

1996 ASCFG National Cut Flower Trials

John Dole
Oklahoma State University

The format of year's trial report looks the same as last year's report, but we've tried to make it more useful. I've included more of the evaluator's comments and I've also included the town and state of the evaluator when that information would be helpful in interpreting the comments. These changes were suggested by Amy Malysa of Vermont and were greatly appreciated. I also want to thank Kathy Riley for being the first evaluator to return the trial results this year - Good job Kathy.

One of this year's notable cultivars is *Nigella orientalis* 'Transformer' from Kieft. 'Transformer' scored high in all of the categories and received excellent reviews for its interesting seed pods and color. Several evaluators were especially happy to find that 'Transformer' was taller than other Nigellas. Negative comment were mostly due to poor weather and too short of growing season in Northerly locations.

At the risk of being completely biased, the outstanding series in the trial was the 'Cutting type' Zinnias newly released by Benary. I'm biased because Benary has recently named the series 'Oklahoma' which is how it is listed in the trial report. We are especially proud of the name because the series has turned out to be a real winner (despite some grumbling about the name from some Texas growers who will remain nameless). The plants provide heavy season-long flower production on long stems. Here at Oklahoma State University, production ranged from over 24 stems/plant for 'Oklahoma White' to over 41 stems/plant for 'Oklahoma Scarlet'. The flower size is smaller than Benary's other major Zinnia series, 'Dahlia Blue Points', but the moderate resistance to powdery mildew has been retained.

Sakata's Ageratum 'Tall Blue Horizon' received high marks from evaluators, several of whom noted that the stem length and durability. Ageratum seems to have become one of the staples of the cut flower industry and this cultivar is one of the best..

On a final note, thanks to all of the evaluators who turned in their trial reports and the seed companies for supplying seed. Your participation is greatly appreciated; the cut flower trial provides valuable information for the ASCFG members.

Trial Seed Suppliers

American Takii, Inc.
301 Natividad Rd.
Salinas, CA 93906

Ernest Benary
1444 Larson St.
Sycamore, IL 60178

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

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

Trial results¹

Company - Cultivar	Yield (stems/plant)	Length (inches)	Market appreciation rating ²	Repeat again rating ²	Ease of cultivation rating ²
--------------------	------------------------	--------------------	---	--	---

American Takii

Dianthus F1 Miss Biwako	2.3	16.0	2.7	3.0	4.0
Dianthus F1 Miss Kobe	2.0	11.9	2.3	2.8	4.0
Flowering Kale Sunrise	1.0	27.0	2.5	2.5	5.0
Flowering Kale Sunset	1.0	25.0	2.5	3.0	5.0
<i>Helichrysum monstrosum</i> Paper Daisy	6.5	7.4	2.0	1.8	3.4

Ernest Benary

<i>Lupinus polyphyllus</i> Russell Special Blue Point Mix	3.0	22.0	4.0	5.0	5.0
<i>Papaver nudicaule</i> Partyfun Mix	3.7	23.0	1.7	1.3	3.3
<i>Rhynchelytrum repens</i>	22.0	23.6	1.6	1.6	4.9
<i>Salvia farinacea</i> Reference	7.4	13.0	3.2	3.9	4.7
<i>Scabiosa caucasica</i> Fama	26.0	17.7	3.7	4.0	4.3
<i>Zinnia elegans</i> Oklahoma Pink	17.8	13.3	4.2	3.8	4.4
<i>Zinnia elegans</i> Oklahoma Salmon	16.5	15.0	4.1	3.7	4.4
<i>Zinnia elegans</i> Oklahoma Scarlet	14.3	14.3	4.0	3.9	4.6
<i>Zinnia elegans</i> Oklahoma White	13.2	12.9	4.0	4.0	4.5

<i>Zinnia elegans</i> Oklahoma Golden Yellow	12.1	12.1	3.6	3.6	4.4
<i>Zinnia elegans</i> Giant Dahlia Dream	10.7	18.2	4.2	4.0	4.3
<i>Zinnia elegans</i> Giant Dahlia Exquisite	11.2	18.0	4.6	4.6	4.6
<i>Zinnia elegans</i> Giant Dahlia Golden State	8.1	16.8	3.9	3.8	4.1
<i>Zinnia elegans</i> Giant Dahlia Polar Bear	9.4	16.4	3.9	3.6	4.1

Kieft Bloemzaden

<i>Ammi majus</i> Queen of Africa	9.0	23.4	3.3	2.5	3.5
<i>Carthamus tinctorius</i> Grenade Mix	5.3	12.2	3.0	3.0	3.0
<i>Celosia argentea cristata</i> Bombay Purple	4.0	15.8	2.9	2.5	2.9
<i>Didiscus caeruleus</i> Madonna Lavender-blue	5.8	13.5	2.8	3.7	2.0
<i>Didiscus caeruleus</i> Madonna Pink	5.5	13.0	2.0	3.0	2.0
<i>Didiscus caeruleus</i> Madonna Rose	5.0	21.0	4.0	3.7	3.3
<i>Didiscus caeruleus</i> Madonna White	6.4	23.5	4.5	3.5	4.0
<i>Iberis amara</i> Iceberg Superior	1.0	9.9	4.0	3.3	3.0
<i>Lavatera trimestris</i> Salmon Beauty	11.0	14.1	3.5	3.0	3.0
<i>Lepidium virginicum</i>	6.0	16.0	3.7	2.7	3.7
<i>Nigella orientalis</i> Transformer	10.0	13.3	4.7	4.8	3.8

Sakata

Ageratum F1 Tall Blue Horizon	7.3	15.3	4.0	4.5	4.5
Aster Matsumoto Formula Mix	4.0	16.3	3.7	3.7	4.3
Carthamus Lasting Orange	0	10.0	1.0	1.0	1.0
Celosia Sparkler Mix	4.4	14.9	3.6	3.8	4.8
Godetia F1 Tall Grace Formula Mix	3.5	13.0	3.5	3.5	2.0
Lisianthus F1 Heidi Mix	3.0	18.0	4.0	2.0	4.0
Statice Tall Excellent Mix	6.4	17.3	4.3	3.7	4.7

¹Only the cultivars with 3 or more respondents are included. See comments for additional details on the cultivars not included in the table.

²1 to 5 scale, with 5 being the best.

Summary of comments

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 from individual evaluators are separated by semicolons. Note: many people did not make specific comments on each cultivar and comments in some cases have been shortened because of limited space or similarity to the comments of other participants.

American Takii

Dianthus F1 'Miss Biwako'

+Long lasting, excellent scent and long stems if grown in the proper environment, perhaps a greenhouse.; Florets/stem.

-Very poor germination in my coldframe; weak plants - not able to transplant, difficult to establish.; Local market not interested in this flower (Oxford, MS).; Stem length.

Additional Comments: An easily propagated plant from seed though germination rates and percentages were low. The plants, once established, seemed hardy and performed well.

Dianthus F1 'Miss Kobe'

+Color (3); Good germination rate (2); Good stem length, and scent.; Bright blooms, easily grown from seed.

-Though germination was strong, the plants field performance proved to be even weaker than the 'Miss Biwako' cultivar.; Local market not interested in this flower (Oxford, MS).; Very poor germination in my coldframe and unable to transplant to the field; The flowers were defective with wide spaces between some petals.

Additional Comments: This plant is better suited to areas with a warmer average climate and a longer growing season (Olds, Alberta).

Flowering Kale 'Sunrise and Sunset'

+ Colored up nicely. Customers find them fascinating. Some of the plants "bolted" making a long stem with florets all up it.

- No market (Sante Fe, NM).

***Helichrysum monstrosum* 'Paper Daisy'**

+Bright yellow color (2) which held well when dried; Productive (2); Strong stems; Useful in many dried flower applications.

-Stems and flowers don't have enough bulk to be good for bunches; Our summer was not warm enough to grow these lovelies (Nantucket, MA); Leggy growth and a need for constant harvest of flower heads in order to maximize production. Stems do not dry stiff enough to be useful as a dried product.

Additional Comments: I found this one weak and didn't withstand summer heat.; Very easy to propagate and an excellent performer in the greenhouse as well as in field. The plant habit requires close

attention to prevent stems from laying on the soil surface thus opening a window for disease; Very uniform plants - nearly 100% germination.

Ernest Benary

***Alchemilla mollis* 'Thriller'** - Perennial which hasn't flowered yet.

+No comments.

- Poor germination (2); Plants died after transplanting into the field, which may have been due to the weather.

Additional Comments: These plants are very vigorous.; The description of the plant makes it worthy of a second try.; Perennial has not bloomed yet, but germinated and grew well so far.

Antirrhinum Animation Orange, White, and Pink

No comments returned.

***Aquilegia caerulea* 'Harmony Mix'** - Perennial which hasn't flowered yet.

+Germination was very good (2).

- No comments.

Additional Comments: Too hot here for blooming in summer (Oxford, MS).; The plants have formed nice rosettes.

***Lupinus polyphyllus* 'Russell Hybrids'**

+Excellent color and variety, coupled with first year flowering of a biennial. We expect to see much more from these plants next season.

- Crop failure.

Additional Comments: A particularly hardy plant, even for this area with its low temperatures and poor soil conditions (Olds, Alberta).

***Papaver nudicaule* 'Partyfun Mix'**

+Excellent color and pattern as a fresh cut, as well as a unique dried product, though the heads are far too small to be of much use as a dried.

- Seeding must be carried out under ideal weather conditioned so as to prevent over-seeding due to the seed "sticking" during seeding.; Colors not good - too many oranges -- not enough pink for our market;

Additional comments: The first planting failed due to weather but second sowing has done well.; Require larger samples of seed to provide more accurate field performance data.

Rhynchelytrum repens

+Easy cultivation (4); Showy.; Easy to grow, very vigorous.; Would make an outstanding bedding plant. Very uniform.; Plume color great.; It was very heavy producer, took the heat and drought, had good stem length, no insects bothered it all summer (including grasshoppers) (Stillwater, OK).

- Plumes too small (2); Difficult to harvest.; Ahead of the consumer demand.; Poor germination.; Looks like a weed or a roadside plant with more brown than red coloring--UGLY.; This needs to be staked or grown in mesh. Everyone liked it in the field but no one wanted to pick it.; It sheds as both a fresh cut and when dried--not useable.; Short vase life.; Our customers felt they got more for their money with love and switch grass.

Additional Comments: I found this to be interesting but not enough ready at same time to be worth cutting (I did a 1 x 60 ft. row).; Transplant of seedlings from greenhouse proved better for our conditions than direct sowing (Oxford, MS).; According to a 'grass' book we have, this species grows as a weed in Texas, so we were reluctant to plant it out.

***Salvia farinacea* 'Reference'**

+ Color (3); Very easy to produce.; Pleasant, pungent aroma, delicate flowers, dried nicely, pest free.; Excellent bedding plant.; Consistent flowering.; Took the heat and produced very well. After its first round of blooms, we chopped it off to about 6" tall and it came back with a second flush of growth and we had a second harvest off the same plants. The florists liked it and only a couple thought it smelled bad. No bug problems.; Blue and white flower spikes looked great.; It looked a little like lavender. It lasted well was a nice change from other summer flowers. It sold well.;

- Too short (5); Harvest timing must be impeccable in order to preserve flowering characteristics.; We had germination problems, I think we kept it too wet and it damped off.

Additional Comments: It was similar to *Salvia* 'Blue Bedder' and 'Strata'.; Excellent fresh and dried.; This plant requires far higher heat units to produce long enough stems to be of use as a fresh cut or dried material (Olds, Alberta). 'Reference' is much taller than 'Strata'.; We were able to sell all we grew.

***Scabiosa caucasica* 'Fama'**

+ Easy to grow plants (3); Hardy, excellent germination, flowers first year.; Good strong color and pest and disease free.; No bug problems. Ours grew but did not bloom this summer until fall and cooler weather (Stillwater, OK). The few blooms we got this year were very large and a beautiful, the florists will go nuts over them.

- Coloring very similar to the 'Butterfly Blue' *Scabiosa*. I could see no difference.; Uneven germination and a very slow starter, will see how it performs as a perennial.

Additional Comments: We expect big things from this *Scabiosa*.

***Zinnia elegans* 'Oklahoma'** (all colors)

+ Incredible producer! The first of the year we cut off 4 buds to get a stem length we wanted but as the summer went on, the stems were long enough to cut without taking any buds. We did have some stray colors within each cultivar. Their final height was about 48-55" tall. We did have some leaf spot but didn't affect harvest and powdery mildew formed but not until September when it began to cool down.; Very, very productive. Long stems for a small flower type. Customers like it.

- No worse than anything else we grew this summer, bud worms and grasshoppers loved all our plants this year. Limited color range. Rumored to be named 'Oklahoma' instead of 'Texas'.; All were very susceptible to brown rot, most had to be discarded as plugs before planting.

Additional Comments: Similar to 'Ruffles', 'Cut-and-Come-again', (but 'Oklahoma' has longer stems

and a little longer flower) and 'Sunbow' (but 'Oklahoma' is far superior); Our first flower to market was 5-31-96 and after about one month from first harvest we were harvesting about 400 stems/week from the Oklahoma zinnia. Our last harvest was 10-17-96 (Stillwater, OK). We want additional colors like Blue Point Dahlia Zinnia!!!!; This was the standout new variety for us. It was a real workhorse for our bouquet business. Of the 5 colors the white was our least favorite--too stocky.; Sold 12/bu at \$.60/bu to wholesaler, \$2.00/bu to local florist.; Since *Xanthomonas* is seed-borne, supplier needs to be informed. I usually sterilize zinnia seed but thought I wouldn't need to since it came directly from breeder.; All zinnia varieties I got this year are similar to ones I have been getting for years from Meyer Seed in Baltimore for \$2.00-3.00/oz.

***Zinnia elegans* Oklahoma Pink**

+ Long stems (2); Color (2); Productive (2); Large flowers (2); Good postharvest (2); Reasonable vase life if supplemented with flora life. The best variety of the series for number of stems.; Very little *Xanthomonas*. Sturdy plants, especially late in season (late August).; Prolonged production.; Strong plant.
- Flowers small (3); Short stems (2); Damping off in the cell packs prevalent if overwatered even once. Also a big draw for thrips in the greenhouse. Disease resistance low. No marketable flowers.; Color and flower size not uniform. Some single (smaller) flowers. Early growth produced weak stems.; Mildew - anthracnose.

Additional Comments: With proper harvesting of flowers they have good potential for cuts, but may be more suitable for the landscape.; There are better pink cultivars.

***Zinnia elegans* Oklahoma Salmon**

+ Color (5); Of the varieties grown, this one produced the second best for length of stems as well as numbers of flowers and useable stems.; Productive when stays alive.
- Small flowers (4); Short stems (3); Not uniform.; Fungal pathogens and thrips.; Disease resistance low, no marketable flowers.; Largest amount of *Xanthomonas*. Petals also sometimes flecked with darker color.; Mildew.

Additional Comments: Easy to grow inside or out, but performs better in the greenhouse.; Acceptable cultivar in markets where smaller flowers are okay.; Least liked color of the series.

***Zinnia elegans* Oklahoma Scarlet**

+ Color (7); Large flowers (2); and reasonable vase life with supplemental flower food.; Nice size flowers and uniformity of color. Healthiest looking plants of all the colors.; Holds well.; Many branches. Bloom consistent color throughout.; Long lasting cut, strong stems.; Uniform flowers, easy to cut, very wonderful and prolific.

- Small flowers (3); Short stems (2); Fungal pathogens and thrips in the greenhouse.; Disease resistance low, no marketable flowers.; Some weak or "collapsed" necks. Small amount of *Xanthomonas campestris* in early summer. Least affected of all the colors.; Beautiful heads but short and small (half size of salmon).; Some variation in flower shape.

Additional Comments: Very easy to grow and a great color and shape to the flower, a better performer in the greenhouse.; Acceptable cultivar for market where smaller flowers are okay.; Much black rot, black spot, and assorted fungus, due to poor zinnia weather (Nantucket, MA). Good news - no

Japanese beetles! Too cold.; This zinnia was very prolific, has lasted well and began blooming 2 weeks before any other zinnias.

***Zinnia elegans* Oklahoma White**

+ Color (4); Fair vase life with supplemental flower food.; Very little Xanthomonas. A nice white uniform flower. Sturdy plants. Have not had good luck with white zinnias previously.; Holds up well. Strong stems.; Small flowers.; Pretty white small flowers, strong plant, profuse bloomer.; Very uniform, nice for a white zinnia.

- Short stems (3); Fungal pathogens and thrips in the greenhouse.; Small flowers, disease resistance low, no marketable flowers.; Shorter but overall most sturdy stems of all the colors. Latest to produce saleable flowers.; Mildew.;

Additional Comments: Similar to 'Polar Bear' (2) (but 'Oklahoma' flowers were not as large) and Purity.; Easy to grow and to use. There is a place for new white flowers in the market. A better greenhouse than field performer.

***Zinnia elegans* Oklahoma Golden Yellow**

+ Color (3); No Xanthomonas. Very good, sturdy plant for a yellow. Have not had good luck with layer Dahlia Flowered Yellows. Good uniformity of size and color.; Highest number of flowers per plant of all varieties tested. Strong habit. Fair vase life with supplemental flower food.

- Small flowers (3); I hated the color and so did my florists--Taxi-cab yellow.; Mildew - anthracnose.; A little weak (stems) early in season. Improved in August.; Short stems, disease resistance low, no marketable flowers.; Fungal pathogens and thrips in the greenhouse.

Additional Comments: Some feel this color is in abundance at this time of year, if its use as a dried was more practical it may have more appeal.

***Zinnia elegans* Blue Point Dahlia Series**

+ Color (2); This year we tried the new colors, Dream, Exquisite and Golden State. The results were excellent as the other 'Blue Point Dahlia' cultivars. Our plants grew to 6' tall in the field this year. We are planting more zinnias as a whole next year.; Uniformity, size, stem length.

- Only bug problems. We did have leaf spot, which did not affect harvest, and powdery mildew, which did not occur until September when it cooled down.; All were very susceptible to brown rot, most had to be discarded as plugs before planting.

Additional Comments: Similar to 'State Fair' and similar cultivars are available from Meyer Seed in Baltimore.

***Zinnia elegans* 'Giant Dahlia Dream'**

+ Exciting color (7); Long stems (3); Strong stems (2); A useable size flower head for a "giant" series. Good stem length and fair vase life with supplemental flower food.; Huge flowers.; Prolonged production.; Large, long lasting.

- Mildew (2); Fungal pathogens and thrips in the greenhouse. Poorer germination than the other varieties tested. Inconsistent flowering, some almost single flowered similar to a daisy while others were full but not round like the cutting types.; Tends to have more single blooms than other colors.; Poor disease resistance.

Didn't cut a single stem-no useable stems.; Variable appearance.

Additional Comments: A great color and very easy to grow and a better greenhouse performer than in the field.; One of our favorites of the 'Blue Point' series.; In the top 3 favorites of this year's cuts.; It would be nice to have large, strong flowers and longer stems.

***Zinnia elegans* 'Giant Dahlia Exquisite'**

+ Color (5); Flower size (2); Long vase life (2); Prolonged production.; Long stems.; Very double blooms.; Strong plants, thick stems.

- Mildew.; Disease resistance low, no marketable flowers.

Additional Comments: In the top 3 favorites of this year's cuts.; One of the strongest colors of the series--a real standout.

***Zinnia elegans* 'Giant Dahlia Golden State'**

+ Color (5); Flower head size (3); Long stems (3); A fair vase life with supplemental flower food.; Long lasting cut.; Excellent germination!; Prolonged production.

- Plants fell over, many flowers lost on the ground.; Flower not as uniform as other varieties, different shades and sizes.; Scraggly plants with dull colors. Looked dirty.; Mildew and anthracnose.; Color fades in field quicker than others cultivars.; Disease resistance low, no marketable flowers.; Variable stem length. Mostly good long stems--some short, stocky plants.

Additional Comments: Received very well by local market.

***Zinnia elegans* 'Giant Dahlia Polar Bear'**

+ Color (2); Flower head size (2); Long stems (2); Good strong thick stems, strong upright plants.; Good white.; Color is nice but quality easily lost. Earliest harvest was best.; Large flowers.

- White flowers tend to turn brown around the edges (2).; Insect and other damage stands out more than with other varieties which may be overcome by more frequent harvesting.; Disease resistance low, no marketable flowers.; Plants seem weaker than the rest of the series.; Extremely slow and poor germination as well as slow growth following retarded establishment in the plots. In general, just a poor performer as a field grown cut flower (Olds, Alberta).

Additional Comments: Favorite white zinnias of 3 trialed by us.; White tinged with green, not a bright white but useful in designs.; Our market loves bright 'Mexican' or Southwestern colors--not a lot of demand for white.; Surprisingly well received by the retailer, all colors moving well.; 'Polar Bear' was smaller than salmon.

Kieft

***Ammi majus* 'Queen of Africa'**

+ I was really looking forward to a uniform Ammi.; Resisted lodging well.

- Did not germinate in the field. Cool wet spring (Highlands, NC); It was very short (12") and the Ammi we normally plant was 36". It bloomed 2 to 3 weeks later than Ammi planted the same day in the same row.

Additional Comments: Nothing remarkable or significantly unique over other varieties available.; Didn't notice much difference against 'Snowflake' except a little more floriferous, more dainty stems, slightly smaller flowers. Again, weather conditions were poor!

***Carthamus tinctorius* 'Grenade Mix'**

+ Yellow in this mix was great.; Color held very well dried (2); White and orange looked very much like same old stuff.; Strong healthy growth, good stem length and flower color. A very hardy plant. Flowers earlier than other cultivars available.

- These plants get brown and crispy in my field (Lawrence, KS). The foliage is so bad, I couldn't sell it.; Germination is not consistent resulting in a staggered harvest.

Additional Comments: I direct sowed these and I had a crop failure due to weeds.; This was the best performer of the direct seeded material and we would very much like to grow more of this in the future. Though growth was strong with earlier flowering, this plant does not grow as tall as other varieties available.

***Celosia argentea cristata* 'Bombay Purple'**

+ Good color (4); Very uniform.; Very long stems.; Good shape of flower heads.; Transplanted easily.

- It was harder to grow than the Chief mix series and didn't do as well even though we did them at the same time. If it was more headed than fan shaped, it would probably be better for us.; Tends to bolt in plug tray. Price of seed is way too high (catalog list it for about \$110.00 for 1,000 seeds).; I got only 1 stem per plant.

Additional Comments: Similar to the Kurume series and the Chief series.; It seemed strange to us that we had more problems with this than the Chief Mix celosia. Only about 1/2 of what we planted lived in the field and was put out the same time as Chief mix and next to it (Stillwater, OK).

***Didiscus caeruleus* 'Madonna Lavender-blue'**

+ Nice color (3); Long stems (2); Produce best Didiscus I have ever managed to grow, strong stems.; Very productive, sturdy stems, slugs don't seem to bother it.; Vaselife.

- Plants require higher average temperatures than are normally available for germination in this area (Olds, Alberta). Plants grown from plugs, however, proved to do much better than the direct seeded plants. The major problem experienced at the Olds College plots, was the inability of the plants to take up nutrients thought to be a result of low average daily temperatures. Seeds sown to areas with better drainage showed better germination, but the season is just not long enough to produce useable stems.; I think this plant hates life in the south. Too hot here (Graham, NC).; Possible (not confirmed) stem rot (Fusarium?) on some plants late in season - rotted at soil line.; Crop failure due to starting too early.

Additional Comments: Looks like the blue cultivars already available, but has longer stems.; Each of the varieties of the Didiscus in the 'Madonna' series displayed poor germination, both in the field and in a controlled environment. The relatively poor soil conditions and cool weather took their toll on these plants.; I cut Didiscus as single stems rather than "whole" tall plant. It gets less tangled and wholesaler likes it this way. Sold at 20/bunch for \$1.75/bu (sleeved).

***Didiscus caeruleus* 'Madonna Pink'**

+ No comments.

- Color was washed out - not very pink. Doesn't root well.; Crop failure due to starting too early.; Did not germinate in the field - cool, wet spring (.)

***Didiscus caeruleus* 'Madonna Rose'**

+ Good color (2); Stem length (2); Seems sturdier than pink already on the market.

- Not as productive and most affected by the soil line "rot", so I lost some plants.; Did not germinate in the field - cool, wet spring.; Doesn't root very deeply. Pulls out of sandy soil.; It didn't bloom until the second week of October and our season is pretty much over by then.

Additional Comments: The weather was wet and cold or hot and drought, not ideal for making judgements (Everett, WA). I cut the flowers in October and they lasted over 7 days. They were nice.

***Didiscus caeruleus* 'Madonna White'**

+ Nice plant. Nice color; Wholesaler surprised at how well it sold for a white flower.; Stem length.

- Too long to bloom - but maybe weather related (Everett, WA).; Stumpier plants but sturdy stems. Couldn't get as much length.; Looks like white cultivar already on market, but longer stems.

***Iberis amara* 'Iceberg Superior'**

+ Early blooming. Also has nice seed pods. Good white filler flower. It germinated very well. Very fast.; Seems like excellent potential, though I had a crop failure. Plants bloom all summer, flower early, beautiful dainty form, but large flower head.

- Too short; Due to problems with our greenhouse soil mix, 90% of plants died after germination. Those that survived never recovered enough to harvest. Not the plants problem.

Additional Comments: I want to try direct sowing.

***Lavatera trimestris* 'Salmon Beauty'**

+ Rapid germination and strong growth as well as profuse flowering enhance this plants value in any application. The color is strong, attractive and holds well as a fresh cut and is showing potential as a dried product with its bluish-pink dry color for use in pot-pourri.

- No comments.

Additional Comments: Given this plants ability to grow rapidly with little maintenance from seed, gives it an advantage over other border plants which must be grown as plugs. Seed pods are showing excellent potential for use as a dried material and it takes dye very well.

Lepidium virginicum

+ Beautiful green color when air-dried without dye, and an excellent fresh cut.; Easy to grow. Unusual looking.; Small and unique seed heads add to the value of this plants character and usefulness in both fresh and dried applications.

- Severe wind in early July (?) knocked most plants on their side. They survived but the stems were too bent to use.; Half of my customers thought it was too 'weedy' looking or just plain ugly.; Poor germination as a direct seeded plant.; A difficult seed to sow mechanically and therefore is labor intensive, once sown, however, it is a relatively maintenance free plant.

Additional Comments: I was not too thrilled at growing *Lepidium* as I had only seen it as a dried dyed brilliant unnatural colors. I was very happy with the few plants I managed to harvest and dry the natural green is vibrant and life-like, and my bouquets with *Lepidium* always sold first!; We will see how the plants hold a dried material, and would perhaps like to try different glycerine and dye treatments in the future. Nothing spectacular about this plant.

***Nigella orientalis* 'Transformer'**

+ Tall stems (4); Good flower color (3); Interesting/beautiful seed pods (2).

- Poor planting conditions in spring caused immediate flowering. Difficult to really judge.; For this area it is a close race to gain a mature plant in the length of season available. The harvest of this plant was done at the very last opportunity of the season.; I need to fall plant *Nigella*. These plants were tortured.; Did not germinate in the field - cool, wet spring.

Additional Comments: A healthy and easy to grow plant but for locations this far north it is risky venture, though the plants held up well through the first early snowfall and managed to rebound to reach maturity.; Taller than other *Nigellas*.

Sakata

***Ageratum* F1 'Tall Blue Horizon'**

+ Long stems (2); Color, hardiness, strength of stems, holds up in all weather, long vase life too.; Vigorous, blue, no disease problems.

- We had a cool summer and it didn't take off like *Blue Horizon* usually does.

Additional Comments: Similar to regular '*Blue Horizon*' (2). We have been growing tall blue *ageratum* for years. It is weather resistant (Nantucket, MA) and very long blooming.

***Aster* Matsumoto Formula Mix**

+ Color (3); There were a few plants of a soft yellow color in the mix that was a welcome change from most glaring yellow flowers. These flowers were very beautiful.; Vivid strong and bright.

- Poor germination in coldframe. Unable to transplant to field.; Weather prohibited full development (Nantucket, MA). No problems.; Short. No lateral stems.

Additional Comments: I always order this in plugs - this year did poorly - too much rain - in the past generally gets about 18" tall - cut entire plant off. Has 8-10 blooms.; I like these asters. The colors are nice, they were easy to grow. The only reason we don't grow asters for sale is they don't appreciate all the rain and too often the petals show rain damage.

***Carthamus* Lasting Orange**

+ No comments.

- Poor growth from the beginning in the greenhouse and subsequently in the field. Plants all died within 1 week of planting out.

Additional Comments: We got this one out in the field too late and it bolted too short. Can't say that we are very excited by it even when well grown, though!

Celosia Sparkler Mix

+ Color (4); Size, fair regrowth.; Straight strong stems.

- Other sparkler colors, especially yellow/cream, seemed weaker. Sparklers are a bit short to make a really good cut.; Some died after first cutting - cause undertrimmed.; Our clientele doesn't go for these reds, oranges, and yellows.

Additional Comments: Pampas Plume is similar, but much larger.; We just can't get the plume celosias to like our soil. They all stunt. The cockscomb varieties do fine though?!

Godetia F1 Tall Grace Formula Mix

+ Grew taller than my standard Godetia which was a total failure this year. Nice color mix.; Side branches produced good stems. Good color range but light pink not very good and dark red petal tips tend to go gray. Coral is striking and medium pink is good.

- Did not germinate from direct sowing method.; It fell over in rain/windstorm, but I just let the side shoots elongate and cut those. Grasshoppers preferred this plant (flowers!) over all others!; Color, appreciation low.

Additional Comments: Current Grace series, but may be a little taller.; Due to incessant rain for June and July, most of my Godetia was unharvestable otherwise the yield would have been much greater.; Sold to wholesaler in bunches varying from 10-12/bu (large stems) for \$2.00/bu to 15-20/bu for \$3.50/bu.

Lilium F1 Snow Trumpet Improved

+ No comments.

- Poor or no germination (4); Those that germinated didn't grow well.

Additional Comments: Perhaps there was a flaw in the stratification or seed storage requirements of this plant, but the length of time required to germinate these seeds and the low rate of germination makes these an unappealing project.; I was very disappointed with these seeds. I always wanted to try these but they really didn't go well at all.

Lisianthus F1 Flamenco Mix

+ Customers know and want Lisianthus. Late planting makes it difficult to judge this one, however, it did remarkably well under adverse conditions (Solsberry, IN).;

- This particular mix of colors seemed "muddy" or muted. No particularly striking.; We are working very hard this year to find the window for Lisianthus here. Our plants always live after transplanting but our stems are short and this year the grasshoppers came in and feasted on the flowers (Stillwater, OK). I think we are growing it on too warm and putting it out in the field too late.

Additional Comments: Similar to numerous other cultivars.

Lisianthus F1 Heidi Mix

+ No comments.

- No comments.

Additional Comments: Customers prefer double forms.

Statice Tall Excellent Mix

+ A good mix of colors, consistent germination and growth. Stem length of all plants within 15 cm (6 in) of each other. No visible signs of disease or pest problems and able to take a fairly stiff frost of -5°C.; Good, strong colors; prolific bloomer

- Stems seemed thin and willowy. Production was very low. This bed may have been over fertilized so the problem might be with our culture.; None to report.; Early harvest yielded short stems - later harvests may have been longer.

Additional Comments: Seemed like other Statice mixes. Wide basal foliage and appropriate plant spacing offers good height to plants and weed suppression in flower beds. Straight stems are easy to harvest and bundle. Plants also dry nicely as well as accept glycerine and dye treatments.

Trial Participants

Frank and Pamela Arnosky
Texas Specialty Cuts
Wimberley, TX

Douglas and Gloria Austin
Austin Gardens
Flushing, MI

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

Lynn Byczinski
Fairplain Farm
Lawrence, KS

Leon Carrier
Gaithersburg, MD

Martin and Theresa Connaughton
Wilderness Flowers
Sante Fe, NM

Barbara Cospers
Cospers Flowers
Highlands, NC

Janet Foss
Everett, WA

Jeff Hartenfeld
Hart Farm
Solsberry, IN

Betsy Hitt
Peregrine Farms
Graham, NC

J'Lynn Howell
Rolling Hills Plant Farm

Oxford, MS

Susan O'Connell
Fertile Crescent Farm
Hardwick, VT

Kathy Riley
Nature Perfect
Puyallup, WA

Jim Shrefler
Wes Watkins Agricultural Research
and Extension Center
Lane, OK

Randall Smith/John Dole
Oklahoma State University
Stillwater, OK

Vicki Stamback & Judy Rose
Bear Creek Farms
Stillwater, OK

Cheryl Wagner
Wagner's Homestead Farms
Belleville, MI

Kim Wickwire
Olds College
Olds, Alberta

Lulu Wootton
Cape Farm
Marlboro, VT