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GREENHOUSE PRODUCT NEWS

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Gorgeous Gazania



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for commercial growers

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20th
Anniversary

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New Cut Flower Selections: Powerhouse Production

Check out these new cut flowers that will keep your buckets and pockets full.

By Alicain Carlson, John Dole, Ingram McCall, Erin Regan and Judy Laushman

The cut flower industry needs to regularly introduce new cut flower species to keep and increase consumer interest. With all the new introductions growers have a difficult time deciding which ones to grow. That's where we come in; the Association of Specialty Cut Flower Growers Trials tests the latest in cut flower introductions each year. For the seed trials, we had 34 cultivars from nine companies. All cultivars were grown and evaluated at North Carolina State University (NC State), Raleigh, N.C., Zone 7. In addition, more than 40 trialers from around the United States and Canada tested the cultivars and provided evaluations at the end of the year to NC State. Below are the compiled results for 2009's best all-around and most productive cut seed, perennial and woody species and cultivars from NC State and trialers that are sure to keep you busy all season long! Full details, including comments made by trialers, can be found in *The Cut Flower Quarterly*.

Seed Trials

Gomphrena. This prolific, durable flower is grown by many as a great filler flower for bouquets, both fresh and dried, but little discussed by growers. That has changed this year with the introduction of 'Audray Pink' and 'Audray Purple Red' (Takii). Trialers reported harvesting 15 stems from each plant and the stems averaged 17 inches long — quite good for gomphrena. At least one trialer reported getting 26-inch stems. Even the postharvest life appears good with an average vase life over nine days. These gomphrenas scored well enough in the trials that both were nominated for ASCFG Cut Flower of the Year based on market appreciation (average of wholesale, florist, and consumer), likelihood for future production, and ease of cultivation. Note that Takii has changed the name of gomphrena 'Bicolor Rose' to 'Audray Bicolor Rose'. This cultivar did quite well when it was tested in the ASCFG Trials back in 1995.

Zinnia. We have had a number of zinnia cultivars in the trials over the



Gomphrena 'Audray Pink'



Zinnia 'Giant Wine'

years, but zinnia 'Giant Wine' (Benary) stands out as one of the best. People loved the color, productivity (over 12 stems per plant) and long stems, averaging 20 inches, but some reaching 30 inches. We noticed, as did a couple of our fellow trialers, that the burgundy color changes to purple a few days after harvest. The color is still nice, but not as rich as the original burgundy color. 'Giant Wine' was also nominated for the ASCFG as Cut Flower of the Year. The other zinnia in the trials, 'Red Beauty' (Genesis), also performed quite well. A number of trialers loved its bright red color; however, at least one person thought it was too bright — not a bad problem to have! Plants produced an average of 12 stems each and stem length averaged 20 inches.

Snapdragon. Red was the snapdragon color this year: 'Opus III/IV Bright Red' (Goldsmith), 'Opus III/IV Red' (Goldsmith) and 'Potomac Crimson' (Ball). While stem lengths were a bit longer for Opus cultivars, the number of stems harvested was slightly more for 'Potomac'. However, considering the informal nature of this trial, all three cultivars performed rather similar with stem lengths averaging 22 to 26 inches. 'Opus Red' was the overall favorite, scoring higher than the other two cultivars. Here at NCSU we continue to be impressed with the summer performance of snaps in our heat. They slow down during the middle of summer, but still continue to pro-



Sunflower 'Zohar Carlson'

duce stems suitable for small bouquets and then come back strong in the fall.

Sunflower. It would not be an ASCFG cut flower trial without sunflowers and we had three in the trials from Genesis: 'Tapuz', 'Zahav' and 'Zohar'.

Unfortunately, the sunflower market is quite competitive (translation: growers are a bit jaded when it comes to new sunflowers) and it is difficult for a new cultivar to get noticed, especially if it is a classic orange-petaled/brown-centered cultivar. All three of

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the cultivars from Genesis performed quite well, producing stems of at least 30 inches. Chris Wien continued his long running work at Cornell on photoperiod of sunflowers and noted that all three cultivars were sensitive to short days and would flower much earlier if planted in greenhouses or high tunnels early in the spring or late in the fall.

Perennial and Woody Trials

Echinacea. The new echinacea cultivars keep coming and each one seems bolder, brighter or more unusual than the last one. Echinacea 'Tiki Torch' and 'Tomato Soup' (Terra Nova) are knock-your-socks-off orange — a color unheard of in coneflowers not that long ago. Both cultivars were in the trials for the first year, but still produced several harvestable flowers per plant, which ranged in length from 10 to 19 inches. While the plants at NCSU flowered, other trialers did not have flowers in the first year. Three other cultivars were also in the trials: 'Mac n' Cheese', 'Merlot' and 'Purity' (Terra Nova) all did very well and were quite prolific.

In last year's planting, we had two coneflower cultivars, 'Double Decker' and 'Summer Sky' (Grow 'N' Sell), in the trials. Both produced many more flowers and longer stems in the second year. 'Big Sky', a softer orange than 'Tiki Torch', averaged 12.5 stems per plant with stem lengths up to 2 feet. 'Double Decker' is a very different appearing cultivar that produces petals from the top of the cone as well as around the base. The suppliers tell us that the unusual flowers do not start to appear until the plants are well established. Unfortunately, we did not get very many of the unusual flowers and many other trialers did not either. The plants are certainly very hardy and durable as none of the trialers lost any plants from last year. Echinacea 'Big Sky Summer Sky', 'Tiki Torch' and 'Tomato Soup' were nominated as ASCFG Cut Flowers of the Year.

Unfortunately, growers in the center of the United States will have a difficult time growing coneflowers for more than a year or two due to aster yellows phytoplasma (AYP). As Laurie Hodges, University of Nebraska, pointed out, this leafhopper-transmitted disease is especially prevalent in the central states. It can kill plants quickly if they are infected when young; however, the disease tends to be more common later in the season, when plants tend to show stunted stems and abnormal greenish flowers. There is no cure and the best



Top: Echinacea 'Tomato Soup'
Bottom: Echinacea 'Double Decker'

control is to rogue out infected plants as soon as you see them to prevent spread of the disease.

Leucanthemum. Another second year perennial, leucanthemum 'Summer Snowball' (Grow 'N' Sell), continued to impress the trailers and earned it a Cut Flower of the Year nomination. Flowering was prolific, with an average of 29.5 stems per plant; at NCSU we harvested 56



Baptisia 'Purple Smoke'

stems per plant. These plants are hardy as none were lost over the winter and all flowered this year. Stem length averaged 19.7 inches. The flowers are an unassuming double white, but they make great bright fillers and compliment strong colors.

Baptisia. 'Purple Smoke' (Grow 'N' Sell) stood out for us because of its versatility and durability. At NCSU, our plants grew quite strong this year and we harvested 18 flowering stems per plant, which averaged 21 inches long. After harvest very little foliage was left, but the plants rebounded and produced a flush of stems. We did not harvest the stems for foliage, but others have been cutting it as a filler foliage. If not harvesting the flowers (or you couldn't harvest the flowers in time!), tri-alers are also using the pods. What more could you ask for — cut flowers, foliage and pods on a hardy durable plant. If 'Purple Smoke' is like other baptisias, we expect the plants will be long lived. The genus baptisia has a number of species in a broad range of colors: purple, white, cream and yellow. I expect we will see many hybrids in a few years, spanning the

color range, just as we are seeing now with echinacea. One problem with the flowers, however, is that they tend to shatter easily. We have not yet tested the anti-ethylene agents, Ethylbloc and AVB, but they may prevent that problem.

Callicarpa. *Callicarpa americana* 'Welsh's Pink' was productive in its first year and produced even more stems in the second year. The pink color of the berries was quite attractive, but the berries tended to fade fast in the field. You may have to cut early before the berries are all well colored and tip the stems to remove the green berries at the tips.

Thank you to all of the evaluators who returned their trial reports; the seed companies for providing such great cultivars; and the perennial and woody plant producers for providing the plant materials; and the growers for producing the plants, collecting data and submitting trial reports. We would also like to thank Emma Locke, Erin Moody, Erin Regan, Qianni Dong, Michelle McElhannon, Diane Mays, Brad Holland and Tim Ketchie for assisting with the NCSU trials.

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