough snaps to compete with California. Our florist won't buy our “short” stems at a reasonable price.

**Additional Comments:** I'll grow it next year; Most of these cultivars did well, but this could be due to the amount of heat we had this growing season, our normal seasons would not produce such prolific growth; No wholesale market for snaps but a must for farm market stems and bouquets.

### ***Antirrhinum* “Animation Yellow”**

+ Great yellow color (2); No problems (2); This seemed to be the strongest of the snaps in the trials; Excellent stem life as a fresh cut, vibrant color; Easy to germinate; Transplanted well; Blooms fast.

- Needs support.

**Additional Comments:** It was a nice snap, but the price of cut field snaps is the biggest problem. It's hard to get excited about a plant that has such a low value; It's similar to other snaps at least when grown in the field; In a year of snapdragon failure for me, this one was the only one to germinate and flower.

### **Aster “Compliment White”**

- + Nice white-very clear; Beautiful white, held up well, liked by our florists.
- Aster yellows (2).

### **Aster “Compliment Salmon Pink”**

- + Beautiful color (3); Stems were pinched back after second leaves to encourage branching, plants bushy but fairly small and very short; Uniform; Excellent stem length, stands well; Many side blooms.
- Tarnished plant bugs got the blossoms (even before the Aster Yellows got the rest). Poor germination; Crop failure. Spring too wet. Plants browned and withered; While these cultivars had wonderful color, the head size was so big that marketability is limited. We were very dry and irrigation kept them alive but growing slowly.

**Additional comments:** Some years I can get some asters before the bugs and yellows get the blossoms but not this year; While this was a late bloomer, the heads did dry quite nice; Looks like “Sea Shells” from Johnny's; Good germination.

### ***Salvia farinacea* “Silver”**

- + Easy to grow (3); Produced very well but customers prefer the blues; Nice filler; Pest resistant and has come back every year but it has not been marketable. It accents my other flowers in my borders but I don't wish to grow more; Uniform, good bedding; Color; Hardy; High yield.
- Too short (4); Shatters (2); Wasn't very showy flower-looked better dried than fresh; Dropped flowers quickly after harvest, because of this did not feel it was useful for any sales except direct, weddings or events; I have grown this before and never had this problem, but this season I could not keep it from wilting when picked, tried different times of day, etc...It never perked back up so I quit trying.

**Additional Comments:** My greenhouse grower had trouble moving the additional flats so I must not be alone in my data. I am surprised that as well as it accents the flowers in my borders, it doesn't sell better. I do use it as a filler; Shorter than “Strata; We can't sell much here because it is a wild plant here and not real exciting; Not popular in Texas.

### ***Salvia farinacea* “Victoria”**

- + Excellent color (3); The Benary Victoria was superior to the other Victoria I had grown. The color was vibrant and the plant more vigorous and the stem length longer. The fall bloom color was a much richer blue. Carefree, long blooming; Pretty when dried; Very prolific germination. Can tolerate light frost; No problems.
- Would be a good, uniform bedding plant..Good strong color..but it is way to short for a cut flower; All but 25 germinated out of 128 cell pack. Too much rainfall-rotted in field; By the time the stems get

long enough the blooms weren't pretty anymore. Wish the stems were longer, sometimes wilted, but most of the time it would perk back up; Skinny spikes limit versatility in design work.

**Additional Comment:** Possible use as a fresh cut, it appears to shatter easily when dried; *Salvia farinacea* "Blue Bedder" is a much taller variety.

### **Stock "Goldcut Dark Blue"**

+ Excellent solid color, good stem length; Beautiful color, uniform bloomer, fast to bloom, good germination; The few that bloomed were pretty.

- Would like to see a more solid blue color. Too many singles; Even though we cut one bloom per plant, the yield or total income from the row was very low; This plant hardly bloomed at all in our climate. The flowers just didn't seem to become fully developed and open; Stock and I don't get along very well. I have yet to grow a marketable stem!

**Additional Comments:** Possibly use as potpourri. Don't normally branch on their own, should try pinching next year. Because we didn't select and remove singles, we had a large amount of single stems--will watch for this in the future; It is hard to compete with stock being brought into the area. I do think stock has a place in greenhouse production.

### **Stock "Goldcut Rosy Red"**

+ Excellent solid color, good stem length; Beautiful color. Nice quality.

- No problems other than not enough profit from the row. Needs denser planting;

**Additional Comments:** Possible use as potpourri. Don't normally branch on their own, should try pinching next year. Because we didn't select and remove singles, we had a large amount of single stems--will watch for this in the future.

### **Stock "Goldcut Rosy Red"**

+ Great color (3); The doubles are a great, sweetly scented cut-Very nice for early sales; Good stem length; One of the best stocks I've raises for length of blossom.

- As with any stock, there was only a single stem. Also, it would be helpful to be able to cull single flowers from the batch-They're too weak and seem to need more nutrition to thrive; Most plants didn't bloom, those that did were short and had many aborted buds; Poor germination on this cultivar.

**Additional Comments:** Possible use as potpourri. Don't normally branch on their own, should try pinching next year. Because we didn't select and remove singles, we had a large amount of single stems--will watch for this in the future."

### **Stock "Goldcut White"**

- + The doubles are a great, sweetly scented cut-very nice for early sales. Nice color; Excellent solid color, good stem length;
- As with any stock, there was only a single stem. Also, it would be helpful to be able to cull single flowers from the batch-They're too weak and seem to need more nutrition to thrive; Stock and I don't get along very well. I have yet to grow a marketable crop.

**Additional Comments:** Possible use as potpourri. Don't normally branch on their own, should try pinching next year. Because we didn't select and remove singles, we had a large amount of single stems--will watch for this in the future."

### ***Veronica spicata* "Sightseeing"**

- + Bloomed all summer; Quick to produce, no insect problems, can be cut back with a lawnmower and will rebloom; No disease, large plants from first year growth; Good color mix-pink, white and blue.
- Too short (4); hold judgement until next year.

**Additional Comments:** I know others use a lot of this, but I couldn't ever find any stems long enough to use; Good germination. If this an annual as it states (my other "Sightseeing" is perennial) it is quite late and not many cuts.

### ***Zinnia elegans* "Oklahoma Formula Mix"**

- + Resistant to mildew (2); Small flower size (2); Excellent color (2); High germination rate; Prolific bloomers; Yellows, reds, super producers; Durable plant; Nice strong stems; Beautiful; It was great. It was continually in bloom and very disease resistant. It had good vase life; Very prolific. We picked and picked and picked. Stems are very long and strong. Good market appreciation; Beautiful flower, small diameter for a Zinnia but I liked that. They didn't overpower the arrangement; No problems.
- Limited color range (2); Stem length too short, unless entire plant was harvested, or at least half of it at a time. I feel stem length might have been better if we had cut them back very hard, as it was, we only cut them hard once or twice, but they were bushier, not longer length between nodes. Difficult for us to sell in the market place; Seems to take a long time before stems got long enough on plant to pick, maybe I was too over-anxious; Cool summer-had a slow time getting going-did not bloom until mid September; Wet and cool Aug & Sept. caused mildew to appear early. Browned flowers. Flower size was not well accepted-ok in mixes; A poor performer as a field grown cut flower. This is partly due to the location of our plots this year; Powdery mildew was a big problem.

**Additional Comments:** Would like a broader color range (2); This was a nice bouquet filler; Nice for dried; A very good plant. We use a lot of this in our program; Well received. Once florists get familiar with the flower, they are hooked. We would rather have the separate colors grown in last years trial. We had much more success with those as compared to the mix; Similar to "Cut and Come Again", but "Oklahoma" has a better color mix and mildew resistance.

## **Kieft**

### ***Ageratum houstonianum* "Red Top"**

+ Great color (5), but it is actually purple (4); It was easy to grow. Some of my customers liked it but most preferred the blue variety; Fair germination-- 91 out of 128 cell germinated; Nice dried; Heavy yield.

- Weak stems (6); Short stems (2); Low production; Stems broke easily. Color really wasn't red-more magenta or purple. If this cultivar could be improved to have long, strong stems like the blue, it would be useful; Very few positive comments; Difficulty acclimatizing to field. Doesn't like moist to wet conditions, (due to extra rainfall) wiped out by powdery mildew in field, those stems harvestable were good, but overall the plant never really thrived; Flowers go over the hill before enough open on each stem. (Flowers on a single stem do not mature at the same time). No real cutting stems available; Heads not as full as blue horizon; Poor market reception;

**Additional comments:** If purple became a more popular color, I'd grow this one again; I think this would have had a higher success rate if it had drier conditions than ours were. Color was interesting; Will dry very well if harvested in closed bud stage; The color was unique, but the only real reason we grow ageratum at all is the blue color.

### *Armeria pseudarmeria* "Joystick Lilac Shades"

+ Long lasting blooms-nice colors; Great color, long stem life; Nice long stems, blooms quite a bit first year; Very different looking. Very prolific. Blooms fast from seeds. Has a long bloom time. Early July until frost; Nice long stem for a small flower like this. Looked better fresh than dried.

- Heads too small for our arrangements. Slow to start blooming; So far seems they are all pretty much same color. Am not sure they all bloomed this first year however; The stems can support the flowers but 10 stems/bunch doesn't look like much;

**Additional Comments:** Good germination; Similar to Kieft's Pastel Shades. Same habit-slightly different color palette; I believe these needed extra help to get established. They were small compared to other plants in the trial and could have benefited from extra watering or a mulch and sidedressing of fertilizer."

### *Catananche caerulea* "Cupids Dart White"

+ Awesome flower--looked sort of like a small garlic bulb on a stem. It looked about the same dried as fresh. I loved this; Flowers first year; Color, stems; Different, dries well;

- Not really showy enough for my garden bouquets. Needs to be put in by the handful. Takes a long time to pick because it is small. Labor intensive; I can't keep these plant alive. They flowered and then died; Very poor germination...did not make it to the field; Slow grower; Crop failure. Spring too wet. Growth stunted from Treflan; The favorite of moles and pocket gophers.

**Additional Comments:** We have a few in containers to try and overwinter for next season; No production this season but growth indicates production will be similar to blue cultivar. As with blue catananche I expect a usable cut flower, only drawback is that it is slow to harvest a marketable wholesale bunch; Plants were fairly short and didn't bloom much. I think they needed mulch and a little special care to get established. The soil seemed especially poor in the row where these plots were

placed.

### ***Gomphrena haageana* “Qis Carmine”**

+ Wonderful color both fresh and dried (3); No negative comments (2); Nice long 8-10 inch stems. Great in dried bouquets as it was taller than other species; The vase life was over 14 days. My customers loved this globe in both fresh and dried designs; Fantastic germination-all strong/healthy, good foliage. Strong stems. blooms held well during harvest and after; Very large heads, maybe it's my imagination but this seems a little easier to handle than other varieties. (Better growth habit). Not even deer will eat it; This is the best gomphrena color I have seen. It is great; Heavy yield. Retained color well when dried.

- Stems brittle (unlike other gomphrena I grew); Drought. I have planted these in my area and never had much luck; I need support for the plants. I thought they would have more of an erect growth habit. That was my fault; I believe this would sell better in our area if it were presented dried instead of fresh. Not much market interest here; Stems weren't as strong as I'd like.

**Additional Comments:** This is a super plant that is sure to be a star; I would love to grow it again with the proper support and giving it the attention it needed; Not viable as a field grown cut in this area as we don't have the heat required for it to mature. Our plants came along some in the greenhouse but growth was greatly retarded once planted into the field.

### ***Helianthus* “Eversun Deep Yellow”**

+ Great color (7); Large flowers (2); Uniform (2); No problems (2); Nice strong sunflower; Traditional looking sunflower; Very early bloom, first large headed sunflower in bloom; They got nice and tall but the favorite in this area still seems to be “Sunrich Orange.” These also seemed to be resistant to any disease problems. No leaf spot on them at all; Good strong stems, some problems with petals wilting after harvest; Well accepted; Long lasting cut; No problems.

- Weak grower, irregular blooming; Heads of flowers can get too big if not harvest on time; Stems quite thick..awkward handling..also quite tall; Too heavy; Heads and stems were far to big and tall for a fresh cut or dried.

**Additional Comments:** Similar to Del-Sol, Superior Gold, Sunbright (2), and many other cultivars (2); This was a typical sunflower. It was nice and large; We had difficulty getting the harvested blooms to stay “crisp” and upright-the bugs loved them!; Not good enough to replace other varieties; A couple of florists liked it for funerals. Makes a nice patio plant; Strangely erratic. Some 8' tall some 2' tall. Some multi-branching, others single stemmed. Seed heads started very quickly and were ungainly looking; The heads could be used for decorative bird feeders; I prefer the smaller flowers from pinched plants.

### ***Helipterum roseum* “Pierrot”**

+ Strong stems; Good color. Dries well.

- Flowers never fully opened. It was difficult to tell when it was the right time to pick them; Like to use it in fresh bouquets but tends to close up. Labor intensive because of small stems.

**Additional Comments:** Good germination.

### ***Limonium hybrida* “Mellow Yellow”**

+ All but 10 out of the 128 cell germinated. Soft, lovely color of blooms, hold well during harvest. Dries well also, good stems, lengthwise and strength; I like the shading of it. It was a pale yellow and white and was a nice filler in the fresh arrangement. I didn't get to dry any so I have no data.

- I had no yield data on this cultivar. I didn't get a good stand of this plant. It was a dog for me; Poor root system compared to other limonium. Didn't really take hold & grow until August, but we had too much rain this year. I'd grow it again, definitely; It didn't germinate as well as the other limoniums; Crop stunted by using Treflan as a weed killer; Very late flowering.

**Additional Comments:** I think this would be great the second year-we dug ours up and put in pots in greenhouse and they are going nuts; We're going to hold this one over and see how it does in the spring. It was very late flowering and therefore we cannot comment until next year.

### ***Papaver nudicaule* “Meadow Pastels”**

+ Gorgeous colors (4); Customers were intrigued. Vase life very acceptable; Beautiful flowers; These are pretty in the field but do not seem to hold up when cut. They tolerated frosts into November.

- Slugs loved these plants more than slug bait; No postharvest handling could extend base life past 4 days; Too short at first, then almost too prolific-burned itself out as many poppies do; Heads on the small side for dried use; I don't usually have a problem planting poppies from cell packs to the field but none of these guys made it; Short stems.

**Additional Comments:** Bad germination; similar to other Iceland poppies.

## **Pan American**

### ***Delphinium* “Clear Springs Lavender”**

+ Excellent color; The seed germinated well-they transplanted well. They were growing well;

- None listed.

**Additional Comments:** We'll have to wait for another year or two to comment on this perennial but it shows a lot of potential; We were flooded by late spring rains and early summer rains until 7/15--They just couldn't take that much water.

### ***Delphinium* “Clear Springs Light Blue”**

+ Excellent color (3); Full stems, nicely branched; The seed germinated well, they transplanted well, they were growing well; This plant was put in the field in July and has bloomed nicely into November. Tolerated our first several frosts and kept blooming.

- We'll have to wait for another year or two to comment on this perennial but it shows a lot of potential.

**Additional Comments:** Great color especially the pink looking forward to full production next spring.

### **Delphinium "Clear Springs Rose Pink"**

+ Great color (2); Shape; Fun in garden bouquets; Very good germination, transplanted well.

- Faded color (2); Hot dry spring caused them to stunt..no usable stems; Paler than "Astatat", not as appealing; Short season here-must be started inside; Leaves turned yellow, then in approximately 2 week plants died, Pacific Giants & Belladonna planted next to them didn't do this; Crop failure- Spring too wet; Blossomed late.

**Additional Comments:** Could be a winner here. I would start it indoors much sooner in the future; Germination good; We'll have to wait for another year or two to comment on this perennial but it shows a lot of potential; Good germination. Is this truly an annual? We are seeing if it will winter over here.

### **Helianthus "Del-Sol"**

+ Early flowering (2); Excellent color (3); Good vase life (2); Florists love them; This sunflower was a nice medium size head, it was good in solid sunflower bunches; Longer petals looked lacier; Produced over a pretty long period; Good all around plant; This one was a bit earlier than all other varieties and sunflowers. Good single sunflower form; Long lasting; Nice size head; Strong stem; Nice sunflower; No problems.

- Too much variation in stem and bloom size; Tiny head-3 across on single stalk; Grasshoppers; Because they stayed in the greenhouse (we have a lot of wind and no protection for very tall plants) I believe the stems were a little weaker than they would have been if grown outside; Cool wet summer caused early mildew and browning of flowers; Petals fell from head quickly after harvest; Sunflowers are losing favor, not many side shoots; No vigor, stunted, weak.

**Additional Comments:** I liked this sunflower. It was a nice medium head type; To my customers, a sunflower is a sunflower, they couldn't tell any difference in them; This is the only thing the deer ate in the field this year; Loses too many petals to be a good dried flower; I preferred the smaller flowers from pinched plants; Very similar to lots of other sunflowers; Very nice sunflower; Looked liked Sunbeam but did not act like them--ie. did not hold petals.

## **Sakata**

### **Amaranthus “Aurora”**

+ Very different from the rest of the stuff I grow. Attracts attention from customers; Would be more suited to landscape work rather than field production.

- Every leaf had some bug holes and by the time the center colored good, they had ugly blooms or seeds underneath the leaves. First planting all wilted and died within 3 days, have no idea what caused this; Insects were a big problem, flea beetles love this stuff. If I planted later in year the beetles would be less of a problem; Did not germinate; Don't last as a fresh cut and completely shriveled up when dried; It was short and stunted and never got to harvestable stage-possibly weather related. Set seeds before coloring up. I want to try again just to see; No positive comments.

**Additional Comments:** I tried this twice and it was yuk-o both times; Interesting color.

### **Campanula “Champion Pink”**

+ Large, beautiful flowers (5); One of the best we have trialed; Lasted well in vase, customers liked the few I was able to use; Color and large stems; Nice to have an annual campanula; Blooms were sturdier than they looked, looked great even if they got mashed in a sleeve and had a vase life of approximately 2 weeks because all the little buds bloomed out; Everyone loved this flower! I think the blue was the most popular but I sold every stem of both colors. They were a great wedding flower; Germinated well, uniform, great vase life; Very nice flowers-annual blooms first year; Stems were filled with blooms; Easy to germinate, easy to grow.

- Did not tolerate summer heat (3); Stems just too short to do anything with. I tried several methods of getting longer stems but nothing worked; Wet spring browned flowers too quickly; Too short of bloom period, cut them back hoping to get another bloom, no such luck, maybe try successive planting; Plants in greenhouse were very vigorous requiring additional layers of netting.

**Additional Comments:** I enjoyed this plant the most of any new plant I tried this year; I will try this on again in a partial shade environment, mulch it heavily, and see if it will do better (longer stems). I will also grow twice the numbers of blue as of pink but will still have both colors. Additional colors in this series would be wonderful; My customers went wild over these and wanted just bunches on them (I usually put them in mixed bouquets); We had a cool spring and it didn't rain when we were cutting this; The florists we sold to this year are not a “adventurous” and did not buy this flower often or regularly.”

### **Campanula “Champion Blue”**

+ Excellent color (3); Germinated well, uniform, great vase life; Everyone loved this flower! I think the blue was the most popular but I sold every stem of both colors. They were a great wedding flower; Customers loved it even short.

- Did not tolerate summer heat (3); Short-this may have been due to drought conditions; Did not survive past spring.

**Additional Comments:** I will try this one again in a partial shade environment, mulch it heavily and see if it will do better (longer stems). I will also grow twice the number of blue as of pink but will still have

both colors. Additional colors in this series would be wonderful; Will assess in second year.

### **Lisianthus “Tyrol Blue”**

+ Excellent color and vase life (3); The best of the cultivars trialed; Nice clean flowers, long lasting, good seller on its own; Good, mixes well; Lasted for 3-4 weeks as a fresh cut. It was a complete surprise that the Lisianthus did so well in our climate. Once again this was due to our exceptional growing season. We would be curious to trial this one again and see how well it does; Transplanted well this time. Customers always like lisi; The seed germinated very well; Pretty, bright white or clear blue color; Less susceptible to disease than the other cultivars.”

- Too short (2); Never bloomed. Had beautiful foliage but no flower; Not as long blooming as Echo’s; Very disease susceptible, late bloomer (risk of frost damage); Always tough to keep it moist enough; We just don’t have enough growing time or heat or something.

**Additional Comments:** Customers still prefer double Echo’s; I see some improvement in germination time over old varieties; All of the Lisianthus were wonderful for corsage work; May be as a greenhouse crop in a different season-field production in the northeast can’t compete with imports.

### **Lisianthus “Blue Rim”**

+People liked the “Blue Rim” look, very sturdy stems; Color.

- Not as long a blooming time as Echo’s

**Additional comments:** Looks like Picotee but more uniform coloring.

### **Lisianthus “Tyrol Rose”**

+ Very, very sturdy stem, very tall, great color, very healthy looking (unlike other pinks); Nice flower for bouquets; Excellent color and vase life.

- Flowers are a little smaller than others but habit is so nice; All bloomed and were gone within 12 days; The white and blue did better in monochromatic bunches than did the rose; Disease susceptible.

**Additional Comments:** This is a much better variety than any other single pink/rose I’ve grown; I generally don’t grow single lisianthus because my customers prefer doubles but I would make exception for this one. My customers loved it; Surprised me that I got any production from these because they weren’t started until mid February; Fine flower and a nice addition to any cut flower mix.

### **Lisianthus “Tyrol Rose Pink”**

+Sturdy stems, uniform; All Lisianthus are blooming a second time on much shorter stems; Excellent color and vase life; No problems.

- Smallish flowers, color not as nice as “Tyrol Rose; Slow--They started blooming on August 1; Disease susceptible.

**Additional Comments:** I like this color.

### **Lisianthus “Tyrol White“**

+ Excellent vase life, 2-3 weeks in some cases (2); This is the best color as far as sales went. The color is wonderful; Side blooms and shape are nice. Customers always like lisi; Pretty, bright white or clear blue color.

-Tough to keep moist enough in field; Stem length is too short to compete with California product.

**Additional Comments:** This was my favorite lisianthus; Good germination.

### **Stock “Joy Formula Mix”**

+ Excellent color (3); Bloomed even earlier than “Goldcuts”, mostly double, singles were useless; Long stem life; Good uniformity.

- I felt the rows lacked an income that would make them a viable crop. Possible changing our method of cultivation; Too many singles; Poorer gemination than the “Goldcut Red and White”; Bloomed poorly.

**Additional Comments:** I felt these were some of the prettiest stock I’ve ever seen.

## **Participating Growers**

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Frank and Pamela Arnosky  
Texas Specialty Cut Flowers  
Wimberley, TX

Leon Carrier  
Plant Masters  
Gaithersburg, MD

Douglas and Gloria Austin  
Austin Gardens  
Flushing, MI

Barbara Cospers  
Cospers Flowers  
Highlands, NC

Phil and Dorothy Bartlett  
Bartlett's Ocean View Farm & Greenhouses  
Nantucket, MA

Priscilla Emerson  
Blue Castle Farm  
Warren, ME

Clydette Borthick/Randall Smith/John Dole  
Oklahoma State University  
Stillwater, OK

Janet Foss  
Everett, WA

Jeff Hartenfeld

Hart Farm  
Solsberry, IN

Betsy Hitt  
Peregrine Farms  
Graham, NC

Ruthie Knabb  
Petal Pushers  
Madison, WV

Susie Lawrence  
Sand Creek Farm  
Braggs, OK

David and Jan McHughes  
A & L Greenhouses  
Owasso, OK

Susan O'Connell  
Fertile Crescent Farm  
Hardwick, VT

Rory Pawluk  
Pawluk's Posies  
Melfort, Saskatchewan

Vicki Stamback  
Bear Creek Farms  
Stillwater, OK

Alan Stevens  
Kansas State University  
Kansas City, Kansas

Cheryl Wagner  
Wagner's Homestead Farms  
Belleville, MI

Lulu Wooten  
Cape Farm

Marlboro, Vt

Fran Taylor  
Petals in the Valley  
Middletown, MD

Rick Vilonen  
Ben Brook Farm  
North Amherst, NY

Kim Wickwire  
Olds College  
Olds, Alberta