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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 field and greenhouse specialty cuts



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(440) 774-2887 or mail@ascfg.org
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Farming Flashback and a List of Perennial Bulbs

Jennie Love



I'm fresh off the flight back from our spring ASCFG Board Meeting in Ohio. So much work was accomplished by the Board during our two-day, intensive meeting. It's been an amazing honor to lead such a dedicated group of volunteers. These are full-time flower farmers just like yourselves, adding to their already overflowing plates by taking days away from their farms and families to spend time hunkered down in a meeting room, thoughtfully strategizing for the future of this vibrant and growing organization, and planning out the many invaluable educational offerings we have for our members. Let me tell you, it's tough work. Not a lot of glamour. But it's great to be on the Board because of the friendships we all develop in this focused effort.

Most of your ASCFG Board members are very seasoned growers. During our recent meeting, in an effort to dream up future conference topics that would be on target for our newer members, we got to talking about our own memories and experiences as wet-behind-the-ears flower farmers. It was fun to walk down memory lane and look at pictures of our first harvests and market stands. There's a lot to chuckle at and there's a lot to be proud of in these reflections on the early years.

I remember back in 2009 as I was going into my second season, just having launched Love 'n Fresh Flowers, I really hadn't even gotten up the nerve to call myself a flower "farmer" yet. I just had a tiny community garden plot that totaled a grand 1,680 square feet. But in that garden that year, I managed to grow enough flowers to go to two farmers' markets

a week, and to do my first handful of weddings. I remember how hard I worked on mapping out that garden because every single inch mattered.

Since space was precious, I was conflicted about adding perennials. I also wasn't sure how long I'd be in this particular community garden plot; I wanted very much to find a larger space to farm. But, because I'm a bit of a plant nerd who covets unusual stuff, I decided that year to take a leap of faith and place my first big plug order for perennials from North Creek Nurseries. I remember their minimum order requirement was \$300, and I was sweating bullets writing the check in their office when I picked up the plants.



First perennial planting and first farmers' market booth.

I have to confess that I laugh at myself now, looking back, knowing how invaluable that purchase was for my business and how small that expense was in the grand scheme of this farm's history. But that's the headspace I want to remember when thinking about how best to serve ASCFG members, regardless of where or how they are growing. What we do takes faith, strategy, and commitment no matter what juncture we are at in our flower journeys.

So, with that in mind, I thought it would be fun to give you a list of five of my favorite perennial specialty bulbs for cutting. These bulbs usually aren't as expensive as some other perennials (though the fritillaria can be, I admit!) and growing these has helped immensely to set Love 'n Fresh Flowers apart as a floral design studio over the years.

1. Narcissus. This one is probably not much of a surprise as so many of us now grow specialty narcissus. And for good reason. They are deer-proof (hallelujah!), fragrant, nostalgic harbingers of spring that let many flower farmers enter the marketplace earlier than they might otherwise be able. They tolerate being planted under deciduous trees so you can use otherwise marginal space for flower growing. They naturalize and multiply if you give them space and put them where foot/machine traffic is light so they can just do their thing. They store well for a long time if picked in gooseneck stage and kept in a cooler. And bulbs are typically readily available and affordable. The only downside is the sap the cut stems ooze. But just be sure to



I'm utterly obsessed with these dainty, diminutive darlings that come in sky blue, white, blush, and navy. I also have to confess that they aren't a good crop for all flower farmers. They're really useful only if you are a farmer-florist such as myself or if you are selling to event designers.

wear gloves when harvesting and don't mix the freshly harvested bunches with any other flowers in your buckets. After 24 hours, you can mix narcissus stems into mixed bouquets or arrangements, just don't cut the stems again so sap doesn't start oozing again. Three of my favorite varieties of narcissus are 'Prosecco', 'Acropolis', and 'Obdam'.

2. Muscari. I have to make a confession. I'm utterly obsessed with these dainty, diminutive darlings that come in sky blue, white, blush, and navy. I also have to confess that they aren't a good crop for all flower farmers. They're really useful only if you are a farmer-florist such as myself or if you are selling to event designers. Topping out at 8" usually, the stems of most muscari are far too short for anything other than delicate wearables or short vase designs. But they are so very useful if you are indeed designing boutonnieres, corsages, bud vases, and other littles. They come into bloom right in the heart of spring wedding season, and I'd be lost without them. Bulbs are CHEAP! And they naturalize if you make sure to put them somewhere they won't get stomped on when they aren't in bloom. You can also easily grow them in crates. One crate can hold about 80 bulbs if you pack them in. Try some and I'm betting you'll join me in my obsession!

3. Leucojum. Another spring favorite that is phenomenal to have if you're a farmer-florist or selling to designers is

Leucojum aestivum, or giant dnowdrop. Cute white bells dangle from tall, straight stems, making you think it's an oversized lily of the valley (it's not). They are incredibly easy to work into spring bouquets where they add a real touch of elegance. *L. aestivum* pair perfectly with Icelandic poppies, tulips, and hellebores. Their bloom period is pretty long for a spring bulb since they shoot up several stems per plant. Bonus: they naturalize like bunny rabbits when they are happy. At this point, I have more than I know what to do with, but I'm not complaining! They're just as endearing left in the landscape as they are in the vase. One important note about leucojum is that they too ooze sap like narcissus so handle them the same way as I described above.

4. Fritillaria. Ah, the much sought-after fritillaria! In particular, *Fritillaria persica* has been making waves in the designer world for the past few seasons. Stems can fetch as much as \$28 each in the New York City market! Holy moly! But the bulbs are pricey (\$4-5 apiece wholesale), can be short-lived if you don't know how to treat them, and usually put up only one nice stem their first year in the ground—all of which makes the cost of this particular fritillaria as a cut flower high. However, if you can get them to perennialize at your farm and you have a high-end clientele, you'll have yourself a real golden goose. The trick to keeping *F. persica* happy is to plant the big fat bulb on its side in very well-draining soil. The bulb is very prone to rotting and there's a hollow spot in the tip of the bulb that catches too much moisture if you plant it straight up and down. Laying it on its side helps circumvent rot. My *F. persica* bulbs are five years old now and they've actually started to self-seed around their beds so I've got lots more than the 100 I started with originally.



Leucojum



Fritillaria

There are two other *Fritillaria* species worth noting, though I don't grow either as a perennial. *F. meleagris* is a diminutive cousin to *F. persica*, beloved by designers for the checkered pattern on its nodding bell-shaped head. Bulbs are cheap and it's worth treating them as an annual if they don't take hold as perennials for you.

F. imperialis is a stately, exotic-looking bloom that may tempt you as a cut, but its skunky smell usually puts most people off.

5. Formosa Lily. My new favorite perennial, bulb or otherwise! I have to thank Mandy and Steve at 3 Porch Farm, longtime ASCFG members and friends, for introducing me and many others to the fantastic Formosa lily (*Lilium formosum*)! Super easy to grow from seed, Formosa lily is a stately and robust perennial that blooms in late August and early September, just when a clean white bloom is most welcomed after the tiring dog days of summer. If you can resist cutting all the flowers, you'll be rewarded with really striking seed pods later in the fall too. If that wasn't enough to entice you, this lily also seems adapted to grow well in part shade, which is where mine have naturalized freely over the past two years. After getting established for a season or two, plants start sending up several stems each. The fragrance is a very light perfume that does not overpower the nose like many lilies, but does frequently lure people to lean in for a sniff.

Hopefully that list propels you to plant more perennials! You won't regret it, I promise! Now go out there and get busy with your spring planting! When your back and knees ache, remember we're all right there with you!



Formosa lily

*Jennie Love is owner of Love 'n Fresh Flowers.
Contact her at info@lovenfreshflowers.com*



121 Gary Road
Hodges, SC 29653

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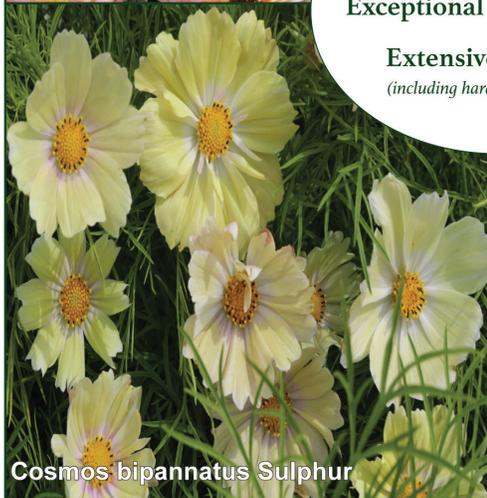
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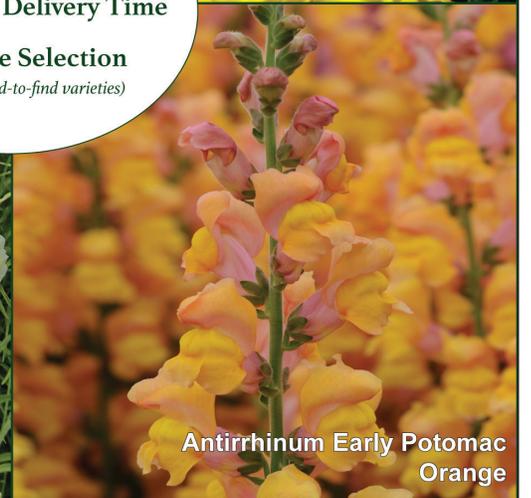
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The Art of the Apology

Ellen Frost and Laura Beth Resnick



Is the Customer Always Right?

We've all heard the age-old refrain: The Customer is Always Right. The phrase means we should approach each customer complaint with humility rather than defensiveness, which is excellent advice. But the phrase also implies that we should react to each dissatisfied customer the same way: to apologize, and move on. We should smooth over the issue as fast as possible without engaging. Essentially, we should avoid conflict at all costs.

But conflict is a normal, healthy part of relationships between people. We see the benefits of conflict all around us. Great leaders like Abraham Lincoln listened to their colleagues' disagreements, making space for questioning and finding flaws in their motivations. Great friends are the ones who will tell us hard truths we don't want to hear. And if we could wave our wands and take all the conflict out of relationships with our life partners, we'd be bored as all heck.

Learning to see conflict as an opportunity for growth is one of life's greatest challenges. Conflict is healthy, but it's also terrifying. When we have issues with an employee and need to have a talk, our hearts start pounding and our hands start to sweat. Our minds pull up horror scenarios where the employee reacts by quitting, or where we're bad people and it's all our fault.

Fear of confrontation makes us want to get this over quickly: just apologize and move on, or tell the employee what they did wrong and move on. But each issue with an employee differs from the last, and if we brush past a real discussion about the issues at hand, neither of us would learn anything. It's best to set fear aside (a mighty feat!), and replace it with respect and compassionate inquiry.

The Art of the Apology is about setting fear of conflict aside in favor of this more nuanced approach. Instead of slapping an apology on each customer complaint, we can thoughtfully engage with issues by holding humility in one hand and confidence in the other. We can examine how we were mistaken, and also hold to be true that we believe in our process. Thoughtful apologies to our customers can lead to stronger relationships and great learning for everyone.

The Customer Who Complains That Her Flowers Died

Laura Beth

Let me explain how this manifests in the simplest, and most common, of our florist customer complaint scenarios: The Customer Who Complains That Her Flowers Died. This is my WORST fear, and when it happens I freak out.

After I have set my first reaction of fear and dread aside, I can think about how to respond to The Customer. First of all, having flowers die after delivery is extremely frustrating for them, so an apology for causing frustration is definitely in order. And, whether it was my fault or The Customer's fault that the flowers died, I issue a credit for that item, simply because that's our policy.

Before I decide what to do next, I need to figure out what kind of issue this is. The Customer Who Complains That Her Flowers Died usually falls into one of two categories. The first one is The Customer Who Killed the Flowers by Accident.

Here is where the nuanced approach to apologizing becomes useful. The Customer Who Killed the Flowers by Accident is probably not aware of what he or she did to kill them. If I simply apologize and move on, they will do it again by mistake. So along with my apology and the credit, I gently inquire about how they treated the flowers after our delivery. For example, if the complaint is about basil and I find out they put it in the cooler, I can explain that basil does best at room temperature and that hopefully we'll have better luck next time. Ta-dah—we resolved this conflict with a balanced mix of humility and confidence in our product!

The second category is The Customer Who DIDN'T Kill the Flowers by Accident, meaning that... WE DID. If we've been working with a customer for a long time, I can safely assume that we are at fault.

For example, we had recurring issues with our scented geranium last year with Ellen. She is an expert at handling local flowers, so when she has issues, I can assume they are the result of my mistakes. First, I apologize for the frustration, then I issue a credit. I also ask if there's any way we can solve the problem immediately, for example, bring a last-minute order of some other foliage as a replacement.

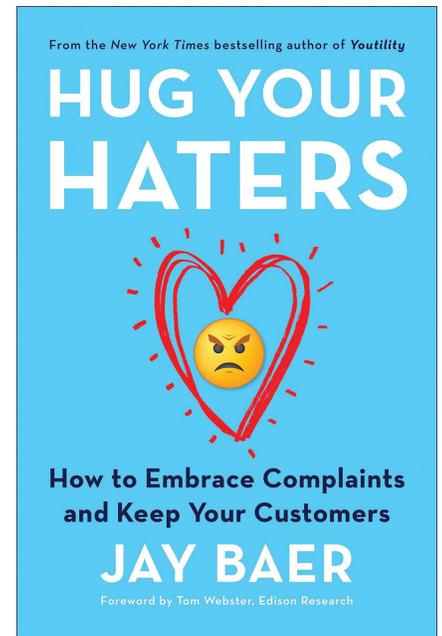
If the complaint comes during a busy work day, Ellen might not have time to help me figure out how we're messing up with the geranium, and I might not have time either. So, I ask for photos so that I can figure out the issue. I promise that we will do everything we can to troubleshoot and that I'll get back to her with a plan to rectify the problem going forward.

Later on, I let her know by email what we'll do differently in the future. In this case, we were cutting the scented geranium a little too young; we also had trouble with one variety in particular, so we decided to drop that one from our crop plan. And, we bought Quick Dip, and found that it really helped with our foliage's reliability. Finally, I thank her for her patience with us.

But the learning doesn't stop there. I had asked Ellen to send me lots of pictures so that I could figure out what was going on. She obliged, and then later that day, she gently explained to me that she doesn't have time to stop everything and take pictures of dead scented geranium. Now that I know, I can be a lot more sensitive to her needs. It was brave of her to find a compassionate way to tell me I was crossing a line, and her actions perfectly show how putting aside fear of conflict in favor of respectful discussion can be rewarding.

our fault), once when the arrangement tipped over on the porch because it was really windy (mostly our fault), once when the client complained that the paper whites were "wilted" but really that's just the way their blooms face (not really our fault). The list goes on. In any case, we apologize and offer to replace the arrangement or refund the money.

There is a great book by Jay Baer called *Hug Your Haters*. In it, Baer explains that if you handle complaints right, you can actually win and keep customers even when they were initially dissatisfied with your product.



Most consumers don't know how long flowers should "last," they just think they should.

Ellen

Part of our business is being a retail florist. We send flowers out for delivery for special occasions (birthdays, anniversaries, etc.) and for business and restaurant subscriptions. Most of the recipients are expecting their flowers to "last". Most consumers don't know how long flowers should "last," they just think they should.

For these orders, we try to balance the desire to create an aesthetically pleasing arrangement with the goal of having the flowers "last". We never use super delicate, or short-lived blooms like poppies in these arrangements. We also stopped using things that people thought looked dead (dogwood blooms, 'Rosanne Brown' lisianthus) even though they weren't dead, to avoid complaints. When we do receive complaints of flowers that died, for whatever reason, we apologize and offer to replace the arrangement with another arrangement.

We always ask for the "dead" arrangement back when we deliver the new arrangement so we can try to determine the problem. Some instances where the flowers were "dead" include once when we forgot to put water in the arrangement (definitely

The Customer Who Thinks We're Too Expensive

Laura Beth

All business owners get insane complaints from customers. I have a mental catalogue of some of the more hilarious ones, and I'm sure each of you reading this has a Crazy Person Catalogue too. It's totally reasonable to decide that some customer complaints are outlandish, and that a quick apology is the best way out. I definitely use "I'm so sorry you felt that way, sounds like we're not a good fit, bye-bye forever." on a regular basis!

I sometimes use this refrain with The Customer Who Thinks We're Too Expensive. There are tons of wholesalers in our area who sell half-dead flowers for dirt cheap; if you like that better than our gorgeous blooms, well, I can't help you. But there have been times when I felt it was worth engaging with a different kind of apology in mind.

This situation came up recently. I had convinced a floral business that bought only wholesale for many years to get a very small weekly delivery from us. Sometimes the owners would wander over to my two or three buckets of blooms and foliage and comment on how beautiful it all was, but always throw in with a raised eyebrow, "And this is all you brought?" But they never gave me any other feedback, or stated their needs in any way. They also never increased their meager budget, even though they had a walk-in cooler bigger than my living room filled with roses each week. So I kept coming for two years.

One day, the owners came over and said that everything I brought was gorgeous, and then they pointed to a delivery from the wholesaler. The wholesaler's flowers were smushed into

It's totally reasonable to decide that some customer complaints are outlandish, and that a quick apology is the best way out. I definitely use "I'm so sorry you felt that way, sounds like we're not a good fit, bye-bye forever." on a regular basis!

cardboard; they looked wan next to my blooms. The owners said they couldn't justify buying from us anymore, when they got more flowers for cheaper from the wholesaler. They wanted me to lower my prices.

I looked incredulously at my vibrant display next to their preferred cardboard mess. I could have said, "Okay, we'll

lower our prices for you," but that would have compromised my values. I could have said, "I'm so sorry you feel that way, sounds like we're not a good fit, bye-bye forever." but I decided that after two years of doing business together, we all deserved more. In this case, I could not in good conscience apologize for doing what I believe to be good work. Instead, I could offer them something else: a respectful discussion.

When I was finished explaining that we pay our employees a livable wage, that we follow organic practices, that we rejuvenate our soils for future generations, that many of our products are actually more affordable than the wholesaler's (dahlias and lisianthus, for example), that our flowers last twice as long, that they can't get ninebark anywhere else, etc., etc., etc. ...

The owners looked at me quizzically, and I'll never forget what they said: "You want us to buy from you *because it's the right thing to do*?" As though doing the right thing was a novel concept they had never considered before. Furious as I was with their bleak response, we ended the conversation more or less respectfully. I left knowing I would not work with them again. We could not overcome our conflicting values. But, I'm so glad that I had a chance to engage with them. Perhaps nothing I said stuck; or perhaps they now understand why local flowers are worth more, even if they can't get behind it.

If we apologized all the time to every customer who didn't like us, we'd still

be working with customers who aren't a good fit. And, more importantly, we'd never get the chance to educate our customers about why we make the decisions we make. Education about farming and local flowers may not convince every customer, but every once in a while, it strikes a chord. I have just as many examples of customers who became believers in local flowers as customers who refused to listen.

Ellen

For the most part, retail customers who perceive us to be too expensive won't order with us in the first place. We don't have many people unhappy with their orders, because we have become good at managing people's expectations about what they will be receiving.

Where we do hear complaints pretty regularly is at Open Studio or on Saturdays when we're open to the public for



sales of flowers by the stem. We had an experience recently where we bought about 40 bunches of beautiful eucalyptus from one of our local growers. It was tall, sturdy and very fragrant. We did some promotion that we had this beautiful, local eucalyptus available for sale by the stem or bunch, and we had tons of people come by to buy it. We were selling it for \$3 a stem or \$30 for a 10-stem bunch. We touted the fact that it was locally grown by a family farm in Maryland, that the fragrance was amazing, and that it could also be used dried.

Many people were surprised by the price, and made their surprise and unhappiness known. We still sold all the stems, but there was a lot of “discussion” about the price. What we learned is that most people’s frame of reference for eucalyptus is the bunches sold at Trader Joe’s. These bunches are \$3 a bunch. A BUNCH! I don’t know where Trader Joe’s gets its eucalyptus so I couldn’t really speak to that price with our customers.

What I could tell them about is our farmer friends that grew the eucalyptus we were offering. They are a family farm located in Montgomery County, close to Washington, D.C. They are seasoned farmers with over 30 years of experience. They grow the eucalyptus in a hoophouse and care for it almost for an entire year before it’s harvested. They pay their workers a fair wage. All of these things and more go into the price of a stem of eucalyptus. We try to tell a compelling story of the flower, farmer and florist so that the customer finds value in the product. When they don’t, we thank them for their interest.

The Art of the Apology

Ellen

As a florist, apologizing is part of doing business. I wish it wasn’t, but it is. We strive to not to make mistakes, but sometimes we do. We usually feel worse than the unhappy customer when they are unsatisfied. When we make mistakes we still try to give good customer service despite the problems. None of us are perfect, no matter how hard we try. Apologizing is one way to show our customers that we care and we hope they give us another chance to prove ourselves in the future.



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Laura Beth

I used to think that dealing with customer conflict was a necessary evil. Like the Comcast person had to apologize when my husband accidentally sliced our Internet cord in half with a shovel, I’d have to say “I’m sorry” when my customers did stupid things. If I wanted to be a business owner, I’d have to just suck it up and apologize constantly.

But that approach to saleswomanship brings me no joy. Instead, I have found such meaningful relationships with customers after years of hearing their needs and affirming mine, of finding middle ground, and of feeling valued when a customer trusts me to hear their issues and make positive changes.

The truth is, the customer is not always right, but neither am I. No one is always right; no one is always wrong. Rather, we are complicated, flawed, precious people. We can learn and grow from each other’s ideas; we can discover new truths that elevate our relationships. And that’s what apologizing is all about.

*Ellen Frost is owner of Local Color Flowers.
Contact her at ellen@locoflo.com*

*Laura Beth Resnick is owner of Butterbee Farm.
Contact her at butterbeefarm@gmail.com*



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Wendalane Farms

Jodi Helmer



A Canadian teacher grew her love for seed-starting into a thriving cut flower farm

Jen Feddema-Gerryts was a high school teacher with a passion for starting seeds. Every season, she germinated hundreds of seeds on a sunny windowsill and planted them in her yard in Niagara, Ontario.

After her father-in-law died in 1999, Feddema-Gerryts and her husband, Bob Gerryts, moved to the family dairy farm.

“My little addiction to growing things just had all sorts of room to explode,” she recalls. “When you get a seed packet, it comes with a lot of seeds so you end up with way more plants than you need.”

As perennials took over more and more of their land, Bob suggested selling them. Jen set up a roadside stand and Wendalane Farms was born. There was just one problem: Perennials were not perennial bestsellers.

“The problem with perennials is that people buy them once and then don’t need them again because they already have them in their gardens,” she explains.

With more plants than customers, Feddema-Gerryts started going to the farmers’ market in 2004. She cut several stems of peonies from her garden and took a few bouquets to the market on a whim; the bouquets sold out and when she realized that the perishable petals would bring repeat customers, she switched her focus from perennials to cut flowers.

Wendalane grows cut flowers on two and a half acres of the 67-acre farm. Although Ontario has a shorter growing season, she has not added high tunnels and opted not to repair a 20-by 40-foot greenhouse after a severe storm snapped the frame almost a decade ago.



Wendalane Farms

Jen Feddema-Gerryts

“It was great for seedlings in March and April when it was full of seedlings but, for the other 10 months of the year, it was stressful. We used to have a lot of power outages and the blower would go off...and I decided that monitoring a greenhouse was not something I wanted to do,” she recalls. “I sometimes dream about having a high tunnel to extend the season but I talk myself out of it because it would be a stress and I’ve already developed a farm that works for me.”

A Short but Profitable Season

Feddema-Gerryts prefers limiting her season, selling from June to October and using the off season to clean the farm and prepare for the next season. Instead of starting early with tulips and other bulbs, which provide minimal return on investment for her farm, Jen chose peonies and ranunculus as her first crops of the season. She takes them to farmers' markets starting in May.

"I feel like as long as I have peonies and ranunculus for the first three or four weeks of the season, people are thrilled," she says.

Although Feddema-Gerryts sells at one weekly market in Grimsby, most of the cut flowers grown on Wendalane Farms are sold for weddings. Designers come to the farm on Wednesdays to pick their stems and Jen uses the remaining flowers to make bouquets for the Thursday evening farmers' market, and sells any leftovers at the roadside over the weekend.

Over the last 16 years, Wendalane Farms has built a loyal customer base who appreciate Jen's commitment to tried and true varieties. Her staple crops include zinnias, sunflowers, peonies, dahlias, and lisianthus. Lisianthus is one of her favorites.

"I can't get enough lisianthus," she says. "[In February], my basement is full of little lisianthus; I seed 300 to 600 every day; I don't think I can ever have enough of it. It can handle cool weather in the fall, it [goes into the cooler] well and it blooms right through [Canadian] Thanksgiving...I can't talk enough about lisianthus."

Lisianthus also grows well in the clay soil that is prominent on Wendalane Farms. Jen has stopped fighting it.

"I just realized some things don't grow well here [because of the clay soil] and I'm okay with it," she says. "Some of my flowers might not be as tall or lush as flowers that grow on a farm with better soil, but wedding designers don't care about stem length...and they love short, tiny bouquets at the farmers' market so I found a sales channel and try to grow the flowers that thrive in my environment. It works for me."

Turning Off Social Media

Just as Feddema-Gerryts is uninterested in fighting with her soil to expand the varieties of cut flowers she can grow, she also refuses to spend time curating the perfect Instagram feed.

"It's changed so much since I got started; flower farms are popping up everywhere and growers have such big dreams," she says. "It's hard not to get caught up in it. I just try to find a way to stop looking at what other people are doing and focus on my own goals."

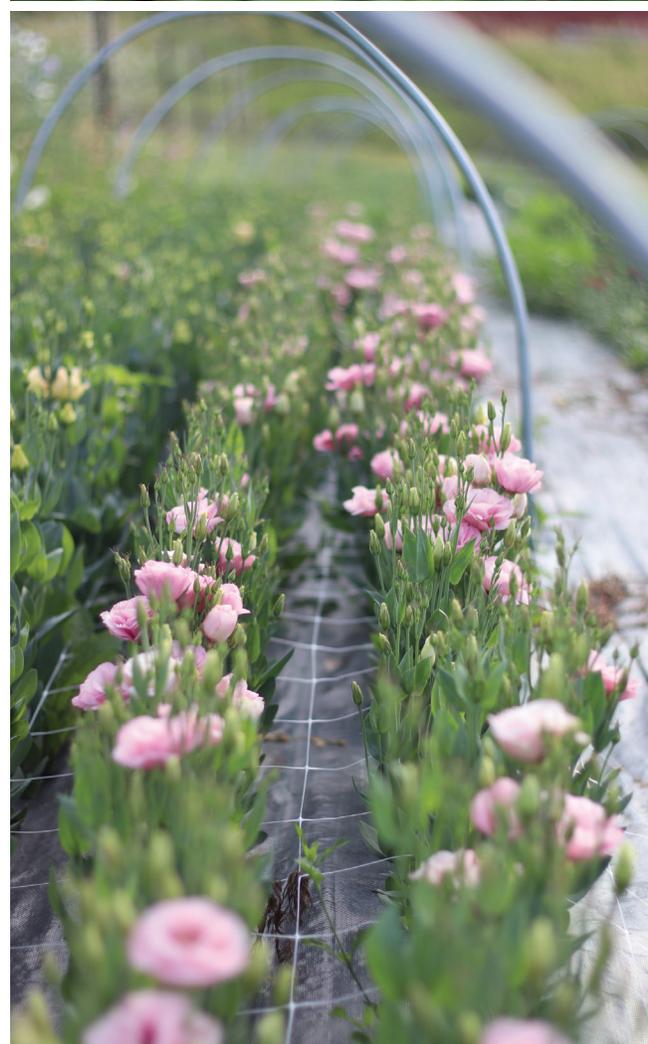
Not getting caught up in comparisons with other flower farmers frees up Feddema-Gerryts to focus on her goals for Wendalane Farms. She adds new 50-by 100-foot beds every year and continues expanding shrubs such as ninebark, forsythia, muhly grasses, and weigela for greenery.

In the midst of the frenzy of growing and expanding, Jen always makes time to appreciate the beautiful surroundings.

"My favorite time of the week is when I load the van for market because I get a little bit of the feel that our customers have at market; it's the feeling of, 'Wow, we grew all of this and it's gorgeous,'" she says. "The rest of the week is a lot of work but seeing a van squished full of flowers is so fun."

Jodi Helmer is a freelance writer in North Carolina.

Contact her at jodi@jodihelmer.com



Biological Control for Cut Flower Plugs

Stanton Gill



The interest in biological control options appears to be growing among cut flower growers. Besides the environmental concerns, the high cost of the new low-risk pesticides is making biological control options much more feasible.

Early in the season, most cut flower growers start plants in greenhouses where insects and mites can thrive. Biological control should start in there. If you are not starting plants in the greenhouse, you may be buying in unrooted cuttings, root cuttings or plugs to plant out in your fields.

If you were purchasing plants as cuttings or plugs, I would recommend starting by applying an entomopathogenic fungi and horticulture oil to take care of any pest you may be importing. Entomopathogenic fungi usually attach to the external body surface of insects or mites, in the form of microscopic spores called conidia. Under the right conditions of temperature and high humidity, these spores germinate, grow as hyphae, and colonize the insect's cuticle. Then, the fungal cells proliferate in the host body cavity killing the insect or mite.

One of the readily available entomopathogenic fungi is sold under the name BotaniGard, and is used to control whitefly, thrips, aphids, and many other insects. It is based on the fungus, *Beauveria bassiana* strain GHA, and controls the most troublesome crop pests. Be sure to read the labels to make sure if any plants are listed as sensitive to either of these materials. A cut flower grower can mix up SuffOil-X and *Beauveria bassiana* (BotaniGard) in a large tank of water, and dip the leaves and stems in the solution. If other pesticides are to be added, do so after SuffOil-X has been thoroughly mixed. The oil is mixed at 1 gallon in 100 gallons

of water. Check this rate on the oil's label. Add the BotaniGard after the oil is thoroughly agitated to a homogenous mix. The oil suffocates eggs, larvae, nymphs, and adult soft-bodied insects and mites. The oil should penetrate in the plant canopy. The oil is exempt from residue tolerances.

If thrips have been a problem in your plants started in the greenhouse, purchase the predaceous mite, *Amblyseius cucumeris*. These feed on the first instar larval stage of thrips. You can purchase these in a loose bran fill or in sachets that you hang in among the plants. The loose fill may work better if you have plants close together in small pots or growing trays.

If you have aphids, whiteflies, and thrips active in the plants started in the greenhouse, consider purchasing the little more expensive predator mite, *Amblyseius swirskii*. They feed on a wider range of insects.

To encourage the mites to disperse much more evenly onto the plant a cut flower grower can apply apple or cattail pollen to foliage with a mechanical blower. Then apply the predaceous mites, mixed in a bran mix, applied with a mechanical blower. The mite blower can be purchased from company such as Bio-Bee or Biobest, or if you are mechanical, build it yourself.

Cattail or apple pollen can be purchased from biological supply companies. Carol Glenister of IPM Labs, Locke New York, informs me that cattail pollen is blown over the crops at approx. 1 gram per 1000 sq. ft, which is an extremely light application. The pollen is pricey and a quality product created for this market is bright yellow and flowing. Bee collected pollen would not work because it is clumped.



Use a mechanical blower to disperse predaceous mites and their temporary food source.



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She mentions that some growers collect their own pollen from local cattails in late June or early July, and freeze it for use on crops such as greenhouse-grown cut flowers and on poinsettias. It is used on poinsettia for feeding *Amblyseius swirskii* mites, which feed on whitefly and thrips. If you collect cattail pollen, it needs to be kept frozen or it begins to mold rapidly at room temperatures.

An interesting food source for feeding predaceous mites are decapsulated *Artemia* cysts, used as a supplement to enhance the establishment and activity of predatory insects and mites in greenhouse crops. Bio-Bee Company has these eggs available to feed a range of generalist predators. *Artemia* cysts are very nutrient-rich and boost fecundity (fertility and egg laying) and longevity of predaceous mites. They also have some logistical advantages over the other types of supplemental food in that they can persist in the crop for several

weeks. The Bio-Bee web sites suggest if these eggs are kept in sealed containers maintained at 50F or less they can be kept 4-6 weeks. Some have suggested that if the eggs are frozen they can be stored for at least three years.

Artemia cysts enhance the establishment and performance of generalists such as predatory bugs (e.g. *Orius*), mirids (e.g. *Macrolophus*), and mites (e.g. *swirskii*, *limonicus*). *Orius* (minute pirate bugs) are very good for biological control of thrips—all life stages.

The *Artemia* cysts are sprinkled or blown into the crop to feed the predators, which are then released before the pests arrive. The goal is to establish the predators in the crop, so that once pests such as thrips or spider mites appear, there is a strong defense of predaceous mites in place to combat them. The supplement can be reapplied throughout the crop cycle to support predators when pest numbers are low.

We are still in the early stages of testing out some of this biological control in outdoor environments. Through years of experience and field trials, we established these techniques work well in greenhouse. For the last two years we have been testing out a combination of low-risk pesticides combined with biological control releases. We will be publishing the results of these trials in summer issues of the national magazine *GrowerTalks*. Stay tuned.

Stanton Gill is an Extension Specialist in IPM and entomology, University of Maryland, CMREC, and Professor with Montgomery College, Germantown. Contact him at sgill@umd.edu



Resilient Low Tunnel Design from Wild Scallions Farm

Renee and Matt Clayton, Wild Scallions Farm, Timberlake, North Carolina

Low tunnels with floating row cover provide all kinds of benefits to young plants in the garden. The list of attributes is indeed long: shelter from drying winds, winter cold protection, hiding plants from hungry deer, softening intense sunshine. The challenge can be to keep all these wonderful benefits and keep the fabric in place despite gusting March winds that would send your fabric flying, and winter snows that could quickly collapse your tunnel.

We would like to share a design for a cost-effective low tunnel that we have been improving and found very effective over the past few winters, with the added benefits of: not using any kind of weight to hold down the fabric, allowing the sides to be pulled up and held in place for easy weeding or harvesting, and being feasible in challenging spaces (in our case, curved rows necessitated by farming on contour lines).

We have built these from the full 10' length of the conduit (for wide or double rows), and, when we need a twofer, we have shortened the length of the conduit to 6.5 feet (for a single row) and used the remainder of the conduit as trellising support.

Materials and Cost for a 100' low tunnel

- 1/2" conduit bent into hoops (18 at \$3.20 each, \$57)
- 100' row cover (we use Typar T-518, 15' wide, \$83)
- Self-tapping metal screws (Teks #8x3/4", 150 count, \$7)
- Baling wire (or electric fence wire, scraps)
- Braided nylon rope for purline (Blue Hawk 110ft, \$8)
- Twine (plastic or some material that doesn't stretch much)

Total Cost ~\$150

Construction Specifics

1. Bend the conduit into hoops using a Johnny's Low Tunnel Bender or similar tool. Even a conduit bender available at your local hardware store will work.
2. Using wire, make a set of wire loops about the size of your wrist, two for each hoop.
3. On each hoop, about six inches from the bottom, drill a self-tapping metal screw into the conduit, leave a gap between the screw and conduit.
4. Wrap a wire loop around the conduit at the base of the screw; be sure that the twisted wire ends face in (these could rip your fabric).
5. Push conduit hoops into the soil over the row you want to cover. Use one hoop approximately every six feet.
6. Pound in a t-post or row anchor on each end of the row.
7. Install a purline by tying a good piece of rope to one anchor post then looping around the high point in the middle of each hoop, pulling tight as you go, and finally tying the rope to the anchor at the other end of the row.
8. Pull row cover over the hoops and tie down the fabric onto the anchor post on each end of the row, pulling tight. You can use the tail of the purlin rope to help tie up the fabric.
9. Thread the twine through each loop, passing the twine over the top of the row cover, keep the twine tight as you go. It helps to have two people, one on each side of the row. Adding carabiners to the hoops could make this step faster, but more expensive (then you could clip in the twine instead of threading it through the loop).

Construction Specifics for Adding a Durable Loop to a Bent Conduit Hoop



Assembled tools.



Drill screw into conduit hoop.



Wrap wired loop around the screw.



Finished loop assembly.

We cut the twine into somewhat manageable pieces, then use a fisherman's knot to tie the two ends together. Small aside on the fisherman's knot: this knot is used to quickly tie two ropes of equal diameter together, and is incredibly useful. Wonderful illustrations can be found at www.netknots.com/rope_knots/fishermans-knot

Kits for somewhat comparable tunnels are on the market, generally for about twice the cost. (100' Low Tunnel Kit (#TFLEX 100) from Berry Hill Irrigation for \$375.00).

The finished tunnel creates a lovely microclimate for overwintered annuals to flourish. Tunnels are very strong; I have seen one withstand ten inches of snow (that's a lot for us and about as much as we ever get here in the South) and we were just whipped by a storm with 35mph winds with no trouble on the tunnels. I have even seen a baby goat jump on top of one of these tunnels (more than one species of "kid" was involved with that particular adventure!).



Use the screw to hold wire loop in place at the base of the conduit hoop.



Use nylon rope to connect each hoop at the top and create a purline for greater tunnel strength.



Tie down row cover to the anchor post.



Nice sheltered environment inside the completed tunnel.



Caterpillar tunnel under the snow.



Harvesting ranunculus in April!

As our winters have become progressively wetter and grayer, I also find it particularly useful to be able to open the tunnels a few inches for better airflow to reduce the horror of fungal diseases getting established. Another potential use for this low tunnel design would be to replace the row cover with insect netting or shade cloth to provide alternate beneficial microclimates in the summer.

While we have (and love) high tunnels and larger caterpillar tunnels, we still find a need for low tunnels for several niche uses on our farm. For example, it is ever my dearest ambition to have as long a ranunculus season as possible in the spring. Ranunculus (and many other hardy annual flowers) do best with a long, cool season to get established, but then, the blooms can come and go in a much too brief burst of color in the spring (especially if the spring is a hot one, not unusual here). To prolong the bloom

season, I like to plant ranunculus in multiple microclimates in the fall, with a mid-October planting of sprouted corms in a hoophouse and in a low tunnel. Though they are planted at the same time, the corms planted in the low tunnel generally bloom a month after the corms planted in the hoophouse and still have the benefit of a long period to establish.

We have found this tunnel design a reliable and useful tool for growing quality cut flowers, and hope others might also benefit and have a little less anxiety when those winds come through!

*Renee and Matt Clayton
own Wild Scallions Farm in Timberlake, North Carolina.
Contact them at wildscallionsfarm@yahoo.com*

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Pricing Pitfalls

Sharon Hays

Sweet Piedmont Flowers, Waterford, Virginia

If you want to see a group of flower farmers get really animated, just bring up the topic of pricing—and more specifically, the underpricing—of specialty cut flowers in the marketplace. From presentations at the last big ASCFG meeting in North Carolina, to local meet-ups and Instagram chats, it's a topic that's provoking impassioned discussions.

As someone who has been flower farming for approximately five years, the thought processes that can drive new growers to underprice their product are fresh in my mind—I've been there, and not that long ago. At the same time, I've been producing cut flowers long enough to have found myself on the other side of the coin, watching with frustration as newer growers come to the farmers' market, for example, with blooms priced at sub-wholesale levels.

Why Underpricing is a Really Big Deal

When growers sell their flowers at prices below the true value of the product (underpricing), the ramifications are significant. First, underpricing your harvest is bad for one's own business. It means the farmer is operating at loss, which is not sustainable, and at some point, the business will go under. Of course, if the farmer is able to put additional resources into the business (say, from an off-farm job) this may prolong, perhaps indefinitely, the demise of the business. But honestly, if your cut flower business isn't profitable, or at least on a clear and conscious path to profitability, then isn't your flower farm really just an expensive gardening addiction?

Underpricing is also bad for the locally-grown flower industry as a whole, because it devalues our product in consumers' eyes. If you're selling huge bouquets stuffed with peonies and ranunculus for less than the supermarket sells a sad mix of generic mums and alstroemeria, then you're telling customers that your specialty crop, well, isn't all that special. Buyers tend to assign value to a product commensurate with its price, and so underpricing your locally grown flowers sends a strong—albeit unintentional—negative signal.

By far the most damaging aspect of underpriced specialty cut flowers, however, is the impact that it can have on other flower farmers. Trying to compete against growers who are pricing their flowers below the product's true value will eventually put other farmers out of business. For those who are supporting themselves and/or their families from their flower farm business, this is (obviously) a huge deal.

While the underpricing problem has likely always been around, the rapid influx of new flower farmers in the last few years (as reflected in recent increases in ASCFG membership) means that what may have once been a relatively infrequent, isolated problem now has the potential to do significant damage to the economic viability of our industry. The fact that many of these new growers are part-time flower farmers who aren't dependent on their flower farming business to sustain their household is an exacerbating factor, because it creates a lack of built-in pressure to ensure the economic sustainability of their operation. This, in turn, can foster bad business practices, like underpricing.

Reasons New Flower Farmers Undercharge

The path to my first farmers' market was filled with anxiety. Will I have enough flowers to sell? Can I get them all harvested and processed on time? How will I get everything to market? Where do I get a tent and how do I keep it from blowing away in the wind? Then,

suddenly, it was the night before my first market and I had to make my signs, which meant assigning prices. I hadn't intended to make pricing an afterthought—I'd just been so focused on everything else, and too inexperienced to have known better. Luckily for me, I knew about some of the resources that can help (see below), thanks to my membership in the ASCFG, and I spent a long, anxiety-filled night doing pricing research. But many new growers either aren't aware of—or aren't availing themselves of—this information.

Another reason new growers underprice is due to a lack of confidence in their product. Certainly, in today's Instagram-driven world, it's possible to convince oneself that everyone else's flowers are bigger, longer-stemmed, and thus worthy of commanding a higher price than our own, and this is especially true for newer growers.

When new flower farmers fail to heed the adage that “You should grow only what you know you can sell.” and plant, say, an entire row of bright pink zinnias when their customers are looking for dusky, fall colors, the subsequent overproduction drives pricing decisions that reflect the grower's desire to try to recoup at least some of their investment. While the occasional production glut can befall even experienced growers—and can be managed—a more insidious problem is the implementation of strategies aimed at developing an initial customer base by undercharging initially, with the intent to raise prices later. These types of “loss leader” strategies often just train customers to expect the underpriced bounty, however, making future price increases difficult to implement.

Finally, particularly in markets dominated by newer growers, a flower farmer who is underpricing product may simply be following the (bad) example of the other growers they are competing with.

Solving the Problem— What Newer Growers Can Do

Approaching your operation as a true business is critical. This means doing more than filing your incorporation paperwork and creating a logo. It means tracking and understanding your input costs, including the “hidden” ones like insurance, property costs, and your own labor, and basing your prices on those input costs, plus profit.

Another responsibility of new growers is to place as much value on educating oneself about pricing as on growing. For those of us who entered flower farming from the ranks of pas-

sionate gardeners—myself included—it can be tempting to focus mostly (or even solely) on the “fun stuff”: learning all about producing, processing, and working with the flowers we love so much. But becoming a flower farmer means placing as much value on understanding the business aspects of flower farming, and that includes pricing. With that goal in mind, one of the most important things new growers can do is to get information on existing market prices. Resources include:

- The ASCFG. The Members-only Facebook site is a source for getting pricing questions answered, a pricing guide exists on the ASCFG Members-only page, and videos of past presentations at ASCFG conferences on the topic can be viewed.

- Other flower farmers. To this day, when I plan to sell something new (for me), I will often check in with one or more of my flower farmer friends to see what they charge for the same product. They are happy to provide this information, knowing that my goal is not to undercut them; to the contrary—it's to ensure I'm not off-base in my pricing

- Doing your own market research. Visit other markets in your area and see what other farmers are producing and charging.

It's also important to understand what the wholesale price is for the flowers you're producing, and commit to growing flowers that command prices above this level (unless you're actually selling to wholesalers, of course). Wholesale flower brokers make their money by selling in bulk to customers who will mark up the price before selling to the consumer. Therefore, when you sell directly to an end consumer, such as at the farmers' market, you should not be selling at or below wholesale prices. And even if you're selling to florists, producing flowers that demand higher prices than those they can get from wholesalers (due to their freshness, for example) should be your goal. Resources for getting wholesale price information include:



For new growers, the temptation to plant more of a particular crop than you have an existing market for can be strong.



When I was delivering poppies to a florist, a customer in the store saw them and insisted the florist replace the ones in the bouquet she had just bought, with mine. I gained a lot of confidence in the quality of my product that day.

- The U.S. Department of Agriculture. See https://www.ams.usda.gov/mnreports/bh_fv201.txt

- Price lists from wholesalers. It may be appropriate, given your business model, to sign up to receive price lists from regional wholesalers. For example, as a farmer-florist I maintain access to a local wholesaler and to a cooperative of local growers, for those rare occasions when I need to supplement my own blooms to create an arrangement.

Another activity newer growers should focus on is educating your customers on the benefits of locally-grown flowers. This can not only help you develop your market, but also ensure you can command appropriate prices for your blooms. The ASCFG



Attractive farmers market displays are a zero-to-low cost way of adding value to your product and convincing customers to pay your fair-market prices.

has brochures and videos that you can use to explain to customers why your flowers are worth what you're charging. Benefits include freshness, a wider selection, reduced environmental impacts, your farm's contributions to the local economy (especially if you employ others), and in areas becoming increasingly developed, the preservation of agricultural land, as opposed to the creation of yet another subdivision.

Finally, focus on delivering product that is worth the price, by growing quality flowers and ensuring their freshness (there is no shortage of ASCFG resources on these topics!). You can also find ways to add value to your product. Attractive packaging for retail customers—wrappers and ribbons, for example—can set your product apart, though those elements also add to your input costs, of course. Lower cost options for adding value include attractive, interactive displays at the farmers' market, and for florist sales, timely, reliable availability lists. Last but not least: never underestimate the value of friendly, helpful customer service.

Experienced Growers Also Have a Role

In addition to being receptive to newer growers who reach out to you in an effort to educate themselves on the topic of pricing, veteran growers can help address the underpricing issue by participating in organized efforts to compile and update more relevant information on pricing. Much of the existing pricing information is limited by lack of regional specificity. The USDA website, for example, shows prices only for the Boston import market. Given the tremendous variability in the cost of growing flowers in different regions, e.g., the cost of producing an anemone in February will be wildly different in southern California than in Toronto, regionally relevant information is critical. In addition, existing information, including on the ASCFG web page, may be out of date.

One of the biggest gaps in information about pricing is related to the particulars of the crop. For example, what constitutes a single stem of flowers for varieties that produce multiple shoots, like ranunculus or lisianthus? What is the expected stem length for a particular type of flower? Expert growers' knowledge of these issues—which might seem obvious to them—is highly relevant and much needed by newer growers in order to make pricing information relevant and actionable.

The ASCFG can play a central role in addressing these data needs, and we should consider devoting more resources to the creation of a central, searchable source of more detailed, up-to-date information.

Whether deliberate or unintentional, underpricing involves setting the price of a product at a level lower than the actual value of that product, and it's a real problem. New and experienced growers both have important roles to play in ensuring that our industry grows in ways that enhance—and do not hurt—the sustainability of the flower farming community that we, as ASCFG members, are part of.



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ASCFG Member Production and Postharvest Issues NC State Survey

Part Two of Two

John Dole, Cristian Loyola, and Rebecca Dunning
North Carolina State University

We conducted a survey of ASCFG members to determine their production and postharvest issues. Using Survey Monkey, surveys were sent to 1098 ASCFG members from April to June 2017. We received a total of 210 responses for a 19% response rate. In the Fall 2019 issue of *The Cut Flower Quarterly*, we described who responded to the survey, how many employees the businesses have, and what kind of crops they grow. In this article we summarize the production and postharvest issues facing the industry. We also examine postharvest handling issues on the farm, during transport and storage and faced by consumers.

Major Production Issues

First, we wanted to know the major overall production and postharvest issues faced by the industry. Not surprisingly, pest management was at the top of the list for production (Figure 1). The first and third most important issues were insect and disease management. Crop timing was the second most important issue and can encompass a range of issues. Based on comments in other parts of the survey, we understand crop timing issues to include determining the correct harvest stage for some crops, having too short of a harvest window or flowering occurring all at once, or producers' lack of control over harvest due to weather conditions.

Suppliers will be glad to see that poor-quality propagation materials ranked as the least most important issue. However, there is apparently some improvement to be made as 16 respondents included the factor in their top five most important issues, and one respondent ranked it as the most important.

It was interesting to see that insufficient demand from customers was the second least important issue. We suspect the response to that factor would have been different if we conducted the survey during the height of the Great Recession. Having said that, some businesses were having sales challenges as almost one third of respondents (out of 128 who answered the question), ranked the issue among their top five, and nine listed it as their most important issue.

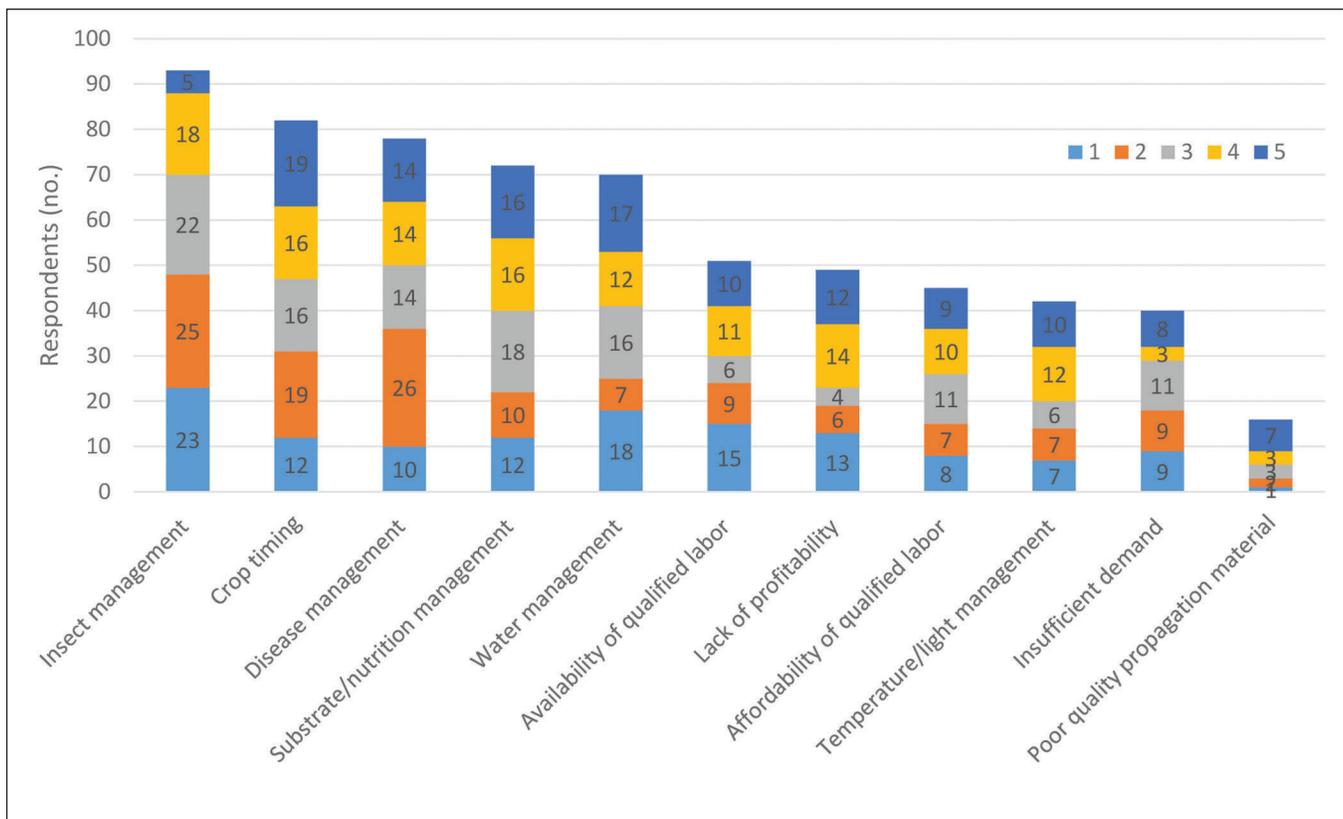


Figure 1. Respondents were asked to select the five most important production issues for their business and rank them. Each number from 1 (most important) to 5 (least important) was used once for each respondent. Numbers in the bars are the number of times the ranking was recorded for each production issue (n=128).

Major Postharvest Issues

For postharvest, the two top issues were temperature management, and hydration and flower food management. Of course, both are critical to getting a long vase life for cut flowers. Customer care, a common frustration among flower growers, came in third. Who hasn't seen their lovingly made bouquets stuffed in between the melons and tomatoes or left in a hot car far too long?

Botrytis was ranked the least important problem, and profitability was the second least most important issue. As noted for insufficient demand under the production section, we are sure that lack of profitability would have ranked much higher if the economy was not doing as well for most of ASCFG members.

Crop-Specific Issues

We also asked respondents to tell us about production and postharvest problems they were dealing with specific to individual crops. For the postharvest issues, we asked about on-farm problems, shipping and transportation problems, and customer care.

Wow, we received hundreds of responses! The challenge was distilling the responses to a list we could manageably report. Even after condensing many similar responses we still had 16 tables in the scientific publication written for the project, far too many to show here. The article is available online and can be reached at: <https://journals.ashs.org/horttech/view/journals/horttech/29/3/article-p338.xml?rskey=StuzJz>

New growers may want to review their favorite crops to see what potential issues may occur. For the top 31 cut flower species, we listed 87 production

issues, 28 on-farm postharvest problems, 18 shipping and transport problems, and 32 customer complaints.

Some cut flower species had more problems than others. Respondents were given the option of reporting that they had no major issues with a particular crop, and 39% did so for production of viburnum, 33% for yarrow, and 32% for ammi. On the other side of the spectrum, everyone reported at least one major production issue for dahlia, and 98% did so for ranunculus. For postharvest challenges, Dutch iris was the least problematic, and rose the most.

As with the overall production issues, many of the species-specific problems involved plants pests such as insects, diseases, and vertebrates. Aphids were reported as major pests on 14 of the 31 plant species, beetles on 12 species, and thrips on twelve. The crops with the most reports of each insect were snapdragons and sweet peas (14% for aphids); rose

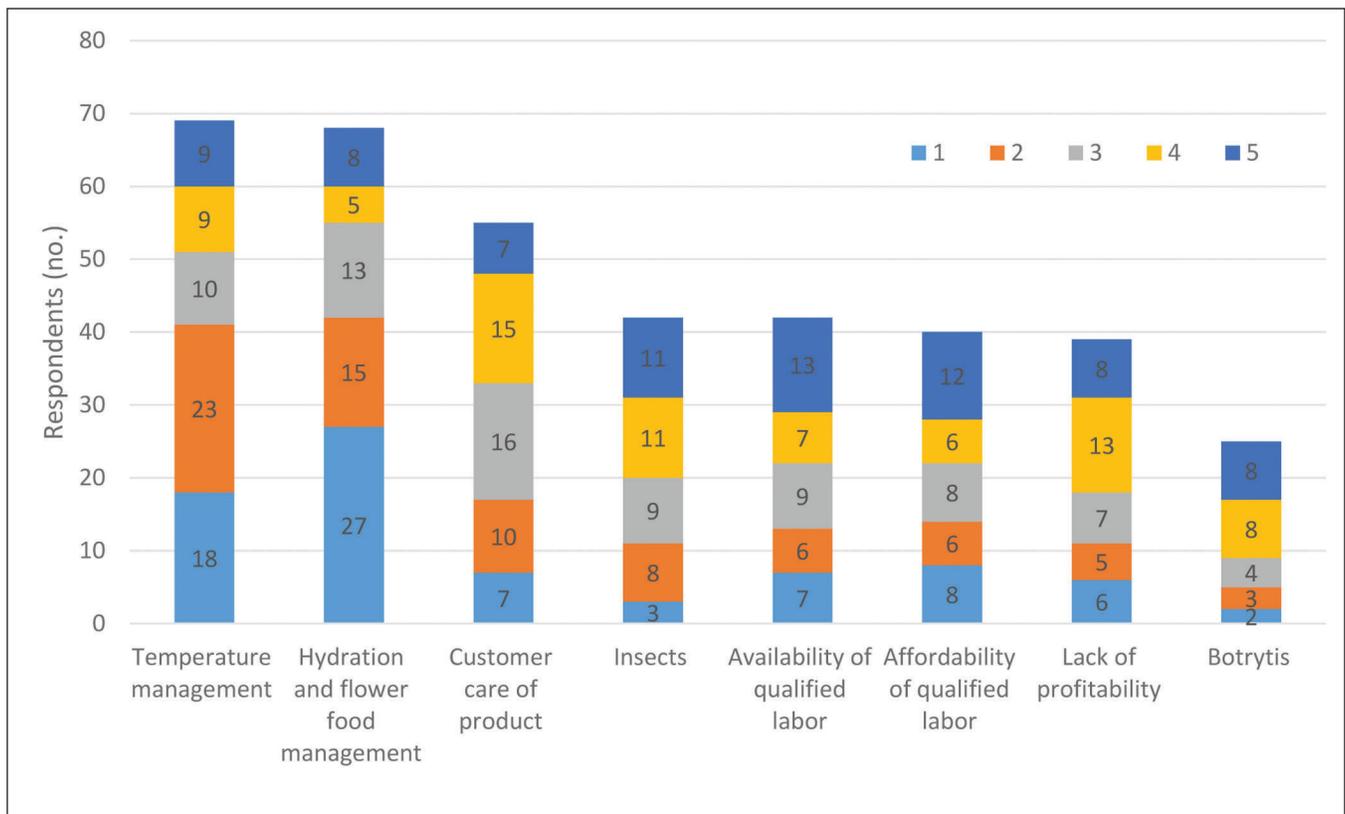


Figure 2. Respondents were asked to select the most important postharvest issues for their business and rank them from 1 to 5.

Each number from 1 (most important) to 5 (least important) was used once for each respondent. Numbers in the bars are the number of times the ranking was recorded for each postharvest issue (n=76).

(17% for beetles), and gladiolus (32% for thrips). Considering how common thrips are on gladiolus, it is interesting that more respondents didn't list them as a major problem.

Powdery mildew was reported on nine plant species and root/soft rot on twelve. Not surprisingly, almost one third reported powdery mildew as a major issue on zinnia, and for root or soft rot, 10% reported it as a major issue on lisianthus and 14% on calla.

A whole host of vertebrates, such as birds (Canada geese and other species), chipmunks, deer, gophers, mice, rabbits, rats, squirrels, voles, and woodchucks were important problems for many crops, especially Dutch iris, lily, sunflowers, and tulips. All these species have bulbs or large seeds which are quite tasty to a number of animals.

Are you having problems getting sufficiently long stems on some of your crops? You are not alone. One of the

most commonly reported issues was short stems, especially for ageratum, anemone, lisianthus, stock, sweet pea, sweet William, and tulip.

Crop timing, specifically controlling flowering time and harvesting at the correct stage, were major concerns for eight species: anemone, cosmos, peony, ranunculus, stock, sunflower, sweet pea, and tulip. Not surprisingly, all but cosmos and sunflower are cool season crops that can be greatly accelerated by sudden warm spells or delayed by prolonged cold weather. Cosmos and sunflowers are both species that have a fairly narrow harvest stage window and flowers can quickly get too old to harvest.

The most commonly mentioned on-farm postharvest problem was timing of harvest (for two-thirds of species!) for the same reasons growers listed it as an important production issue. Two other major postharvest problems at the farm were hydration and temperature manage-

ment, which were mentioned as problems for over half of the species; hydration was especially an issue for hydrangea, viburnum, and yarrow.

Short vase life was a problem for about a third of the species (13) with cosmos and dahlia noted in particular. Shattering was noted for eight species (notably phlox), weak stems for nine, stripping of foliage or thorns on roses (thorns, obviously), but also snapdragon and sweet William due to the tendency of the stems to break when foliage is removed.

During storage and transportation the most commonly reported problems were damage (over half of species) and temperature management (over two thirds of species). Not surprisingly, growers were most concerned about maintaining cold temperatures for peonies.

Damage was particularly problematic for three species with large and somewhat fragile petals: dahlia, gladiolus, and lily. Hydration challenges were mentioned

yet again during the shipping and storage phase, and especially for viburnum.

Shattering was a major problem for nine species (especially larkspur), weak stems for nine species (especially calla), vase life for nine species (especially dahlia), and flower opening for anemone, Dutch iris, peony, tuberose, and tulip. Dutch iris, peony, and tulip can open too fast if not kept cold and properly handled. Anemone can be tricky to harvest, depending on how long they have been open, and flowers on tuberose stems sometimes do not open very well.

Not surprisingly, vase life was mentioned as a problem during the consumer phase for over a third of the species, and was noted as a problem for several popular flowers: dahlia (26% of respondents mentioned it), Dutch iris (23%), rose (17%) and zinnia (20%).

Smell was mentioned for marigolds and lilies. Some find the scent of marigolds unpleasant. Since most of the odor is in the foliage, those harvesting the flowers and stripping the foliage get the brunt of it. On the other hand, some lily flowers, especially the popular oriental types, have a pleasant fragrance, but it can be overpowering for many people.

An excess of pollen, which can stain clothes, tablecloths, and car seats, was reported for ammi, lilies, and sunflowers. With lilies, growers and retailers can lessen the problem by removing anthers from opening flowers. With sunflowers, choose the pollenless varieties whenever possible.

Interestingly, lack of supply of cut stems was noted for 17 species, especially echinacea, but lack of customer demand was also mentioned for 11 species. Both complaints were noted for echinacea, lisianthus, stock, sunflower, yarrow and zinnia, showing the vagaries of markets. Customers in some locations cannot get enough of a particular species, yet in other locations, growers cannot “give it away”. The difficulties of gauging market demand are legendary, which this survey picked up.

Shattering continues to be a major issue at the consumer level for nine species, especially for delphinium and phlox. Failure to open was noted for Dutch iris, lisianthus, peony, tuberose, and tulip.

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Conclusions

The cut flower industry in the United States and Canada grows and handles an exceptionally diverse array of material, with an attendant broad range of production issues. The results from this survey can guide researchers and industry leaders on their quest for crop improvement. Thank you to all of the ASCFG members who took their time to respond to the survey.

Biocontrol of Botrytis in Cut Flowers

This report is funded by the ASCFG Research Foundation.

Kaylee South, Laura Chapin, and Michelle Jones

The Ohio State University DC Kiplinger Floriculture Crop Improvement Program



The pathogen: *Botrytis cinerea*

Like many other industries, the cut flower industry struggles with disease caused by *Botrytis cinerea*. This pathogen is the causal agent of gray mold (also known as botrytis blight) and infects many different crops across the world. Not only does it have a wide host range, but it also causes damage to crops throughout the production chain. Infection can lead to reduction in crop quality or crop loss. Symptoms or signs of a *Botrytis* infection in cut flowers can be found on petals, leaves, or stems. Symptoms include tan lesions on the petals, and eventually the growth of gray fuzzy spores that give gray mold its name (Smith, 2019). *Botrytis* thrives in low temperature and high humidity environments. Preventative measures include controlling temperature and humidity levels, and reducing time of standing moisture on petals. Fungicides are used to control gray mold in cut flowers, but resistance to several different fungicides has been reported (Muñoz, Faust, & Schnabel, 2019).

The alternative method of control: Beneficial bacteria

Biological control, or biocontrol, is an alternative method of controlling plant pathogens that is gaining the interest of researchers and growers alike (Meister Media Worldwide, 2014). Beneficial bacteria is one type of biocontrol agent that can be used to suppress pathogens in a plant system. *Pseudomonas* bacteria have shown great potential for the biocontrol of *Botrytis* in petunia (Gould, Kobayashi, & Bergen, 1996; South, Peduto Hand, & Jones, 2020).

The objectives of the current study were 1) To develop a pipeline to evaluate bacterial strains for biocontrol in cut flowers, and 2) To evaluate select beneficial bacteria for the ability to suppress gray mold in cut flowers.

Bacterial application and *Botrytis* inoculation details

Bacteria used in this study were previously selected for the biocontrol of *Botrytis* in petunia (South et al., 2020). Along with the application of the bacterial treatments, two groups of flowers received no bacterial application to serve as the controls. Control group 1 was not inoculated with *Botrytis* to account for any *Botrytis* already present on the flowers, while control group 2 was inoculated with *Botrytis* (Table 1).

Table 1	
Treatment	<i>Botrytis</i> Inoculation (Y/N)
Control group 1 (no bacteria)	N
Control group 2 (no bacteria)	Y
<i>Pseudomonas chlororaphis</i> 14B11	Y
<i>P. protegens</i> AP54	Y
<i>P. fluorescens</i> 89F1	Y
<i>P. frederiksborgensis</i> 94G2	Y

'ABC 2 Blue' lisianthus (*Eustoma grandiflora*) were obtained from a local Ohio grower, Sunny Meadows Flower Farm (Columbus, OH). The flowers were separated into groups to be treated with the appropriate bacterial treatment. The bacteria culture was adjusted to the desired concentration (108 cell/mL) and applied through spray application (Fig 2A). Approximately 24 hours after the bacterial application, *Botrytis* spores (104 spore/mL) were sprayed onto the flowers. Flower stems were cut to 30 inches and placed in individual vases (Fig 2B). The individual flowers and vases were then covered in a plastic sleeve to create a high humidity environment. The flowers were kept in an interior room under fluorescent lighting at an average temperature of 22.7°C (72.8°F) (Fig 2C). Forty-eight hours after being inoculated with *Botrytis*, the flowers were taken out of the plastic sleeves and disease severity rating began (Fig 2D). Each flower was rated daily for disease severity on a scale of zero (no disease symptoms) to seven (collapsed flower due to disease) for seven days (Fig 3).



Figure 2: Bacterial treatment application and *Botrytis* inoculation of lisianthus. A) Stems were separated into groups for spray application of bacterial treatments; B) Flowers were inoculated with *Botrytis* spores and placed in individual vases; C) Each flower and vase were covered in a plastic sleeve to create high humidity conditions; and D) Plastic sleeves were removed and disease severity ratings began.



Figure 3: Flowers were rated daily using a disease severity scale 0 (no disease symptoms) to 7 (flower collapsed due to disease).

Bacterial strain identified for the biocontrol of *Botrytis*

After the rating period finished, the daily severity ratings were used to calculate the area under the disease progress curve, which gives a summary of the disease intensity over time. It considers the severity ratings over the 7 rating days. The flowers treated with the no bacteria/no *Botrytis* (Control 1) had the lowest AUDPC [area under the disease progress curve] (10.25) meaning it had the least amount of disease. The control flowers that were treated with no bacteria and inoculated with *Botrytis* (Control 2) had one of the highest average AUDPC (25.29). This shows that the *Botrytis* inoculation was successful. Considering the bacterial applications, one bacterial treatment, *Pseudomonas chlororaphis* 14B11, resulted in flowers with less disease compared to the no bacteria control flowers with an AUDPC of 16.50 (Fig 4).

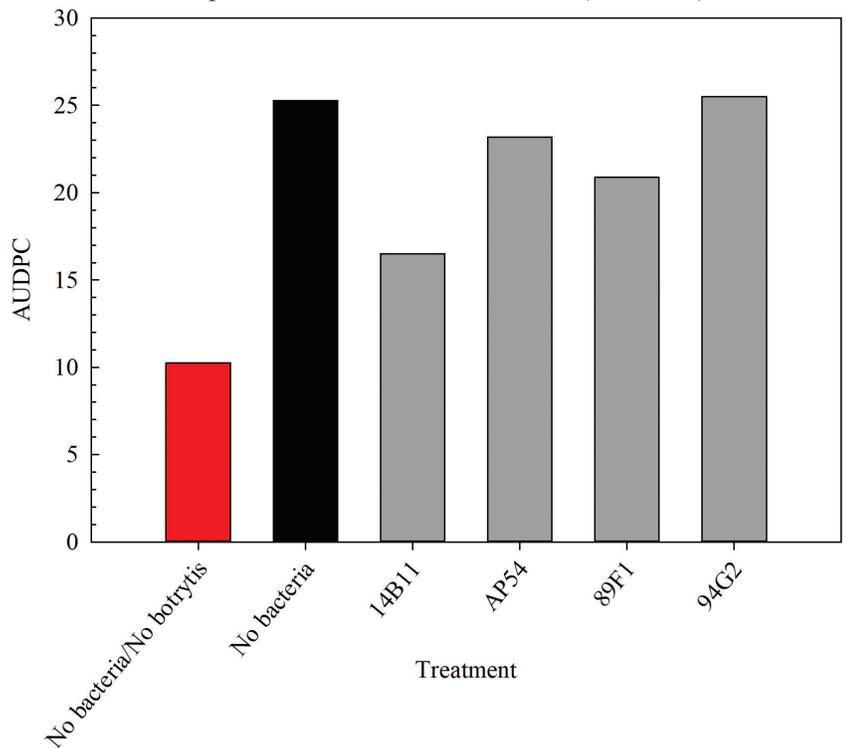
Conclusions

The need for additional pathogen management options continues to grow as the issue of resistance to chemical pesticides and concern of environmental and human health continue to rise. Biocontrol provides growers another tool for controlling problematic diseases to allow the production and maintenance of high-quality crops through postharvest. The results from this study with lisianthus show that there is potential for the use of bacteria as biocontrol agents against *Botrytis*. *Pseudomonas chlororaphis* 14B11 is a promising candidate for the biocontrol of *Botrytis* and can potentially be formulated into biocontrol products to give growers additional options for the control of *Botrytis* in cut flowers.

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Figure 4: Area under the disease progress curve was used to summarize the daily severity ratings. The No bacteria/No *Botrytis* control is represented by the red bar. The four bacterial treatments were compared to the no bacteria control (black bar).



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I deleted the Facebook app from my phone this morning. I'm sure I will reinstall it sooner or later, but I need a break. I waste too much time on social media, and frankly more often than not it makes me feel worse about myself and the state of the world. Who needs that negativity?

That said, we can't deny the incredible resources that are offered by a platform such as Facebook. The ASCFG Members Only group is reason enough to stay at least peripherally tuned in. Never before in the long history of flower growing has there been such a wealth of information available to growers with so little effort. You can literally use your magic little pocket computer to find technical growing information on some obscure crop, order seeds and supplies, and ask a question of another grower without even getting off the toilet. It's truly a magical time to be alive.

At the aptly named "Flower Nerds" meeting in Oberlin back in February I had the fortune of stopping into the used book store downstairs from the ASCFG's international headquarters (aka Judy and Linda's office). I always check out the gardening and horticultural books in a used bookstore because you can find some real treasures. In Oberlin I snagged a 1961 manual on the topic of cut carnation production, and a 1962 manual on hybridizing your own cut flowers, complete with a chapter on sweet pea breeding! Evidently the sweet pea breeders of the late 50's were working towards longer stems, with more flowers per stem, with more ruffled flowers in a wider range of colors. Coincidentally these are the exact goals of my breeding program. I didn't invent the concept.

Sixty years ago the same goals were in mind and were being achieved before sweet peas fell out of fashion, and genetic material was lost to cultivation. Luckily I was able to track down seeds of a few of these early varieties from Roger Parsons in the UK, and I look forward to growing them this season and using them in my breeding projects.

I would never have found this information on Facebook or anywhere else on the internet, but there were these pearls of wisdom, just sitting for decades in a dusty book waiting for the person who needed this information. Did you know that in 1914 there were nearly 3,000 acres of sweet pea seed production in California alone? Thanks, old book, for holding this information!

From time to time I have farmer friends tell me they are getting bored with their crop lineup. They want something new and exciting. I would argue that the best place to find new ideas is in old books. I recently found a copy of the 1920 edition of *Principles of Floriculture*, written by Edward A. White and edited by Liberty Hyde Bailey. There are more than 450 pages of dense information all about the professional cultivation of cut flowers and potted plants in America for the American market. Growing flowers is not new. The horticultural needs of various species don't change much over time, and by and large this information can be trusted. Bored with your lineup? Maybe it's time to bring back violets, or mignonette or wallflower! It seems they were viable crops in 1920!

Speaking of old books, the *Holland Bulb Forcer's Guide* is an invaluable resource for anyone growing bulbs. It was prepared by the late August de Hertogh from research performed at North Carolina State University in conjunction with Dutch bulb growers and suppliers. It was last printed in 1996, and you can still find copies from time to time. I found mine on Amazon a few years ago for about \$100, but the price varies. I've seen it offered for more than \$1000, but I'm sure somewhere in America there is a \$5 copy sitting on the shelf of a used bookstore. Take time to check. In this day and age publishers are far more likely to produce books with mass market appeal than they are to publish books with solid, well-researched, concise information.

In July 2019 I took a trip to England to attend a sweet pea show put on by the UK-based National Sweet Pea Society. Shows these days are a fraction of the size they were even 20 years ago, when even members of the royal family would be in attendance. The participants are keenly aware of the average age of their membership and the fact that these traditions won't be with us for long. Just like the old books, there is precious information stored in the minds of these older enthusiasts who may have been growing sweet peas longer than I have been alive.

Plant societies need new blood to stay afloat and in



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Returning home from the February ASCFG Board meeting to my thriving Cool Flowers garden is almost as good as reuniting with husband Stevie and golden retriever Tuc. My hardy annuals are patiently sitting and waiting out in the field for their time to start producing.

By the time you read this we will be knee deep in hordes of snaps, bells, rudbeckias, poppies, sweet William, and a wealth of other spring bloomers. The beds are full of healthy, robust plants and I'm expecting it to be a really good season this year.

From time to time I have farmer friends tell me they are getting bored with their crop lineup. They want something new and exciting. I would argue that the best place to find new ideas is in old books.

many cases need help digitizing their newsletters and bulletins so the information is not lost. Participation in these groups can give you access to priceless growing techniques and variety information. You can speak to actual experts who love nothing more than to talk about their flower of choice. You can even find out about varieties before they reach the masses. If you were a member of the American Dahlia Society perhaps you would have seen the potential of 'Cafe au Lait' as a cut flower back when it was introduced in 1968! Dahlias, sweet peas, clematis, roses, orchids, daffodils, carnations, peonies, and so many more have their own dedicated societies, and a wealth of information can be gained by participating.

By all means, keep Googling, and asking those questions on Facebook, but when you're ready for the full story look for a dusty old book that needs someone to open it, or find an actual human with your shared passion. Both are ready to generously share their information.



Lisianthus being planted in early spring.

This didn't happen by chance. I've learned the hard way to stick to the best practices of growing cool-season hardy annuals. Spring cash crops are far too significant and spring too busy of a time to go off script that can lead to failures. When I focus on giving these plants growing during cool and cold conditions what they need, they rarely fail me.

Best practices:

- Make it a top priority to plant on time for your region.
- Choose to fall plant only those known to be winter hardy in your region.
- Those not winter hardy in your region, plant in very early spring.
- Plant in the best draining area available and in raised beds.
- Be a brutal thinner of direct-sown crops to give them the space they need to thrive.

For me, growing cool-season hardy annuals has become the perfect example of how great or horribly bad things can go just based on how I follow instructions. These simple, yet pass or fail practices can change your spring, and what better way to launch your season then with a successful and profitable spring?

SOUTHEAST

Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee



Val Schirmer

Three Toads Farm
vschirmer3@gmail.com

Treat your customers to the beauty and fragrance of table-top spring bulb garden. Here's how we do it, and you can too!

I've been so amazed (and thrilled!) with how many fellow growers are now forcing big glorious amaryllis and paperwhites for the holidays, and making some pretty good money doing it during a time of year when sales are typically slim to none. I hope forcing bulbs might be a real niche for our members to fill—for both the holidays and for early spring sales.

There's nothing quite like bringing fragrant spring bulbs—hyacinths, multi-stem narcissus, double and multi-stem tulips, and multi-stem grape hyacinths—into bloom before they'll be blooming naturally in the landscape, especially when it's still dreary, dark and just plan "blah" outside.



Statice when treated as a hardy annual produces excellent stem length and non-stop abundance.



We've been forcing spring bulbs at Three Toads Farm for a high-end antiques and garden show since 2003. At first it was really scary trying to time all these blooms for ONE weekend in early March. A few years ago we figured out that we should spread this out a bit, and began offering a Spring Bulb Garden workshop prior to the show. We touted it as giving our guests the chance to have "first dibs" on our 4,000 forced bulbs. This year

(2020) we expanded it to two workshops and both sold out, with people actually asking (okay, some are honestly begging) to add another one.

This tells us there's a good market for this! If you have a cooler, it could be a perfect solution for what to do with it during late fall/winter (well, unless you're holding dahlia tubers in it).

The only competition for forced bulb gardens is grocery stores and big box stores who offer plastic pots in foil wraps of a puny lineup of the most-commonly forced spring bulbs. We've found that people crave something that looks like a lush spring garden, full of fragrance, with lots of buds and opening flowers. Then, when you show them how they can also plant the bulbs outside to bloom next year and beyond? Well, they're HOOKED.



These are the varieties of spring bulbs we forced for tabletop bulb gardens this year.

It all begins with choosing the right bulbs.

Since we've based our reputation on higher-end specialty flowers, I search far and wide for just the right bulbs to force for these tabletop gardens. Although there are bargains to be had, we very strongly recommend buying from bulb suppliers whose livelihoods depend on supplying superior quality bulbs—especially those who are sponsors and active members of the ASCFG! They make sure the bulbs we purchase are disease free and have been stored under the proper conditions.

Next, size matters! Just as with amaryllis and paperwhites, the larger the bulb, the better the show. Big bulbs produce more stems with bigger, stronger blooms, and more flowers! We buy top-size bulbs for forcing over the less expensive “landscape size.” They are the largest available and each bulb is fully mature and ready to produce a bumper crop of blooms.

The only competition for forced bulb gardens is grocery stores and big box stores who offer plastic pots in foil wraps of a puny lineup of the most-commonly forced spring bulbs.

The varieties we choose:

- **Naturally bloom in early- to mid-spring** so their chilling time is similar (and shorter), and they'll bloom more quickly in succession. The ones I choose bloom in April, mid-April, late April, and a very few bloom in May.
- Are **multi-stem** varieties because each bulb produces more blooms.
- We always dig deep to find **fragrant** varieties, even if it's a tulip with light fragrance.
- Stem length is always essential for us cut flower growers, but for **tabletop** bulb gardens, we choose varieties that produce stems no taller than 16-18” max.

How to force the bulbs

We plant spring bulbs just like we do paperwhites for holiday blooms: in deep jumbo 6-packs. This makes it SUPER SIMPLE to pop out a very well rooted bulb and transplant it into any kind of container. We plant one bulb per cell for narcissus, hyacinths, tulips, and snowdrops. With the smaller grape hyacinth bulbs, two or even three bulbs fit nicely into each cell.

We plant them into ProMix, filling each cell about half full, add the bulbs, and cover with more soil. As the bulbs go through their chilling period, we keep an eye on them to be sure they don't heave totally out of the soil and they're kept moist. Our hyacinths typically sit on top of the soil in each cell.



A huge gold urn packed with ‘Armeniacum’ grape hyacinths - a big seller at the antiques & garden show!

Once planted, we give the bulbs a few weeks in the cooler at 50F (to stimulate the root development that takes place in the fall), then 9-10 weeks at 38F (winter) and then, at the beginning of February—or roughly three weeks before we need them beginning to bloom—we move them into our cool, barely-heated greenhouse to mimic cool early spring.

A week before our big antique and garden show, when each bulb is in big bud with a few just a few individual flowers starting to pop open, we pot the bulbs up into all sorts of large and small containers: concrete bowls and troughs, metal and ceramic

urns, and other cool, even vintage, planters. My favorite source for new containers is Accent Decor. You can’t beat the concrete bowls and trays, and the newer Winnie Compotes are a huge customer favorite! We have a local floral wholesaler (Dreisbach) that carries some Accent Decor items but I order directly from Accent Decor too to get quantity discounts.

How we sell them

If you’re thinking of forcing spring bulbs for next fall, NOW is the perfect time to look around at your market and decide how you’re going to market your forced bulbs and bulb gardens.

I always get a few requests from designers and others wanting to purchase soon-to-bloom bulbs in 6-packs. I sell them for \$12/6-pack of grape hyacinths and \$18/6-pack of the other bulbs. In fact, I currently have an order from a designer who’s doing a special installation and she’s ordered \$450 worth of bulbs to make kokedamas.

As I mentioned earlier, we sell our spring bulb gardens at a high-end antiques and garden show held the first weekend in March. This will be our 17th year there and it’s always GREAT to have cash coming in this time of year! It’s a three-day show and the organizers now put our booth front and center where people come in. Showgoers LOVE seeing and smelling the breath of fresh air we bring in! Our gardens sell for between \$25 and \$185, and we typically sell around 100 bulb gardens.

This is the perfect time for you to check out any similar shows going on near you, and talk with organizers about getting involved next year. If you explain you’re a local flower grower, they may even give you a price break on your booth space.

I also mentioned that we now hold Spring Bulb Gardens workshops just before the antique and garden show, giving our guests “first dibs” on the bulbs and containers. For these workshops we charge \$135, which includes the container, their choice of bulbs, and a variety of mosses to dress up their creation.

We use three types of moss: Spanish moss, Spring Green reindeer moss, and living clump moss. Clump moss comes dormant in a box that should have come out of the wholesaler’s cooler. I just spread it out (green side up/root side down) in flats and water it well for a few days to bring it to life. It’s really cool and I let customers know they can replant it outside in the shade. I get all of these mosses from local floral wholesalers. Ask them to order it for you.

To help people understand how special these bulb gardens are (and worth the expense!) we always include a card (with our logo, of course) attached to the bulb garden describing the planting—think “spring meadow” or “a sea of blue”—and the varieties of bulbs we’ve included. It’s more trouble to keep track of the varieties when we create each container, but it points out how special these bulb gardens are.



A big Accent Decor concrete trough packed with blue and purple hyacinths and grape hyacinths

It’s important to also have a handout, explaining how to care for the bulb garden for the longest show and then how to save the bulbs to rebloom next year. We print these two to a page, with our bulb garden info on one side, and highlights about our farm and what we do on the other side, with our logo on both sides.

Finally, promoting your glorious spring bulb gardens, workshops, and where you’ll be selling them on social media is all you need!

I sure hope this gives you a few ideas and inspiration! If you have any questions, don’t hesitate to give me a shout.

NORTH AND CENTRAL

Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, Montana, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin, and Wyoming



Jamie Rohda

Harvest Home

harvesthomeflowers@gmail.com

As I sit down to write this I'm realizing that my winter is pretty much over and it's now time to get going on all things summer. The conferences are done for now, my uncompleted winter to-do list is getting buried once again under the spring to-do list, and my greenhouse is filling up with thousands of starts just waiting to be planted out.

I've just returned this week from yet another great ASCFG conference and I'm feeling inspired to get this year's growing season off to a great start. It was so exciting to hear from experts at the other end of the flower industry. So much work goes into developing the cultivars that we all take for granted. I'm now feeling a special connection to some of those working tirelessly to bring us such beauty and I'll know who to contact when I'm looking for a special trait or color in my favorite cut flower!

It was also super interesting to hear Bailey Hale talk about flowers sourced from around the world. So much breeding and developing work is done overseas and I think as professional growers it's really important for us to see what quality many of our customers work with on a daily basis. These flowers being shipped in are truly beautiful and were a good benchmark for what we are all producing. You may be able to sell slightly inferior product a time or two but superior quality is what will keep your customers coming back for more!

In early February my husband and I also had the pleasure of getting together with 35 local flower enthusiasts at our Farmer/Florist gathering in Lincoln, Nebraska. There's just nothing quite like sitting down and talking with others who have a love for all things flower related. We all have so much to learn from each other.

For a little bit of fun this issue here are a few photos for a quick little throwback to our early days.

I hope you all have the best growing season ever!



One of the first years that we sold flowers at our market. Just a few bouquets creeping onto our tiny table of veggies!



And here's one from just a few years later with my sweet Hannah who is getting married this summer. They sure do grow up fast!



I thought this one from a 2013 conference in Ohio was especially fun. Seeing my little Eliza and my husband walking along with such greats from the flower farming world really brings back some good memories for me.

SOUTH AND CENTRAL

Arizona, Arkansas, Colorado, Louisiana, New Mexico, Oklahoma, Texas, and Utah



Shanti Rade
Whipstone Farm
info@whipstone.com

Tooling up

Every year we focus on improving one aspect of the farm in earnest. Sometimes it's a conscious decision, other times, I see the theme of the year emerge only upon reflection. Some examples of these in recent years have been 1. An accounting overhaul which helped illuminate our profitability; 2. An attempt to document everything for our employees and create solid protocols for how we do things; 3. Long-term planning for financial and personal sustainability. None of these areas is ever complete, and it doesn't mean we don't work on all areas of the business all the time, but with some extra focus and prioritization, it's amazing how much more we can accomplish.

This year, the theme seems to be acquiring and using new tools. We all love new tools, don't we? I mean, buying them is the easy part. But often I find I am really excited about a new system, tool or piece of equipment only to find we don't really end up using it all that much. Or we hit a roadblock and I don't have the time to overcome the obstacle to get to a good working flow with the new tool. Other times I am just afraid to try new things. We have our system, and our crew knows the systems, and it's just overwhelming to change the whole thing. This year, we have taken the plunge on quite a few tools that I have had my eye on for a while. While I don't know yet how useful in the long run each one of them will be, I would love to tell you a little more about them, in case it inspires you to investigate or try any of them out.

The Paper Pot Transplanter

This is a unique system for producing transplants and getting them into the ground. If you have never seen a video, go to YouTube and watch, it's quite mesmerizing. The overall goal is labor saving with faster transplanting time, and this tool definitely makes that happen. But there are some pros and cons to consider. I will be quick about it and just give you the bullet points. There is plenty of information about the tool on the sites that sell them, such as Smallfarmworks.com and Paperpot.co, and lo and behold—Johnny's now carries them, too.



Pros

- Faster transplant time, saves on labor.
- A system that all works together: bottoms trays, paper pots, dibble board, drop seeder, transplanter.
- Transplant from a standing position—who doesn't love that concept?
- Ability to transplant crops that don't like their roots disturbed. Since you don't dislodge the plants from their trays, there is little root disturbance.
- Faster time from seed to transplant stage (since you don't dislodge plants, you can get them out quicker to the field) freeing up greenhouse space.
- Human powered, quiet, no fossil fuel use.
- Good at almost any scale from small to large farm.

Cons

- Plants can't linger as long in their trays once they are up to size.
- Cost: you have to buy the whole system and there is the ongoing expense of buying the paper pot trays.
- Can be challenging with certain soil conditions; you really need a seed bed free of rock and debris.
- Easy for new transplants to dry out, need to take extra precaution to keep soil moist.
- Limitations on in-row spacing and only one size of pot.

We have been using this tool for only a few months, but I have to say I love it. I have heard a lot of other farmers both praise and curse it, so do your homework and ask around to see how this system might work for you. While I love the speed with which it transplants, I also love that we can transplant crops we normally either struggle extracting from their cells, or don't transplant at all because they don't handle root disturbance, such as edible peas and beets, or that would be too tedious to transplant at a close spacing, like scallions and turnips. The number one reason we bought this tool was to help with



Paper Pot Transplanter

production of Salanova for cut salad mix. We plan to plant a bed every single week. But since we were going to have it anyway, I started dreaming big on everything we could use it for.

Here are the flowers we are using it for this year; I will give you an end of year update on how it all goes.

- Sunflowers
- Ornamental grasses
- Basil
- Amaranth
- Ammi
- Daucus
- Celosia
- Bachelor buttons
- Calendula
- Cress
- Strawflower
- Zinnias

Germination Chamber

This one is so easy, every one of you could build one.

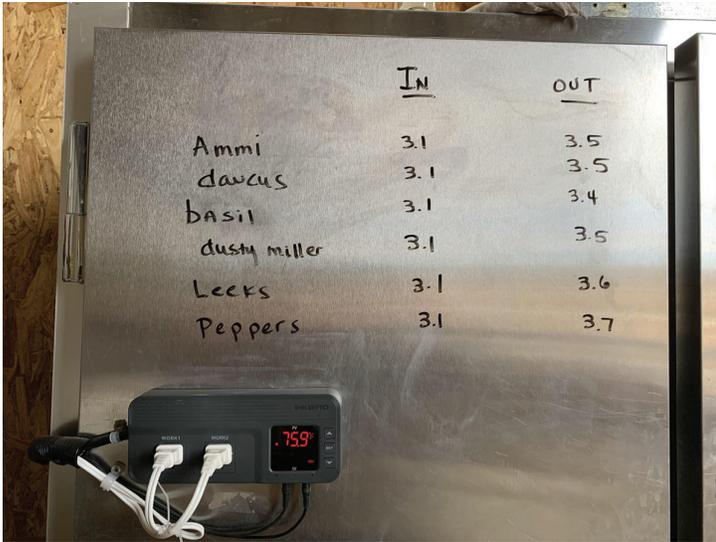
My husband is a big believer in saving all the things. He takes all kinds of hand-me-downs, needed or not, plus saves every old thing for the “someday this could be useful” scenario. It drives me nuts because I feel as though I live in a junkyard. But I have come to accept it, because marriage is a compromise.

And there are many times when one of those pieces of junk comes to the rescue. Case in point: Two non-working commercial refrigerators, which someone gave us after they stopped working, which made the perfect candidates for a germination chamber. I am not going to go into a lot of details, because both the Flower Farmer Facebook group and the ASCFG Facebook group have multiple posts with lots of good answers and advice on all the different ways people are getting creative with their germ chambers. So go do a search there if your interest is piqued. I just wanted to say how easy it was to make and how much I already love it. Even though we have a heated propagation greenhouse, the ability to control temperature and humidity and the speed and uniformity of germination when using the chamber is ah-ma-zing!

There are expensive commercial units (which I am sure are totally worth the expense, especially for the increased capacity) but the homemade versions are not bad. We purchased an online tutorial called “The Ultimate Germination Chamber” from Growingfarmers.com for \$37. It just tells you how to do everything and gives some case studies. While we already knew most of the information, it was super helpful for determining what types of controllers and monitors to purchase, without



Germination Chamber



Germination chamber - The heat and humidity are created by two crock pots. We used an old commercial refrigerator for our germ chamber - the controller turns the crock pots on and off to maintain our pre-set temperature and humidity. We use a dry erase market right on the fridge door to keep track of what's happening inside. While we check it daily, these notes help us keep track of what to pull out when.

guessing what would work. But whatever route you take, I think any person of any capability can make one of these and you will love the results. Just be sure to check your germ chamber often and get those flats out right as (or right before) they germinate!

K.U.L.T.-Kress Finger Weeder and Argus

This is a tractor-driven implement that does an amazing job of cultivating, in other words disturbing the soil to kill weeds while they are relatively small. The finger weeders (magically) weed in the row where your crops are planted while



some other components weed between rows and behind your tractor tires. I have yet to see this in person, so maybe it just seems magical to me right now. The Argus is the system the cultivating tools are mounted to, rear of the tractor-mounted framework which is steered from behind the tractor by a second driver, so to speak, and K.U.L.T.-Kress is the company that manufactures it.

I first heard about this tool on the Farmer to Farmer podcast. And even though a lot of tools are labeled as “game changers”, I love that Chris Blanchard (the podcast host) used to ask his guests “What is your favorite tool on the farm?”. When you have to pick just one, it is pretty enlightening. When multiple people talked about the finger weeders being the best tool, I took note. It has taken me almost four years and asking lots of questions of farmer friends to actually get to the point where I was ready to buy it.

As I mentioned above, sometimes we are slow to make changes. We had to really think through all the ways in which we would need to change our systems, including row spacing, to accommodate this tool, which will be pretty significant. And it can be hard to know if it is worth it until you can actually put it into use. But we spend roughly 35% of our labor on weeding, and we are cultivating 15 acres of crops, almost all by hand. So, for us, this seems like a good move if everything works as expected. It still feels risky, but I guess if it doesn't work for us, we can try to sell the tool. The alternative is make no changes and keep going in our currently inefficient system.

Even though we would love to get into more no-till and more tarping to help with weeds, at our scale I still think this tool will be very useful for us, even if we use all of these things in some sort of combination. We currently use a lot of plastic mulch to reduce the weed pressure, which is a single season use of plastic that I am just not okay with anymore. I am hoping that this system will allow us to use less of it and focus more on tractor cultivation.

While this system does require a larger farm setup to be effective—first you need a tractor, and long enough rows with turnaround space, etc.—there are smaller scale approaches, too. There are finger weeders, discs, and knives for the Terrateck Double Wheelhoe sold on Johnny's web site (johnnyseeds.com), basically a hand push version of the same tool. I can't vouch for it myself, but it's worth checking out.



The Argus will be our most expensive tool purchase this year. And since it hasn't even arrived yet, I don't have a whole lot of real life experience to share with you yet, but I will soon.

If you have questions or suggestions about any of these tools, I would love to hear from you. Drop me a line: shanti@whipstone.com

WEST AND NORTHWEST

Alaska, California, Hawaii, Idaho, Nevada, Oregon, and Washington



Erin McMullen

Rain Drop Farm
raindropfarm@peak.org

After talking in Oberlin with growers from around the country, one thing that seemed to run through all the conversations was that our winters were full—of work and strange weather. Here in the PNW we had a very mild winter, in our area that meant no snow, at all! Even though we seldom have significant snow events, this winter we also didn't have any significant cold snaps, which coupled with the lack of any snow made winter feel particularly blah, that's how my kids described it.

So we took the opportunity to do as many of the winter tasks that we could before the real hustle of spring hits. What does winter work look like for you on your farm? What are the tasks that you would like to get done, but don't? What are the true priorities that MUST happen? What do you say when someone says "Oh, you're a farmer? So do you just sit around during the winter, or go on vacation?" ?

After the Oberlin conference I raced home to speak at the OSU Small Farms Conference in Corvallis, and then host the Pacific Northwest Cut Flower Growers Meetup the next day. Whew! A whirlwind of flower farming goodness. Great speakers and amazing connections made. This weekend always takes lots of time and behind the scenes hustle, but is one hundred percent worth it in the end.

Once the conferences were over it was back to winter project land for us. Our big projects over the winter are mostly of the cleanup and prep type. Winter pruning all of our roses takes precedence. We start in the fall by pruning everything back slightly, mostly to protect from any weather or wind damage we may see. As the weather starts to warm in the spring we do our final prune on them. The goal is to be done with this round by Valentine's Day, but this year we started a bit earlier as we were starting to see buds popping! The spring prune is intended to be a cleanup, pruning out dead wood, and cleaning up the form to allow for good stem growth and air circulation. Once they're all cleaned up and pruned, they get a dash of fertilizer and a top coating of mulch, and then they're ready to roll!

The eucalyptus is also a big project on our farm. We get a lot of use out of our eucalyptus stands and cut on them this year all the way to Valentine's Day (like I said, no big cold events). Once we feel like we've gotten everything off to market that

we can, we aggressively cut the plants back to stimulate new growth, fertilize, and mulch.

Other big projects this winter were planting lots of new perennials and woodies, cover cropping a new growing area (four new acres!) and working on retrofitting our shop building into a bigger, better prep and work area for our grocery and design work. No lie, we've been putting off planting woodies for the last ten years, waiting for the perfect area to open up, choosing other investments, just being lazy. Bad decision. If you're on the fence, or haven't planted woodies yet, just do it! We are kicking ourselves for not doing it sooner, but so glad that we finally have.

As always, planning takes a large chunk of time and we spend lots of hours mulling over last year's sales, analyzing what sold well, what didn't sell, what gets more field space, what gets cut from the plan. All that to say, it's one of my favorite tasks of the entire year—there's so much hope and potential in every well-laid plan. So, here's to a happy, prosperous, and fun-filled season in 2020!

CANADA

Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Nova Scotia, Ontario, Prince Edward Island, Quebec, and Saskatchewan



Janis Harris

Harris Flower Farm
janisandmarkharris@hotmail.com

Let's Do the Time Warp Again

Let's time warp back to the beginning of my flower farming journey and follow it along. Our society is driven by instant gratification: I need the answers and everything in place now. The path to today is often forgotten, and it's easy enough to think that the path was insignificant.

My flower story began when I was a teenager in the mid-90s. My parents had an organic mixed farm. They had a market on their farm and at the height of their success the market was open four days a week. Their business began with selling vegetables and other goods they produced on the farm. This was at a time before "organic was cool". Their business grew so fast and the farm could not produce enough for the demand. They began to purchase in vegetables, exotic fruit, dairy, cheese, and pantry items. It was an on-farm organic grocery store. I helped out with the family business, as it was expected.

This is also when I started growing some flowers. I grew everlasting flowers and one summer I grew some sunflowers. The everlastings were hung in the farm store from the rafters. Dad hung tomato cages and I attached the flowers in small bunches with twist ties. I grew strawflowers, statice, and gomphrena. I would be in the store during open hours and would climb up and down a stepladder when customers wanted to buy some of my dried flowers. I added value to my dried flowers by making and decorating grapevine wreaths, and made dried arrangements. This business venture funded my need for brand name jeans and shoes.



My family attended and were vendors at a very fancy event in Toronto each September. It was a “farm to table” event before that was a phrase. We planned out the timing and planted sunflowers to sell there. We loaded up the delivery/family “maxi” cargo van and sold every stem we brought. I often forget that event but that was my first “pop-up shop”.

and didn’t want to work as hard as Mom and Dad did. I went away to college, graduated, and started my career.

Then I met my husband. He was from the country and I guess I wanted to prove myself as a country girl. At that time, I was working in the city, wearing power suits more than barn boots. My mom suggested growing gladiolus and selling them at the market in town. My parents had closed the on-farm market because it became more than our farm could handle. That summer I learned all about glads. I was hooked! I started checking out all the flower sections of the seed catalogs that came. Mark (my now husband) was keen to help with the planting and selling of the glads. Over the next couple of years I was able to convince my parents to give me a little more ground and convince my Grandma to let me pick a few things from her gardens. I still worked full time in the city but I was getting more and more interested in flowers.

After we were married, we rented a country home with a barn, just around the corner from my parents and grandparents. I moved three times (other than college) and my postal code (Canadian version of zip code) didn’t change. I still grew flowers for the farmers’ market. Soon after we were married, our son was born in mid-June. I remember looking out the kitchen

window crying because I didn’t feel like I could go anywhere or do anything. It was too hot to be outside. I didn’t think I could go outside and it was too hot to have a newborn out there. It was really hard for me to give up on the flowers. I was very stubborn. I did everything I could to still be at the market. Luckily, I had help from my husband and family. We made it through the season. In Canada we have a year-long paid maternity leave. After my year off I returned to my city job. Two and a half years later our second son was born, in November. The winter is a much better time to be curled up in the house with a newborn.



By the time spring came I was much more skilled at baby-wearing techniques and we (the kids and I) were able to get a lot more done. This was about year four of our farming journey. I had my first requests for weddings. Two of my friends were getting married! I was excited but nervous for my first wedding jobs. I practiced before the weddings and had help from my sister who just so happened to have gone to school to be a florist. She did most of the hard stuff. I did the more basic things. But now I had pictures that I could post and say “I DO WEDDINGS”. Word travelled fast. I was hired to do seven weddings my second year. I still had help from my sister but I was doing more on my own and I had more confidence in myself.

This is the time that we bought my grandparents’ farm. We went from ridiculously cheap rent for the farmhouse to owning a 72-acre farm and paying the mortgage that came with it.



Not to mention the pressure to “keep the family farm”. Dealing with family and money is an interesting and challenging scenario that will have to wait until another time.

Year three of doing weddings and six of growing flowers I did 13 weddings. My sister moved to Toronto so I didn’t have her close by anymore. That summer I was also pregnant with our daughter. I made it through the growing and wedding season. She was born in March. By baby #3 I was pretty confident with my mommy skills and she was a super easy baby. I wore her everywhere. She came with me to wedding set-ups and everywhere I went. Year four we did 21 weddings.

Just to be clear: we did mostly à la carte weddings. I didn’t do big on-site installs, and mason jar arrangements were our style. I was eager to do anything for my customers. I know better now and realize how much of a freaking deal they got!

In year eight and nine of growing flowers I started to realize that my off-farm job didn’t work with my growing business. I had great employers. They were very accommodating of my schedule requests. But it started to be more of a hassle for them and I wasn’t as into my off-farm job anymore.

In April of year ten (2018), I quit my off-farm job to be a full-time flower farmer. I was TOTALLY ready and excited and TOTALLY scared! I said yes to ANYTHING! I did weddings that I should not have. I was panicked and just thought now is the time!

Going into year twelve and I am still scared but I know that things will work out. I know that to be able to succeed you have to start, you have to do. I am a very stubborn person, I’m the first to admit that (and I’m sure my husband and family would agree). In the past, I wanted to prove myself, I don’t know who I was trying to show but I thought that to be successful meant I had to be constantly running. I still do many things. I have many irons in the fire. But I also have found that I thrive on that. I want to be busy. But I want to be busy with the right things. I am okay now with having a wedding quote rejected. That reminds me that I am pricing correctly. I am okay with

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saying no to a new market that I know will cost me more to be there than I bring home. I know how to grow and do most things very well and efficiently, but I am always looking to learn a new or better way. To be able to personally grow and get better, I look to people who inspire me. People who have been on a journey. In our current society everyone can look like an expert on Instagram. But are you getting the full picture? How did they get to where they are?

My path isn’t the same as yours. You need to make your own path. Figure out what drives you. Figure out your place and your way to get there. Don’t worry if you’re not where you want to be yet. Great things take time.

Meet the ASCFG's Newest Members

Erin Acosta, Culpeper, VA
Shalane Adkinson, Weathered Oak Farm, Simpsonville, KY
Jaiden Aeilts, Dripping in Petals, Dripping Springs, TX
Judith Akins, Thyme to Bee Farm, Poulsbo, WA
Krista Albright, Ottawa, OH
Allison Alford, Next of Kin Studio, South Pasadena, CA
Cristy Allen, S & K Blossoms, West Haven, UT
Teresita Amore, University of Hawaii, Honolulu, HI
Flavio Arias, Bell Haven Farm, Kelseyville, CA
Linda Backman, Lodi, CA
Suzanne Baetz, White Farmhouse Flowers, Kansas City, MO
Robin Barfield, New Beginnings Garden, Anderson, SC
Jean Barker, Bristol, TN
Kathy Barry, White Farmhouse Flowers, Parkville, MO
Jackie Beasley and Jessica McCracken, Black Creek Flower Farm, New Kent, VA
Cari Beggs, The Rustic Petal, Greensburg, IN
Margo Jo Behler, Bay Meadow Farm, Avon, CO
David Benoit, Southside Blooms, Chicago, IL
Greg Benza, Benza Flowers, Hillsboro, OR
Lynn Beuning, Frosti Flowers, Minneapolis, MN
Christina Bixel, Smiling Frog Farm, Cottage Grove, OR
Briana Bosch, Iris Floral Farm, Lakewood, CO
Jessica Bourgeois, Bloom & Bramble, Long Valley, NJ
Whitney Bower, Mountain Roots, Vallecito, CA
Rebecca Bracewell, All Things Farm, Warrenton, VA
Lauren Braido, Kettering, OH
Rebekah Brazier, Backyard Blooms, Greenville, SC
Jenn Brown, Willow Moon Ventures, Morrill, ME
Brittan Browning, Gilmer Farms, Salt Lake City, UT
Lauren Bruns, Lost & Found Farm, Gray, ME
Madison Campbell, Spy Haven Farm, Arundel, ME
Melissa Canfield, Willow Sky Farm, Mebane, NC
Lisa Capper, Capper Farms, Chelsea, MI
Ann Carnes, Wild Pansy Farm, Greenwood, IN
Evelyn Chamberlin, Columbus, OH
Siva Chan, Fairy Patch Flower Farm, Stouffville, ON
Erica Clark, Fort Worth, TX
Laura Cohen, The Posy Express, Carmel Valley, CA
Robin Collins, The Vinery, Nevada, IA
Alice Colman, Stony Hill Farm, Wilbraham, MA
Peggy Crosby, Red Door Farm, Stratham, NH
Jennifer Crouse, Wild Faith Farm, Southport, NC
Carie Cufu, Perrysburg, OH
Alex Cutts, McClaren Meadows, Midlothian, VA
Heather Davis, Whynot Farm, Chuckey, TN
Jessica De Faymoreau, Laurel Canyon Farm, Soquel, CA

Lisa Dean, Floral Root, Canajoharie, NY
Maureen Dempsey, Intervale Farm, Westhampton, MA
Carey Ditges, Brightside Flower Farm, Orlando, FL
Laurie Dohring, Bell Haven Oaks, Kelseyville, CA
Jenna Doss, Paper Bird Flower Farm, Farmersville, TX
Janette Drost, Four Boys Flower Farm, Elora, ON
Rachel Duncan, Bayou Petals Flower Farm, Boyce, LA
Eithne Dundas, Bower & Bay, Duxbury, MA
Sue Dykstra, Creekside Growers, Middleville, MI
Alexandra Endersbee, Black Fox Farm, Leesburg, VA
Amanda Evridge, Evridge Farms, Midkiff, TX
Tena Fabish, FAB - ISH Floral & Stems, Andrew, AB
Kali Feiereisel, Seed & Gather, Grass Valley, CA
Elizabeth Fields, Five Fields Flower Farm, Livermore, CA
Allison Finch, Finch Farmette, Petaluma, CA
Jeffrey and Ginger Frembling, Happy Pants Flower and Herb Farm, Archdale, NC
Alton and Terri Fricke, Logan Cut Flower Farm, Cave Junction, OR
Elaine Fryar, Waseda Farms, McLeansville, NC
Mary-Beth Gardner, Asclepias Farm, Brownsville, VT
Anna Gauthier, Wild Creek Holdings, Telkwa, BC
Connie Gauthier, Thistle Lane Flowers, Grunthal, MB
Janis Gauthier, Fulford Valley Organics, Salt Spring Island, BC
Karen Geiser, Karen's Garden, Dalton, OH
Heather Gibbons, Old Lyme, CT
Connie Gillen, Sunset Farm, Amherst, MA
Erin Givens, Floribunda, Decatur, GA
Denise Glanzer, White Farmhouse Flowers, Kansas City, MO
Floyd Godsey II, Greenstone Fields, Baltimore, MD
Jen Goff, Johnny's Selected Seeds, Winslow, ME
Dedra Gourdin, Fragrant Acres Farm, Alpine, UT
Seth Gowans, Sidekick Flowers, Novato, CA
Joanna Greer, Lewisburg, WV
Pam Gregg, Sweetgrass Farm, Prospect, TN
Cherri Gretter, Redhead Ridge Flower Farm, Chadwick, MO
Connie Griffin, Annandale, VA
Sibbie Griggs, Carolina Charm, Point Harbor, NC
Lori Grim, Melba, ID
Elise Grimes, Grimes Family Farm, West Paducah, KY
Jen Gruninger, Farm Fresh Florals, Sunnybrook, AB
Cecilia Gryde, Twin Creek Blooms, Castle Rock, CO
Robin Habing, Robin's Flower Farm, Effingham, IL
Mary Carole Haering, Garden Expressions Unlimited, Farmington, MI
Anne Hall, Crespell, Lexington, NY
Sasha Hall, Small Town Flower Farm, Grants Pass, OR
Jerry Hambley, Parker, KS
Jessica Harrington, Love Blossoms, Erie, PA

PLUGS AND PERENNIALS FOR FLOWER FARMERS



Becky Hartman, Rusty Bell Farm & Garden,
Franklin, OH

Bridget Harty, Farmhouse Flowers,
Moretown, VT

Kristen Heafield, Rainford Farms, Weare, NH

Angelina Hellar, Formosa Flower Farm,
Eugene, OR

Marcella Hempelmann, Evanthia Seeds &
Plants, Monster, The Netherlands

Barbara Henry, Henry's Gardens, Inc.,
Eden, NY

Cynthia Herring, Tiger Creek Farms,
Johnston, SC

Donna Hill, Budding Hill Farm, Westford, VT

Samantha Hill, Husky Blooms,
Quakertown, PA

Bethany Houser, Bethany Vineyard & Winery,
La Center, WA

Christian Ingalls, Daisy Dukes Flower Farm,
Papaaloo, HI

Jeri Irby, Petal Pusher Farms, Purcell, OK

Alena Ivakhnenko, Golden Foot Flower Farm,
Floyd, VA

Elizabeth B. James, Hoosier Flower Farm,
Anderson, IN

Jodee James, Prairie Roots Flower Farm,
Carman, MB

Colleen Jamison, Austin, TX

Ken and Lisa Jay, Modern Heirlooms, Arab, AL

Katie Jazwinski, Jazz Blueberries, Shelby, MI

Sherri Jewell & Todd Paquette, Jenison, MI

Amy Johnson, Am's Flowers, Wilmington, DE

Regina Johnson, Blooms of the Loop at Little
River, East Boothbay, ME

Charley Jordan, Jordan Farms,
Indian Mound, TN

Melissa Kanter, Taos, NM

Joan Kasura, Freelance Feature & Blog Writer,
Glenwood, MD

Laura Kavanaugh, Honeyrock Farm,
Lumberton, MS

Julia Keel, Full Keel Farm, Fort White, FL

Sarah Kerr, Barn Dog Flower Farm, Brush
Prairie, WA

Casey King, All in Bloom, Galena, OH

Debbie King, All in Bloom, DeLand, FL

Shannon King, J&S King Family Farm, Saint
Andre, NB

Concetta C. Kome, Farm Girl Deliveries,
Six Mile, SC

Jennifer Kouvant, Six Dutchess Farm,
LaGrangeville, NY

Marysa Krause, Milford, PA

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Vanessa Kulick, Indigo Page, West Luray, VA

Allyson Lambert, Slick Chick Blooms,
Bristow, OK

Laura Langford, Roam Flora, Ottawa, ON

Aelish Lascoe, Tin Cup Farm, Buffalo, TX

Tracy Laub, Cottage Grove, OR

Cindy Lawrey, Belle Plaine Blooms, Belle Plaine, KS

Megan Leach, Dragon's Breath Farm, Libby, MT

Genevieve Leblanc, Northern Blooms, Dalhousie Junction, NB

Liz Lichtenberg, Woodlands Farm,
Alton Bay, NH

Corinne Lisk, Small Ventures Flower Farm, Charles Town, WV

Annalee Loewen, Middleton, MI

Dianne Lollar, Oakman, AL
Annika Lorenz, The Farm at Cherry Hill, Traverse City, MI
Georgia Lovell, Georgia's Garden Party Cut Flower Farm, Terrebonne, OR
Caitlin Lundquist, Greenstone Fields, Reston, VA
Melanie Luttrell, Magnolia, TX
Diane Lutz, Patchwork Dahlias, Sykesville, MD
Charlene Magargal, Billings, MT
Rebecca Maillet, Many Graces, Florence, MA
Rosemary Manolis, Hawthorn Farm, New Castle, PA
Janice Martin, J. Lynn Florals, Sherwood Park, AB
Amanda Maurmann, Michigan Flower Growers' Co-op, Ann Arbor, MI
Loreen McFaul, Daisies in May, Spokane, WA
William J. McKinley, Texas A & M Univ., Dept. of Hort., College Station, TX
Taylor Meints, Taylor & Co. Fresh Cut Flowers, Geneseo, IL
Sue Meluzio, Sprouted in Thyme, Bridgeport, WV
Lynette Miller, Burlap Flower Farm, Sturgis, MI
Rebecca Modlin, Caledonia, MN
Dusty Morlier, Wild Blue Farm, Nokesville, VA
Christina Natale, Little Hen Farm, North Haven, CT
Maya Nayak, Tip Top Fruit and Flowers, Charlemont, MA
Sue Newhouse, Aunt Sue's Barn, Ponder, TX
Pam Nuernberg, Backyard Blooms, Greenville SC
Debra O'Connor, Embro, ON
Meagan Brooke Oberley, Plum Nelly Flower Farm, Mooringsport, LA
Sally Obremski, The Grateful Gardener, Nantucket, MA
Heidi Ochsenreither, Aldebaran Farm, Bechtelsville, PA
Pam Oles, Woden Woods Farm, Atascadero, CA
Tammy Osselaer, Little Petal Farm, Noblesville, IN
Anne Ostdick, The Fleur De Lis Farm, Union, IL
Delaney Pearson, Living Roots Farm, Albuquerque, NM
Barbara Pelfrey, Orion Organics, Burgettstown, PA
Jessica Penner, Bowersville, GA
Rebecca Peterson, The Cottage Farm, Caldwell, ID
Michelle Potter, Sage & Sparrow Farm, Bennett, CO
Marleen Prater, Turtle Hills Farm, Sullivan, MO
Bethany Price, Luray, VA
John Rice, Mountain View Flowers, Burnsville, NC
Rachel Richardson, Rossiter, PA
Pam Romanello, Blue Sky Gardens, Ridgefield, CT
Annie Rowell, Brassknocker Farm, Craftsbury, VT
Lorri Ruckman, Troy, IL
Emily Saeger, Filoli Historic House and Garden, Woodside, CA
Emily Saperia, Burnt Leaf Gardens, Weston, MA
Caroline Satterlee, Kinta, OK
Jennifer Savzian, The Flower Keep, Columbus, OH
Carolina Schierholz, Bella Flowers, Locust Grove, VA
Rachel Schissler, Libella Farm, Corinna, ME
Karen Schmeckpeper, Ranchos De Taos, NM
April Wilfong Schmidt, Covey Rise Farms, Loranger, LA
Catherine Schmidt, Bluff Valley Farm, Inc., Wabasha, MN
Stacy Schmidt, Narrow Trail Farm, Baldwin City, KS
Karen Sherzi, The Petaled Garden, Andover, MA
Amanda Shriver, Happy Rock Farm, Gladstone, ND
Julian Sibley, Ulrich Farms, Snohomish, WA
Gwendolyn Simpson, Inspired Market Gardens, Chilliwack, BC
John Small, Amado Nervo, Coatepec, Veracruz, Mexico
Doug Smith, Riverside, CA
Lauren Smith, Ivy and Oak Farm, Holly Ridge, NC
Marianne Smith, McSmith Farm, Lebanon, TN
Rhonda Snyder, Red Barn Farm and Flowers, Navarre, OH
Annie Sondrol, Three Sisters Flower Farm, Grand Forks, ND
Jill Spurgeon, Black Barn Florals & Herbs, Broken Arrow, OK
Jessie St. Pierre, Hope Field Flowers, Elsberry, MO
Robin Stauble, Sea Roots Flower Farm, Kittery Point, ME
Heidi Sterrenburg, Rural Roots Nursery and Market Garden, Stayner, ON
Carly Stevens, Valparaiso, IN
Sheri Stevens, Triple B Farm, Hollister, MO
Cathy Stewart, Wynne, AR
Deborah Stohn, Farmstead Flowers, Campton, NH
Elizabeth Strasser, Burdick Blueberries, Inc., Cattaraugus, NY
Lyndsay Stretch, Petals Farm & Garden, Windham, ME
Chantry Sutton, Farm Wild Florals, Hamilton, MT
Lindsay Sykes, Sweet Spot Farm and Apiary, Bridgeport, WV
Kathy Thaysen, Angel Blooms, Oxford, PA
Becky Thompson, Thompson Produce, Nowthen, MN
Gary Thorp, Weymouth, MA
Krysta Todice, Black Olive Farm, Hannibal, NY
Sarah Torgerson, Eden Roots Flower Farm, Simpsonville, KY
Jan Trent, Powell, OH
Alicia Vacchiano, Plant Design Events, Wall Township, NJ
Lesha Van Binsbergen, Dutch Ridge Ranch, Livemore, CO
Sarah VanOeveren, Ferna Farms, Allendale, MI
Laura Vernoy, Palgrave, ON
April Vomfell, Flathead Farmworks, Kalispell, MT
Jennifer Waite, Gardenside Blooms, Kaysville, UT
Elizabeth Ware, Three Girls Flower Farm, Fairfax Station, VA
Jennifer Way, Spring Valley Farm, Seven Valleys, PA
Lisa Wendt, Ridge Flowers, Palmyra, WI
Karen Whitener, Little River Farm, Fredericktown, MO
Lindsay Wicker, Blossom Hill Gardens, Oregon, IL
Melissa Williams, Dolce Vita Farms, Eastover, SC
Kelly Wilson, Slater Road Farm, Anderson, SC
Blythe Woods, Maggie's Farm Gettysburg, Gettysburg, PA
Jessica Worley, Pollinators and Blooms, Hutto, TX
Teri Wyly, La Terre Farms, Bay Saint Louis, MS
Samantha and Karson Wynne, Freshies Farms, Montrose, CO
Sara Yardley, Yardley Flower Farm, Baldwin City, KS
Kelsey York, Soil and Soul Flowers, Hoboken, NJ
Kara Young, Nebraska City, NE
Denise Zis, St. Rose Flower Farm, Saint Martinville, LA
Richard Zuchnik, Country Garden Flowers, Bay City, MI



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Call for Nominations

Since its inception, the ASCFG Board of Directors has been made up creative and generous members who donate their time to the continuing excellence of the organization. Meeting only twice yearly, they work together to chart the course for the ASCFG.

If you're grateful for the service your colleagues have provided to the ASCFG, please let them know, and then, make your own contribution by stepping up as a nominee for the next Board.

This summer, you'll have the chance to run for North and Central Regional Director and South and Central Regional Director. Each is a three-year term.

For more information, contact the ASCFG office. We'll be happy to fill you in.



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Dave Dowling Scholarship Awarded

Congratulations to these three outstanding young people who received the Dave Dowling Scholarship for 2020. We are pleased that they plan to work in the cut flower industry, and welcome them to the ASCFG.



Amber Edwards

Amber is a junior at Virginia Tech in Blacksburg, where she is pursuing a degree in horticulture. She fell in love with cut flower production there, and followed every farm she could find on social media. In 2019 she interned on Stonecrop Farm, which raises sustainably grown flowers for subscription bouquets, market sales, events, wholesale, and weddings. This experience encouraged her to pursue cut flower farming, and she hopes to start a cut flower farm in her hometown of Smithfield, Virginia.



Max Hyde

Smellin' Somethin' Good Farms is the name of the cut flower business Max Hyde has been operating in Frierson, Louisiana, since January of last year, even as he works on his studies as a sophomore at Louisiana State University. He expects to graduate in 2022 with a bachelor of science in Agricultural Business and Plant Science. Max's philosophy is "Why would not want to immerse yourself in beauty? Why would you not want to plant, maintain, harvest, and sell one of the most beautiful parts of nature?"



Nicolle Ritchie

Nicolle has a broad range of experiences in horticulture, ranging from insect pest scouting, interning on a California almond and pistachio farm, and working on a cut flower farm in Idaho. She's already been offered another job at that farm after she graduates from Utah State University, where she is studying plant science, with a minor in Spanish. Nicolle is looking forward to attending ASCFG events, and meeting more growers from across the country.



Dave Dowling owned a successful cut flower farm in Maryland for several years. He placed great emphasis on introducing young people to horticulture through employment on his farm, bringing them to ASCFG conferences, and mentoring them as they moved into their own cut flower businesses. Dave is responsible for the success of many new growers across the country. His generosity and enthusiasm for sharing are unparalleled.

Update Your Member Page



- Log in at localflowers.org.
- Go to the "Members" tab and click "edit" under your company name.
- Download instruction manual on this page.
- Make any necessary changes to your contact information.
- Replace default images with your logo and/or other favorite images.
- Enter a business description that clearly defines you and your company.
- Share links to your website and social media.
- Include links for a price list, catalog, online store, or product availability.
- Let buyers know if you supply locally, regionally, or nationally.
- Highlight services offered and the flowers that you grow.
- Add locations where your flowers may be purchased.
- Be sure to click the "Update" button to save.

Barbara Lamborne Honored with Award for Commitment to Sustainable Farming

Congratulations to longtime member Barbara Lamborne, who was recently recognized by Future Harvest, a non-profit organization dedicated to advancing sustainable agriculture in the Chesapeake Region. With her husband Dennis Fuze, Barbara has grown cut flowers at Greenstone Fields in Wheatland, Virginia since 2006. They were among three farms to receive the “Farmer of the Foodshed Award” at Future Harvest’s January Conference. Greenstone Fields is the first flower farm to be honored with this award.

“Greenstone Fields’ farming practices are deeply in sync with our mission,” said Dena Leibman, Future Harvest’s Executive Director. “Barbara and Dennis are stellar educators and take great care to farm in ways that are good for their business, and their land and water.”

Greenstone Fields is one of five farms that make up a vibrant agriculture community on 400 acres in Wheatland. Barbara and Dennis grow more than 100 varieties of cut flowers using methods that nurture the soil and encourage pollinators. They are local leaders in a growing movement to educate the public about fresh, local, naturally-grown flowers.

Barbara credits the late Andy Hankins from Virginia State University Extension with her serendipitous entry into flowers. “After learning that 80% of the cut flowers sold in the U.S. are grown outside the U.S., Andy applied for and received a grant from the Virginia Department of Agriculture to get 12 people started in flower farming. He was on a mission to show that Virginia farmers could grow plenty of flowers, especially using high tunnels.” Barb was one of the farmers to take Hankins’ challenge, and she has never looked back, becoming one of the premier local flower producers in northern Virginia.

Networking and training with fellow farmers is a high priority at Greenstone Fields. “Take advantage of working with established farms as long as you can,” Barbara suggests.

Barbara’s commitment to soil health, organic practices, teaching, and knowledge of the industry will also greatly benefit budding flower farmers working beside her.

Barbara served two terms as Secretary of for the ASCFG, and was instrumental in the development and production of the ASCFG film “Local Flowers, Local Farmers: A Growing Movement”. The video serves as a valuable introduction to the ASCFG,



and helps to educate the flower-buying public on the importance of supporting local cut flower growers. It has been viewed more than 540,000 times on YouTube. She has also hosted several ASCFG meetings at Greenstone, and speaks frequently about cut flower production.

We’re proud that Barb serves as an ambassador for the ASCFG and local cut flower production.

Thanks for the Good Word

You connected some of our new members to the ASCFG!

Gretel Adams	Linda Doan	Mallory Howard	Kent Miles	Val Schirmer
Steve Adams	Laurie Dohring	Cathy Jones	Georgia Monroe	Joe Schmitt
Erin Benzakein	John Dole	Liz Krieg	Foxie Morgan	Katie Shafer
Ben Bergmann	Dave Dowling	Barbara Lamborne	Pam Nuernberg	Belinda Smith
Julie Biggs	Sudie Elder	Lennie Larkin	Daniel Schavey	Carolyn Snell
Fiona Buckley	Nina Eisberg	Leah Latiolais	Debra Prinzing	Melanie Stock
Lynn Byczynski	Kristen Ehringer	Jennie Love	Marian Riehm	Bernie Van Essendelft
Angie Clark	Denise Glanzer	Mary Marston	Laura Beth Resnick	Karen Whitener
Leah Cook	Debora Hamlin	David Martin	Susan Rockwood	Lisa Ziegler
Mimo Davis	Janis Harris	Haley McIngvale	Jamie Rohda	Gail Zorn
James DelPrince	Thomas Heaton	Erin McMullen	Rita Jo Shoultz	



Judy M. Laushman

Most non-profit organizations rely heavily on volunteers for the success of their operations. The ASCFG is certainly one of these.

I've been fortunate to work with nearly 100 different ASCFG Board members over the course of my career. We've all been enriched by their creativity, support, and commitment to the organization, and to its individual members. They have spent countless hours in windowless hotel meeting rooms, fine-tuning budgets. They've held spirited debates on Cut Flower of the Year nominees. They organize farm tours, and help us remind you to renew your membership.

Many Regional Directors take time to contact their own growers to learn the news straight from them, then share in their Regional Reports. It's hard to count how many national conference and regional meeting sessions have been presented by Board members since 1988.

Remember, though, that these fine people are first cut flower growers, or otherwise involved in the floral industry, then volunteers for the organization. While they will likely, and usually do, bend over backwards to answer emails about production, or talk a new grower through a market setup, they have their own businesses to run, and should not be considered on-demand reference librarians! If you have questions that you simply cannot find answers to online, from reference books, or from other growers, and a Board member seems the next logical source of information, please be considerate of his or her time, and be prepared as you can before contacting them.

We're all here to serve you, and want to be sure we're providing the best information possible for the good of all our members!



Writers Welcome!

We've read your blogs. We see your Facebook posts. We know many ASCFG members are not only outstanding cut flower growers, you are also pretty handy with a pen and paper. Or a monitor and a mouse.

In the past few years, we've been fortunate to receive submissions from growers about a range of topics of interest to our members; this issue of the *Quarterly* boasts one about low tunnel construction, and another about a perennial topic of discussion—cut flower pricing.

What's on your mind these days? Have you found a new method for seeding, transplanting, cutting, or handling your flowers? What is your absolute favorite—or most profitable—cut flower species or variety?

Send an outline of your proposed article to Judy at mail@ascfg.org and we'll talk!



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