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The **Cut Flower**

Q U A R T E R L Y

Association of Specialty Cut Flower Growers Inc.

for growers of specialty field and greenhouse cuts

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The Cut Flower

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FROM *the President*

Dave Dowling

It's a beautiful, sunny morning in late May as I write this column in Webster, New York. You may be wondering, "Webster, New York? I thought Dave lived in Maryland." Well I do live in Maryland. I always have. I'm in Webster to visit my friend Susie who retired last summer after 30 years of teaching in Maryland. This trip was in the works last summer when Susie moved to New York to share her new house with her mom, Edna. She moved back to the Rochester area to a new home in a retirement community, complete with a yard of nothing but grass. There were no shrubs, no trees, no perennials— nothing but grass from the house to the street. My partner Chuck and I offered to landscape her new property last summer. But as summer turned to fall, we realized we couldn't make the time to travel to upstate New York to get the work done.

This spring we checked our calendars and came up with three days at the end of May that would become "Garden Time at Susie's." Chuck and I flew up Saturday after the farmers' markets were finished and the flowers were picked for Sunday's market. (The Sunday market was understaffed, but capable employees kept the line of customers under control.) We boarded the plane with our usual carry-on bags as well as an oversized bouquet of Laguna lilies for our hosts. We spent Sunday shopping at some of the nicest garden centers I've ever visited. The plants were plentiful and nearly perfect, there was always a knowledgeable employee or two within sight, and those employees were eager to help find plants or answer questions. We had dinner Sunday night at a restaurant overlooking the Erie Canal with Susie, and her mom and Aunt Jane, both ladies in their 80's. It was fun to hear Aunt Jane lecture Edna to not use the word "old" when talking about themselves. As in 85 years old. After dinner, as we gave Aunt Jane a huge bouquet of Laguna lilies to take home, her eyes sparkled with delight.

Monday was spent planting the more than 160 trees, shrubs and perennials we purchased the day before. Our friend Susie isn't a gardener. She likes the look of a nice garden, but doesn't enjoy tinkering in the garden pruning, deadheading or watering. The plants we included were all low maintenance, and easy to care for. We even included soaker hoses and timers to ensure the garden would be the talk of the neighborhood long after we were gone. After another half day of planting, the gardens were finished and we headed to Rochester's Lilac Park to research possible varieties to grow.

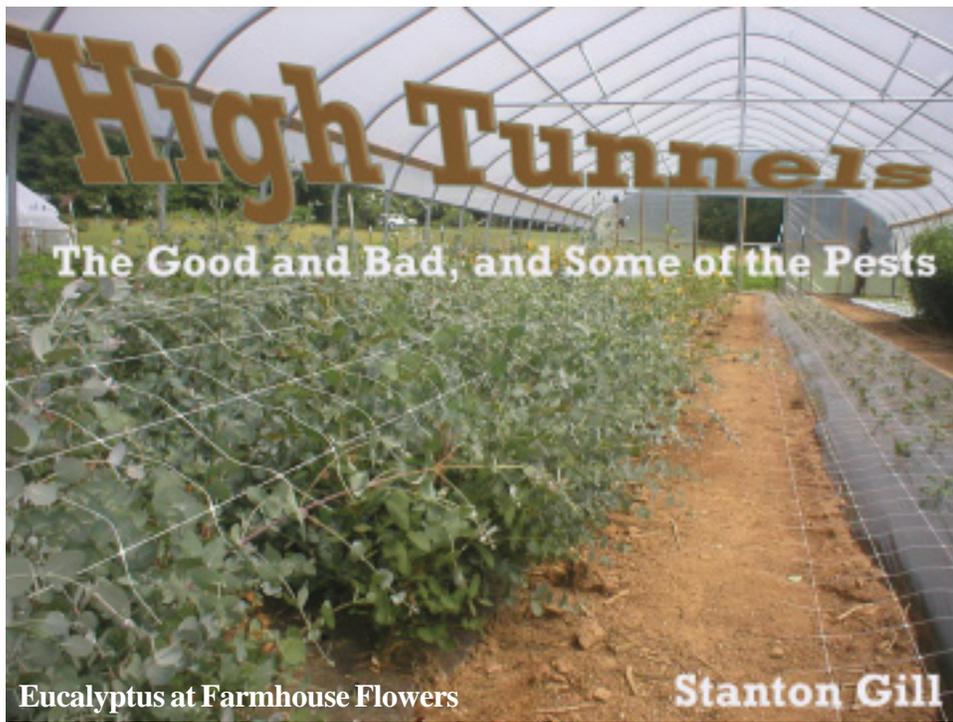
So, you may ask, what's this all got to do with the ASCFG? Well, here are a few things I was reminded of during my trip:

- Make time to spend with friends and family. Don't always work seven days a week. Trust your employees to do their job. You can always be just a phone call away.
- Brighten someone's day with flowers. Whether for someone you know, or a child at the farmers' market, surprise someone with flowers. If you have extra flowers, give your customers a few extra stems. They'll remember your generosity.
- Give your customers what they want. Quality products, helpful service and a smile are things that can help your company thrive. Enjoy your work, or get a different job.
- Always be on the lookout for new things to grow. New offerings may keep customers excited about what you grow. You never know where you'll find the next flower that will help pay your bills. (We all know, the ASCFG is a great place to start.)
- Don't use "old" to describe people. You're an experienced flower grower, he was your former boss, she is a senior lady.
- Follow through on your promises. If you offer to help someone, follow through. If you tell a customer you'll have a flower on a certain date, do your best to have it for them. If you've said in the past that you'll make it to the ASCFG Conference "next year," then I guess I'll see you in Raleigh.



Recommended Summer Reading
Call the ASCFG to take advantage of your member discount!

The banner features five book covers: 'Specialty Cut Flowers', 'Floriculture: Principles and Species', 'Pests & Diseases of Herbaceous Perennials', 'Preserving Flowers & Foliage: Glycols & Dyes', and 'The Flower Farmer'. An illustration of a person reading a book is in the top right corner.



Growers from Maryland, New York, Pennsylvania and Virginia exchanged information on high tunnel production at a recent seminar in Maryland. If you are not presently growing in high tunnels you should look at what the benefits would be to your operation. I thought I would pass along some of the information generated during our meeting.

You can construct a good quality high tunnel for around \$1.50 - \$2.00/sq. ft. of production area. It does not take long to pay for the tunnel if you have the market. This is a reasonable investment if you want to serve both early and late markets, and produce a better quality product in the rest of the season. No doubt about it, you can generally generate more cash, compared to summer sales, from cut flowers in early spring or in October through December. Several growers attending the seminar commented that they produce lisianthus under high tunnels for better quality (especially dark purple cultivars) and longer stem length. Most are growing the lisianthus in raised beds in the high tunnel.

Day-neutral sunflowers do well in high tunnels but you need to interrupt the night with 2 hours of incandescent lighting to produce longer stems and better flower yield. Snapdragons perform very well in high tunnels as long as you have a good

netting system that holds stems straight to prevent them bending. Dave Dowling was growing eucalyptus in high tunnels and it appeared to fare well in this protected environment. Plants growing outdoors had heavy winter injury while the plants growing in the high tunnel were vigorous and looking good at the end of May.

One cut flower that does not seem to benefit much from growing in a high tunnel is sweet William. Some of the southern Maryland growers who tried both field and high tunnel production of sweet Williams said that both came into cutting stage about the same time, without detectable differences.

A question that came up in the seminar is whether you should use single or double layers of plastic film over the high tunnel structure. Most growers agree that having two layers is preferable and will keep the plastic from beating against the metal structure and fatiguing the plastic. The layers can be inflated using a small squirrel cage blower. When you cover a high tunnel with plastic, pick a warm day with no wind. Stretching the plastic when it is warm makes a tighter fit when it cools down and the plastic shrinks. Several growers reported that pulling the plastic when the metal bars are wet is difficult so pull it when the metal is dry to get the plastic to slide over the

structure. Most growers were reporting that they like using wiggle wire with u-channel to anchor the plastic to the end bar and the baseboard of the structure.

Quality of Construction

One point that we did hear from the experienced high tunnel cut flower producers in attendance was that new growers considering trying high tunnels should not use cheaply constructed pipe frames and single layers of plastic covering. The poor quality pipe high tunnels have a reputation for costly repair after major storms. It is highly recommended that you select a strongly constructed high tunnel frame. Having 4' high straight sidewalls improves the usable space and makes operation of equipment within the greenhouse easier.

Several people tried to cut costs using untreated ultraviolet (UV) resistant plastic to cover their greenhouse. A construction grade, untreated plastic holds up several weeks to a couple of months before it falls completely apart. The inner layer of plastic can be purchased with a coating that keeps the inner layer from dripping condensation onto your plants. This is a worthwhile feature to consider when buying the inner layer of plastic cover. Use greenhouse quality UV-blocking/resistant plastic for your coverings which can be obtained from greenhouse supply companies. You can usually talk with manufacturer representative and see samples at nursery trade shows such as OFA in Columbus, Ohio in July or at the MANTS show, held in early January in Baltimore.

Tunnel Bugs

The question that comes up is whether there are fewer or more bugs in high tunnel production. Back in 2004 David Dowling noted that zinnias growing in his high tunnels had practically no Japanese beetle injury while the same cultivars of zinnias growing just outside of the greenhouse had lots of damage. We set up an evaluation trial of injury to zinnias grown in fields compared to high tunnels. In 2005 and 2006 we evaluated damage to foliage and flowers of field-

grown 'Blue Point' zinnias compared to the same selections grown in a high tunnel. We found Japanese beetles prefer to feed on the plants in the field, causing 50-70 % injury levels to foliage while the zinnias in the high tunnels had less than 5% injury to foliage.

One interesting thing we found is that field-grown zinnias had a high incidence of bacterial leaf spot, while those in the high tunnel were relatively clean of the disease. Keeping the water off the foliage makes a big difference in dealing with bacterial leaf spot, which is spread by free water on foliage.

What about other pests? Are they in greater or lesser abundance in high tunnels?

One insect group that thrives in the protected environment of high tunnels is aphids. If you grow snapdragons and sunflowers in high tunnels you will probably have to control aphids. Monitor regularly and when a hot spot is found treat the infestation. Materials such as azadirachtin (Neem), imidacloprid (Marathon), acephate (Orthene, bifenthrin (Talstar), and TriStar can be applied.

If you have thrips-prone cut flowers such as gerbera or lisianthus, high tunnels will not protect you from the onslaught. Materials to control thrips including spinosad (Conserve), Novaluron (Pedestal), and azadirachtin (Neem). Two-spotted spider mite loves the warm conditions in high tunnels and if you are growing crocosmia you can almost guarantee that you will have to deal with spider mites. Abamectin (Avid), chlorfenapyr (Pylon), hexythiazox (Hexygon), horticultural oil, and pyridaben (Sanmite) can be used in high tunnels for mite control.

Disease

Foliar diseases are reduced in high tunnels if you use trickle irrigation and keep the foliage dry. The one disease that will be a problem in high tunnels is powdery mildew. We generally see this on dahlias, sunflowers and monarda grown in high tunnels. Hydrogen dioxide

(ZeroTol), horticultural oils, and neem oil can be applied to foliage to deal with this disease.

Production Notes

Tulip We planted in October, using 200 bulbs from 10 varieties. Bulbs were planted 3" on center. Half were planted 6" deep and half 8" deep to stagger bloom time. Applied Treflan pre-emergent in October to prevent weed problems. The deeper planted (8") bulbs flowered 5 days later than 6" depth. Stems on 8" deep tulips were longer. Sprouted a week after high tunnel was moved over them and in bloom in 3-4 weeks. Harvested over a 5-week period (early and late varieties) including Easter market.

Peony Planted in October, two-year-old plants under tunnels produced blooms 2 weeks before field peonies.

Phlox Phlox under high tunnels bloomed same time as field-grown. 'David' planted in fall in tunnels continued production into late fall.

Lisianthus Planted in tunnel mid-April, harvested in mid-June. Quality was excellent under high tunnel, much better than field-grown plants.



Salvia leucantha Native to warm areas of the world. Short-day flowering initiating plant. Easily rooted by terminal cuttings taken before flowers buds are formed. Roots well in sweat tents rather than intermittent mist. Spacing can be as close as 15" or as wide as 3'. Wider spacing results in more stems per plant.

Harvested in mid-September to late November. Plants are woody at the base but secondary flower stems are slightly brittle. At Farmhouse Flowers the plants branch and bloom for 8-10 weeks in the fall.

Eucalyptus Eucalyptus grows best in the heat of the summer. The high tunnel keeps temperature high enough that harvest is extended into November. Harvest summer through late November. Plants need some winter protection to survive.

Sunflower Pick a sunflower that is listed as day neutral. 'Sunbright Supreme' works well. Sequence plant sunflowers, beginning in late summer, starting a new set every 7-14 days for continuous supply. Late summer-planted flower heads tend to be one half the size of sunflowers grown in high tunnels in the spring. In high tunnels, production of sunflowers should continue until the end of November.

Cosmos Start from seed. Production continues through late fall.

Dahlias 'Karma' dahlias were planted in early June. Harvest started in mid-August and will continue through the end of November.

Ageratum 'Blue Horizon' is well suited for high tunnel production, which will extend harvest through November.

Celosia Light frost kills celosia. Plant in late spring, harvest in summer. High tunnels will extend harvest into fall.

Visit other growers using high tunnels and see what they found works and what does not. If you are in Maryland and wish to visit some growers with high tunnels send me an e-mail at Sgill@umd.edu or call (410) 868-9400.

Stanton Gill is Regional Specialist in IPM for Greenhouses and Nurseries, University of Maryland Cooperative Extension and Professor with the Landscape Technology Program, Montgomery College.

GROWER Profile

Megan Bame

Deke and Molly Tietze Glenwood Farm

Deke and Molly Tietze weren't exactly planning on starting a cut flower farm, but when the opportunity presented itself they didn't want to turn it down. Though seven years later, they still have their "day jobs", they continue to build their selection of woody cuts and look forward to "retiring" to a new career as flower farmers.

Deke and Molly are Iowa State University graduates, both with degrees in animal science. Their horticultural experience was gleaned largely from landscaping their own yard and Molly's acquired knowledge from working at a garden center. Since they started growing cut flowers seven years ago, they've attended four or five ASCFG Conferences, absorbing information from other growers and locating resources. Having grown up on the West Coast, they returned to settle in Hillsboro, Oregon, after college. In 1979, they bought their 60-acre farm, leasing much of it out over the years for various agricultural uses.

From 1988 to 2006, Molly worked for a local garden center in various departments including the wholesale nursery. In 2000, the garden center was planning to dump approximately 1,000 3-gallon hydrangeas. Instead of trash, Molly saw potential. The Tietzes were already leasing 20 acres of irrigated land for nursery stock. They located the next-flattest area, tapped into the well, and established a new field for hydrangea production.

The first year the hydrangeas were in the ground, they had no shade and in Molly's words, "they fried." They now have a shade system in place and while the weather can be a concern, they don't consider it a tremendous threat. They expect wet winters with frost as a possibility, but unlikely.

The 2002 season brought in the first income from the hydrangeas. Of the initial planting, most of the hydrangeas were various macros, a few were Pee Gees, and some were lace caps that were eventually rogued out. They've added

'Limelight', 'Annabelle' and others that have desirable cut characteristics.

In addition to hydrangeas, the Tietzes have established production of *Buddleia*, *Ilex verticillata*, red twig, pussy willow, lilac, caryopteris, lavender, vitex, callicarpa, bittersweet and symphoricarpos. They often add plant material based on what they can find in surplus at the nursery that would make a suitable cut flower and can be bought at a reasonable price. It's important to note that it requires a substantial investment to buy established plants, even rooted liners, compared to buying seeds. Granted,

the smaller plant they buy, the less expensive it is, but also the longer it takes for it to mature to a harvest stage.

While they generally rely on the hardiness zone assigned to a plant to assess its climate suitability, they test "borderline" plants in their yard before investing in enough for production. Even with seven acres currently in production and 15 acres to be transitioned from nursery stock to cut flowers in the next 5 to 10 years, having enough product for wholesale has been a challenge.

The Tietzes transport their product to the wholesale markets in Portland and Salem. Molly recalls that just getting a foot in the door at the wholesale market was a major challenge. Though it took two years, they've now developed a relationship with the buyer and hope the experience will help them break into new markets. They recognize the need to find another market to minimize the risk of having unsold product on hand.

Retail markets, such as farmers' markets, don't seem to hold much promise. In Molly's experience, it is difficult for single stems or even woody bunches to compete with the mixed bouquets most often found at the market. Molly reflects, "Woodies are just now coming into their own. We've got to keep pushing them and familiarizing the wholesalers with these unique products."



Another market-related challenge is determining the value of their products. With woodies making up only a small part of the market, there are few comparisons of similar product. Bunches often consist of 5 stems, but there is some variability. This past year was the first harvest of lavender. The slender stems were bunched by the “handful,” and sold fresh.

Even with the relatively limited availability of woody stems in the marketplace, the Tietzes realize that they are competing with larger businesses who can supply larger numbers, and growers from surrounding states who can supply product year-round. Their goal as they continue to build the business is to harvest and sell fresh product year round.

They currently have a 12' x 12' cooler, but are already considering the need for another. Their goal is to harvest everything at the optimum time, but they are sometimes limited by cooler space. Harvest from 7 acres may seem like a daunting task, but the Tietzes manage it by using two Mule-type all-terrain vehicles hauling buckets in the beds. If they must harvest during the hottest part of the day, they immediately take the plants to the cooler, returning to sort and bunch them later in the day.

With full-time jobs and growing acreage, it may come as a surprise that Deke and Molly have only one seasonal employee.

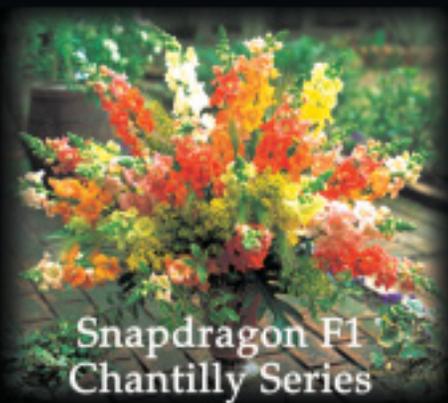
“Seasonal,” may be a bit of a stretch, though, he works elsewhere making wreaths in November and December then works at a blueberry farm in May and June. He works at Glenwood Farms on an “as needed” basis the rest of the year. Their grown children are occasionally recruited to help with field work having pitched in as teens when they needed money for one thing or another.

Just last year Molly left her job at the garden center for a three-quarter-time job at a credit union. The new schedule gives her mornings off and eliminates the time crunch of the 10-week shipping window at the nursery that often called for 60-hour weeks. With the more regular schedule, she can better manage the cut flower farm and spend some time propagating young plants in her hobby greenhouse.

It may be a few more years to retirement, but the Tietzes are ahead of the game with established plants, a secure market and room to grow. These flower farmers are well on their way to a successful and fulfilling second career.

*Megan Bame is a free-lance writer in
Salisbury, South Carolina.
Contact her at meganbame@yahoo.com*

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CULTURE Profile

Frankie Fanelli and John Dole

Coleus as Cut Foliage

This project was supported by the ASCFG Research Foundation. The authors would like to thank Diane Mays and Tina Krug for assisting with growing the coleus and the postharvest studies.

How many of us remember coleus in our grandmother's garden? Every fall grandmother would take cutting from the plants, usually small-leaved forms with red on the foliage, and overwinter them in a jar of water on the windowsill. The next spring the rooted cuttings would be planted in a pot and placed outdoors to start the cycle over again. Today, the coleus has been reborn as a major cutting-propagated bedding plant. The many types lurking in various gardens have been rediscovered and supplemented with hundreds of new cultivars from breeders. The result is a wonderful array of colors, leaf shapes and sizes and growth habits.

Specialty cut flower growers, constantly searching for new and different cuts to offer their customers, have long eyed coleus. It offers a great diversity of color, leaf sizes, and leaf shapes. Coleus has the advantage of not only serving as a filler foliage but also adds color to the bouquets or arrangements. Trials by growers indicate that some coleus cultivars have problems with hydrating initially, but generally have a long enough vase life. In addition, while there are hundreds of coleus cultivars available, many are low growing, slow growing or heavily branched making them unsuitable for cut flower production. However, several cultivars have long stems, are relatively rapidly growing, and have attractive foliage colors. The goal of our study was to determine which cultivars would make acceptable cut foliages.

Cultivars

Oklahoma State University grew 25 cultivars and North Carolina State University grew 13 cultivars. All were sun coleus that produce the best colors in full sun outdoors. However, they could be grown with part shade outdoors. The North Carolina cultivars selected were ones that have been grown for landscape use in the Raleigh area for several years. One of the cultivars we tested was actually *Perilla*, a genus closely related to coleus, which is in the genus *Solenostemon*. *Perilla* is often mistaken for coleus but is available in only a few colors, while coleus colors seem to span the rainbow. *Perilla* is grown and used in a similar fashion to coleus.



Production—OSU: We grew 25 cultivars in 6-inch pots, using BM1 media, with one plant per pot. Pots were planted on August 30 using rooted plugs and plants were pinched the same day. Plants were grown in a polycarbonate-covered greenhouse set at 62F night temperature/75F day with automatic drip tube irrigation. Plants were fertigated with 150 ppm nitrogen from 21-5-20. The stems were harvested on December 11, 2006. We only recorded the length of stems longer than 12 inches.

Production—NCSU: We grew 13 cultivars in heavy plastic flats (14 x 20.5 inches, 4 inches deep) with eight plants per flat. Flats were planted on June 16 using rooted plugs and plants were pinched the same day. Plants were grown in a plastic-covered greenhouse set at 65F night temperature/75F day with automatic drip tube irrigation. Plants were fertigated with 150 ppm nitrogen from 20-10-20. Twelve of the cultivars were harvested on July 25 and 26. The cultivar 'Glennis' was much slower growing than the other cultivars and was harvested on October 2. We only recorded the length of stems longer than 12 inches.

Postharvest—OSU: After harvest the stems were immediately placed in water, carried to the headhouse and placed in Floralife overnight. Stems were then packed into floral boxes and shipped overnight to NSCU. After receipt, stems were unpacked and placed in vases with water.

Postharvest—NCSU: After harvest the stems were recut to 12 inches and placed in the following treatments:

1. Directly into vases with tap water.
2. Directly into vases with tap plus Chrysal Professional #2.
3. Directly into vases with Floralife Professional.
4. Placed in buckets of tap water for 7 days at 68F, then in vases with tap water.
5. Placed in buckets of tap water for 7 days at 41F, then in vases with tap water.
6. Placed in buckets of tap water overnight, then placed dry in floral boxes for 24 hours, after which they were recut and placed in vases with tap water.
7. Placed in buckets of tap water and treated with Ethylbloc (1-MCP) for 4 hours, then stored for 7 days at 68F (for only three cultivars)

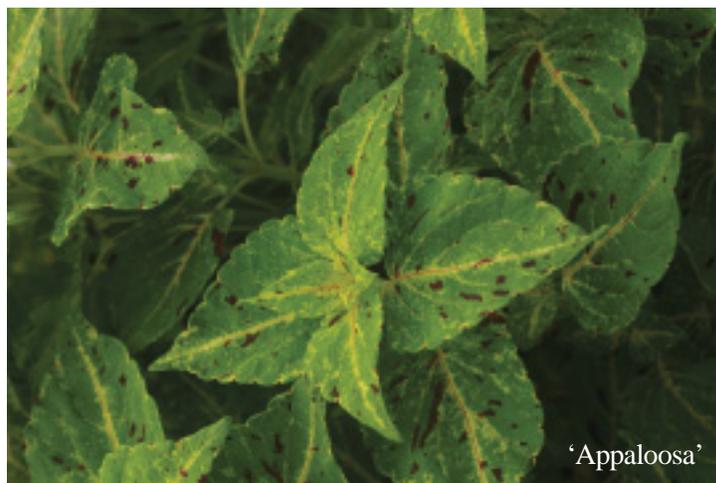
After treatment, stems were placed in vases at 68±4F under approximately 200 fc light for 12 hrs/day. Stems were terminated primarily due to wilting; stems wilted either immediately after harvest, or after being stored, and never rehydrated.

Production results—OSU: Plants took much longer to produce harvestable stems, over 3 months, in the cool fall and early winter conditions at OSU, than at NC State in the summer. This is not surprising considering that coleus are known to grow best in warm weather and certainly, the best time to produce them as cuts would be from spring to early fall. In addition, since coleus are facultative short-day plants, the plants tended to flower quickly, reducing stem length. We would expect longer stems and more of them in the summer. ‘Oompah’ produced the longest average stem length, 20 inches, but ‘Oxblood’, ‘Purpleosity’, ‘Religious Rudibaga’, ‘Roaring Fire’, ‘Swinging Linda’ and ‘Yin and Yang’ produced stems at least 18 inches long (Table 1). The stem length for the rest of the cultivars ranged from 13.2 to 17.8 inches long. No pest problems occurred.

Plants produced 2.2 to 7.6 stems per plant (Table 1). Only stems at least 12 inches long were harvested. The cultivars that produced the greatest number of long stems were ‘Swinging Linda’ and ‘Yin and Yang’.

Production results—NCSU: The plants were easy to grow in the deep flats. Using automatic irrigation we had relatively few problems, except for mealybugs (coleus is one of their favorites). While we did not use netting, the crop could have benefited from it. The stems tended to be weak and by the time they reached harvestable length, the stems started to lean over and were easily broken. The coleus had fairly brittle stems, which tended to break during harvest if we were not careful.

Most of the cultivars grew fast, producing 18-inch or longer stems in 40 days from planting a rooted cutting in the summer (Table 2). ‘Appaloosa’ produced the longest average stem length, 23 inches, but many individual stems were much longer.



The shortest cultivar was ‘Glennis’, which was an exceptionally slow grower. We did not harvest it at the same time as the other cultivars because none of the stems was over 12 inches long at the time. However, ‘Glennis’ eventually produced stems averaging 20 inches. The stem length for the rest of the cultivars ranged from 17 to 22 inches long.

Postharvest—OSU: All stems wilted during harvest. Most rehydrated after placement in the Floralife solution, except for ‘Antique’, ‘Blusher’, ‘Mississippi Summer’, ‘Purpleosity’ and ‘Saturn’ (Table 1). All of these cultivars were still wilted after 12 hours in the Floralife solution. In addition, some of the cultivars that rehydrated after harvest showed some wilting 12 hours later. After being shipped dry to NC State, none of the stems rehydrated.

Postharvest—NCSU: The use of floral preservatives decreased the vase life of most cultivars compared with tap water only (Table 3). Even the treatments where the floral preservatives produced a longer vase life, the effect was only marginal. In those treatments most stems did not rehydrate but enough few stems rehydrated to increase the average vase life. Many stems of most cultivars rooted when placed in tap water; however, few stems rooted in the floral preservatives (Table 4). Those stems that did root in the preservative, generally did so further up the stem as the end of the stem decayed.

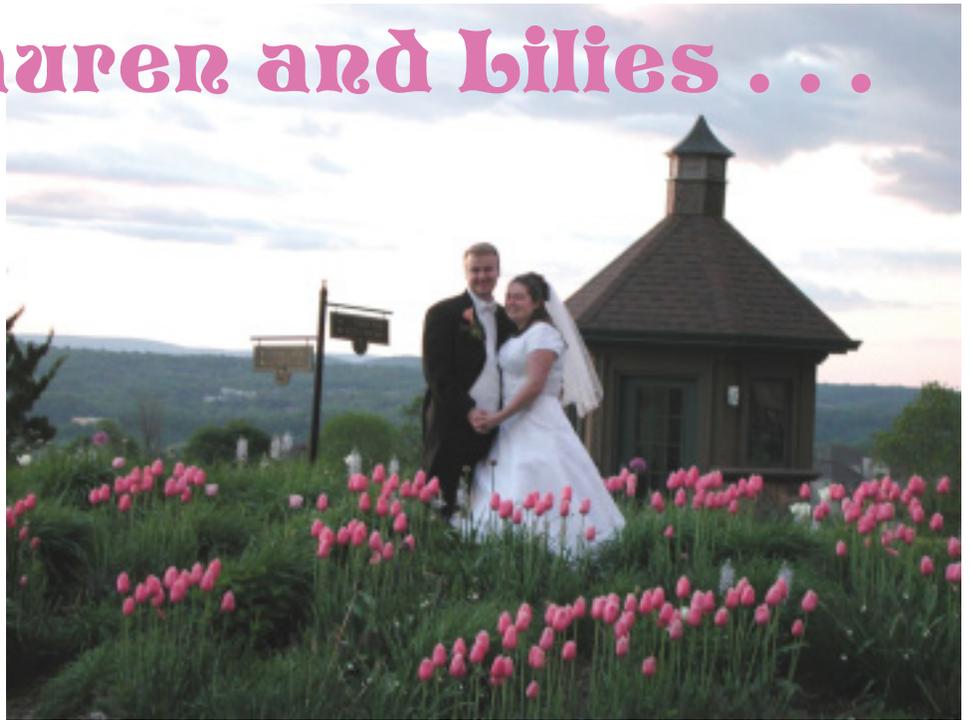
Stems did not tolerate 41F cold storage at all and most were either dead at the end of storage or never rehydrated (Table 3). We tested storing the stems in buckets at 68F to see if we could start the rooting process while storing the stems in bulk. The stems could then be sold by the grower and would last a long time for the customer. Great theory. Too bad it didn’t work. Surprisingly, stems of most cultivars did not tolerate being stored in buckets of tap water at 68F either. However, stems placed directly in vases of tap water at the same temperature often had a long vase life and rooted. While the buckets of stems were stored in a lighted cooler, the amount of light reaching each stem was a lot less than the amount of light reaching each

continued on page 13

Jeffrey, Lauren and Lilies . . .

a fairy tale

by Dick den Breejen



He grew up climbing up and tumbling over boxes of flower bulbs, learned to count one flower bulb at a time, earned his pocket money packing and planting flower bulbs, and now spends his days learning about new varieties, tracking shipments and checking on the progress of bulbs in his customers' greenhouses.

Needless to say, nobody was surprised when Ednie Flower Bulb's vice-president Jeffrey den Breejen proposed to his girlfriend in the Netherlands...in the middle of a field of bright yellow tulips. And when Jeff and Lauren got married this past May, they were surrounded by family, friends, and, of course flowers—most of them bulb flowers.

The preparations began last fall, with Jeffrey and Lauren (yes, he's taught her well!) planting 'Menton' tulips at the bride's house, the church, in the gardens of the country club they'd chosen for their reception, and in crates in Ednie Flower Bulb's coolers: 15,000 in all. 1,000 of the Asiatic Lily Cannes went to Crickets and Crows in Delaware for forcing; 1,200 Oriental lily 'Laguna', white and peach

ranunculus made their way to Farmhouse Flowers in Maryland and David Fischer in Maryland promised to grow *Calla aethiopica* for the wedding.

A week before the wedding, the bulbs returned as flowers just about ready to bloom, joining the 'Salome' daffodils and 'White Parrot' tulips forced at home in NJ and the callas, iris, freesias and ornithogalum flown in from the Netherlands and Israel. Ednie Flower Bulb's warehouse floors and coolers were no longer visible under the colorful mass of cut flowers, but acquiring them all was only the first step.

Fortunately, there was a professional on the premises who knew where to start.

Business contacts had resulted in Lucas Jansen of Floweracademy.nl flying in from the Netherlands to help with the preparations. Lucas is an expert on cut flowers and arranging who teaches courses around the world. This time he got to do the arranging himself, assisted by a local horticulture student, Kristen Prommel.

In anticipation of the enormous task awaiting him, he had arranged for a number of materials to be sent from the Netherlands with a shipment of bulbs. The cone-shaped flower holders were fastened to four by fours in buckets of cement, forming the framework needed for the large arrangements. Bulb baskets,





used many decades ago when gathering bulbs from the field, hid the cement foundations and completed the arrangements. Rectangular and wreath-shaped oasis with hooks were needed for the arrangements hung on the church sign, on the horse-drawn coach, on light posts leading up to the country club, in the main entrance of the country club, and on the arbor in the gardens.

Sixteen-inch tall glass cylinders (6 inch diam.) supported the table flower arrangements which extended upward, allowing guests to see each other easily. Each centerpiece featured a different flower in the wedding colors of peach, dark red or white. Guests found their name cards attached to a bud vase containing one stem of their table's flower; searching for one's table meant taking a good look at the centerpiece!

One of Lucas Jansen's last tasks was making the bouquets. Lauren had her heart set on 'Mozart' callas, and although the thick stems didn't make Lucas' job easy, the result was worthwhile! The maid of honor's bouquet consisted of 'Cannes' lilies and albo maculata callas, and the bridesmaids carried 'Cannes' with 'Pallade' tulips. Jeffrey wore a 'Mozart' corsage and each of the girls was escorted by a groomsman whose corsage matched her bouquet.

As they left the church, Jeffrey and Lauren were showered with 'Menton' tulip petals before heading off to take pictures in the country club's 'Menton'-filled gardens. Later they entered the banquet room through an arch of flowers and ended their reception by cutting the cake...complete with flowers.

In the words of one guest, "It was a fairy tale. And whenever people think back on this wedding, they'll always remember the flowers!"



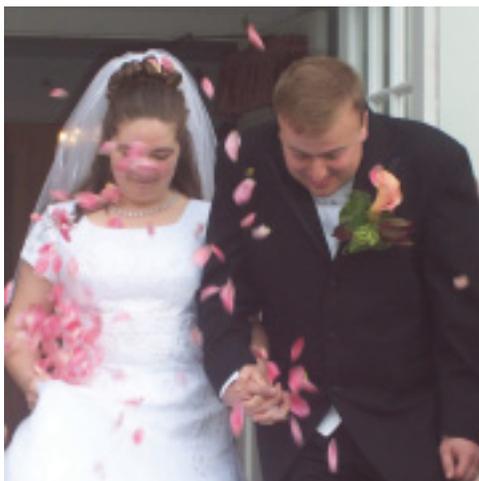
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PICTURES TAKEN 7/9/03



stem placed directly into the vase. If we had tried to store the cut stems in clear buckets or large vases we might have had different results. Ethylbloc (MCP) treatment had no apparent effect on stored cut stems; however, we tested it on only three cultivars.

Coleus stems did not tolerate dry storage, even though the stems were held dry for only 24 hours (Table 3). The exception was ‘Black Star’ which was one of the durable cultivars, overall.

Cultivars

Many of the cultivars at both OSU and NCSU produced acceptable results. The most productive cultivars at OSU were ‘Swinging Linda’ and ‘Yin and Yang’, both of which also rehydrated after harvest and did not wilt later. At NCSU the best overall cultivar was ‘Freckles’, as it produced over 18 stems/plant, which averaged 20 inches long, and lasted over 19 days in water. ‘Black Star’ and ‘Magilla’ perilla had the longest vase life and were the most durable but were not as productive as many of the other cultivars. ‘Appaloosa’ and ‘Saturn’ produced a lot of long stems but the postharvest life as not as good.

We would be remiss if we didn’t make a comment about coleus names. With the proliferation of cultivars, especially from small producers, folks have been very creative with the names. ‘Dappled Apple and ‘Dipt in Wine’ are delectable, not a word we normally get to use with ornamentals. While ‘Green Meanie’ and ‘Religious Rudibaga’ don’t tell us much about the color, they definitely are fun to say and will make great conversations with your customers when you sell the stems. ‘Smallwoods Drive’ might be a bit pedestrian but ‘Swinging Linda’ sure hits the mark.

Conclusion

Too much potential to give up on. The colors were great and the plants easy to grow and productive. The best time to grow coleus is during warm weather and long days from spring to fall. Winter production would slow growth and the

short days would induce flowering, limiting stem length.

The main problem continues to be postharvest. Most stems wilt very easily and do not rehydrate well. Lynn Byczynski recently published an article in *Growing for Market* [Could Coleus become a popular cut?, 2006, 15(12):6-7] detailing her trials with cut coleus. She came to the same conclusions as we did: coleus has serious postharvest issues but is worth the effort. As with our work she noted that some cut coleus stems wilted easily, while others didn’t and that many stems rooted within a week.

The key to success may be to rapidly harvest the stems, early in morning, directly into buckets of water. We

harvested and measured our stems, resulting in a long harvest time, which allowed the stems to dehydrate. We had too many stems to harvest all at once, and so we harvested more than one day. We noticed that the stems harvested on cool, cloudy days were more likely to rehydrate. Another possibility is that the plants were too soft from being grown in a greenhouse with constant moisture. Postharvest performance might have been better if the plants had been grown outdoors (which would shorten stems, unfortunately) or had been grown drier (which would also shorten stems). Regardless, we hope growers will continue to experiment with this interesting group of plants and let us know what works for them.

Table 1. Stem number and length of 25 cultivars harvested at Oklahoma State University on December 11. Plants were planted August 30.

Cultivar	# of Stems per pot	Stem Length (inches)	Rehydrated after harvest	Wilted after 12 hours
Amazon	3.4	15.3	Yes	None
Antique	5.6	16.5	No	All
Aurora	4.5	14.6	Yes	None
Blusher	4.2	15.1	No	All
Copper Glow	2.2	13.5	Yes	None
Dappled Apple	5.6	16.9	Yes	Some
Dawn	6.2	17.8	Yes	Some
Dipt in Wine	3.6	16.4	Yes	None
Fusion	3.4	13.2	Yes	Some
Gold Bound	6.2	16.5	Yes	All
Green Meanie	7.6	16.3	Yes	Some
Grape Expectations	7.0	16.2	Yes	None
Lavender Lace	5.4	16.0	Yes	None
Mississippi Summer	4.6	17.1	No	All
Oompah	5.0	20.0	Yes	Some
Oxblood	2.6	18.5	Yes	None
Purpleosity	5.2	19.3	No	All
Religious Rudibaga	3.4	18.3	Yes	Some
Roaring Fire	5.6	18.5	Yes	None
Saturn	3.6	15.8	No	All
Smallwoods Drive	2.8	13.6	Yes	None
Swinging Linda	7.2	18.0	Yes	None
The Line	3.0	14.1	Yes	Some
Trailing Queen	2.4	14.4	Yes	Some
Yin and Yang	7.4	18.8	Yes	None
Significance	-	0.0001	-	-
LSD _{0.05}	-	2.3	-	-

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Table 2. Stem number and length of 13 cultivars harvested on July 25 and 26. Glennis was a slow growing cultivar and was not ready for harvest with the other cultivars and was harvested October 2. All cultivars were planted June 16.

Cultivar	Stems per crate (no.)	Stems per plant (no.)	Stem Length (inches)
<u>Coleus</u>			
Appaloosa	140	17.5	23 a
Black Star	89	11.1	21 b
Defiance	114	14.3	16 g
Freckles	149	18.6	22 a
Giant Fantasy	94	11.8	18 ef
Glennis	139	17.4	20 c
Kingwood Torch	93	11.6	18 de
Lord Voldemort	121	15.1	21 b
Pineapple Prince	132	17.3	17 f
Pineapple Red	106	13.3	19 cd
Rustic Orange	99	12.4	18 ef
Saturn	150	18.8	21 b
<u>Perilla</u>			
'Magilla'	108	13.5	22 a
Significance	-	-	0.0001

Means followed by the same letter are not significantly different.

Table 3. Vase life of 13 cultivars of coleus and perilla. Stems were harvested, sorted, recut and placed directly into 1) tap water, 2) Chrysal Professional #2, or 3) Floralife Professional, stored in buckets of tap water for 7 days at 4) 68°F or 5) 41°F, 6) placed in buckets of tap water overnight, then placed dry in floral boxes for 24 hours, or 7) placed in buckets of tap water and treated with Ethylbloc (1-MCP) for 4 hours, then stored for 7 days at 68°F (for only three cultivars).

	Vase Solution			Stored in tap water at:		Hydrated then	
	Tap water	Chrysal	Floralife	68	41	overnight dry	Ethylbloc
<u>Coleus</u>							
Appaloosa	8.7a	4.5b	0.1c	7.8a	0	1.1bc	-
Black Star	23.5a	23.2a	12.6b	19.0a	0	10.0a	19.7a
Defiance	6.9a	4.4b	0.3c	7.5a	0	1.6bc	-
Freckles	19.7a	19.0a	9.6bc	13.0b	0	4.2b	-
Giant Fantasy	14.0a	14.0a	4.4c	8.9b	0	0.9bc	-
Glennis	1.0c	3.8bc	3.4c	13.0a	0	0c	-
Kingwood Torch	14.0a	10.8b	3.1d	8.1c	0	4.5b	-
Lord Voldemort	6.3b	1.6c	9.0a	0	0c	9.0a	-
Pineapple Red	9.2a	5.5b	0.2d	7.7ab	0	0c	-
Pineapple Prince	1.0d	5.8b	1.0d	10.3a	0	0c	-
Rustic Orange	6.8b	0.2d	0d	14.0a	0	1.4bc	-
Saturn	1.0d	6.9b	1.0d	9.0a	0	0c	-
<u>Perilla</u>							
'Magilla'	25.0a	23.8a	4.6b	25.0a	0	5.0b	21.9a
Significance	0.0001	0.0001	0.0001	0.0001	NS	0.0001	0.0001

Means followed by the same letter are not significantly different.

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Table 4. Status of the majority of stems in each treatment at the time of termination. In most of the treatments, some of the stems were terminated for reasons other than indicated. “DNR” refers to “does not rehydrate”. Stems were harvested, sorted, recut and placed directly into 1) tap water, 2) Chrysal Professional #2, or 3) Floralife Professional, stored in buckets of tap water for 7 days at 4) 68°F or 5) 41°F, 6) placed in buckets of tap water overnight, then placed dry in floral boxes for 24 hours, or 7) placed in buckets of tap water and treated with EthylBloc (1-MCP) for 4 hours, then stored for 7 days at 68°F (for only three cultivars).

	Vase Solution			Stored in tap water at:		Hydrated then	
	Tap water	Chrysal	Floralife	68	41	overnight dry	Ethylbloc
<u>Coleus</u>							
Appaloosa	rooted	wilted	DNR	DNR	DNR	DNR	-
Black Star	rooted	wilted	wilted	rooted	DNR	wilted	rooted
Defiance	rooted	DNR	DNR	DNR	DNR	DNR	-
Freckles	rooted	wilted	wilted	DNR	DNR	wilted	-
Giant Fantasy	rooted	rooted	DNR	DNR	DNR	DNR	-
Glennis	DNR	DNR	DNR	rooted	DNR	DNR	-
Kingwood Torch	rooted	rooted	DNR	DNR	DNR	DNR	-
Lord Voldemort	rooted	rooted	DNR	DNR	DNR	DNR	wilted
Pineapple Red	rooted	rooted	DNR	DNR	DNR	DNR	-
Pineapple Prince	DNR	DNR	DNR	DNR	DNR	DNR	-
Rustic Orange	rooted	DNR	DNR	DNR	DNR	DNR	-
Saturn			DNR	DNR	DNR	DNR	DNR
DNR	-						
<u>Perilla</u>							
‘Magilla’	rooted	wilted	wilted	rooted	DNR	DNR	rooted

The Sustainable Future of Floriculture

Ralph Crevoshay

The cut floral industry is undergoing dramatic change. Like growers in other segments of the agriculture industry, most floral growers relied on the twentieth century agro-industrial paradigm as the core of their growing practices. Over the last few years an increasing number of growers throughout the industry have been reducing their reliance on chemical-based horticulture in favor of sustainable agricultural practices.

The industry's transformation is largely driven by consumers' increased concerns about how flowers are grown, where and by whom, what are the environmental and energy impacts associated with their production, and whether they are compromised by chemical residues. In the wake of the organic foods phenomenon consumers are seeking products that are aligned with their environmental and health values, and want to be assured that producers and retailers make an honest effort to address these concerns.

Some flower growers have achieved organic certification under the USDA National Organic Program (NOP) but a great majority find the NOP too restrictive to support consistent production of plants with acceptable market quality. It is useful to keep in mind that the NOP is a food standard and that floriculture is not addressed by it. Floriculture products must present both flowers and foliage in top condition, a market requirement that does not apply to most produce. Nevertheless there are many core organic growing practices embraced by responsible flower growers. Until now they have not been able to claim certified credit for their commitment to responsible stewardship.

Aware of this growing consumer trend, Scientific Certification Systems (SCS) in 2003 was asked by a group of forward-thinking North American floral growers and distributors to evaluate several sustainable agriculture labeling programs in the European market. SCS was asked to conduct this investigation based on its established expertise as a leader in sustainability standards development and certification. SCS conducted the work and reported its findings, including a gap analysis showing how all of the existing programs compared.

SCS found that none of the existing programs fully addressed the comprehensive issues associated with sustainable production, and developed a sustainable floral standard that would fully meet the needs of the North American market. The VeriFlora standard has served as the template from which a new national standard for sustainable agriculture has been published by the American National Standards Institute (ANSI). It is now the *Draft American National Standard for Trial Use (SCS-001) Sustainable Agriculture*, and a consensus-based review process involving stakeholders from industry, the NGO community, academia, and other constituencies is underway.

VeriFlora's disciplined approach to the implementation of sustainable practices is unique:

- The standard includes the most stringent protocols for agrochemical use among all flower label programs (European, South American, etc.). Growers are required to eliminate use and purge their inventories of those materials deemed most toxic by the UN –WHO (tables I & II) and by SCS' own prohibited list, based on years of pesticide residue testing of produce.
- The standard requires growers to develop a plan to adopt organic pest management and soil fertility practices over time, creating a unified path for organic and sustainable agriculture in terms of crop production practices. Growers are expected to adopt some organic practices as a prerequisite for certification (e.g., composting, green manure, biological controls, etc.).
- The standard contains extensive ecosystem and water quality protection measures to ensure that farmers are not damaging the surrounding habitats and wildlife as a result of their production operations, again well beyond legal requirements.
- The standard includes social responsibility requirements that ensure a fair, equitable and safe workplace. The unique labor circumstances of small growers are taken into consideration.
- VeriFlora certification is available not just to farmers, but to everyone in the supply chain, including shippers, distributors, and retailers. This certification establishes that proper traceability and chain-of-custody procedures are in place, and establishes cold chain management and plant hygiene requirements intended to ensure product quality and vase life, with the goal of enhancing the customer's flower buying experience.

An increasing number of producers have come to recognize the importance of sustainability to their industry. This has generated transformative trends in agricultural and workplace practices, quality management, and environmental stewardship. Searches for organic materials and alternatives, diminished reliance on agrochemicals, improvements in labor deployment that alleviate employee turnover, improvements in water management and erosion control, and a more disciplined protocol for postharvest cold chain management are especially worthy of note.

VeriFlora has been created for the benefit of all growers who sell their flowers and plants in the U.S. market. It is not solely applicable to the largest commercial operators. We welcome growers who operate small-scale operations to apply for certification. We recognize how the diversity of ASCFG members brings unique value to the entire industry and supports the current trend to "buy local". We therefore have created an affordable certification program for ASCFG members and we invite you to learn more about its benefits.

Ralph Crevoshay is VP Marketing, Food and Agriculture for Scientific Certification Systems (SCS).

Contact him at rcrevoshay@scscertified.com

Floral Marketing Funding Initiative Delays Industry Presentation

The coalition of industry associations that has been working for over a year to find a way to fund floral marketing received a request from the importer community to wait until some very impactful issues that they are facing are resolved. John Amaya, President of Dole Fresh Flowers and Chairman of the Association of Floral Importers of Florida, suggested that it would be wise to suspend the activities of the Initiative until after next Valentines Day. He said, "The uncertainty of the Free Trade Agreement, ATPADEA, instability of oil prices, and the devaluation of the dollar against the peso are consuming all the attention of the importers." It is clear that until a better understanding as to how these issues will affect those businesses strong support cannot be achieved.

Red Kennicott, coalition chairman, said, "Although I am very disappointed that we cannot continue at this time, it is important to be sensitive to the issues facing the importers and wait until the environment is more conducive to having a positive vote." Charles Kremp, who as president has been the front person for the effort said, "The goal of the initiative was to find a way. That has been accomplished. The next step is to gain industry acceptance. We have seen significant support grow on the domestic producer side and now need to wait for the importer position to improve so they too will embrace what is being proposed. The groundwork is finished. Once the industry says go, the next steps are all laid out and an order could be implemented in approximately 1 year."

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Study Calls for Expanding Farm Income Opportunities

Former Senators Bob Dole and Tom Daschle released a comprehensive new report May 30, calling for major changes in current agricultural policy to help American farmers take advantage of new market opportunities while reforming existing subsidy programs to better serve both taxpayers and farmers. In the new report, *Competing and Succeeding in the 21st Century: New Markets for American Agriculture*, Dole and Daschle note that the face of global and American agriculture is changing, and while farmers face unprecedented challenges, they are also in position, if the right public policies are put into place, to take advantage of key emerging markets. The report is a product of the 21st Century Agriculture Policy Project, co-chaired by Senators Daschle and Dole, and it makes numerous policy recommendations. The entire report is available for download.

RESEARCH Update

Megan Bame

Pollen-free Sunflower Cultivars That “Make the Cut”

Researchers at the North Mississippi Research and Extension Center evaluated 29 cultivars of *Helianthus annuus* with general florist use in mind. Some sunflower blooms and stem diameters are too large for typical florist use. They limited their research to pollen-free cultivars, which are preferred by florists for longer vase life and cleaner arrangements. They assessed stem length, stem diameter and bloom diameter of flowers harvested from six summer planting dates.

The sunflowers included 13 single-stem cultivars and 16 branching cultivars. The seeds were sown in 1204 cells and transplanted into the field where they were fertigated weekly. Single-stem cultivars were spaced 6 inches apart, while the branching cultivars were spaced 12 inches apart. The branching cultivars were pinched at the four- to six-node stage of development to encourage the growth of multiple stems. Stems were harvested when the blooms were completely open.

Based on communication with florists in Tupelo, Mississippi, the florist standard used for comparison was 60-90 cm (23.5-35.5 in) stem length, 0.5-1.5 cm (0.2-0.6 in) stem diameter and 8-15 cm (3-6 in) bloom diameter.

Of the single-stem cultivars, the stem diameters of ‘Full Sun Improved’, ‘Superior Gold’, ‘Full Sun’, and ‘Superior Sunset’ were 2.3 cm (0.9 in) or larger, 90 cm (35.5 in) below the bloom. This size was significantly larger than most of the other cultivars and was considered too large for general florist use. They observed the flower size generally corresponded to stem diameter.

Nine of the single-stem cultivars produced secondary stems after harvest of the terminal stem. The stem length ranged from 44.4-60.8 cm (17.5-24 in) with no significant difference in bloom size among the cultivars. Most were determined to be satisfactory for florist use.

The stem diameters of the branching cultivars ranged from 0.42-0.80 cm (0.17-0.31 in), nearly all acceptable for florist use. The dark-flowered cultivars, including ‘Moulin Rouge’, ‘Claret’, ‘Infrared’, ‘Cappuccino’, ‘Strawberry Blonde’, and ‘The Joker’, produced the most stems with the longest stem length. ‘Though the yellow/gold-flowered cultivars produced few stems and smaller flowers, nearly all of the branching cultivars were determined to produce stems suitable for florist use.

Sloan, R.C. and S.S. Harkness. 2006. *Field Evaluation of Pollen-free Sunflower Cultivars for Cut Flower Production*. HortTechnology 16(2):324-327.

Fumigation Options Using Drip Irrigation

A variety of weed species can quickly overgrow the sparse canopy of *Freesia x hybrida*, reducing crop quality and yield. Scientists at the USDA’s Agricultural Research Service at the San Joaquin Valley Agricultural Sciences Center in California are looking at improved delivery methods for methyl bromide alternatives. Using drip irrigation would allow for better distribution of the chemicals and utilize a totally enclosed system for application, which increases worker safety and reduces the environmental impact.

Three trials were conducted, one in Encinitas and two in Nipomo. Soil samples were taken and weed counts were made at each plot. The data included average plant height, a vigor rating and disease incidence.

The first Nipomo trial tested various rates of the methyl bromide alternative 1, 3-dichloropropene (60.8%) + chloropicrin (33.3%), also referred to as DP:CP. Early season weed control was reasonably good compared to the control plots and at the trial conclusion, all treatments had taller stems, better vigor and significantly less weed cover compared to the control. The incidence of *Pythium* spp. populations was also greatly reduced.

The Encinitas trial compared four methyl bromide alternatives: 1) DP:CP, 2) iodomethane (50%) + chloropicrin (50%) [IM:CP], 3) Furfural, 4) Furfural + metham sodium (FMS). All treatments produced lower average weed counts compared to the control. With the exception of the Furfural treatment, average plant height was greater for all treatments compared to the control, though vigor ratings were not significantly different among the treatments. *Pythium* spp. populations were again reduced, compared to the control.

In the second Nipomo trial, various formulations of IM:CP were tested against MB:CP (methyl bromide + chloropicrin, 50:50) and the untreated control. All the treatments demonstrated fewer weeds throughout the growing season compared to the control. The freesia had a higher vigor rating for the treated plots, but there was no significant difference in plant height. The treatment plots had reduced *Pythium* spp. populations compared to the control.

While this study found the Furfural alone did not perform as well as other treatments for weed control, it concluded

that a successful freesia crop can be grown using methyl bromide alternatives applied through drip irrigation.

Gerik, J.S. 2005. *Drip-applied Soil Fumigation for Freesia Production*. HortTechnology 15(4):820-823.

Western Flower Thrips' Flower Color Preference

Previous research has shown that western flower thrips (*Frankliniella occidentalis*) are attracted to certain flower colors and species. Those studies used specific colored surfaces, but did not consider the spectral qualities of the colored surfaces. Researchers at the University of Illinois worked to determine if western flower thrips (WFT) had a flower color preference that could assist in the selection of a trap crop for control of the insect pest.

Special observation chambers were used for the experiment. The test flowers consisted of four different colors of three species (Transvaal daisy, Matsumoto aster and chrysanthemum). Daisy colors were yellow, orange and red. Aster colors were white, purple, pink and magenta. Chrysanthemum colors were yellow, burgundy, white and lavender. In an effort to provide a similar surface area for the WFT experiment, it was determined that one Transvaal daisy was equivalent to five Matsumoto aster and three chrysanthemum blooms.

Flower color preference was evaluated based on the number of WFT adults collected from each flower after 72 hours. The spectral reflectance of the flowers and three colored sticky cards were measured to assess any response to specific wavelengths.

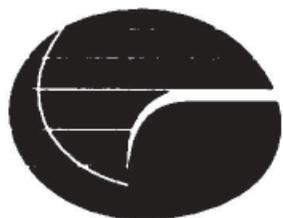
The most WFT were found on the yellow Transvaal daisy with 54, nearly twice as many as the other flowers. Yellow chrysanthemum followed with 30 WFT and then white Matsumoto aster and orange Transvaal daisy with 22 each.

The most attractive bandwidth to WFT may be between 550- to 600-nm (yellow daisies and yellow sticky cards). The shorter wavelengths (380- to 450-nm) appear to be less attractive to WFT contradicting the common notion that blue sticky cards are more effective for sampling or trapping WFT.

Based on this study, the yellow Transvaal daisy may be used as a trap crop for growers managing WFT; however, the researchers point out that factors other than color likely play a role in WFT attraction. Further studies of floral volatiles, pollen age, or a combination of these and color will lead to more conclusive information.

Blumthal, M.R., R.A. Cloyd, L.A. Spomer, and D.F. Warnock. 2005. Flower Color Preferences of Western Flower Thrips. HortTechnology 15(4): 846-852.

Megan Bame is a free-lance writer in Salisbury, South Carolina. Contact her at meganbame@yahoo.com



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Gay Smith

Mistakes and Mishaps

A few years back, I paid twice the normal fee required to renew my passport. The additional charges came about because I needed the new one faster than the 6 weeks allotted for normal processing conditions. Not only did I feel stupid paying double the basic fee, especially since I had known the exact renewal date for 10 years—more than ample time to avoid late fees—I also had to rush the photo and am stuck with a mug shot to look at for the next decade.

Procrastination is a nasty habit, but one shared by many. Every year in late April, May and even June, I receive calls from growers needing information about what postharvest products to use and please ship yesterday.

This year, a call came in for information about STS, a required treatment if you plan to sell larkspur or any member of the delphinium family commercially. Silverthiosulfate (STS) is a postharvest treatment that counters the negative effects of exposure to ethylene gas. Ethylene reduces vase life dramatically on flowers like columbine, lupine, asclepias, phlox, bleeding hearts, sweet peas and monkshood. Shattered petals, shriveled florets and/or premature death are the symptoms of exposure. Silver is the active component of STS and must be neutralized before spent solutions are dumped so EPA requires individual state registration for legal use.

I had my fingers crossed as I went through the litany on this product, hoping it was registered for use in Pennsylvania, the state in which this grower was located. I told him I'd check to confirm registration

before we could ship anything and asked how soon he needed it. He calmly replied that he was standing in the field with cutters in hand as we spoke. He sounded a bit sheepish about waiting so long to organize his postharvest details—especially since STS is available for use only in Texas, Oregon, California, Washington, Florida, Michigan and (lucky for him) Pennsylvania.

You must consider many procedures prior to the harvest, procedures that improve the overall quality of your finished crop. Cutting back on fertilizing

According to research presented by Dr. George Staby during a PRO Institute, 25% of retail florists don't use flower food, 50% use it incorrectly (underdose) and the remaining 25 % use it correctly. Because florists' usage is all over the board, it puts pressure on growers to utilize the best possible treatment(s) before the product starts into the chain, thereby insuring customer satisfaction.

with ammonium nitrogen sources (e.g. urea) prevents plants from getting too lush, a condition that makes them susceptible to *Botrytis* problems. Rose growers know that the level of calcium in the soil and leaves is critical to postharvest success. Timing matters, too. Dr. John Dole (in his book *Floriculture*) recommends early morning as best time of harvest because plants have the highest water content and tissues are cool. Waiting until midday would allow plants to develop a higher carbohydrate level, but water content takes priority because it exerts the greater affect on postharvest life.

Harvest stage (cut point) is critical on overall longevity too. Repeated vase tests conducted at Floral Solutions (a Dutch research lab associated with Pokon & Chrysal) and the QC lab (at the Aalsmeer auction facility) indicate that most flowers last longer when cut at maturity stage "3". Dr. George Staby illustrated the relationship of cut stage to longevity using the composite family as example during a PRO Institute seminar in 2006. He said it is important to postpone harvest until the cyathium begins to release pollen because this part of the flower produces hormones triggering chemical reactions that keeps foliage green and intact. Bupleurum is another crop very sensitive to the correct cut stage. Cut too tight and the stems never hydrate properly.

Bernie van Essendelft gave me a lesson on the proper cutting stage for peonies a couple of years back. He said the right stage is when buds feel like "soft marshmallows". Too tight and the buds won't continue developing, too loose and flowers blow open before your eyes. He also emphasized how it is critical to cool bunches *immediately* after harvest to get the field heat out.

Turning again to postharvest solutions, let's consider a popular summer crop, dahlias. During a discussion at a local wholesaler recently, I was told dahlias must be cut fully open and the only treatment that prevents wilting is burning or dipping stems in boiling water. As dahlia production exploded in California over the past 5 years, research and practical experience have proven that flowers respond best when cut with

colored buds and placed immediately in a hydration solution containing a wetting agent, or cut directly into a low-sugar flower food solution. In both cases, flowers need to be cooled to 35F. Long-term storage (over a week) reduces vase life by several days.

Everything I've heard about boiling or burning any flower is that the process compromises stem tissues so dramatically, any good it may have on hydration is lost because damaged stem cells muck up the water as they deteriorate. Dahlias foul the water fast anyway so the biocides in commercial treatments are critical. If boiling is recommended, it is usually implied that flowers then go into tap water with nothing to prevent bacteria bloom from those succulent stems turning to mush. Boiling may work some of the time, but I recommend solution use for consistent desired effect because of synergy of biocides, sugar and surfactant.

When it comes to postharvest handling, a "one size fits all" mentality may be easier for your staff, but there are many advantages to customizing treatment procedures specifically to the crop rather than using the same method (and solution) for everything you produce. With some flower types, it's possible to avoid mechanical damage and extend the sales window by combining techniques: cutting tight and using a postharvest solution containing some glucose to bring blooms forward. Sunflowers are a good example. If you cut with colored petals protruding, it is best to treat flowers in a hydration solution providing a clean and acidic drink to harden off stems. If the crop is coming on faster than you anticipated, or you want to avoid petal crimping and creasing that happens during handling and packing, cut tighter (with no petals protruding.) Let stems harden off in a low sugar flower food (a.k.a. holding preservative) while sitting in the cooler. Glucose in this solution provides the extra energy needed to push petals open.

Lisianthus is another crop that fares best when treated with a shipping solution directly after being cut, because the low sugar flower food provides ample energy to open buds and allow florets to color up. Some ASCFG growers swear by hydration solutions, especially when temperatures soar in summer.

If you feel that one-step processing best fits your handling logistics (and you are not growing ethylene-sensitive flower types), harvest flowers into a low sugar processing solution. Look for Floralife Crystal Clear or Chrysal Professional #2 at your wholesaler. Postharvest research conducted by Dr. John Dole indicates that some flower types actually performed better when placed directly in holding preservative (low sugar flower food). According to research presented by Dr. George Staby during a PRO Institute, 25% of retail florists don't use flower food, 50% use it incorrectly (underdose) and the remaining 25% use it correctly. Because florists' usage is all over the board, it puts pressure on growers to utilize the best possible treatment(s) before the product starts into the chain thereby insuring customer satisfaction.

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Another way to manage your crop to fit market needs is by managing temperature to your advantage. Drs. Staby and Reid recommend 33F as the best temperature for a cold store, but they also advise that allowing flowers to cool down in stages considerably reduces chill damage—a common problem with Oriental lilies. Although Dr. Reid found no chill damage associated with gerberas held in coolers between 34-35F, most California, Canada and Dutch gerbera growers say it is important to hold gerberas no colder than 42-45F to avoid discoloration (especially on pink varieties) and condensation developing when flowers are moved from cooler to pack hall that might subsequently result in *Botrytis*.

Obviously, trial and error is an important factor in discovering what treatments, temperatures and procedures work best for your crops in your growing conditions. Avoid getting stuck in a rut and keep in mind that flower treatments and handling methods are dynamic investments, not expenditures. Postharvest is a three-legged stool encompassing scientific research, hands-on experience and grower ingenuity.

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BACK to Basics

Tina Smith

An Anytime Problem - Botrytis

Conditions and Symptoms

Botrytis is one of those problems that can occur any time conditions are right. There are some 50 species of the fungus *Botrytis*; however, *Botrytis cinerea* has the largest host range. *Botrytis* is often referred to as gray-mold because it produces a crop of gray, fuzzy-appearing spores on the surface of infected tissues. Several days of cool, cloudy or rainy weather create an ideal environment for *Botrytis* infections during production in a full greenhouse or out in the field. However, this fungus grows on dead or dying plant tissue anywhere conditions are right: in greenhouses, the field, packing sheds, coolers or during shipping.

Although *Botrytis* attacks plants and flowers at any stage, tender new growth and aging or dead tissues are preferred, and flowers petals provide an excellent food source for the production of spores. The fungus becomes established in flower petals and appears as irregular, enlarged, tannish, water-soaked spots that eventually develop into soft fuzzy tissue. Aging flowers are particularly susceptible. Petals of badly infected flowers stick together and become matted. During production, blossom and bud blight often precede and lead to infections on stems. These less obvious symptoms show as tan-colored spots on leaves or cankers on stems that can eventually cause entire branches of plants to wilt, while the rest of the plant appears healthy. During storage and shipping, *Botrytis* causes blight or blast on leaf and flower buds.

Like other fungi, *Botrytis* has ranges of temperature and relative humidity that are necessary for spore germination, infection and disease development. Spore germination and infection depend on a film of moisture for 8 to 12 hours, relative humidity of 93% or greater, and temperatures between 55-65F with colonization of plant tissues occurring at temperatures up to 70F. *Botrytis* occurs most often in spring and fall, because warm days followed by cool evenings result in condensation on plant surfaces.

Cultural Practices for Management

Once *Botrytis* develops, it cannot be effectively controlled with fungicides alone. The key to suppressing *Botrytis* is to keep the plant canopy dry, especially from dusk until dawn. Using drip irrigation or watering plants at the base instead of sprinkling or watering overhead will help to prevent *Botrytis* and many other leaf spot diseases. Increasing plant spacing to

provide a less dense canopy will also help by allowing more air circulation and better fungicide coverage. In the greenhouse, reducing humidity as a whole and in the microclimates around plants is also important. Watering just enough to prevent excess water on the floor, and early enough in the day to allow plant surfaces to dry before evening, reduces humidity and will help manage *Botrytis*.

Heating and Venting Greenhouses to Lower Humidity

During cool times of the year, when a greenhouse is being heated, another practice to reduce humidity is to use a combination of ventilation and heating. Ventilation allows the exchange of moist greenhouse air with drier air from outdoors. Heating is necessary to bring outdoor air up to optimum growing temperature, and increases the capacity of the air to carry moisture, thus avoiding condensation. Neither practice alone is as efficient as both combined.

According to John Bartok, University of Connecticut Extension Professor Emeritus, the method and time it takes for heating and venting will vary according to the heating and ventilation system in the greenhouse. John advises, that in greenhouses with vents, the heat should be turned on and the vents cracked open an inch or so. When doing this the warmed air will hold more moisture and escape from the greenhouse through the vents which will be replaced with outside air of lower relative humidity. This natural rising of the air will result in a greenhouse of lower relative humidity.

In greenhouses with fans, the fans should be activated and operated for a few minutes and then the heater turned on to bring the air temperature up. The fans should then be shut off. A clock could be set to activate the fans. A relay may be needed to lock out the furnace or boiler until the fans shut off so that both the fans and heating system do not operate at the same time and result in flue gases being drawn into the greenhouse. The venting and heating cycle should be done two or three times per hour during the evening after the sun goes down and early in the morning at sunrise. The time it takes to exchange one volume of air depends on several factors, including whether or not fans are used and, the size of the fans and vents. For some greenhouses it may take as little as 2-3 minutes air exchange. For greenhouses using natural ventilation, it may take 30 minutes or longer. Heating and venting can be effective even if it is cool and

raining outside. Air at 50F and 100% RH (raining) contains only half as much moisture as the greenhouse air at 70F and 95% RH.

Air movement, even in a closed greenhouse, helps reduce moisture on plant surfaces and in the microclimates around plants. A fan-jet or horizontal air flow system produces uniform temperatures and reduces the cool spots that can develop condensation problems. Air that is moving is continually mixed; resulting in very small temperature differences. The moisture does not get a chance to condense on the leaf surfaces because the mixing action caused by air movement prevents the air along the surface from cooling and causing condensation. This results in less *Botrytis*.

Sanitation

In addition to reducing the humidity and keeping foliage dry, the source of *Botrytis* infection needs to be reduced. *Botrytis* spores are produced in abundance on senescing flowers and flower petals, lesions, and plant debris left behind during harvest, the greenhouse floor and in trash cans. Controlling weeds and removing plant debris during production and harvest helps to eliminate *Botrytis*. Regularly remove spent flowers and dying or dead leaves from plants and the soil surface and eliminate them from the greenhouse and field. Dispose of debris in plastic trash bags and avoid spreading spores by keeping the bag closed while moving it through the greenhouse or field. Be sure cull piles are not located near greenhouses or cut flower fields where spores can re-infect plants. Although this is labor intensive, it will help reduce spreading spores. Make sure trash cans are sealed tight in the greenhouse as open trash cans are a reservoir for sporulating *Botrytis*.

Carry your sanitation program into postharvest handling. Clean and sanitize coolers and cool rooms. To prevent *Botrytis* infections on flowers, foliage and buds during shipping, avoid packing moist flowers and foliage after harvest. To prevent condensation of water droplets on flowers or foliage, avoid moving flowers directly from cool to warm rooms.

Treatments

A number of fungicides are labeled for use against *Botrytis* on ornamental crops during production. When making a fungicide treatment, treat thoroughly, getting it down into the canopy area. For management, growers often rely on fenhexamid (Decree) which is a non-systemic fungicide with both protective and curative activity, chlorothalonil (Daconil) or iprodione (Sextant, 26 GT). *Botrytis* strains have reportedly shown resistance to Sextant and 26 GT, although not widespread, so rotate these with other products to delay resistance. There are reports of widespread resistance to the benzimidazole fungicides (Cleary's 3336 and Fungo Flo) and therefore are no longer suggested as a primary fungicide for *Botrytis*.

In addition to fungicides for production, there are also fungicides labeled for some flowers for postharvest use. The copper-based product Phyton 27 and the biofungicide Rhapsody (QST 713 Strain *Bacillus subtilis*) are both labeled as a postharvest dip for flowers and buds to prevent *Botrytis*.



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IPM Update

Stanton Gill and Shannon Wadkins

Controlling Pests While Staying 'Green'

Each decade we seem to come up with a new theme to live by. The latest are maintaining a "reduced carbon footprint" and being "green". It's time for cut flower growers to jump on the bandwagon and learn to use these themes to sell more cut flowers. What is more environmentally sound than cut flowers? Especially if you can grow them without using chemicals that the public perceives as "anti-green". Now, if we could just eliminate all of the disease, insect and weed problems this business could really be "green". As in cash.

Microbial Pesticides

Microbial insecticides have come a long way and now you as grower have several choices to use in your cut flower production. What are microbial insecticides?

Microorganisms, including bacteria, fungi, and viruses, are the active ingredient of microbial pesticides. Some microbials control plant pathogens, usually on a preventative basis, and some control insects and mites. In some cases the microbial insecticide may be specific, such as *Bacillus thuringiensis* (Bti), which controls fungus gnat larvae and mosquito larvae. Others, such as the fungus *Beauveria bassiana*, control several species of insects including whiteflies, aphids, and some caterpillars. The most widely known microbial pesticide is *Bacillus thuringiensis* (Bt), which is used to control a variety of early-stage caterpillars. Most cut flower growers can readily obtain Bt under several brand names such as Dipel, Thuricide, or Caterpillar-Attack, to name a few on the market. Bt is very effective on the early life stages of several lepidopterous caterpillars that feed on cut flower crops.

Pathogens That Attack Thrips

In 2007 we started working with Novozymes Biologicals Inc. of Salem, Virginia, to evaluate a fungus called *Metarhizium anisopliae*, strain F52, for potential control of thrips. In the first phase of our trial we evaluated different sprayers to see if we could get an even spore count in a growing area. We placed out petri dishes and cover slips to collect spores applied to the plants by the growers. Our next phase is to evaluate what sort of reduction can we obtain with thrips populations feeding on plants. A representative of Novosymes expects to have EPA approval by spring of 2008. We'll keep you posted.

Reduced-Risk Pesticides

Starting in 1993 the federal EPA has expedited the registration of conventional pesticides that had very low toxicity to humans and nontarget organisms including fish and birds, low risk of groundwater contamination or runoff, and a demonstrated efficacy and compatibility with IPM. EPA refers to materials meeting these criteria as "reduced risk". The reduced-risk designation applies *only to certain uses* of a particular pesticide, which may not include all label uses for that product. Reduced-risk products/uses must be registered with EPA and labels will bear EPA registration numbers. Manufacturers, however, aren't permitted to label materials as "reduced risk."

Floramite (bifenazate) (EPA# 400-481), Akari (fenpyroximate), and Shuttle (acequinocyl) are three low-risk miticides. Reduced-risk insecticides include Endeavor (pymetrozine) (100-613), Tristar 70 WSP (acetamiprid), Flagship



(thiamethoxam), Celero 16 WSG (clothianidin), Aria (flonicamid), and Pedestal (novaluron).

Dow AgroSciences' Tebufenozide (Confirm), an insect growth regulator (IGR) for caterpillars, is also a reduced-risk pesticide for ornamentals. Some insecticides such as spinosad (Conserve) are considered reduced risk for certain non-ornamentals applications only. Conserve is not presently classed as a reduced-risk pesticide. Other reduced-risk pesticides for use on ornamentals include Heritage fungicide (azoxystrobin) (10182-408), Decree (fenhexamid), Subdue (mefenoxam) 2X WSP (100-795), and Subdue Maxx (100-796) for ornamentals, and Compass (trifloxystrobin) (100-920) for ornamentals.

Stay Green

Keep making the green that you can spend this summer and try to stay on the green side with your pesticide selection.

Stanton Gill is Regional Specialist in IPM for Greenhouses and Nurseries, University of Maryland Cooperative Extension and Professor with the Landscape Technology Program, Montgomery College. Shannon Wadkins is Technician at CMREC, University of Maryland Cooperative Extension. Contact them at sgill@umd.edu or swadkins@umd.edu

REGIONAL *Reports*



NORTHEAST
Chas Gill
Kennebec Flower Farm

Several items come to mind as I search the databanks of my mind. First a couple of reports on some on-farm experiments and then a primer on the upcoming Regional Meeting.

My experiment with overwintering lisianthus in an unheated hoophouse was a failure. After un-mulching the beds it was apparent immediately that the plants were dead. I used an older hoophouse that measures 17 feet wide and about 8 feet at the peak. Beds were mulched with 8" of straw and two layers of fabric. My initial thoughts are that a house of this style does not trap as much heat and therefore heats and cools quickly. These fluctuations are not good for overwintering. Maybe I will try another larger tunnel this winter.

I have been harvesting anemones and ranunculus now (late May) with good results. In a 26x48 single layer field tunnel, sprouted corms were planted in early March in plastic-mulched beds. No netting was used. Growth was slow but consistent and by the second week of May we were cutting anemones. Stem length varied from 8"-15". All bunches sold at \$6.00 for 10 stems. I wouldn't typically be happy with the price and stem length, but the customer response was great. The colors were fantastic and they're getting people used to coming to my booth and relying on me to be their flower supplier. The ranunculus started two weeks later and were well worth the wait. Stems were sturdier and again the colors fantastic. I am getting \$.80/stem for the ranunculus. Production numbers are still being gathered but it appears like the net profit will not be great on these crops but if you have the room and market I suggest giving them a try. Customer response has been terrific.

I've also been busy planting into my 24x200 foot Haygrove this spring. We'll be trying for the fourth and last time trachelium planted in fabric-mulched beds, as well as growing tuberose, lisianthus, and experimenting with some other annuals. I will follow up this fall with my thoughts, failures and successes.

The Northeast Regional Meeting will be held Sunday, August 19, near Amherst, Massachusetts. An educational session on farmers' markets will be part of the day's activities as will tours of local producers and retailers.

Have a rewarding summer.



MID-ATLANTIC
Joseph Caputi
Charlotte's Garden

Lately I've been making lots of lists. And while lists of things "to do" are nothing unusual, especially at this time of year, one list I've been adding to and working on is my list of things to do in the second half of my life. It seems that turning 50 last December has got me thinking about all the things I have been meaning to do.

I'm happy to report that skydiving is not on my list, but something that surprised me was a desire to tour English gardens. And that is exactly what Charlotte and I have done. We're just back from a nine-day trip to the south of England: Devon to Sussex, with a dash of London thrown in for spice.

Initially we planned to attend the Chelsea Flower Show in London, but thought to expand our tour to include as many RHS and National Trust gardens as we could fit in while visiting Charlotte's two aunts.

Flower gardening in England is a contact sport. And nowhere is this more evident than at the Chelsea Flower Show. The first thing that is overwhelmingly obvious is the crush of humanity that has traveled not only across England to attend, but the world—all to see the latest in design trends and the newest varieties. While the display gardens that ring the main pavilion and center grounds of the historic Chelsea Hospital are impressive, it was the displays of flowers in the main pavilion that impressed us most as growers.

A massive display of sweet peas was impossible to ignore. The range of colors was staggering, not to mention the stem length—some of them up to 18 inches tall! Other notable floral displays were of digitalis, dianthus and delphinium. A pyramid-shaped display of lilies that easily measured 20 feet at its base and 10 feet tall was outstanding. Superlatives escape me; it's difficult to describe the enormity and awesomeness of the show. It was a humbling, sensory feast for a couple of lowly flower growers from rural Virginia.

On a quieter note, viewing gardens in England is a treat for the mind and body, and very stimulating for our creative nature. We came home full of ideas for our landscape, and we'll be looking for the new flower varieties we were privy to see at Chelsea.

If you can't add touring English gardens to your to do list any time soon, please be sure to put "Attend An ASCFG Regional Meeting" at the top of your list this summer.

The Mid-Atlantic Regional Meeting will be held on Monday, August 27th (the Monday before Labor Day), in Jeffersonton, Virginia at Wollam Gardens. Bob Wollam has graciously agreed to host this years meeting, and I have to say, after visiting Bob a couple of weeks ago, his farm is beautiful— in fact, very English! We have a great program lined up for the day and Bob will be showing off his amazing crop of Karma dahlias. I hope to see you there.

So, what's on your life's "To Do" list? Don't have one yet? Maybe starting one ought to take priority. After all, what's the point of growing all of those beautiful flowers if you don't take a moment to smell them?



SOUTHEAST

Leah Cook

Wild Hare Farm

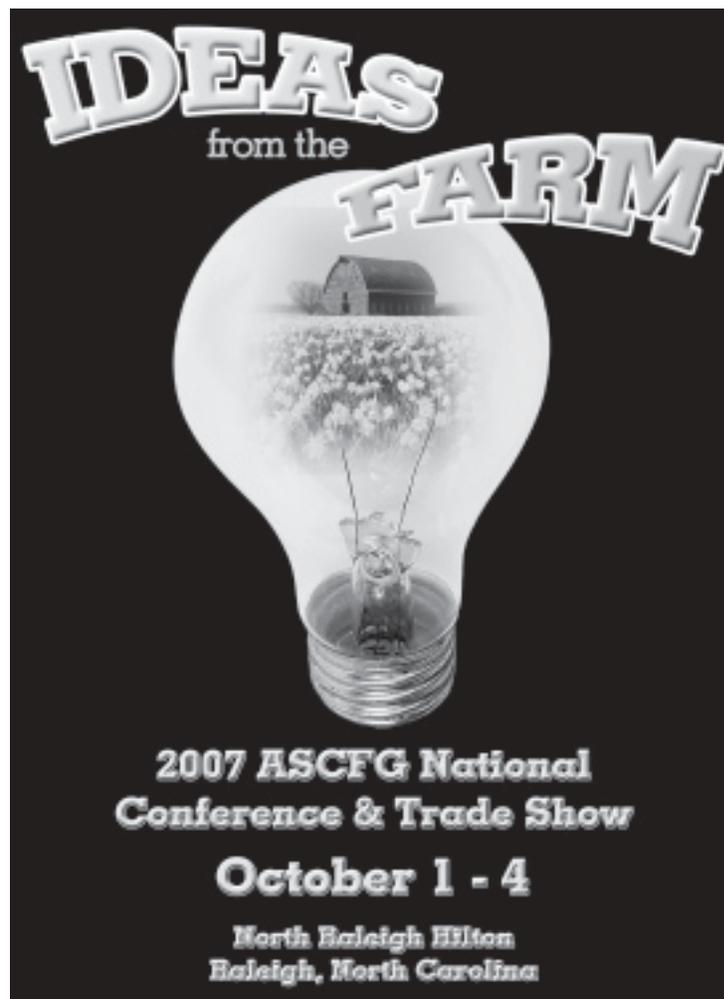
The program for the 2007 National Conference is complete! It looks great and a lot of really informative sessions have been planned.

For those of you who are new to the Association, we kick the Conference off with the day-long Growers' School. It is intensive and geared towards the new flower grower. However, you will find experienced farmers participating as well; there is always something to learn. The Growers' School is limited to 85 participants, so it is important to register early to save your seat. We have a fantastic lineup of farmers, university and extension folks and suppliers to share knowledge with you.

Let me share a few highlights of the Growers' School. Vicki Stamback of Bear Creek Farms will discuss "Starting Your Own Business". Vicki is a terrific and experienced farmer. She is also a very inspiring speaker. I always learn a lot when I hear Vicki talk. Debbie Roos with NC Cooperative Extension will speak on "Controlling Diseases and Insects". I have bragged on Debbie in the past. She is one the best extension agents around. She works incredibly hard for small farmers. Insects happen to be one for her specialties. Joe Davidson, the owner of Berry Hill irrigation will give a primer on irrigation systems. The Davidsons are so nice and knowledgeable. Berry Hill irrigation has a tremendous product lineup, a great staff and speedy service. As we barrel headlong into a drought, a reliable irrigation system is crucial. We will wrap the day up with a rotating hands-on session. Several people including some of John Dole's graduate students will instruct on various topics. These are just a few highlights from Monday October, 1st. The complete program for the Growers' School is available online at the ASCFG website. You will not want to miss this fantastic learning opportunity.

The Conference Committee wanted to do something a little different with the Trade Show this year. We have scheduled the entire Trade Show for Tuesday, October 2nd. The show will kick off at 2:00 pm with a Vendor Showcase. This will give vendors a couple of minutes to introduce themselves and describe their company and products. The Trade Show begins at 3:00 pm. This is a great chance for growers to talk with vendors about products. Maybe you want more information about setting up an irrigation system. This is the opportunity. Maybe you want more information on growing lilies. This is the opportunity. The Trade Show is really a long educational session. Come with your questions and be prepared to learn.

There is a lot to do in North Carolina, so you may want to extend your stay. If you have time you may want to visit fellow ASCFG members' farms. Steve and Susan Bender, Homestead Flower Farm and David and Carmen Huffman, Carmen's Greenhouse have graciously agreed to be part of the "On Your Own Tour". Details about traveling to these farms will be made available at a later date. You may want to visit Duke Gardens in Durham. Coker Arboretum and the NC Botanical Gardens are located in Chapel Hill. You can always spend more time at the Ralston Arboretum. If your plans keep you through the weekend, you can visit the Carrboro or Durham Farmer's Market.



In addition to tons of great horticultural and farming activities, we have several wonderful restaurants. I will send out a list of links for sightseeing and restaurants later this summer. If you are planning to stay in the area a little longer, you gotta get out of the hotel and eat. I can point you to the best cheese grits, homemade onion rings, crème puffs and coconut cream pie in town!

Mark your calendar for October 1-4 and we will show you some wonderful southern hospitality.



MIDWEST
Suzy Neessen
 The Flower Farm

Last year a friend told me about a book I should read. It's titled "The 80/20 Principle: The Secret to Success by Achieving More with Less". The author, Richard Koch, states that, when applied to business, the key theme is to generate the most money with the least expenditure of assets and effort.

The 80/20 principle states that there is an built-in imbalance between causes and results, inputs and outputs, and effort and reward. For example:

- 20% of products account for 80% of dollar sales.
- 20% of customers account for 80% of dollar sales.
- 20% of products or customers account for 80% of profits.
- You can eliminate 80% of waste by spending 20% of what it would cost you to eliminate 100% of waste.

The idea is to use the 80/20 analysis to change those relationships or to make better use of them. If the top 20% of customers buy 80% of the product, you should concentrate on keeping them happy and try to increase that share of your business. Or, if 20% of your products account for 80% of your profits, try to sell more of that product.

After reading the book, I started thinking about how to apply the principle to my flower business. I sat down and divided my sales into categories, and what I was getting for 10 stems per category. I was very surprised by the results.

	Average for 10 stems
Farmers' market	\$1.41
Restaurant sales	\$6.69
Bouquet club	\$6.10
Florist sales	\$5.75

For my farmers' market flowers, I was putting in 80% of effort for even less than 20% of my sales. Obviously I'm not giving up my farmers' market, but I should try something else,

to make more money. Now is the time to stop making bouquets and start making my life easier by selling single stems and just straight bunches. Stems in a bouquet that I was getting maybe \$.25 for were now selling for \$1.00 each, or \$.50 each in a bunch for filler flowers. So that \$1.41 for 10 stems increased to an average of \$7.50 and my life got a whole lot easier.

Also, I concentrated on increasing my bouquet club sales because making bouquets and advertising are such easy aspects of my business.

Another area I tried to apply the 80/20 principle to was figuring how many bunches of each variety I was selling to my florists and whether it was even worth my time to cut some of them, much less grow them! Again, I was very surprised at what I thought were my top sellers and how few bunches of some varieties I sold.

The point is to keep track and really know what you're selling, how much you're getting for it, and where you're wasting effort that could be used elsewhere more wisely.

I'm certainly not doing the book justice in this report, as it goes into many, many details and gives many examples of ways to use the principle not only in your business but in your personal life as well. Definitely well worth reading.

**Non-business Examples
 of the 80/20 Principle**

- 20% of carpets get 80% of wear.
- 20% of book titles comprise 80% of books sold.
- 20% of criminals account for 80% of the value of all crime.
- 20% of motorists cause 80% of accidents.
- 20% of the pea pods produce 80% of the peas.
- 20% of your clothes will be worn 80% of the time.
- 20% of your employees cause 80% of your staff headaches.

I hope to see many of you in Kentucky July 2-3 for the Midwest/Southeast Regional Meeting. Robert McNiell has done an excellent job of putting together a nice variety of interesting places for us to see.

Moving a flower business is not easy or quick, so this year I'm concentrating on just getting re-established on my new farm. It's a good time to re-think and try to start again, only hopefully a little wiser. My new address is 6137 Waverly Road, Cedar Falls, Iowa, 50613. My new phone is (319) 268-7264.



SOUTH-CENTRAL
Vicki Stamback
 Bear Creek Flower Farms

I just arrived home from the South-Central Regional Meeting this weekend. We visited McCall Creek Farms and Texas Specialty Cut Flowers for an all-day event. Many thanks to all the members who attended the meeting. I had a great time and I hope you did too.

And a special thanks to Cathy and Mark Itz, and Pam and Frank Arnosky for opening their farms to us and showing us how they do things.

We began the day at McCall Creek Farms with Mark showing us his fields of tomatoes, peppers, squash, okra and zinnias. We got to watch bed-making equipment operate, plus some really neat hand tools they built to do what they needed done. We also got to see how he lays down irrigation. For anyone new to flower growing, seeing this is worth so much. We then went to their store where they sell their vegetables and flowers plus homemade ice cream that Cathy makes right there. Behind their store they have leased land to a lavender grower and we were able to tour the lavender fields. We walked up to the trees on the hill behind the store where tables and chairs had been set up and had lunch, which Cathy made, and visited. Lunch was great; there was a cool breeze and it was very pleasant, plus it overlooked their peach orchard.

After lunch we all drove over to see Texas Specialty Cut Flowers. We started at Pam and Frank's new barn which is very nice. If you want to see pictures of their barn raising, check out www.texascolor.com. Their barn is their market stand and they also grow a lot of flowers out back. We then went up the road to their house and greenhouses to see what they are producing in their greenhouses and their bouquet production area. Pam and Frank talked about how they made their bouquets, where they went, and how many went out each week.

A couple representatives from Whole Foods were in attendance and they spoke about what Whole Foods looks for in local product plus price points. We then went back to the barn and walked the flower fields in the back and were able to see what was being grown, talked about varieties and Frank's favorites. We ended the day with some iced tea and snacks.

I could go into a lot more detail about both farms but that might take up the whole Quarterly, so I just touched on the highlights. I do want to add that Mark Langerhans and Jerry Meyer from Gloeckner donated \$50.00 each (which came out of their pocket), plus seed we were able to silent auction off for the meeting. Also Corky Kane from Germania donated \$50.00 to the meeting. In addition, Brenda Smith sent items from her cancelled Regional Meeting for our silent auction. Thanks to all of you for your very generous donations. It was a very good

day and thanks again to everyone who attended. It was good to see all of you and get to visit. I appreciate all of you taking time out of your busy schedule to attend.

I know it has been a rough season for a lot of people this year. If you remember, last year we were on fire and so very hot and dry and this year we cannot dry out between the rains. I just hate to complain about the rain after going through so many dry years. While I was in Texas we had a 500-year storm in Stillwater. We had over 6 inches of rain in less than 2 hours and they closed 27 different areas in town because of flooding. The worst part of it missed the farm so we came out ok on that deal. It looks like this wet, cloudy weather pattern is going to change this week and we will dry out and warm up, which is just great. For the first time in a long time, we are going into summer with all the ponds and lakes full and great ground moisture. We hardly know what to do! The other positive is I haven't had to water at all this season.

I hope everyone has a great and productive summer. If there is anything special you want to do or a particular place you want to go for next year's Regional Meeting, just let me know. Thanks again to everyone who attended and participated in this year's Meeting. It's your involvement that makes it work. I'd like to share one of my favorite quotes because it applies to every aspect of life.

"Whether you think you can or think you can't, either way you will be right." Henry Ford



WEST
Brenda Smith
 Smith & Smith Farms

This is the time of the year when I sit at my computer wishing for something relevant enough for you to read, especially in the busy season to come into my head. I feel like Pooh Bear – "think, think, think". I am sorry to have to report that our West Regional Meeting scheduled in April at the peak for woodies blooming at Narrow Gauge Farm in Chicago Park, California failed to attract more than 10 sign-ups. Alan Tangren, our host, and I regretfully had to cancel the meeting. I had the opportunity to visit Alan's farm, about 3 weeks before the event for an advertising strategy session and I have to admit, it has been a long time since I had such a delightful and perfect spring afternoon. Alan, my husband Kevin and I had a great little lunch at the Happy Apple café and then Alan took us on a tour of the farm. We were there right at height of peach bloom and the pruning crew was finishing up pruning of the peaches. Out in the orchard the ground and the trees were covered with pink blossoms.

It was an amazing sight as Alan pointed to the rocky outcropping above the orchard where the resident bear lives and occasionally raids the bee hives (the poor honey bees, as if they didn't have enough problems). We then toured a great young collection of woodies that Alan has been planting over the last several years. I must admit though I have never thought of myself putting any woodies in, Alan's farm did pique my interest and I plan on working more on the idea now that it is in my head.

In the West this season it has been quite dry; one of the driest springs on record. While dry is what Nevada is all about, it was very strange not to get germination of even any spring weeds, at least in areas where there was no irrigation. I know what you are thinking—it would be a blessing not to have any weeds. But let me tell you if it were to happen to you, I assure you would be feeling quite strange. In our area we had quite a cold winter but it was dry also. This weather pattern led to a couple of issues. It was so cold that irrigation lines were frozen a good portion of the winter and when they started to thaw we had several breaks in the irrigation infrastructure. As they say, this left us high and dry for much longer than we would have liked.

At first I thought we came through mostly unscathed, but we did lose quite a few perennials as I continue to find out. We are generally considered Zone 5 growing area. I grow a number of herbs to use to make fresh herb and flower wreaths. I lost all oregano, English thyme, lemon thyme, culinary sage was mostly lost, lavender was hit hard. I also lost *Crocsmia 'Lucifer'*, feverfew, *Centranthus ruber*, *Scabiosa fama* and all my yarrow. While I don't use yarrow to any great extent, I like to keep a border row in of because of the beneficial insects it attracts. For the last few seasons I have had snapdragons overwinter to get a nice early season cutting before they finally give up and the new transplants are producing. Not so this season, all varieties were lost. A fair amount of garden phlox was lost, but this I think was due more to heavy grazing from rabbits (my other 'issue' this season). Where is a good coyote when you need one?

Perennials you may be interested in that made it through such conditions: *Baptisia australis*, 'Dazzling Blue' *Casipia stative*, *Dicentra spectabilis* (this was surprising to me), *Campanula*, both *persicifolia* and cup and saucer, delphiniums—the Guardian series came through pretty good. Heleniums did fine as did veronica, solidasters, and sedums.

It is always good to push the growing zones a bit to try new things, but it also helpful to have that list of the 'tougher than nails' plants that get you through the tough times.

I hope you all can get to a Regional Meeting—yes, you can make time and yes, you can find the money. I promise you, it will be time well spent, guaranteed. If any members from any region have suggestions for a meeting site or format, I haven't given up on planning another West Regional Meeting for 2008. I would love to hear your thoughts on getting a great turnout so we can get together and talk flowers.

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Regional Reports continued on page 33

GUEST editorial

Lexa Van Doren Kirk

Wouldn't it be Easier to be a Dog Catcher?

This article started out as a response to a BB posting, but turned into a novella! However, I do hope that some of this may help to encourage those new growers, or anyone else who gets down about profits or change. Here's to jumping in without a net...

I owned and operated my very successful boutique design/landscape company in the Second City for 7 years and while I knew Secret House Farm was my next life, it was difficult to leave my success behind and start fresh, anew, and in a different market. However, taking my past lessons about a startup business and my lessons in perceived "added value" and ephemeral beauty, I would like to give my two cents to all who are starting out: make the client king, impart knowledge freely, and be very flexible within your own boundaries.

I found that a business wasn't going to see real returns for three years—with the whoops! factor, weather and capricious clients, you're along for the ride. Secret House Farm did very well its first year considering the disastrous results of total and semi-crop failure as well as drought, and most importantly, sheer ignorance. I have never not had a green thumb, so for sunflowers (!) to fail me, I got humble...

I learned fast how to dry my leftovers for fall sales, and then threw things into bowls for potpourri in a fit of pique. I brought my reject stems in tiny bouquets in weeny vases and sold "Baby Bunches" (sorry Ann and Dave Line if I stole this idea from you!). In the light of not making money, I had to figure out quickly what I could salvage and turn into revenue.

In order to not invest more, at market I began placing the customers' flowers in newspaper soaked in water and then the bunch in clean, recycled (from our house) bread sleeves and veggie bags from the supermarket. The whole thing was held together with raffia.

My signs are small chalkboards from the craft store; I can change the price and name with a swipe of a rag. It gives a good uniformed look to the stall, with little more than \$10 total.

I also try to catch customers before they pass by—engage someone in conversation and I find most will make a purchase. One of my chalkboard signs is my best people stoppers: "How Mad is She?"

You would be amazed at how mad she is!

Anyway, last year saw a break-even year (season 2). However, on my books and taxes, there was still a loss, since the irrigation was installed and other infrastructure had to be paid for. Yet, I made what I paid for in plugs and seed, and I see this as a positive sign. But, I really profited from talking, talking, talking to all who asked, or showed interest. Living where I sell may make for a small market, but if you insert yourself, it can be a LARGE market in a small town.

When landscaping back in my past life, I never knew who was stopping me at the nursery to ask a question (assuming I was an employee: bronzed with dirt spots). I never knew if the person walking by the job was a neighbor, or the human circling the property was family. It turned out that nine times out of ten I was speaking with a future customer. And frankly, since I was a small, niche operation, I designed only on Michigan Avenue or multimillion dollar homes. You can imagine the payoff of word of mouth.

This said, I want to point out the profit (spiritually and financially) of honest networking, and following the path you have set yourself upon. I averaged only five or six clients a year (who were serviced through a full four seasons), but was able to well afford turning down work that

was too big, too commercial or frankly too boring for me to do. I knew my limits when it came to jobs requiring subcontractors, laborers and irritating people. Snobby as it seemed at the time, I was following my gut that it was not me, and I continued to make money—each season being more and more financially successful.

In light of Joe Caputi's wonderful article in this spring's *Growing for Market* about scaling back to make more, I would like to reiterate that big doesn't mean better, nor more profitable. I applaud Joe's honesty and ability to look at the real picture And then sharing his story.



When I started talking to people at my market about what we are doing and want to do, the response was amazing! People started suggesting I speak with so and so, or said “Well, what if you...” or “Have you spoken with _____ about...?”. I was overwhelmed and touched that folk really care and believe. I realized that they, too, want my business to survive—even if for their own selfish motives—but mostly people who support us, SUPPORT US!

None of us can devalue the importance of ourselves and our businesses.

So, because of networking and talking, I see our flowers sold at the local grocery market. I now have customers asking where to get our products after market. Businesses are telling me that I should contact so and so about our products and so on and so on...and this season I have clients asking the local florists why they aren't buying my flowers (think I ought to get over to them for a sales pitch!).

Finally, I have been working with our market. Everyone wants their market to be successful, so in order to boost sales

I have decided to add edible bouquets and packs of edible flowers to our line. Why? I am smack dab in between the heirloom lettuce guys and the hydroponic lettuce/tomato guy. Our market also has a great potted herb vendor, so I sell those very herbs fresh cut, giving customers to the market the opportunity to try them on their food before investing. Good synergy. Good jou-jou. Good business.

I find immense value in the ASCFG because of the import I place on dialogue. This is a fantastic organization with enormous intellect, invaluable experience and a really beautiful support system.

I thank each of you who post on the BB and come to the meetings and anyone who shares. Success is our positive imprint on each other.

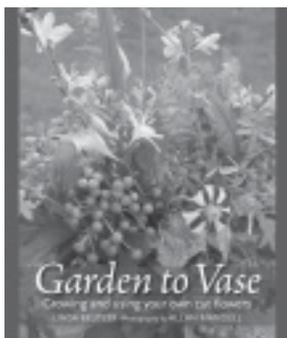
*Lexa Van Doren Kirk owns Secret House Farm
in Great Cacapon, West Virginia.
Contact her at secrethousefarm@earthlink.net*

BOOK Review

*Reviewed by
Erin Benzakein
and
Diane Szukovathy*

Garden to Vase

by Linda Beutler



We were excited to come across a new book on Timber Press' website titled *Garden to Vase*. We put ourselves on the pre-order list and waited not so patiently for over a month. It finally arrived and we dropped everything to crack into what we hoped would be an amazing new book on cut flowers. Author Linda Beutler works as a floral designer, garden writer and is an instructor of horticulture for Clackamas Community College in Oregon City, Oregon. She wrote a very charming book on clematis a few years back and there was hope this would be of the same caliber. It is a thick book filled with chapters like “Flowers From Your own Garden”, “From Garden to House”, “Basic Bouquets” and an extensive section titled “Plants for the Cutting Garden”. The book is a strange roller coaster ride of advice, technique, cut flower care, and the author's opinion on what makes floral art.

Many of the harvesting and conditioning directions were not at all what we've found to work in the field or what has come from many reputable growers and scientists over the years. Here are two examples: We don't know a grower or florist who has been able to successfully use golden elderberry, *Sambucus racemosa* 'Sutherland Gold', because it won't keep. She claims to get it to last more than ten days but doesn't say how. She also says dahlias must have a hot water treatment,

and “dahlias fresh from the garden without the hot water treatment... may last as little as 24 hours.” In our experience, dahlias do not need a hot water treatment; variety selection and stage of harvest are what determine vase life.

We know many people have different ways of handling florals, so any individual item of fact may not make the point. However, we wonder why so many of her facts do not line up with what leading researchers and commercial growers recommend. It makes us question all of her technical information.

The cover photograph is lovely and promises the introduction of unusual plant material and saucy new design ideas. Unfortunately, the cover was the only place we found inspiration. Because this book is pitched toward the back yard gardener, we hoped to see a more unusual plant palette in her floral designs. Gardeners have access to a bounty of unusual perennials and shrubs which often make good cuts but aren't well known to florists and aren't widely available in the floral trade. While she lists a generous range of plant material in the chapter “Plants for the Cutting Garden”, her designs don't show much of these materials in use.

The floral design could have played creatively with color and texture while maintaining an air of informal backyard creativity. Instead, the arrangements seem sloppy, hastily assembled and uninspired. We feel that this book presented tired design ideas, was not well researched and lacked a personal connection with its readers. We would not recommend this book to any serious grower or designer.

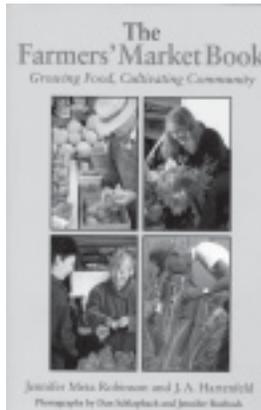
*Erin Benzakein is the owner of floret,
and Diane Szukovathy runs Jello Mold Farm,
both in Mount Vernon, Washington.
Contact them at
erinbenz@msn.com or diane@jellomoldlandscape.com*

BOOK Review

Reviewed by Joseph Caputi

The Farmers' Market Book

by Jennifer Meta Robinson
and J.A. Hartenfeld



This is a book for us, the heroes of the field, the good stewards of the land, market farmers who feed us and add beauty to the daily lives of thousands.

The Farmers' Market Book, written by Jennifer Meta Robinson and J.A. Hartenfeld, is a volume that reads more like William Carlos Williams's epic poem "Patterson" than an account of a farmers' market: "To make a start,/out of particulars/and make them general, rolling/up the sum, by defective means— ..." Written in documentary style, these 272 pages, including extensive notes and a comprehensive bibliography, focus on the accounts of growers and market customers who meet once each week in Bloomington, Indiana—April through October—to swim in the ever-changing waters of the farmers' market culture.

Accompanying the text are photos that are rich, textured, and well composed, with wonderful portraits of customers and romantic shots of perfect produce. The photos are so beautiful that they would look perfectly at home in a magazine or coffee table volume. And that, I suppose, is what bothered me most about this book. As a market grower, the essence of any good farmers' market is its spontaneity, which I found very little of in these pages.

The authors take an academic, folklore approach to their subject, and their passion and commitment is clear. Based on the title, however, I had hoped to find more useful research and specifics about farmers' markets: what it takes to run a successful venture, the financial realities, the politics that drive the market's success or failure, the mix of customers you face as a grower. This book presents an idyllic world, where everyone plays nice, where customers never kvetch about price, and vendors no matter if they're making \$10,000 per market or \$50 are just happy to be there.

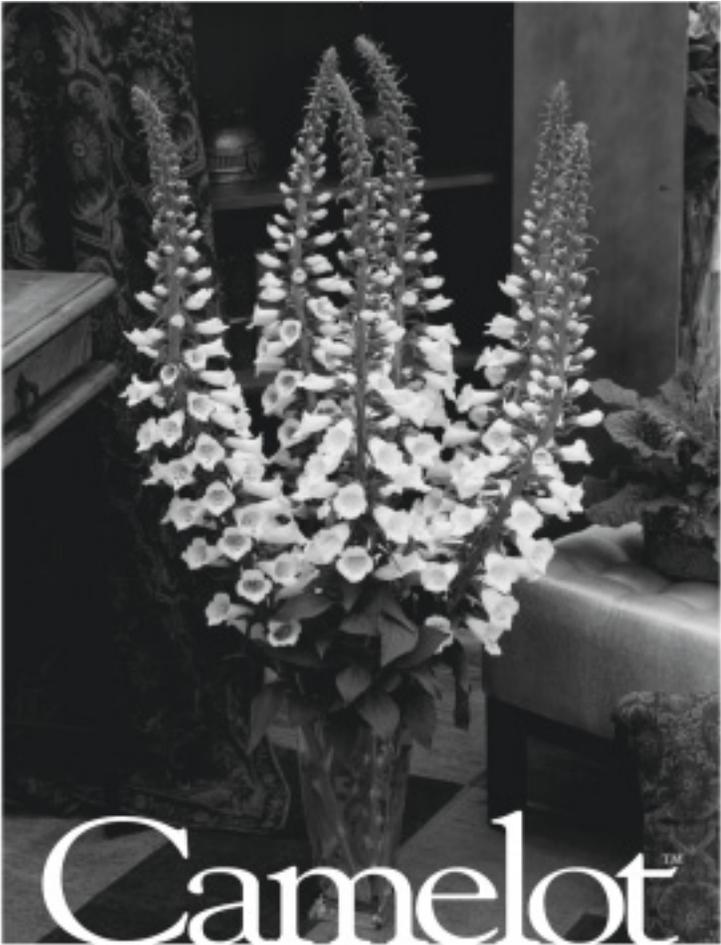
It begs the question: What have they put in the water in Bloomington?

At first I wasn't sure who the audience for this book was. I concluded that it would be essential reading for anyone committed to starting or growing a local farmers' market. In other words, friends' groups, local government officials, and anyone interested in seeing these important venues thrive.

So while I was looking for less romance and more reality, I do know that anything that focuses on us, the growers, and encourages readers to become buyers and supporters of markets is a good thing. We should all be so lucky as to have a market such as this one.

*Joe Caputi owns Charlotte's Garden
in Louisa, Virginia.*

Contact him at joe@virginiaflowers.net



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NORTHWEST

Jerriann Sabin

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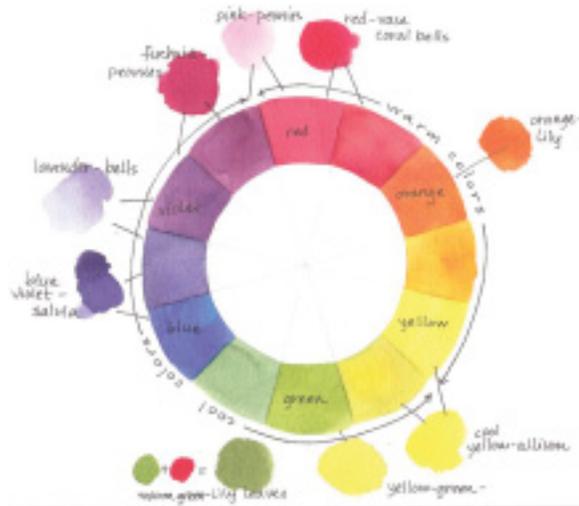
Holy smokes, growing things is a lot of hard work! I think I am afflicted with seasonal amnesia. Each winter I completely forget how much work goes into this crazy business as I while away the cold winter days contented in my studio. The hours and hours—who am I kidding?—the days and days of sweaty, backbreaking work melt away as I reference photos for paintings, seeing only the gorgeous colors and textures that are the fruits of our labor. Instead of remembering long days in the field or hours processing a never-ending supply of perennials, I am captivated by the colors in the photos before me. As the snow swirls and the world outside turns white I am lost for days painting the lush colors of a simple golden iris—marveling in the

To understand what happens when colors are combined we need to understand about color families. Just as a refresher: every color we see is a combination of the three primary colors—red, yellow and blue. Mixing equal amounts of two primary colors results in the secondary colors—orange, green and violet. Combining equal amounts of a primary and a secondary color create tertiary colors—red orange, yellow orange, orange yellow and so on around the wheel.

Drawing a line between the red and green, dividing the color wheel in half, creates two more color families—warm and cool. Any color made with red, orange or yellow or any combination of these colors is considered a warm color. Colors made with combinations of green, blue and violet are called cool colors. These color families create a feeling of temperature and mood. Have you ever wondered why it is hard to sell “hot” colors, like strong reds in the spring? It is because softer, cooler colors evoke the spirit of spring—lime greens, soft yellows, lavenders and pinks. As the weather begins to heat up so does the color palette and the demand for eye-popping reds, oranges and bold blues. The weather peaks and as soon as we feel the first frost, everything rust, orange, brown or purple is selling.

Deep, rich colors fill the fall palette as we gorge on color before winter comes and the world becomes a monochromatic painting of cool greens, steely blues, whites, silvers and grays.

Pick up any home décor or fashion magazine and you will notice strong color themes that follow “seasonal” color combinations. Tear off the dates printed on any Martha Stewart magazine and I am sure you can still put them in chronological order. Color equals temperature, color conveys mood.



depth of values and subtle changes of hue.

Actually I know that I am always painting even when I don't have a brush in my hand. Ralph cuts circles around me as I get bogged down imagining this flower with that flower—designing in my head. And I prefer to process flowers alone so that he doesn't know how often I get lost mentally mixing yet another incredible color. I am dazzled by color and fascinated with the effects of different color combinations.

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To illustrate color temperatures let's examine two different arrangements. Using the same fuchsia-colored peony as a major player in each design but combining it with flowers keyed to opposite sides of the temperature scale I can create two completely different moods. The combination of soft fresh colors, collected in a cool green vase, evoke springtime because I have simply copied nature. The first colors to emerge in the springtime are the cool yellow-greens and vibrant lime greens of new leaves and tender shoots, and the pinks and lavenders of blossoming trees. Pairing "hot" pink peonies with cool shades of green, blue and yellow "cooled" with a little green, frames the peonies, making them pop but also lowering their temperature. The color fuchsia is a combination of red and blue so the cool blue in the lavender bells echoes the blue in the peonies, further softening their temperature.



I have pushed the second bouquet in the opposite direction, creating a sense of sun, heat and excitement. The red in the fuchsia peonies is echoed in the orange lilies, primary red coral bells and the fire engine red vase. The blue of the salvia is just a shade off primary blue—created by adding a touch of red. The leaves are even a "warm" green, a perfect secondary green combination tinged with just a touch of red. The cooling blue tones in the peonies and salvia set the reds and oranges on fire—orange and blue being opposites on the color wheel visually vibrate when set by one another. Grounded in hot elemental colors this bouquet is essential, vibrant and lush, definitely not for the faint-hearted.



In writing this article I have come to the conclusion that my seasonal amnesia has developed as a defense mechanism. During the long, dark, cold months I survive reliving the colors of summer in my studio. And I definitely get through the madness of the growing season dreaming of long days of painting.

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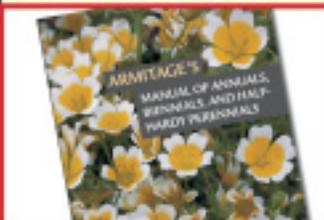


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ASCFG Bulletin Board

The following is a selected (slightly edited) string of conversations from the ASCFG Bulletin Board. It makes clear how much valuable, hands-on information is exchanged between growers. If you have not taken advantage of this member service, contact the ASCFG today to sign up.

Grasses and Sedges for Cuts

Laurie Hodges, Nebraska: I would like to get a better sense of the market acceptance for various grasses and sedges, both direct to florists and wholesale and direct to the public (farmers' markets or other).

Ralph Thurston, Idaho: High-end florists seem to be my best customers for grasses of all sorts, with the general public being the least inclined to buy.

Jenny Mummert, Missouri: Folks in mid-Missouri seem to like the inclusion of grasses and sedges in bouquets.

Ann Trimble, Kentucky: I sold every stem of pearl millet I had last year. It sort of looks like a green cattail, grows easily and gets large; also grows side shoots. Cuts fast which is an important recommendation for me these days.

Betsy Webster, North Carolina: I use German foxtail millet in the paths in my garden. I buy a 50-pound bag at the local feed store and plant when the soil warms up the end of May. Rows can be mowed, picked or walked on. Keeps the red clay at bay. I sell 10-stem bunches to local florists for \$6.00/ bunch.

Lisa Ziegler, Virginia: I grew 'Forest Bouquet' from Johnny's. I thought it looked great but my upscale florist seemed ho-hum about it; maybe I overpriced it at \$4.50/10 stems? I have 'Texas Black' sorghum just about ready to harvest. I sell to upscale florists and retail to upscale customers.

Ralph Thurston, Idaho: I cut grasses as a field bunch - that is, whatever fits into a normal sized hand comfortably. That might be 20 stems, 40 stems, or more, depending on the species. As for what to sell, sell what the buyer wants. Beauty is in the eye of the beholder. Remember, though, when pricing, that what you're cutting may seem to be free from the wild, but it probably takes more time and effort to retrieve than that taken from the field. Price accordingly, don't shortchange yourself.

Laurie Hodges, Nebraska: Yes, you can sell those "wild weeds" if your florists and customers can see how to use them. Sedges make excellent fresh/dried materials not commonly available at hobby stores or wholesaler distributors. Farmers' market sales are good, in my experience. People remember playing with them as kids (doll hairbrushes) and get nostalgic. Dock is very useful both when fresh (slightly green/tan) and dried (not too old when picked or will shatter). Get long stems if you can since these tend to go into larger arrangements. Plunder the swamps of *Juncus* (rush) seed stems also. You'll never get it all! If you sell bouquets, maybe try a few "water garden" or "streamside memories" bouquets by including some cattails and arrowhead leaves to see how they sell. Here, they appear at the farmers' market mostly in the fall. In my limited experience, most of these wetland border plants have good vase life. They have stiff stems developed for fluctuating water levels.

The ASCFG Welcomes its Newest Members

Marilyn Arton, Les Dames des Fleurs, Carencro, Louisiana
Anille Caggiano, A. Caggiano Inc., Jeffersonton, Virginia
Ken Cochran, OARDC, Wooster, Ohio
Stan Curry, Bradford, Ontario
Anna Dean, Spring Haven Farms, Frankfort, Ohio
Susan Durio, Les Dames des Fleurs, Carencro, Louisiana
Thea Folls, Foll's Flower Farm, Auburn, New York
Cecil Hawley, Sassy Massey, Appleton, Wisconsin
Deborah Jackson, Passion for Flowers, New York, New York
Mary Massey, Sassy Massey, Appleton, Wisconsin
Jennifer Moeller, Hensbury Farm, Waite Hill, Ohio
Suzanne Morrissey, Peace & Plenty Flower Farm, Eastsound, Washington
Gary Pellett, NewFlora, Central Point, Oregon
Tom Pinchbeck, William Pinchbeck, Inc., Guilford, Connecticut
Paula Rice, Bee Haven Farm, Bonners Ferry, Idaho
Kerry Sullivan, Church Family Farm, Laconia, New Hampshire
Diane Szukovathy, Jello Mold Farm, Mount Vernon, Washington

Thank you ASCFG Research Foundation Supporters!

Joe Caputi
Maureen Charde
Ron Chaskelson
Therese Collins
Leah Cook
Frank Dickson
Dave Dowling
Terry Doyle
Nellie Gardner
Matt Gerald
Mel Heath
Craig Heinsohn
Betsy Hitt
Nanette Holmes
Darrell Johnson
Knox Johnson
Cathy Jones
Susie Kinzie
Bob Koenders
Mark & Sandy Kurtz
John LaSalle
Shelley McGeathy
Colin McLean
Jerry Meyer
Dennis Milar
Rachel Mordhorst
Karen Odorizzi
Bill Preston
Sonya Robinson
Monika Roth
Bev Schaeffer
Vicki Stamback
Joan Thorndike
Chris Wien
Bob Wollam
Johnathan Yu

An ASCFG Regional Meeting is Coming to You!

All members are welcome at any Regional Meeting.
You may attend a meeting in a Region other than your own.
Watch www.ascfg.org for details.

Midwest and Southeast

July 1-2, 2007
Winchester, Kentucky

Northeast

August 19, 2007
Amherst, Massachusetts

Mid-Atlantic

August 27, 2007
Wollam Gardens, Jeffersonton, Virginia

Haygrove Plans Meetings in Three Countries

Growers are invited to attend Haygrove's "Grower to Grower" meetings in Canada, Britain and the eastern US. The first meeting is August 14 at Strawberry Tyme in Ontario, Canada. Strawberry Tyme Farm is one of the farms on the North American Strawberry Growers Assn. summer tour. Strawberry Tyme grows 27 acres of strawberries, raspberries and grape tomatoes in Haygrove tunnels.

Next is Herefordshire, England, home of Haygrove Fruit, with 250 acres of tunnels covering raspberries, strawberries, cherries and cut flower lilies. This guided tour will include Haygrove's tunneled production area, the latest innovations in tunneled production and the new Voen self-venting crop protection system.

United States – There will be numerous "Grower to Grower" meetings at farms and research sites in the eastern US showing the results achieved on a wide variety of crops grown in Haygroves. Meetings will be held in several states.

Call 866-HAYGROVE or visit www.tunnelbuzz.com for complete details on the tours and meetings.

Duty-Free Status for Flowers Unclear

The Andean Trade Preference and Drug Eradication Act (ATPDEA), which allows flowers duty free into the U.S. from Colombia, Ecuador, Peru and Bolivia, is set to expire June 30, 2007. It is unclear if a new agreement can be reached before the deadline.

Colombia's President has been to the U.S. twice in one month to talk to U.S. Congressional leaders about the importance of the program. Ecuador's Foreign Minister also met with members of Congress. Ecuador is pressing for a two-year extension of the Act.

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Congratulations to Members Celebrating Ten Years with the ASCFG!



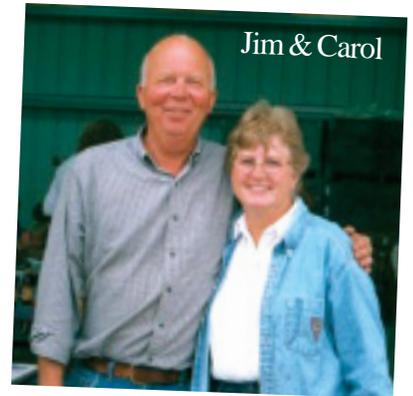
Jim & Carol Adelman Adelman Peony Gardens, Salem, Oregon
 Therese Collins, Therese's Cut Flowers, Centreville, Maryland
 Catherine Cooper, Kate's Fresh Flowers, Barneveld, Wisconsin
 Sandy Della Villa, Patch of Paradise, Danville, New York
 Stanton Gill, University of Maryland, Ellicott City
 Cathy Jones, Perry-winkle Farm, Chapel Hill, North Carolina
 Shari Keefe, Shari's Berries, Hiram, Ohio
 Jon Landwer, Dragonfly Farms, Eustis, Florida
 Gregory Lebak, Lebak Farms, Bordentown, New Jersey
 Max Lee, Max Lee Farms, Benson, North Carolina
 Diann Lovejoy, Lovejoy Farms, Eltopia, Washington
 Tim & Donna Mills, Floral & Hardy Farm, Lexington, South Carolina
 Janet C. Nutt, Janbil Farm Country Cuttings, Cedartown, Georgia
 Shirley Randon, White Oaks Farm, Metairie, Louisiana
 Nelson & Rose Rohrer, Rohrer Family Farm, Lititz, Pennsylvania
 Jan Roozen, Choice Bulb Farms, Mount Vernon, Washington
 Joan Thompson, Flowers by Thompson, Lugoff, South Carolina
 Russell Welser, Cornell University, Canandaigua, New York



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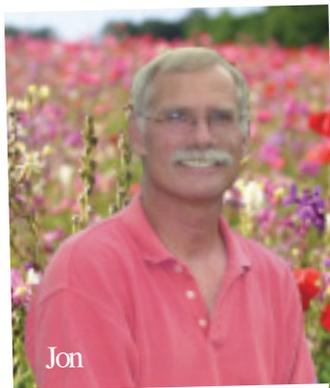
Shari



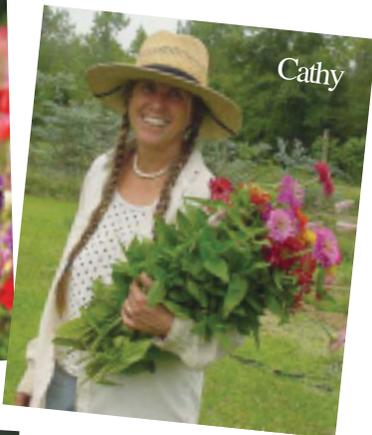
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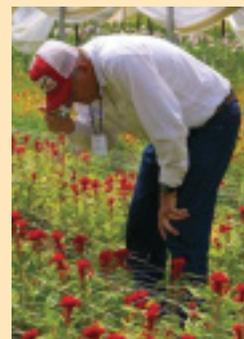
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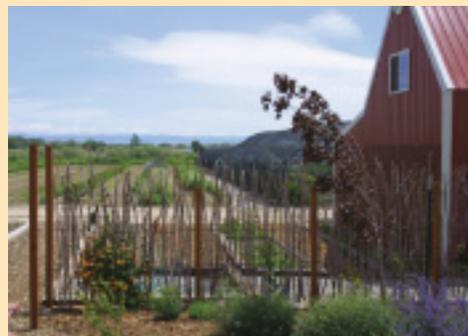
Scenes from a Regional Meeting



South-Central
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and Texas Specialty
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Blanco, Texas



Northwest
Bindweed Farm
Blackfoot, Idaho



USDA Reconsiders Horticulture Census

The U.S. Department of Agriculture (USDA) recently decided its Census of Horticultural Specialties should be conducted more frequently. The census provides statistics on several agricultural segments, including floral and nursery, and will serve as a follow-up to the USDA's Census of Agriculture, which surveys the state of the entire agriculture industry. The Census of Horticulture survey provides vital details about the state of the industry, but it hasn't been conducted for 10 years. It will now be conducted in 2009 and 2014.

Ira Silvergleit, SAF's director of Research and Information, is a member of the USDA's Advisory Committee on Agricultural Statistics, which made the recommendation to conduct the Census of Horticulture Specialties on a more regular basis. During the group's meeting on May 2 and May 3, Silvergleit says the committee also decided to change how it addresses the floriculture and nursery segments in its Census of Agriculture. In order to collect more detailed information about the floriculture industry, the proposed Census of Agriculture (to be conducted in 2008) will once again distinguish between individual producer segments: cut flowers, potted flowering plants, foliage, and bedding and garden plants.

Previously, the Census of Agriculture grouped floriculture and nursery segments together in one figure, a practice which caused a "serious void in data about our industry," says Silvergleit.

"This effort is absolutely important because [the results of the census] will help us understand [flowers and plants] being produced, so that companies can adjust their marketing plans accordingly," says Lin Schmale, SAF's senior director of government relations. "It also will help us more effectively present the overall value of our industry to agriculture, which is important when lobbying for increased research funding.

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FROM *the Director*

Judy M. Laushman

Before you read any farther, please do me a favor. Check today's date, then go to your phone and call (440) 774-2887, or to your computer and email ascfg@oberlin.net, and let me know what day you received the packet with your copy of *The Cut Flower Quarterly*, the Raleigh Conference brochure, and the 2007 election ballot.

Some of you are aware of the trouble we had with the mailing of the Spring issue, particularly to members in Oklahoma, Texas and Louisiana. Magazines were delivered up to seven weeks late, some never appeared at all. Mysteriously, neither my local post office nor my regional substation could provide a satisfactory reason. Perhaps one Southern postal worker is hoarding them all in his basement, gathering enough information to become a cut flower grower himself one day.

Whatever the reason, I apologize for the snafu. We are using a different permit this time, and I need to know how much faster it gets our mail into your hands. If this one is more efficient, though it is a little more expensive, we will probably use it in the future.

We were able to stuff a couple extras into this packet. The Raleigh Conference brochure, which had already been available online for weeks, is fresh off the press and into your hands. If you're planning to register for the Growers' School, you'd better be making another call, because the Growers' School is already half full. Registration is limited and we know it will fill quickly. The rest of the Conference is excellent: the Raleigh Committee had so many terrific speakers they couldn't fit them all into two days, so we added a third.

This year you'll have several opportunities to participate in the Conference yourself. Remember to carry your camera everywhere this season, so you can enter your own photos in the 'Ideas from the Farm' session on Thursday. Donate flowers for the hotel designs, and spend some time creating your own arrangement for the Floral Design Competition. This is quickly becoming everyone's favorite part of the Conference. Don't tell yourself you don't have any design talent. Come down to the design room, pick out a container and give it a shot. You'll have a lot of company, and all kinds of advice.

The ballot for the 2007 Election is also included in this packet. We are fortunate to have an excellent crop of candidates for this year's election of Regional Directors for the Northeast, Mid-Atlantic and Southeast, as well as President and Vice-president. Our goal has always been to have at least two candidates per office, but in an organization as small as ours, that's not always possible. Please take a minute to return your ballot. Each year I'm pleased with the quality of people I'm able to work with, and I look forward to working with the new Board beginning in 2008.

I'm also eager to see all of you in Raleigh in October.

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