



Bulletin

The Information Source for the Floriculture Industry Since 1929

CIRCULATE

Hanging Baskets

*Suzanne Luggier
Eric Peruski
Bordine Nursery Ltd
1835 S Rochester Road
Rochester Hills, MI 48307
248-651-9000
Fax: 248-651-0545*

Bordine Nursery is a full-service nursery and garden center in Michigan. We pride ourselves on our knowledgeable staff, our high quality plant material and our aim for perfection. We go to great lengths to provide our customers with consistent, top quality plants from year to year. Here at Bordine Nursery, we grow approximately 34,000 10-inch hanging baskets, 3,500 moss balls, 800 combination moss baskets, and 2,160 Posey Pouches for our four

retail locations. We schedule multiple plantings of our hanging baskets to ensure our retail locations have quality baskets at all times. Our growers produce more than 98 percent of all the annuals that we sell. Our hanging baskets are a key to our success and contribute to approximately 13 percent of our total annual plant sales in the spring.

Most of our baskets are targeted for sales after May 15. The exception to this is the 10-inch fuchsia hanging basket, which is scheduled to be sold Mother's Day weekend. The media used in our hanging baskets is a Sunshine mix containing 60 percent peat, 30 percent perlite, and 10 percent vermiculite. Sun

Gro incorporates a standard lime charge into the mix. Additional amendments are added on a per-crop basis, and are usually put in by hand after the crop is planted.

10-INCH HANGING BASKETS

In January and early February, geraniums, fuchsia, New Guinea impatiens, and calibrachoa are planted three per pot into a 10-inch hanging basket. Trailing and double petunias are planted in late February, along with double impatiens and regular impatiens.

The baskets are then grown on bottom-heated benches for the next two to three months, which allows for better monitoring and maintenance of the crop. During this time, fuchsias will be pinched two to three times, petunias pinched once, and geraniums pinched twice (with the pinch being used for a late 6.5-inch or 4.25-inch pot). Temperatures are maintained at 65°F day and night with about a 3 to 5°F negative DIF. When necessary, plant growth regulators can

Continued on page 8

RETROFITTING YOUR EXISTING STRUCTURE



*Bob Van Cura
A Proper Garden
5840 Olentangy River Road
Delaware, OH 43015
740-369-5060
Fax: 740-369-6088
bvancura@apropergarden.net*

Retrofitting an existing store can breathe new life into an old structure and potentially breathe new life into your business. It can also strike terror in the hearts and minds of staff and cause heart palpitations for owners. Proper planning of the project will eliminate much of the stress and ensure that the results match what you anticipated.

The first step in retrofitting an existing store is to decide what you want the store to accomplish. A retrofit is more than

Continued on page 12

DECEMBER 2001

Grower	HANGING BASKETSPAGE 1
Garden Center	RETROFITTING YOUR EXISTING STRUCTUREPAGE 1
Forum	YOUR BUSINESS IS PART OF INTERNATIONAL FLORICULTUREPAGE 2
Grower	CALCEOLARIA: A COOL TEMPERATURE CROP TO GENERATE COLD CASHPAGE 4
Legal Briefs	LETTER FROM WASHINGTONPAGE 6
Grower	GERANIUM PRODUCTIONPAGE 9
Grower	NEW GUINEA IMPATIENSPAGE 10
Management	HOW TO GRAPPLE WITH ABSENTEEISMPAGE 11
OFA	2001 BULLETIN ARTICLES BY SEGMENTPAGE 14
OFA	2001 BULLETIN ARTICLES BY MONTHPAGE 15

OFA

An Association of Floriculture Professionals

Our mission is to assist the floriculture industry in being competitive, profitable, and responsive to its needs.

(As adopted by the OFA Board of Directors 2/18/01)



OHIO FLORISTS' ASSOCIATION

SPONSORS OF THE SHORT COURSE

U.S. Floriculture's Premier Educational and Trade Show Event

2130 Stella Court, Suite 200

Columbus, Ohio 43215-1033 USA

614-487-1117 Fax: 614-487-1216

e-mail: ofa@ofa.org home page: www.ofa.org

BULLETIN

NUMBER 864 • DECEMBER 2001

EDITORIAL STAFF

MICHELLE GASTON
Editor

LAURA KUNKLE
Managing Editor

CHERYL CUTHBERT
Managing Editor

STEPHEN CARVER
Technical Editor

PETER KONJOIAN
Technical Advisor

DENNIS KIRVEN
Executive Director

CONTRIBUTORS

JOHN BARONE

PETER KONJOIAN

SUZANNE LUGGER

ERIC PERUSKI

LIN SCHMALE

JOHN STANLEY

BOB VAN CURA

KIM WILLIAMS

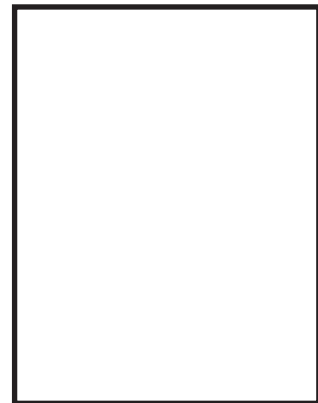
Copyright © Ohio Florists' Association 2001.

Permission is hereby given to reprint articles appearing in this Bulletin provided the following reference statement appears with the reprinted article: "Reprinted from the Ohio Florists' Association Bulletin, (phone: 614-487-1117) Number 864, December 2001."

No endorsement is intended for products mentioned in this Bulletin, nor is criticism meant for products not mentioned. The authors and Ohio Florists' Association assume no liability resulting from the use of practices printed in this Bulletin.

YOUR BUSINESS IS PART OF INTERNATIONAL FLORICULTURE

Peter Konjoian
Konjoian's Floriculture
Education Services
48 Brundrett Ave
Andover, MA 01810
978-683-0692
Fax: 978-683-6962
peterkfes@aol.com



Costa Rica, Guatemala, Mexico. Are you aware that the chances are excellent that many of the cuttings you'll buy and grow this season will be harvested from stock plants grown in one of these offshore locations? Plants from the Outback of Australia, Kientzler, Dummen, and Blooms of Bressingham all reinforce the offshore reality. When they say the world is getting smaller, believe it. Who'd have thought that our neighborhood businesses would be such an integrated part of the international marketplace? In early November I traveled to The Netherlands with OFA's Michelle Gaston and Laura Kunkle to man the OFA booth at the well-known Horti Fair Trade Show in Amsterdam.

WOW!

There isn't another word I'd use to describe the experience. Accounts of the Dutch greenhouse industry, on both the flower and vegetable sides, have come to me over the years from academic and industry colleagues. All have stated that it's like nothing one could ever imagine in terms of technology and specialization. On the way over, I wondered if I had been set up for disappointment after hearing all the impressive reports.

The first glimpse I had was just an inkling of things to come. The plane's final approach to Amsterdam's airport took us right over acres of glass greenhouse ranges. Some of the ranges were lit with high intensity lights during the night. The first view of these yellow, lit patches of ground from the altitude of an airplane was like nothing I'd ever seen before. All I could say under my breath was, "Wow."

A second reason for me to make the trip was to tour the Dutch greenhouse industry for the purpose of organizing an OFA grower study tour for next year's Horti Fair 2002. We saw the diversity of Dutch horticulture by visiting greenhouses that produce potted foliage, caladium, poinsettias, cut roses, cut orchids, tomatoes, and peppers.

SPECIALIZATION RULES

We've heard this repeatedly – Dutch growers specialize. This was the greatest contrast, in my opinion, in my week of travel. Let me describe the pepper operation we visited to illustrate the point. First, what almost blew me out the door upon entering was seeing 10-foot tall pepper plants. From the outside of the greenhouse, it looked like our guide had chosen another greenhouse tomato operation to tour. I could see tall plants through the sidewalls and assumed we would see tomatoes and then peppers somewhere else in the range. Wrong.

Having grown up on a vegetable farm, I thought I knew how peppers grew. Small and shrub-like reaching 2 feet in height was about it. I stood in the main aisle and gazed skyward to see my first pepper vines. It reminded me of a Jack-in-the-beanstalk scene. We were there at the tail end of the summer crop; ripe bell peppers were being picked from the upper third of the plants from rolling scaffolding.

Back to the specialization point, this grower was harvesting red bell peppers for export. In fact, some of his peppers end up in the Midwest, others head to Japan. Go figure. I naively asked the grower where the other colors of bell peppers were on his range. He quickly responded that all he grows is red bell peppers because different colors require slightly different culture and management.

Here in the United States we would not only have several different colors of bell peppers in production, but we'd probably also have some chili, jalapeno, and cherry peppers as well. Why not? We've been trained to go to great lengths to satisfy customer demand. After all, who invented the 80-20 rule that allows us to understand product diversity? Twenty percent of what we sell is made up of 80 percent of the offerings we produce. It's hard to specialize when one operates on that side of the rule.

We may view growing just red peppers as boring; the Dutch grower views it as efficient. He sees us compromise productivity; we see our product mix as being customer oriented. Who's right? Who's wrong? It's a no win discussion; both strategies serve respective markets. To be fair, however, we need to understand the Dutch marketing system, which is anchored by the concept of auction. This system is the definition of efficiency. It flourishes because of specialization, and specialization works because of the auction. The two sides of the equation balance nicely.

THE SHOW

The Horti Fair Trade Show was amazing. Think of the Short Course Trade Show, then close your eyes and multiply by 10. Exhibitors operate under a very different set of rules over there. The typical exhibit booth is much larger and more extensive than most at the Short Course. Most booths have an entertainment bar where coffee is served throughout the day and beer and wine are served as the afternoon progresses. Small tables and chairs are present for customers and salespersons to sit down and talk, right there in the booth. Many booths have a second floor with private cubicles for serious business and plenty of people there to talk to customers.

Consistent with European culture, the atmosphere in the trade show was relaxed and slow. Before talking business, most conversations started over beverages on casual topics.



Attendees were not rushing from booth to booth but, instead, visiting selected booths with specific questions in mind. The specialization thing comes back to mind. If you're only growing one size of one crop, then

you don't need to stop at booths dealing with stuff you don't use. As a result, you are relieved of the pressure of seeing everything at the show.

TECHNOLOGY

My jaw hasn't returned to its natural position, and it's been a month since my return home. I kept saying to Michelle and Laura that I could have stood in front of each exhibit for an hour, watching the educational videos, gazing at the equipment, and listening to the conversations. It was incredible for me on several levels. First, once a grower, always a grower. I saw a piece of equipment that was sticking unrooted cuttings! It wasn't until I had nearly passed this exhibit that my brain caught up with my eyes and said, "Hold on there, Stupid. Did you see what's going on there?" I found myself returning to that machine during the four-day show and rubbing my eyes to make sure I wasn't dreaming.

As an educator, I was like a kid in a candy store. The Dutch know the greenhouse environment like no one else on earth. Heating, lighting, irrigation, fertilization ... you name it and cutting-edge technology was on display. At the outset, one questions four days of Trade Show, by the fourth day, I was begging for more time. My next visit will find me accompanied with a digital camera in order to bring glimpses of this technology back to the seminar and classrooms.

THE FLOWER SIDE

Unlike our Short Course where equipment and plant material are mixed on the Trade Show floor, Horti Fair keeps the two separate. The main reason for this is that two shows used to take place separately, at different venues. You may remember hearing the name NTV; this was the equipment show described above which used to take place in January/February. The International Flower Trade Show in Aalsmeer took place in early November. A few years ago, the two groups agreed to merge. First the NTV show moved to early November, then the flower show moved from Aalsmeer to the same venue as NTV, and today's Horti Fair was born.

The two sides of the show, equipment and plants, are separated by above and below ground connectors. Think of some airport terminals that are separate but easily accessed through connectors. The flower side exhibit was stunning. Both cut flowers and potted plants were on display, and many of the familiar names of plant breeders and brokers from the Short Course were present. I saw many familiar faces on that side of the show.

Again, the extent of the show was breathtaking. Double-decker booths, thousands of cut flowers in displays, casual atmosphere, seats, tables, bars ... very different from what we're used to in our Trade Show. The European psyche was in the air ... slow down, relax, and enjoy the show.

MARK YOUR CALENDAR

We are currently working on the grower study tour to coincide with next fall's Horti Fair. Mark your calendar for the last days of October and first days of November. The week will look

Continued on page 4

YOUR BUSINESS IS PART OF INTERNATIONAL FLORICULTURE

Continued from page 3

something like this. Travel to Amsterdam on Saturday and adjust to time zone change on Sunday with rest and sight-seeing of Amsterdam. By the way, the food was excellent. International cuisine, good beer, great atmosphere. The city was a bustling, bicycle-filled, canal-networked, narrow cobblestone alleys with small shops and restaurants place to visit. We took a tour of Anne Frank's house that stirred one's soul.

The tour of Dutch floriculture and horticulture will fill Monday through Wednesday. Horti Fair will start Wednesday and extend through Saturday. Friday evening we will have a

group banquet to cap off the week. Participants will be free to stay longer and return home at their leisure, perhaps to visit Germany, France, or England while in Europe.

We are going to include tour stops to see how floricultural crops are retailed to consumers, large and small production operations, some vegetable production, potted crop production, young plant production, new greenhouse construction, and last but not least, my favorite site of all ... windmills!

During the planning of the tour this winter, if time permits, we may ask OFA members interested in participating in the tour to help select the stops via a fax survey. That way we can tailor the tour to you, making it that much richer. Stay tuned, and don't hesitate to contact us with comments and questions.

OFA

Calceolaria: A Cool Temperature Crop to Generate Cold Cash

Kim Williams

*Kansas State University
Department of HRRR
2021 Throckmorton Hall
Manhattan, KS 66506-5506
785-532-1434
Fax: 785-532-6949
kwilliam@oznet.ksu.edu*

Calceolaria, or pocket-book plant, is a low-temperature crop that has flowers shaped like – you guessed it – your grandmother's favorite handbag. The colorful and unique flowers can be found in vivid shades and patterns of reds, oranges, and yellows (Figure 1).

While production has traditionally occurred in 4- to 6-inch (10- to 15-cm) pots for Easter and Mother's Day

markets, this is a crop that could add some variety to your bedding plant line-up as an item for use in mixed planters or even early-season landscape use, which is currently more common in northern Europe.

From the standpoint of production planning, *Calceolaria x herbeohybrida* Voss. is a great companion plant for bench space alongside other cool-temperature crops including cineraria, cyclamen, and several primula species.

LET'S START WITH PROPAGATION

Calceolaria is propagated from small seed (about 600,000 seeds/ounce or

21,000 seeds/gram), which should not be covered after sowing, because light is required for germination. Poor germination rates are not uncommon. Seed will germinate in 8 to 10 days at 65 to 68°F (18 to 20°C) and you can expect to transplant in three to four weeks when grown at 65°F (18°C) or higher. For small-scale production, buying in plugs makes a lot of sense for this crop.

KEEPING GROWTH FROM GETTING SOFT

During the vegetative growth phase, a grower should focus on keeping calceolaria tight and compact because soft, lush growth can be a problem for this crop.

FERTILITY

Calceolaria have a low fertility requirement. Recommendations range from fertilizing once every three to four weeks with 300 ppm N from 20-10-20 (which is 40 percent ammonium-N) to fertilizing with constant liquid feed at a rate of 75 to 100 ppm N. Choose fertilizers with 40 percent or, preferably, less ammonium- and/or urea-N for two reasons: to avoid ammonium toxicity – which

is more common under cool-temperature production – and to avoid the soft growth that is encouraged by this nitrogen form. Do not allow the pH of the root medium to creep above 6.2 to avoid problems with iron chlorosis.

SPACING

Avoiding tight spacing, where leaves overlap with those of neighboring plants, is critical to minimize stretch of this crop.

BRANCHING AND HEIGHT CONTROL

Pinching is not necessary for plants produced in 4-inch (10-cm) pots or smaller, but it is appropriate in larger containers. Cycocel (chlormequat) is effective at controlling plant height, though applications are probably not necessary with new dwarf genetics. For the more vigorous Grandiflora cultivars, consider one foliar application of 800 ppm Cycocel at visible bud [flowers 1/16-inch (1.5 mm)] or to avoid risk of leaf injury, apply 400 ppm Cycocel at visible bud followed by a second 400 ppm application two weeks later. These would reduce final height by about 20 percent.



Figure 1. The colorful pocketbook plant.

BRING ON THE FLOWERS!

Flower induction occurs through manipulation of photoperiod and temperature. Calceolaria can be considered a facultative long-day plant; that is, it flowers faster under long days, but long-day photoperiods (14+ hours) are not required for flowering if the temperature is cool enough (50°F [10°C]); See Table 1. The plants must develop four to five leaf pairs before they can sense long-day photoperiods. The shorter the daylength during flower bud initiation, the cooler the temperatures must be to initiate flower buds. Optimal flower bud initiation will occur during six weeks of temperatures of 46 to 50°F (8 to 10°C) regardless of photoperiod.

For a more specific schedule to fast-crop 4-inch (10-cm) pots, see Table 2. Have a headache sorting through the scheduling? No need for aspirin – newer day-neutral cultivars like ‘Anytime’ will flower, well, any time. These can be grown at 60°F (16°C) year-round. Your plant product representative can give you specific scheduling information about the cultivars you choose to grow.

PROBLEMS TO ANTICIPATE

Calceolaria are sensitive to sunscald, so avoid light intensities above 5,000 foot-candles during all phases of production. They are white-fly magnets, but mites and aphids are also common



insect problems. Root and crown rots and *Botrytis* can be problematic; avoid overhead and excessive watering, especially around flowering. Calceolaria are susceptible to tomato spotted wilt virus (TSWV), which is spread by thrips. If foliage begins to turn chlorotic, check the root system for signs of poor development that could have been caused by over-watering, root rots, or high salts; high or low pH can also contribute to chlorotic foliage

from iron or magnesium deficiency, respectively.

SHOW ME THE MONEY!

In the marketing channel, calceolaria will stretch and deteriorate quickly if held in dark and/or warm temperature conditions. But with some planning for how this unique product can be placed in the spring crop line-up, calceolaria can fly off the shelf!

OFA

Table 1.² Flower control response interactions between photoperiod and temperature for Calceolaria.

Temperature °F (°C)	Short Day (<12 hr, optimum=8 hr)	Long Day (12 to 18 hr)
59°F (15°C); optimum is 46 to 50°F (8 to 10°C)	Flowering	Flowering
60 to 68°F (16 to 20°C)	No flowering	Flowering

²From Dole, J.M. and H.F. Wilkins. 1999. Calceolaria, p. 243-247. In: *Floriculture: Principles and Species*. Prentice-Hall, Upper Saddle River, NJ.

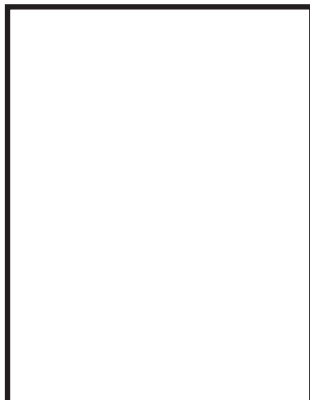
Table 2.² A fast-cropping production schedule (16 to 18 weeks) for calceolaria in 4-inch (10-cm) pots for spring sale.

Time Frame	Cultural Step	Production Time (weeks)	Temperature °F (°C)	Photoperiod ^Y (hours)
Late December	Sow seed; plug growth	4-5	65-70°F (18-21°C)	18
Late January – mid-February	Transplant to 4-inch (10-cm) pot	2-3	59-64°F (15-18°C)	18
Early March	Short days for vegetative growth	6	55°F (13°C)	8
Mid-April	Long days for rapid flower bud initiation & development	4	59-64°F (15-18°C)	18
Mid-May	Flowering			

²Modified from the literature, including Hammer, P.A. 1997. Calceolaria, p. 40-42. In: *Tips on Growing Specialty Potted Crops*. Ohio Florists' Assoc., Columbus, OH.
^YHID lighting is preferable over incandescent day extensions because the latter contributes to soft growth.

LETTER FROM WASHINGTON

Lin Schmale
Society of American Florists
1601 Duke Street
Alexandria, VA 22314
800-336-4743
Fax: 703-836-8705
lschmale@safnow.org
www.safnow.org



As we reach the closing days of a year that began, it seems, a very long time ago, the view from Washington is quite different as well. The Senate Hart Office Building is closed and sealed, until someone can figure out how to rid it of anthrax spores and make it safe for workers to come back in and retrieve their constituent files, computers, and rolodexes, and resume their professional lives. Senators are sharing offices – even, in some cases, Republicans with Democrats. Even, in some cases, Republicans and Democrats who are decidedly not friendly with each other. You can hardly get into the U.S. Capitol, and it isn't easy to get access to the office buildings to meet with Congressional staff.

Many issues and bills and pet projects that seemed sure of enactment into law are not even a topic of conversation. They have been replaced with proposals and topics that are newly of top importance, as Congress and the federal government struggle to address problems of the economy, bioterrorism, and homeland security. Washington, along with the rest of our country, is newly aware that what we do – today, tomorrow, and the next day – might matter more than we ever thought. We all live, day-to-day, knowing that what we Americans do might just make all the difference in the world.

But Washington's business – the business of government and the business of the economy – goes on too. And perhaps it is sharpened, and more focused, and made finer and more responsible, because of what has happened. This article will just attempt to give you a picture of some of the major issues that Congress is working on, and what you might expect before Congress adjourns, probably sometime in mid-December, to go home for the holidays.

FUNDING THE FEDERAL GOVERNMENT – AND FLORAL RESEARCH

The government's fiscal year ended September 30 – but at that time, none of the 13 appropriations bills (next year's budgets for the various federal departments and agencies) – had been finalized. At this writing, Congress has passed four Continuing Resolutions to keep the federal government operating, while it continues to finish the budgets. Under these Continuing Resolutions, government programs are simply continued at last year's levels. The logjam is beginning to break, Congressional agreement is being reached, and bills are going to the President for signature. The Agriculture budget, which

passed the House in July and the Senate, in a different version, in late October, has been resolved by the conference committee, and the compromise version should come to the floors of the Senate and House soon, for final passage. The House version of the bill had included \$1 million additional funding for the Floriculture and Nursery Research Initiative; and it is expected that the final bill will include an amount very close to that amount.

On that topic, stay tuned, because within the next few weeks the Society of American Florists and the American Nursery and Landscape Association, who have partnered the Research Initiative with the very strong support of the Ohio Florists' Association, will begin a series of announcements describing achievements of some of the outstanding research funded with Initiative dollars – by those researchers who have now been funded for long enough to be able to report results. As the Initiative grows and expands, and as more of these projects mature, even more of these reports to the industry will be forthcoming.

THE STIMULUS PACKAGE

By the time you read this article, Congress and the Administration should have agreed on the details of the package designed to stimulate the economy. Many of the provisions being discussed will benefit small businesses – the differences between Democrats and Republicans are often not so much "what" as they are "how much" tax relief should be provided. Increased ability to expense qualified capital expenditures during the coming year (or even longer, depending upon which provision is enacted) will certainly be included. Increased Section 179 expensing for small businesses may be included. Acceleration of the marginal rate cuts from the tax bill earlier this year, and repeal or partial repeal of the corporate alternative minimum tax may be included, as well. And certainly, tax rebates to low-income individuals, and extended unemployment and health-care benefits to the unemployed, will be included. How much of this will translate into consumer confidence and economic revival remains to be seen.

At this writing, Congress continues to dither over the details of the airline security package, not seeming to realize that holiday travel – and the economic stimulus provided thereby – could be encouraged by early action. The kind of disagreement that has resulted in non-passage to date has been rare this fall in Washington, and stands out all the more as a result.

IMMIGRATION POLICY

Obviously, the events of September 11 have greatly impacted U.S. immigration policy. SAF has joined with the American Nursery and Landscape Association, the American Farm Bureau, and other agricultural groups to push for reform of the H-2A guest worker program. This effort, like many others in Washington, has been going on for several years. The goal is to get a workable guest worker program, that will help to address agricultural labor shortages but will also help to address the fact that well over half of today's agricultural workers are probably illegal aliens, according to the government's own statistics. Agricultural employers are forced by law to hire employees who present documentation that meets the

current legal standard of appearing genuine. But very often, those documents are fake. Employers then having hired – and trained – employees in good faith, may be required to dismiss them.

Our effort has also focused on a carefully crafted, bipartisan effort to help those workers earn (by continuing to work in agriculture) legal status. Of course, with heightened awareness of immigration problems and a general desire to tighten immigration law, this effort is made more difficult. So, as immigration laws and enforcement are strengthened, the industry needs to work even harder to try to reach a solution that will address our employers' and employees' needs, while still safeguarding our security. A tall order – but the Agricultural Coalition for Immigration Reform will continue to work on legislation as a high priority, with some chance of action next spring. This effort, though, has no chance at all of success without direct grower communication to Congress.

QUARANTINE 37

Although Quarantine 37 is a regulatory issue, not a legislative one, changes are afoot that require attention if they are not to be allowed to adversely affect American agriculture, and especially floriculture and nursery crops. Quarantine 37 (Q-37) is the U.S. regulation governing the growing and shipping of plant materials into the United States. Only a few genera of plants are allowed to be imported to the United States in growing media, because of the obvious increased danger of importing pests and diseases. However, USDA currently has a backlog of many, many requests from foreign nations to relax Q-37 and allow more plants to be imported in growing media. And our treaty obligations require that we ensure that any regulation prohibiting imports is based strictly upon biological protection, rather than economic protection of the domestic industry.

USDA has recently begun a priority effort to try to reduce the backlog of requests, so it is conducting "risk analyses" and will be going through the decision-making process on an increasing number of the backlogged requests. That means the industry will have to be prepared to analyze, and comment upon, proposed decisions. Most recently, Mexico has asked the United States to relax the Q-37 regulation to allow 10 genera of plants established in growing media to enter the country from Mexico: *Bougainvillea*, *Ficus*, *Codiaeum* (Croton), *Dracaena*, *Scindapsus aureus* (Pothos), *Lantana*, *Mandevilla* (Dipladenia), geranium, and poinsettia. SAF and the American Nursery and Landscape Association will work together in a strong effort to gather information and attempt to ensure that any decisions are made upon adequate and sound scientific information. Equally important, we must ensure that USDA's decision-making process is sound, and that adequate and early public involvement is allowed. This effort is a large one, but is very important to prevent the importation of exotic pests and diseases that could harm not just floral and nursery plants, but other segments of agriculture and the environment as well.

OFA Legal Briefs

AND WHAT ELSE?

Issues like ergonomics, methyl bromide phase-out, increasing the minimum wage, "inside sales" reform, crop insurance, and many more are still out there, waiting to be addressed. This fall, Congress will be more than occupied just trying to finish the business it needs to complete before recessing, subject to the emergency call of the Chair, sometime before the holidays. When Congress reconvenes next spring, it is likely that some of these issues that have been put aside for now will resurface. Others, like Q-37, are just continuing to percolate along and need to be addressed, no matter what else is on the table.

WHAT CAN YOU DO?

As you think about conditions in your own local economy, and with your own business, try to share your ideas and insights with your Congressional representatives and with your colleagues in the industry. It's a good time to be communicating and networking, and, as always, Congress needs to hear from real businessmen and women about what's going on in the real economic world.

As we enter the holiday season, remember that it's a great time to invite your congressional representative or senators (or, for that matter, your state representative) into your business operation for a photo opportunity, a tour of your business, or to just to meet your employees and learn more about this very fascinating industry. During the time Congress is in recess and members are in their district offices is a great time to go meet them face-to-face, and share with them your experiences and expertise about business or government problems that are on your mind. If you want more ideas about how to do that, SAF and OFA will be happy to help!

And, of course, remember that SAF's Congressional Action Days is just a few months away, March 18-19. It's a great chance to get involved with your government and learn more about how to make your influence and insight felt in Washington DC, and have a good time doing it.

Stay tuned – keep communicating with SAF, OFA, and any other trade or business associations to which you belong. Encourage, support, and get to know your university researchers, your congressmen, and each other! Networking, communication, and good faith, along with, of course, hard work, are good tools. The best resources we have to rely upon in this time of continued crisis are ourselves and each other, working together.

Stay hopeful, and stay in touch!

OFA

HANGING BASKETS

Continued from page 1

be applied easily and evenly while the baskets are on the benches.

Prior to hanging, baskets are tagged with a 10-inch strip tag. Information on the tag includes the common name of the plant, a brief customer care description, and price. This tag is wrapped and stapled at the top of the hanger. Before they are hung, fuchsia will get an application of granular Marathon (around March 1), and the petunias will be top-dressed with Osmocote.

For finishing, the baskets are hung on drip lines that are spaced 4 feet apart with a drip spacing of 24 inches. This layout allows a maximum amount of light to reach the crops growing below and utilizes as much greenhouse space as possible. The final temperature at which the baskets are grown is dependent on the crop growing below.

At this point, the baskets receive no less than 150 ppm N from 17-5-17. Three to five times weekly, petunia baskets

get a "superfeed" of up to 400 ppm N from 17-5-17.

MOSS BALLS

More than 25 varieties of impatiens are used in our three sizes (10-inch, 12-inch, and 14-inch) of moss balls, using 18, 24, or 30 plants respectively. Our production staff has developed the following steps to plant and grow these beautiful baskets.

Soak the pre-formed moss ball and lightly moisten the soil.

The basket is then wired and tagged with a 10-inch strip tag, filled with the moistened soil and hung at eye level.

While the basket is hanging, the sides are potted using two-thirds the total number of plants.

Set the basket on a bench and use the remaining plants to pot the top of the basket.

The basket will remain on the bench for approximately two to three weeks while the plants are rooting into the media. The side



plants may need to be syringed with water for the first three to five days after planting if the weather is sunny. Baskets are given no feed while rooting out. Temperature at this time is maintained at 65°F with little or no DIF.

When baskets are rooted, they are hung on drips in their final growing location. (Figure 1).

Water is used as a growth regulator. Baskets are watered with 100 to 150 ppm N from 17-5-17 when plants begin to flag.

Temperature is maintained at 65°F with a 5 to 10°F negative DIF, which is used to control growth.

COMBINATION MOSS BASKETS

These 14-inch moss-lined baskets contain a variety of different plants. They are potted for both sun and shade locations. From a marketing perspective, these baskets distinguish us from many other garden centers and the box stores. We use pre-finished 4.25-inch or 6.5-inch pots for the plant material in each basket. They are potted up in mid-to late April, with approximately 32 baskets potted for each of the 25 combinations. The baskets are filled about halfway, and the pre-finished plants are added. The upright plants are placed near the center of

the basket while the trailing plants are placed near the edge. Baskets are then topped off with soil, and an application of granular Marathon is applied. The baskets are wired, tagged, and hung in the greenhouse on drip lines that are spaced 4 feet apart with a drip spacing of 24 inches. Baskets are grown at 60 to 65°F with a 5°F negative DIF and are fertilized with 200 ppm N from 17-5-17. They are ready for retail within three to four weeks.

A few examples of plant combinations we use in our baskets include the following:

Basket #1: (3) 'Americana Pink' Geraniums, (2) blue calibrachoa, (2) lysmachia 'Goldilocks.'

Basket #2: (2) Pink-leaved Caladiums, (2) Non-stop Pink Begonias, (1) Torenia 'Summer Wave', (2) Coleus 'Red Velvet', (1) Sweet Potato Vine.

Hanging baskets are fun and easy to grow. The space they take up in the greenhouse is minimal, since they are up in the air and do not take away from any benched crops. One important factor when growing any hanging basket is not to forget about them. Do not fall into the old trap of "out of sight, out of mind." Pay close attention to the details, and you too will grow the WOW for your customer's garden.

OFA



Figure 1. A 14-inch moss ball that is finishing in its final growing location.

GERANIUM PRODUCTION

Peter Konjoian
Konjoian's Floriculture
Education Services
48 Brundrett Ave
Andover, MA 01810
978-683-0692
Fax: 978-683-6962
peterkfes@aol.com

Geranium production at Konjoian's Greenhouses includes both seed and zonal crops. We've seen the pendulum swing from 100 percent zonals in the 1970s to 90 percent seed from the mid '80s to mid '90s. In 2002, we're approaching a more balanced program as zonal numbers have increased to almost half of the total geranium crop.

SIZE MATTERS

Whether we produce a geranium from cutting or seed depends on the size container we want to produce. The backbone of our 4 1/2-inch geranium crop is the seed geranium, while our larger sizes of 5-inch and 8-inch are solely zonal. A jumbo six pack, that interesting pack with a consumer-friendly handle (Figure 1), has become a nice part of our geranium program in recent years. Up until this year, we grew only seed geraniums in it. In 2002, we'll shift production to zonals instead and direct stick unrooted cuttings.

SEED PRODUCTION

Our seed program for 4 1/2-inch includes five sow dates to provide fresh material for the early May to late June spring season. The first sow date is scheduled for the first week of January; the last is the second week of February. The number of plants is distributed over the five crops as follows: 23 percent, 31 percent, 23 percent, 15 percent, and 8 percent.

Seeds are sown in our own growing medium, which will be described below. A 105-plug tray is used, and seeds are covered with a layer of fine textured vermiculite. Plug trays are placed on propagation benches equipped with intermittent mist and bottom heat. Germination occurs within a week, and mist is turned off during the second week as hand watering and fertilizing commence. At the two true leaf stage, seedlings

are moved to a cooler house to encourage root development and hardening off.

One application of Cycocel at 1500 ppm is applied when seedlings reach the three to five true leaf stage. This application keeps seedlings compact and accelerates flowering by one week. Within a week or two of this application, plugs are ready to be transplanted into the 4 1/2-inch pots (Figure 2). The finishing house is run at 60°F nights and ventilated at 75°F during the day. During the last month or so of the cycle, night temperatures are dropped to 55°F to harden plants off prior to sales. Pots are spaced on 8-inch centers, resulting in nice, full plants with multiple inflorescences at the time of sales.

ZONAL PRODUCTION

Our zonal program has grown to include 5-inch, 8-inch, and the jumbo six pack previously described (Figure 3). Zonals are also used in our mixed basket and container program. Unrooted cuttings are stuck in early January for the 5-inch crop and late February for the six packs. Stock plants are grown in 8-inch azalea pots through the fall and, after cutting harvest is complete, these plants are cut back and finished as large specimen plants. Cuttings are stuck in 50-plug

Continued on page 16



Figure 1. Jumbo six packs of seed geraniums, now shifted to zonals.



Figure 2. Cycocel on seed geraniums; plant on right is treated with 1,500 ppm, plant on left is untreated.



Figure 3. A 5-inch zonal crop ready for sale.

New Guinea Impatiens

*John Barone
Barone Gardens
6214 South Bay Road
Cicero, NY 13039
315-699-4724
Fax: 315-699-2081*

New Guinea impatiens are a very important crop for our wholesale and retail greenhouse business. We use this crop in 4- to 6-inch pots, 8- to 12-inch hanging baskets, as well as in the increasingly popular combination planters and baskets. I will discuss mainly pot production and focus on what I feel is the critical period of time between the planting of rooted cuttings up to the point of a well-established root system. Getting off to a good start is very important if you would like to have the success with this crop that we have enjoyed. Managing temperature, moisture levels, fertilization, and the relationship between them are the key points.

TEMPERATURE

Temperature is always important with New Guinea impatiens; and even though growers are increasingly aware of energy conservation, this crop is not one on which to cut corners. Maintaining a 69 to 72°F soil temperature in the first two to three weeks of production is critical. Reducing soil temperature can result in increased crop time, slowing plant growth, and significantly reduced establishment of a healthy root system. Quick establishment of a strong root system is essential.

MOISTURE

Managing the moisture levels of young New Guinea impatiens is just as important an element to getting the crop off to a good start as temperature, and they are closely dependent on one another. We grow young New Guinea impatiens somewhat dry with a definite wet-dry cycle. Choosing the time of irrigation very carefully and trying to vary the amount of water in relation to the amount of sunlight available can be a big challenge.

Our operation is located in central New York State, which has periods of limited sunlight that are quite common during the winter months. Heavy irrigation during an extended period of limited light, even with high soil temperatures, can inhibit good root growth. The ideal situation is to water early in the day, preferably a sunny day, varying the amount applied to the available light and humidity in the greenhouse. I have found it is better to error on the dry side than to keep the roots wet and soggy. As the root system continues to expand, we increase the amount of water applied at each irrigation. Visual inspections of the root system will be the best indication of your progress; we look for abundant white root hairs in two to three weeks.

FERTILIZATION

Fertilization of young New Guinea impatiens is

also important, as they can be very sensitive to high soluble salt levels. To reduce the amount of fertilizer in the initial stages of the crop, we will irrigate with clear water only the first few days after potting. In our fertilization program we use a central injector, running 200 ppm of nitrogen through the irrigation lines, with the ability to dilute with clear water 50 percent for 100 ppm, or run only clear water at any point. This is very helpful with New Guinea impatiens, because we increase the fertilizer frequency and rate for almost every watering back up to 200 ppm after about three weeks, or at establishment of abundant healthy roots.

Actively growing plants will require a more normal fertilizer and irrigation program, with a clear water leach to flush out excessive soluble salts as needed. Monitoring the soluble salt levels regularly to watch for rises in the EC levels would be the best indicator to help fine-tune your fertilizer program.

SUBIRRIGATION

Our production includes some New Guineas grown in subirrigation with troughs, ebb and flood benches, and flood trays. Subirrigation makes managing the fertilizer and irrigation applications even more critical, because leaching is more difficult or sometimes impossible. Checking the EC levels becomes very important because the total fertilizer required through the complete crop cycle is signifi-

cantly reduced with this method to keep the soluble salts at acceptable levels. The first few days after potting, we follow our normal water and fertilizer regime (as described above), using overhead watering as dictated by the environmental conditions. Monitoring the root growth will determine when the crop will be ready to start subirrigation. Careful attention not to over water and keep the plants too wet is very important in the early stages, before roots are out to the edge of the pots. Despite the potential problems, we have utilized the advantages of subirrigation to grow our best crops. The main advantage to keeping the foliage dry during watering is to help reduce *Botrytis*.

A STRONG START IS IMPORTANT

Careful management of the critical period immediately after potting of rooted New Guinea impatiens to well-established roots has consistently helped us get our crop off to a strong healthy start. I cannot over stress the point that over-watering and fertilizing at the early stages is detrimental to this crop. Experience has shown that avoiding over-watering and fertilizing at the early stages enables our crop to produce a healthy root system that rarely needs any fungicide treatments. Strong, healthy, well-rooted plants will be the main ingredients in producing a fine New Guinea impatiens crop. **OFA**



HOW TO GRAPPLE WITH ABSENTEEISM

*John Stanley
John Stanley Associates
142 Hummerston Road
Kalamunda, 6076
Western Australia
011-61-8-9293-4533
Fax: 011-61-8-9293-4561
jstanley@iinet.net.au*

Team members who do not turn up to work cost your business money – do you know how much money? There are those who do not come to work for genuine reasons, but there are others who stay away for reasons of low morale and poor motivation. As a retail manager, your aim should be to develop a culture where people come to work.

KNOW WHAT ABSENTEEISM COSTS YOUR BUSINESS

Absenteeism is costly for your business. To calculate how costly an employee's absences are over a year, apply the following formula:

$$\frac{\text{Salary} + \text{Employment cost}^*}{\text{No. of working days per year}} \times \text{No. of days absent} = \text{Cost to Business}$$

* It is generally accepted that 30 percent of a person's salary is allocated as the "employment cost."

For example:

$$\frac{\$20,000 + \$6,000}{240} \times 10 = \$1,083$$

This is the cost of a team member being away from work.

FIND OUT WHY PEOPLE ARE ABSENT

Young people are particularly vulnerable. According to research by Robert Tillman of Lowes, the U.S. hardware retailer, 70 percent of young people leave school to start their working life in retailing. Most of them become part-time employees. Of that 70 percent, only three percent really wanted a career in retailing.

Unless we show young employees the value of their retail experience, then it becomes simply a means of getting income; they will show little or no love for the business. They will think nothing of taking unwarranted days off. We should create career paths and demonstrate to young people how personally and professionally rewarding a career in retailing can be.

RESULTS ARE BASED ON BELIEFS

I was recently involved with a retailer where absenteeism at the checkout was a major issue. I was asked to train the team and motivate them to be more interested in their job.



The result the retailer wanted was better customer service at the checkout. Results are based on people's actions. We ran the training session to change people's actions, but a survey later showed that the results were the same.

On the next visit, a talk with the team highlighted that they were negatively supervised, and the result was they had negative thoughts about the business.

The way you manage your team could affect absenteeism.



WORK TO REDUCE ABSENTEEISM

Managers should be proactive in their efforts to reduce absenteeism, particularly in terms of their management style and their attitude toward younger employees.

Absenteeism often has links to management style. When the store is high in task-orientation and low in people management, absenteeism increases since team members assume that management does not care about them as individuals.

INTRODUCE AN ABSENTEEISM POLICY

You should introduce and implement a policy in which team members must contact your business promptly to inform you they are not coming to work.

MANAGEMENT MEMO

According to the U.S. Department of Labor, retailing will generate as many as three million new jobs by the year 2005. Between 1990 and 1996 retailing added two million jobs to the American economy. It accounts for 18 percent of all employment in the United States, and for every \$100 of retail sales it generates \$200 for the economy.

Retailing should, therefore, be a career which requires planning and due diligence.

Working in a retail aisle and waiting on customers is like earning an advanced degree in retailing. It extends your knowledge base. You really need the store experience to fully appreciate the scope and joys of the retail business.

Robert Tillman (Lowes) spends 20 percent of every week wearing a red apron waiting on customers.

Customers are the best educators. Employees are the best source of process improvement ideas.

OFA

Editor's Note: This is an article from John Stanley's book – *Just About Everything a Retail Manager Needs to Know*.

RETROFITTING YOUR EXISTING STRUCTURE

Continued from page 1

just repainting or putting in some new fixtures – it should address existing problems, encourage customers to buy more, or help with staff needs. In fact, unless a project meets these criteria, you should rethink it altogether. This article will attempt to give you some of the basics to consider before embarking on your journey to a new and better store.

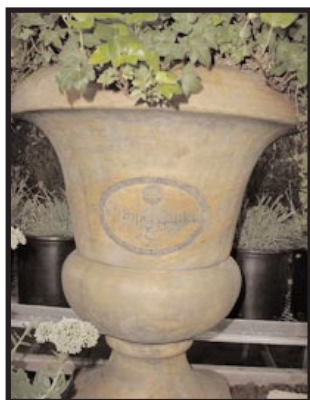
DECIDE A PERSONALITY FOR THE STORE

The first step in retrofitting a store is to define the image you are trying to portray to your customers. It has been my experience that this is often one of the most overlooked aspects for many garden centers. Considering the buzz about destination retailing and emotional marketing, it is important to consider the message that you are sending to both current and potential customers. Our staff spent many hours discussing what we wanted to portray to the customer. We started with all the usual stuff like providing excellent quality and superior service, but realized that these were givens in our market – the customer already expected this. With the help of a marketing consultant, we decided that the “new” store would be positioned to help our customers create the garden they have always dreamed about, thus the positioning statement “Creating the garden you have always imagined” was born (Figure 1). Whether something met this criteria was then used to test all of our decisions. While this may end up becoming the hardest part of the retrofit, it is a crucial step.



Figure 1. The mission of the store is evident throughout the retail spaces.

Figure 2. A Proper Garden uses a custom urn that matches its logo as a store decoration, a signature item for sale, and as a gift to key accounts – providing a consistent corporate image.



USE PROFESSIONALS FOR HELP

The closer you are to the issues, the harder it is to see the big picture. Seeking advice from others will help you to understand the priorities and the messages that you are sending. When we retrofitted the old Maple Lee Farm 'n' Garden Center into *A Proper Garden*, we used consultants who advised on everything from corporate image management and public relations, to specialized services from an architect, an interior decorator, a lighting consultant, and others. Each of these people brought a level of expertise in their area, which helped us to make successful and cost-effective changes. Many good ideas also come from participating in industry events such as the OFA Short Course. It is helpful to talk with people who have been through the process and learn why they made the choices they did. Remember that while all this input is helpful, it is your job to control and edit the choices to be sure that the message you want to convey comes through clearly.

NOW MAY BE THE TIME TO REVIEW YOUR CORPORATE COMMUNICATIONS

While reviewing the physical structure and pondering the image you wish to convey to customers, it is also a good time to look at your corporate communications. Is the logo outdated? Perhaps the letterhead is boring? Is the advertising inconsistent in message? Maybe the staff is wearing “last year’s green” in their uniforms. When we changed the name of the business to better reflect the image we wanted to convey, every bit of communication the customer might see was scrutinized. We made sure that there was a uniform and consistent look, from staff attire and signage to stationery, shopping bags, and other signature items (Figure 2).

REMEMBER THE BASICS

It becomes tempting to get caught up in new structures and grand plans, but your customers likely care just as much about some of the basics. Can she park her car easily? Will it likely get dinged by gravel in an unpaved lot? How about carts – are they easy to push through the store? Will her high heels be ruined by the floor coverings? Early in my career, I worked for a store that invested thousands of dollars in constant retrofitting – and proudly told the customers so. Unfortunately, the same store had a restroom (available to customers) that was so bad the staff would go out to lunch to avoid using it. Whether your retrofit is a minor fix up or major investment, don’t forget to spend the money to fix things that prevent customers from buying – or worse yet, send them somewhere else.

ENLIST STAFF SUPPORT

Early in the planning of a store retrofit, be sure to get your staff heavily involved. They have the best ideas for what needs to be done and how the customer perceives the current store. They will have to live with the changes and inconvenience of construction more than anyone. It is easier to get your staff excited about what is happening early in the planning phase, than to defend all your decisions later.

PREPARE FOR THE COST AND TIME

Nearly everyone who engages in remodeling or expansion can attest that whatever you think it will cost, it will cost more. No matter how prepared you are for the work ahead, it will consume a tremendous amount of time. Prepare key staff to assume some additional work load during the construction phases.

REMEMBER, THIS IS RETAIL

As you think about your store and its personality and as you plan the remodeling, building, and expansion, remember that you are engaged in retail sales. A trip to the local mall may be in order. Notice the difference between the personality of Foot Locker and Nordstrom – they both sell shoes, but can hardly be compared. What about Sears and Restoration Hardware – again, both have tools and hardware, but hardly the same feel. One thing all of them share is a commitment to the image they choose to portray. The lighting is different; the background music is in sync with the customer base; the signage is consistent and professional; product is displayed on fixtures intended for the merchandise contained on them.

When we took basic terracotta and glazed pottery and moved them from clunky homemade shelving and greenhouse benches to custom built retail shelving, sales rose 400 percent over the previous year, with a reduced level of inventory (Figures 3 and 4). Your objectives for the store are likely different from others in retail. Your message is hopefully different from your competitors. My own experience has demonstrated that investing in the right store fixtures can make a tremendous difference. Our retail team visited a beautiful, newly



redone and well-known store this summer. They also had a beautiful pottery display, but the only problem was that we could not get near it because it was being irrigated by overhead sprinklers – but there wasn't a plant in the department! Attention to details will make a difference.

CONCLUSION

Retrofitting your store likely makes a lot of sense. Customers already know that and are used to coming to shop at that location. Most likely, building a new store would cost dramatically more money than your retrofit. During recessionary times, the competition for the discretionary dollar becomes more intense. However, many businesses increase their market share at the same time, while others get caught up in the self-fulfilling prophecy of doom. Focus on the things that make your store great and enhance them. Either eliminate or reposition your weaknesses. Good luck to you! **OFA**



Figures 3 and 4. A newly retrofitted pottery area brought a 400 percent increase in sales for the department.

SHORT COURSE

2002

OHIO FLORISTS' ASSOCIATION

U.S. Floriculture's Premier Educational and Trade Show Event

July 13-17, 2002

**Greater Columbus Convention Center
Columbus, Ohio USA**

**The Art,
The Science,
The Future ...**

Jim Wilson – Keynote Speaker
TV garden host, garden writer & lecturer, Certified Master Gardener

- More than 10,000 attendees from around the world
- More than 500 companies in 1,250+ Trade Show booths
- Free Trade Show admission if pre-registered
- Educational seminars presented by industry leaders & your peers
- Greenhouse & Garden Center Tours • Retail Design Workshops
- Interior Plantscape Workshop • International Networking Opportunities

2001 OFA BULLETIN ARTICLES BY SEGMENT

FORUM

Fuel Cost Emergency	Jan
2001 – Whassup?!	Jan
New Interior Industry Initiative Offers Benefits for OFA Members.	Feb
Energy Crisis: What Can Be Done?.	March
Dynamics of Distribution	April
No Machine Is An Island.	May
Agricultural Biotechnology: Current Status, Future Prospects	June/July
Small Business and the 107 th Congress	Aug
FIRST	Sept
2000 OFA Executive Director's Report	Oct
Working with Soil is a Gift	Nov
Your Business is Part of International Floriculture	Dec

GARDEN CENTER

Driving Fall Retail Traffic	June/July
How to Decide What to Sell at the Garden Center	Sept
How to Prepare Your Staff for the Holiday Rush	Sept
Retrofitting Your Existing Structure	Dec

GROWER

Handling and Transplanting Plugs	Jan
Improved Shipping Methods to Increase Profit.	Jan
On-Site Propagators: Have You Tried Buying Unrooted Cuttings?	Jan
Vegetative Cuttings for Spring and Summer Success	Jan
Making Unrooted Cuttings Work	Jan
Supplying and Handling Unrooted Cuttings Successfully	Jan
2000 Ohio Regional Poinsettia Variety Evaluation.	Jan
Production Pointers for Petunias: Seed and Vegetative.	Feb
Vireyas: New Rhododendron Variants for Use as Potted Plants	Feb
2000 Poinsettia Season Recap	Feb
Advanced IPM: Incorporating Biorationals into Your Spray Program.	Feb
The Glue that Holds Together Today's Patio Planters	March
Annualizing Perennials.	March
Flowering of Double Impatiens	March
Some Reminders about Using Ebb and Flood	March
Late-Season Bedding Plant Problems: Diseases	April
Late-Season Bedding Plant Problems: Insects and Mites.	April
Controlling Early Growth of Plugs.	April
Using DIF and DIP to Control Height of Greenhouse Crops	May
Evaluating Supplemental Light for Your Greenhouse	May
Garden Mum Production	June/July
Fall Garden Mum Production – My Way.	June/July
Producing Top-Quality Ornamental Vegetables	June/July
Passion, Money, and Poinsettias	Aug
Poinsettia Novelty Varieties: Understanding Their Niche	Aug
New Novelty Poinsettia Cultivar from Oglevee Ltd	Aug
Top New Novelties from Paul Ecke Ranch	Aug
Dummen Novelty Poinsettias 'Champagne' and 'Coco Pink'	Aug
Novelty Varieties Keep Customers Wondering: What Will We Do Next?	Aug

New and Popular Novelty Varieties from Fischer.	Aug
Poinsettias: Ideas on Marketing and Forms	Aug
What Can I Grow for Christmas?	Aug
Winter's Coming	Sept
Pesticide Resistance – What's a Grower to Do?.	Sept
Wholesale to Retail	Sept
Why You Should Never, Ever Forget the Q ₁₀ Effect	Sept
How to Determine the Source of Plant Problems	Oct
An Introduction to Plant Growth Regulation	Oct
The Future of Plant Growth Regulators	Oct
Cyclamen – A Versatile Cool Season Crop	Oct
Native Plants: There is a Market!	Nov
2000-01 OSU Fall Pansy-Viola Trial Results.	Nov
Primula is Still a Cool Crop	Nov
Diseases of Seedlings and a Cool Greenhouse.	Nov
Hanging Baskets	Dec
Calceolaria: A Cool Temperature Crop to Generate Cold Cash	Dec
Geranium Production	Dec
New Guinea Impatiens	Dec

INTERIORSCAPE

Christmas Sales: A Blessing or a Curse?.	April
Container Decor: The Other Half of Interiorscape Design.	May
Pest Control – Mealybugs and Scale	June/July
Tis the Season of Poinsettia Maintenance.	Oct

KIP KORNER

OSU Update on Teaching.	Feb
OPGC: Yes – Dreams Do Come True!	May
Faculty Addition Strengthens The Ohio State University's Commitment to Floriculture	Nov

LEGAL BRIEFS

The 107 th Congress: Evenly Divided	Feb
Victories Won – And Some Still Pending.	May
Letter from Washington	Dec

MANAGEMENT

Winning over the Customer – Get Your Team to Smile!	March
Retailing 2001: Are Your Customers on Pedestals?	April
When Managers Become Key People Within a Family Business	Sept
A Passion for Safety	Sept
Implementing Fringe Benefits in Small Companies.	Nov
New Employee Safety Training	Nov
New OSHA Record Keeping Rule Approved	Nov

OFA

Nominees for 2001-2002 OFA Board of Directors.	April
OFA Announcements	Sept
OFA Comments on September 11	Oct
OFA and OFAS 2000 Financial Statement	Oct
OFA Membership Report	Oct

TECHNOLOGY

Transplanter Technology	May
Transplanters Are Always Ready for Work.	May

2001 OFA BULLETIN ARTICLES BY MONTH

JANUARY

Handling and Transplanting Plugs	Page 1
Fuel Cost Emergency	Page 1
2001 – Whassup?!	Page 2
Improved Shipping Methods to Increase Profit	Page 4
On-Site Propagators: Have You Tried Buying Unrooted Cuttings?	Page 6
Vegetative Cuttings for Spring and Summer Success	Page 7
Making Unrooted Cuttings Work	Page 9
Supplying and Handling Unrooted Cuttings Successfully	Page 10
2000 Ohio Regional Poinsettia Variety Evaluation	Page 11

FEBRUARY

Production Pointers for Petunias: Seed and Vegetative	Page 1
The 107 th Congress: Evenly Divided	Page 1
New Interior Industry Initiative Offers Benefits for OFA Members	Page 2
Vireyas: New Rhododendron Variants for Use as Potted Plants	Page 4
2000 Poinsettia Season Recap	Page 10
Advanced IPM: Incorporating Biorationals into Your Spray Program	Page 12
OSU Update on Teaching	Page 15

MARCH

Energy Crisis: What Can Be Done?	Page 1
The Glue that Holds Together Today's Patio Planters	Page 1
Annualizing Perennials	Page 5
Flowering of Double Impatiens	Page 10
Winning over the Customer – Get Your Team to Smile!	Page 14
Some Reminders about Using Ebb and Flood	Page 15

APRIL

Late Season Bedding Plant Problems: Diseases	Page 1
Late Season Bedding Plant Problems: Insects and Mites	Page 1
Dynamics of Distribution	Page 2
Retailing 2001: Are Your Customers on Pedestals?	Page 3
Controlling Early Growth of Plugs	Page 6
Nominees for 2001-2002 OFA Board of Directors	Page 12
Christmas Sales: A Blessing or a Curse?	Page 15

MAY

Using DIF and DIP to Control Height of Greenhouse Crops	Page 1
Container Decor: The Other Half of Interiorscape Design	Page 1
No Machine Is an Island	Page 2
Evaluating Supplemental Light for Your Greenhouse	Page 4
Transplanter Technology	Page 10
Transplanters Are Always Ready for Work	Page 13
Victories Won – And Some Still Pending	Page 14
OPGC: Yes – Dreams Do Come True!	Page 15

JUNE/JULY

Garden Mum Production	Page 1
Driving Fall Retail Traffic	Page 1
Agricultural Biotechnology: Current Status, Future Prospects	Page 2
Fall Garden Mum Production – My Way	Page 4
Pest Control – Mealybugs and Scale	Page 6
Producing Top-Quality Ornamental Vegetables	Page 12

AUGUST

Passion, Money, and Poinsettias	Page 1
Small Business and the 107 th Congress	Page 1
Poinsettia Novelty Varieties: Understanding Their Niche	Page 2
New Novelty Poinsettia Cultivar from Oglevee Ltd	Page 7
Top New Novelties from Paul Ecke Ranch	Page 8
Dummen Novelty Poinsettias 'Champagne' and 'Coco Pink'	Page 10
Novelty Varieties Keep Customers Wondering: What Will We Do Next?	Page 10
New and Popular Novelty Varieties from Fischer	Page 11
Poinsettias: Ideas on Marketing and Forms	Page 13
What Can I Grow for Christmas?	Page 15

SEPTEMBER

Winter's Coming	Page 1
When Managers Become Key People Within a Family Business	Page 1
FIRST	Page 2
Pesticide Resistance – What's a Grower to Do?	Page 3
Wholesale to Retail	Page 5
How to Decide What to Sell at the Garden Center	Page 6
How to Prepare Your Staff for the Holiday Rush	Page 9
A Passion for Safety	Page 11
Why You Should Never, Ever Forget the Q ₁₀ Effect	Page 12
OFA Announcements	Page 16

OCTOBER

How to Determine the Source of Plant Problems	Page 1
OFA Comments on September 11	Page 1
2000 OFA Executive Director's Report	Page 2
OFA and OFAS 2000 Financial Statement	Page 6
OFA Membership Report	Page 7
An Introduction to Plant Growth Regulation	Page 10
The Future of Plant Growth Regulators	Page 11
Cyclamen – A Versatile Cool Season Crop	Page 13
Tis the Season of Poinsettia Maintenance	Page 15

NOVEMBER

Native Plants: There is a Market!	Page 1
Implementing Fringe Benefits in Small Companies	Page 1
Working with Soil is a Gift	Page 2
2000-01 OSU Fall Pansy-Viola Trial Results	Page 4
Primula is Still a Cool Crop	Page 8
Faculty Addition Strengthens The Ohio State University's Commitment to Floriculture	Page 12
Diseases of Seedlings and a Cool Greenhouse	Page 13
New Employee Safety Training	Page 15
New OSHA Record Keeping Rule Approved	Page 16

DECEMBER

Hanging Baskets	Page 1
Retrofitting Your Existing Structure	Page 1
Your Business is Part of International Floriculture	Page 2
Calceolaria: A Cool Temperature Crop to Generate Cold Cash	Page 4
Letter from Washington	Page 6
Geranium Production	Page 9
New Guinea Impatiens	Page 10
How to Grapple with Absenteeism	Page 11

GERANIUM PRODUCTION

Continued from page 9

trays, again containing our own soil mix, and rooted using the same propagation facilities as described for seed production.

Once cuttings have rooted and resumed shoot growth, Florel is applied at 500 ppm in the plug tray. Soon after application, the plug trays are moved to a cooler greenhouse run at 60°F nights to encourage root development. Depending on growth, a second Florel application may be applied in the plug tray. After transplant, one more Florel application eliminates premature flowering, stimulates lateral branching, and controls excessive internode elongation. Five-inch pots are spaced on 10-inch centers, 8-inch pots finish at 15-inch centers. Six packs are finished in bedding plant houses on the ground next to annual cell pack material.

The direct stick cycle for the jumbo six packs involves only one Florel application, timed to when the rooted cuttings resume active shoot growth. Additional applications in this small container would delay flowering and cause plants to stretch, because there is not enough space to develop the fullness of the 5-inch plants.

MEDIA AND FERTILIZATION

Our growing medium is prepared on site and consists of topsoil, sphagnum peat, coconut coir, and rock wool in a 15-40-25-20 blend. The mix is steam pasteurized and moistened prior to filling plug trays and pots.

Fertilization involves a two-stock tank system using an Anderson injector. The basic fertilizer regime used throughout our range provides 200 ppm nitrogen from the following sources. One stock tank provides 100 ppm nitrogen using Peters 15-15-15, while the second stock tank provides the remaining 100 ppm nitrogen using either Miracle Gro 15-5-15 Cal-Mag or Peters 15-0-15. In addition, a third injection head injects sulfuric acid to lower pH due to our municipal water quality.

PEST CONTROL

Fungus gnats are the only insect problem to contend with, and occasional medium drenches are used to control larval activity. Distance and Duraguard are the more regular products in our rotation. Bringing in fresh stock plants each fall, employing sound sanitation habits, and providing good air circulation minimize disease problems.

The growing mix was developed to be more of a postproduction mix that provides excellent water holding capacity for the consumer during the summer. Rock wool and coconut coir both offer excellent aeration also, resulting in a mix that our customers enjoy buying by the bag for all of their gardening activities. The only adjustment that's needed, however, is a lighter watering hand during the winter months when sunlight is limited and temperatures don't allow for rapid transpiration. A person with a heavy watering hand needs to adjust to a rock wool mix to keep root rot situations from developing.

RETAILING

We've learned to market geraniums as geraniums and not as seed or zonal. With branding becoming part of our vocabulary, we find that we're marketing "designer" geraniums in our larger pots and "hybrid" geraniums from seed. Retail prices for 2001 were \$3.49 for the 4 1/2-inch seed, \$5.99 for the 5-inch zonal, \$17.99 for the 8-inch stock plant, and \$14.99 for the jumbo six pack. Interestingly, on a revenue-per-square-foot basis, the six pack generates more money than any other size in production. And when one considers that the direct stick six pack requires a shorter crop cycle than any of the other sizes, we are tuning into the reality that bigger is not always better. Truthfully, we've learned that we need to offer all these sizes and price points to ensure that everyone finds a geranium that fits their budget while shopping at our greenhouses.

OFA



OHIO FLORISTS'
ASSOCIATION

SPONSORS OF THE SHORT COURSE

U.S. Floriculture's Premier Educational and Trade Show Event

2130 Stella Court, Suite 200
Columbus, Ohio 43215-1033 USA

Address Service Requested

NON-PROFIT ORG.
U.S. POSTAGE
PAID
COLUMBUS, OHIO
PERMIT NO. 644