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In This Issue

- 2 Association News**
- 3 U of D News**
- 4 DNLA Landscape Awards**
- 4 Words of Wisdom From Dick Bir**
- 5 Issues in Ornamentals Weed Control**
- 6 The Asian Longhorned Beetle**
- 6 Invasive Plants**
- 8 Plant Galls**
- 9 Nutrient Management Recommendations for
Cut Flower Production**
- 11 Recruiting: What's H-2B**
- 13 Recruiting the Hispanic Workforce**
- 15 The Value of Internship Programs**
- 16 New Diseases of Herbaceous Perennials**
- 18 Using Straw for Pond Algae Control**
- 19 Retirement Plans are for Small Businesses Too**
- 20 Publications**
- 23 Pesticide News**
- 24 Research Briefs**
- 29 Calendar**

ASSOCIATION NEWS
Valann Budischak
Executive Director, D.N.L.A.

Greetings to all! I hope the summer has been a busy and profitable one for all of our members.

The Summer Turf and Nursery Expo and Golf Tournament was held on August 16th at Garrisons Lake Golf Club in Smyrna. For days prior to the event, yours truly was a nail-biting, anti-rain dancing, Weather Channel addict. Once again, Mother Nature provided us with a picture-perfect day. Thank goodness! More than 130 people enjoyed the exhibits, interesting seminars, and pig roast. It was a special treat to see a walkway installation from start to finish, and to learn more about the profitable pond business. Jay Windsor stumped many of us with his weed specimens. Secretary of Agriculture Michael Scuse also addressed the group. Following the delicious pig roast, thirteen foursomes revved up their carts and took to the golf course to participate in our 4th Annual Golf Tournament. Once again Steve Sterling, DNLA president, and myself drove the very popular beer/beverage cart for our thirsty golfers. To add to the excitement, this year's tournament ended in a tie. Garrisons Lake pro, Steve, had to use a tie breaker to determine a winner. Therefore, our new tournament champion is the City of Dover. The team was comprised of Todd Gruwell, Bernie Whales, Robert Gedney, and Buzz Tarburton. Second place was awarded to the Fisher & Son team comprised of Mike Fisher, Mike Oleykowski, Al Phillips, and Randy Rider. Jeff Campbell was our "Closest to the Pin" winner, and Randy Rider was our "Longest Drive" winner. Congratulations to all!! Thanks to our many tournament sponsors and program advertisers. Their continued support is what makes the Expo and Golf Tournament a success.

The Ornamental and Turf Workshop and

Delaware Horticulture Industry Expo (DHIE) are quickly approaching. Both events will feature new formats. The Turf Workshop will feature an integrated landscape management and problem-solving workshop. It will be held on two consecutive Thursdays – November 1st and 8th at Hockessin Memorial Hall. The DHIE will be held on January 16th and 17th at the Modern Maturity Center in Dover. It will join forces with the Delaware Pesticide Conference. More information on both of these events will soon follow. Be sure to join us!

The Certified Nursery Professional Exam will be offered on Tuesday, October 23rd at the Department of Agriculture in Dover. If you haven't received, or have misplaced your application, please call the DNLA office.

Welcome New Members:

Gardens Great and Small
1610 Snuff Mill Road
Hockessin, DE 19707
(302) 239-0498

Olympic Horticultural Products
126 Cutter Court
Lewes, DE 19958
(302) 645-5154

Raintree Landscape and Maintenance
8171 N. Union Church Road
Milford, DE 19963
(302) 422-6246

Tilcon
P.O. Box 7588
Newark, DE 19714-7588
(302) 292-3963

Congratulations are in order for DNLA President Steve Sterling, and his wife Renee, on the birth of their son Reid!!!

U of D NEWS
Susan Barton
Extension Specialist

This fall, the Ornamental Short Course Program will wrap up with four great sessions. First, on September 17 from 4 to 8 PM we will hold the Ornamentals Research Expo at the UDBG in Newark. We will start with tours and demonstrations of current research. Each agent and specialist has put together a demonstration including the following topics: pH and nutrient availability, overmulching, growing degree days for IPM, mulch and artillery fungus, dogwood and rose diseases and factors that affect plant stress. Next, we will tour the UDBG focusing on a new cold hardy garden. We'll continue with a picnic dinner (great subs and cookies!) and finish with the highlight – a free plant distribution. The plants this year are:

Abelia 'Compactum', 'Confetti', 'Sunrise' and 'Little Richard'
Abelia schumannii 'Bumblebee'
Buddleia lindleyana and 'Cornwall Blue'
Clethra tomentosa 'Cottdale'
Gelsemium sempervirens 'Margarita'
Ilex 'Carolina Cone'
Vaccinium darrowi 'John Blue'

Don't miss out. To register, call Dot Milsom at 831-2531.

Bob Mulrooney's disease class will be held in Fischer Greenhouse on September 25 and October 2 from 4-6:30 PM. Steve Hart from Rutgers is coming down to conduct a rescheduled weed session from 9-12 AM on October ?. The final program is a new joint effort between Cooperative Extension and the DNLA. On two consecutive Thursdays, November 1 and November 8 we will hold workshops at Hockessin Memorial Hall. The sessions will be a combination of lecture and

problem solving. Experts like Bob Mulrooney and Dewey Caron from the University of Delaware and Steve Hart from Rutgers University will cover new information about disease, insect and weed problems in the landscape. Horticulturists like Jay Windsor, Gordon Johnson and Jo Mercer from Delaware Cooperative Extension will explain the link between cultural conditions and plant problems. Then small groups of participants will work to solve a series of typical landscape problems—the kind you encounter in your businesses everyday. This will be a great opportunity to receive pesticide credits, network with your colleagues and get a leg up on the 2002 landscape season.

Nutrient Management Planning is continuing for golf courses. A nutrient management planning process should be developed by this fall. The next area to address is lawn management. Nutrient management training is going full force for traditional agriculture programs. Next spring, once we know what the requirements for lawn and landscape businesses will be, we will gear up with the appropriate training. I will keep you posted about the requirements and training opportunities.

I still need some nutrient issues input from landscape maintenance companies that do work in Sussex County. This has nothing to do with pesticide use. We need to know how and when you apply nutrients so we can model a nutrient management planning process and assess the economic impact of implementing nutrient management planning for this industry. If you are willing to work with me, please give me a call (302-831-1375).

We narrowly averted disaster this summer with our 4-week drought. DNLA was ready, though, with our "Dealing With Drought" brochures. I hope everyone in retail and landscape installation distributed brochures to their

customers.

DNLA LANDSCAPE AWARDS

The Delaware Nursery & Landscape Association presents its Landscape Awards Program. The program was recently revamped in an attempt to stimulate more interest and recognized the outstanding landscape jobs done by its members. The Delaware Nursery & Landscape Association will present a cash award of \$500 and a recognition plaque to the winning entries in the following categories: Jobs which cost up to \$10,000 and jobs which cost greater than \$10,000. Residential and commercial landscapes are eligible, and will be judged according to the cost of the job. The job must have been completed within the past 24 months. Presentation of the awards will be made at the DE Horticulture Industry Expo in January.

All landscapes will be judged by committee. Judging will be based on overall design and installation; suitability to the site; use of structures and paving; use and selection of plant materials; and maintenance, including neatness, proper pruning, and health of plants.

In order to be eligible, the landscape:

- must be located in Delaware
- must be designed and installed by a current DNLA member
- must have been completed in the past 24 months

Applications must be submitted by September 28. Judging will take place by the first week of October. You will be notified of the time that your landscape will be judged.

Please submit the completed application with photographs and/or landscape plans, by September 28 to:

Val Budischak, DNLA
P.O. Box 897, Hockessin, DE 19707

For more information, call (888) 448-1203

WORDS OF WISDOM FROM DICK BIR

**Dick Bir, Extension Specialist
North Carolina State University**

In a recent Mountain Growing newsletter, Dick Bir made the following interesting points:

- Why do some folks say the plant market is getting tighter and its difficult to sell plants and other complain that they can't find certain plants in certain sizes. Are these folks talking to each other?
- A word of caution to designers – If you see a neat plant in a catalog, don't spec it in a 3-4" caliper size, unless you make sure it is available.
- A NC nursery (no names) recently had some very chlorotic oaks with small leaves and slow growth. A soil test and check for pests turned up nothing interesting. It turns out the trees were planted 4 to 6 inches deep. The manager thought the nursery crew knew how to plant, but how about new crew members—Never stop training and checking the basics.
- Roundup injury on some small trees was not necessarily due to a change in formulation of Roundup. It was probably the difference between container grown liners with thinner bark that was vigorously growing and bare root liners with thicker bark providing more protection. A little Roundup drift onto the sensitive bark can cause cells to die. As the surrounding cells grew, the area looked like a canker. Bottom line—don't get Roundup on tree trunks.

ISSUES IN ORNAMENTALS WEED CONTROL

The following is a summary from a workshop at the 2001 ASHS conference.

To reduce herbicide runoff, Melissa Riley (Clemson) had the following observations and suggestions:

- A spray formulation of more water-soluble materials results in less loss after the first irrigation than the use of a granular product. If a granular product is used, there is less run-off when plants are placed on gravel.
- There are no differences in herbicide runoff after 8 days between bare waterways and grass waterways. The grass waterways simply delay the runoff from the first day.
- Reduced weed treatment (one at end of year) instead of the standard treatment (2 applications per year) resulted in no difference in plant growth even though there were more weeds.
- Irrigation scheduling has the greatest impact in reducing runoff and is the easiest practice to change. There was 50% greater runoff when irrigation was applied as $\frac{3}{4}$ " of water at one time as compared with applying $\frac{1}{4}$ ", waiting 90 minutes; applying $\frac{1}{4}$ ", waiting 90 minutes; and applying the last $\frac{1}{4}$ " of water.

Hannah Mathers (Ohio State) tested various innovative weed control products for container production. She used Wulpack (5-1-3), which is a by-product of sheep shearing. It is supposed to form a mat on the pot surface but it didn't in their research. She tried geodiscs made of latex

and copper hydroxide with ¾” extra in width to cling to the interior of the pot, plastic lids and sleeves that fit around the pot and twist tie closed (there is a problem with fertilization with these three methods). She used rice hulls, perlite, corn gluten meal, penn mulch, and bark nuggets. The most effective treatment was fir bark nuggets treated with a slow release herbicide. Further research with fir bark nuggets as a carrier of a slow release herbicide resulting in the following methodology. The nuggets were spread in a single layer and sprayed with herbicide at the rate appropriate for the area taken up by the nuggets. They were allowed to dry for 48 hours. Four to nine nuggets were applied to each container without worrying about the orientation of the nugget. The best herbicide for this use was Flumioxazin (Sure Guard 51 WDG) at .34 lb ai/A. This use of herbicide and bark nugget is not currently a labeled application of herbicide, but it shows promise.

Jason Fausey (Valent Corp.) reported that the best time to treat liverwort and moss in perennials containers is in the fall when the perennials go dormant. Scythe provided good initial control but then dropped off. Control with SureGuard, BroadStar and Goal increased from 2 to 5 weeks after treatment. Sprayable formulations provided better control and in a final trial, Goal worked better than Rout.

The top four weed problems in Long Island perennials nurseries as reported by Andrew Senesac (Cornell) were woodsorrel, bullcress, liverwort and chickweed. Topdressings (pine bark and cocoa hulls) made the soil surface dry and reduced the growth of liverwort. Cocoa hulls can cause rotting on multi-stemmed perennials, such as *Sedum reflexilus*. When pine bark is used as a topdressing, be sure to allow 1” of space on top of the substrate so water isn’t shed from the pot during watering.

THE ASIAN LONGHORNED BEETLE

The Asian longhorned beetle (ALB), a wood-boring beetle that recently invaded the U.S. from China, is killing valuable street, park and residential trees in Chicago and New York. ALB seems to prefer maples (comprising 30% of urban trees in eastern U.S. and a dominant species in eastern forests). USDA predicts estimated losses of \$138 billion/yr if ALB is allowed to infest U.S. hardwood forests. The only current effective way to reduce ALB damage is by detecting and removing infested trees. The Agricultural Research Service (ARS) and other state and federal agencies are conducting research on the eradication of ALB from the U.S., which includes: (1) detection methods; (2) control methods; (3) dispersal potential of adult ALB needed to establish quarantine boundaries; and (4) host preference and susceptibility indices for ALB, to help focus survey and detection efforts for ALB, and assist in the selection of tree species for replacing lost trees. If eradication is unsuccessful, management methods must be developed, including biological/natural control, host plant resistance, and cultural practices. ALB natural enemies native to China and/or the U.S. are being developed for biological control. Biological control of ALB will rely upon conservation of native, and introduction of exotic natural enemies, and the use of resistant hosts.

For more information contact Michael T. Smith, USDA-ARS Beneficial Insects Introduction Research Lab, 501 S. Chapel St., Newark, DE 19713-3814; phone 302-731-7331, ext. 41; fax 302-737-6780; e-mail mtsmith@udel.edu

INVASIVE PLANTS

Susan Barton

Another excellent workshop at the ASHS meeting this summer focused on invasive plants. Here are some notes from that workshop.

The government of Australia has set up a Weed Risk Assessment System that includes 49 questions in a decision tree. There have been a number of bugs in the system, but it is currently being used to help make decisions about importing new plants to Australia. Florida has also taken a stab at assessing imports. Their tools can be viewed at the following websites: agronomy.ifas.ufl.edu/IFASassessmt.pdf or edis.ifas.ufl.edu/AG100.

Craig Regelbrugge gave an excellent overview of the industry perspective of this issue. The goals of the nursery and landscape industry are to be able to access new germplasm to keep the industry from becoming a commodity and to be protected from pests and the downside of invasive plants. He described an increased appreciation of the impact of invasive plants on natural areas both by the industry and by the general public. The following are some major pieces of legislation that impact the invasive plant issue.

- Plant Protection Act – passed in May/June of 2000, this law combined and streamlined the response to a crisis. It increased enforcement tolls and takes an enabling rather than a prescriptive point of view.
- Executive Order 13112 – written by Clinton in Feb. 1999, this order calls for a coordinated effort against invasive species. It asks agriculture and the interior to work together and forms an advisory committee tasked with the creation of a Management Plan. The

change in administration is not expected to affect this order too much. There is so much bipartisan support for the order but currently the interior department is the most engaged in the issue.

- Safeguarding Review (www.safeguarding.org) – This is the methodology APHIS is using to deal with pest and weed incursions. They have developed a “dirty list” with over 300 recommendations of problem species.
- APHIS Noxious Weed Concept Paper – This paper categorizes weeds based on their potential invasiveness. They are formalizing a petition to add or delete species and developing a strategy for emergency action. All this work is subject to available resources and APHIS is currently underfunded by USDA.

The focus for horticultural industries of the invasive plant issue is two-fold—prevention and management. Prevention starts with appropriate screening of new plants using appropriate risk assessment tools. Prevention also involves detecting and responding rapidly to problem plants once they’ve been identified but before they become widespread. Current screening procedures limit only noxious weeds and pest carriers. The other end of the spectrum is a strict “guilty until proven innocent” concept. The nursery industry has questions about who would do the screening, would it be voluntary or required; would it be for new introductions or for all plants; is the science refined enough to detect problem plants; could screening be handled with efficiency and confidentiality; where would the burden of proof lie; and finally what implications would this have for the rest of North American trade? The Australian model has been in place for 3 years. They have

evaluated 916 plants. Fifty-six percent of those plants were approved, 22 percent were disapproved and the other 28 percent are in an unknown purgatory. The process takes three months to complete for a given plant. The invasive species executive order requests an assessment system for first time introduction by 2003 with a consideration of appropriate management measures for the plants already in commerce by 2006. Some industry figures have suggested an Industry Code of Conduct to show good faith interest in addressing the invasive species problem.

Management is the second focus of the invasive species issue. It is important to evaluate the role of “lists” on a local, state and regional level. Reasonable criteria should be developed prior to making decisions about plants that are “on” or “off” the list. Management begins with educating the industry and the public about the important issue, then recommending alternatives to problem plants. The industry advocates a voluntary phase out with regulation as the last tool. The industry is hopeful about the shift in consumer demand away from invasive plants, the potential for sterile or non-invasive cultivars of desirable species and the untapped potential of promoting native plants.

Where is the government going on this issue? There will certainly be assessment of new introductions. It is not a matter of “if” but a matter of “when” and “how.” Management and restoration will be an important part of invasive species policy and there will continue to be debate over the roles and responsibilities of state and local governments as they grapple with this important issue.

PLANT GALLS

What is a gall??? A gall is an abnormal development or outgrowth of plant tissue resulting from an irritation produced by bacteria, fungi, or insects. Bacteria may cause tumors on the stems and crowns of such plants as blackberry and roses; for example, crown gall. A fungus causes cedar apple leaf galls. Insects (aphids, mites, wasps, etc) cause the majority of plant galls. Some of the common ones are:

Oak Apple Gall: This gall is round, one to two inches in diameter, with a spongy inside and a hard central core. These galls are seen on the leaves of scarlet and black oaks. They are caused by a wasp and are usually seen in May or June.

Oak Hedgehog Galls: These galls are present on leaves of white oaks. They appear as tiny spheres covered with spines and inside small wasps are developing. These are about one-half inch in diameter and are often a burnt red color.

Maple Bladder Galls: Mites cause these galls. The tiny growths are about one-eighth of an inch in size with most of the swellings on the upper leaf surfaces. The newly formed galls are a yellowish-green color. Towards the end of June they turn a rose color and in the late season they are black.

Goldenrod Ball Galls: These globe-like galls are seen on goldenrod stems in the late fall and winter. The galls are quite hard and if cut open while green, you will see a white-yellow fly larvae inside.

Ash Midrib Galls: This gall is found in the center of the leaf along the midrib of white ash. It may be up to an inch in length and is plump and spindle-shaped. The cause is a tiny fly called a midge.

Cooley Spruce Gall: This 1 to 1 ½ inch cone shaped overgrowth first appears on the tips of the spruce branches in early June. If the gall is cut open, numerous tiny gray aphids can be found inside. The galls open in August and September and the adults emerge to lay eggs. The young aphids overwinter on the buds and twigs of the host tree.

Gouty Oak Galls: A wasp is the cause of these galls that appear on the stems of black, red, pin and scarlet oaks. They have been known to cause small branches to break off the tree.

Other common galls include the hickory leaf and petiole gall first appearing in June as hollow green galls that turn black by late July. The cause of this gall is a Phylloxera, a small aphid-like sucking insect.

DAMAGE: Plant galls appear in all shapes and sizes and on leaves, stems, flowers and even on roots. Galls interfere with the normal functions of twigs and other plant parts causing curling and stunting of growth and sometimes death to the area beyond the gall. However, galls seldom injure plants seriously. More often than not they are noticed because of their odd shapes.

Crown gall is a harmful bacterium, it is usually found at or near the soil level and appears as rough-surfaced, hard or soft, spongy swollen tumors. The color of the galls varies from flesh colored to greenish or dark. Where this gall is discovered, it is best to discard the plant altogether.

CONTROL: A few galls on a tree or plant seldom warrant control. They may be hand picked and discarded. A dormant oil spray used in mid-April may help reduce the incidence of insect-caused galls by killing overwintering stages.

Excerpted from *GrowLine*, July 2001.

NUTRIENT MANAGEMENT RECOMMENDATIONS FOR CUT FLOWER PRODUCTION

**Stanton Gill, Regional Specialist, CMREC,
Maryland Cooperative Extension**

How do you fertilize your cut flowers? What rates do you use for each of the species you grow? These are questions I have been asking growers in California, Ontario, Virginia, Maryland and Florida because in Maryland, cut flower growers are required to develop a nutrient management plan by December 31, 2001. To develop this nutrient management plan, we needed to have some recommendations on rates of fertilization for field grown cut flowers. My search started 6 months ago for recommendations on rates of nitrogen, phosphorus and potassium for the many specialty cut flowers grown in the field. I was surprised on how little published information is out there for growers to access. There is published information on nutrient requirements for greenhouse grown cut flower species such as snapdragons, lisianthus, mums and roses but little on field grown cut flowers. After several phone conversations with John Dole and Paul Nelson, both of North Carolina State University, we came up with general fertilizer requirements for cut flower production. With John Dole's assistance we assigned the various species as high nitrogen feeders, medium nitrogen feeders, and low nitrogen feeders. These general guidelines are not meant to be absolute recommendations but can provide a basic guideline until we have research data to base recommendations. Hopefully, plant nutrition researchers will be able to provide more exact recommendations based on desired yields, soil types and plant species.

The following are guidelines for fertilization of field grown commercial cut flowers.

Nitrogen. Nitrogen applications are required

for the commercial production of most cut flower species on an annual basis. The rate of application varies with plant species. For cut flower production we have divided plant needs into three categories nitrogen requirements: “low” “medium” and “high”. Plants started in the fall and harvested in the spring generally have a lower nitrogen requirement than cut flowers that are harvested in summer and fall. We have created a list of common cut flowers grown with a rating assigned for “low”, “medium” and “high” nitrogen requirements.

If using the higher rates of nitrogen on crops that bloom over a long period of time it may be beneficial to split the applications into two or more applications if using water-soluble forms of nitrogen such as ammonium nitrate or urea. If using controlled release nitrogen sources, a single application can be made early in the season.

Low rate of N is 1 – 1.5 Lb. N/1000 sq ft

Medium range of N is 1.5 – 2.0 Lb. N/1000 sq ft

High range of N is 2.0 – 3.0 Lb N/1000 sq ft

For phosphorus and potassium we used the University of Maryland Cooperative Extension relative crop categories that describe crop availability of a given nutrient as: “Low”, “Medium”, Optimum”, and “Excessive.”

“Low”: nutrient concentration in the soil is inadequate for optimum growth.

“Medium”: the nutrient may or may not be adequate for optimum growth of most cut flowers.

“Optimum” the nutrient concentration in the soil is adequate for optimum of the cut flowers.

“Excessive” nutrient concentration is more than adequate for optimum growth of most crops.

Phosphorus and Potassium

The following are recommendations for phosphorus (P205) and potassium K20 per 100 sq ft.

Woody cut flowering stems. For production of cut woody flowering stems such as forsythia, flowering quince, sparkleberry, pussywillows, and flowering cherry nitrogen rates of 2 – 4 lbs/1000 sq ft should produce optimum rates of growth.

Phosphorus and potassium recommendations are the same as cut herbaceous plant materials.

Excerpted from *The Cut Flower Quarterly*,
Volume 13, Number 2, 2001.

RECRUITING: WHAT'S H-2B?
**Maria Threadgill, James River Grounds
Management**
**Angelo Mino, Summit and Signature
Landscape**

With the majority of America experiencing the lowest unemployment rates in history, it is becoming increasingly difficult for our industry to find an adequate source of local labor, permanent and temporary, skilled and unskilled. In an attempt to assist its members with this critical issue, ALCA has developed RECRUITSCAPES, practical ideas and programs to suit your recruitment needs. The first issue highlights H-2B, a foreign worker program growing in popularity among many landscape contractors.

Foreign worker programs have existed in law or regulation during most of the United States' history. The current H-2A and B programs were authorized by the Immigration Reform and Control Act (IRCA) of 1986. Congress' purpose of enacting the H-2 programs was to provide a way to assure employers a legal and adequate work force for temporary or seasonal labor needs while still protecting the jobs and wages of U.S. workers. The three top Federal and State Agencies overseeing the H-2 program are:

U.S. Department of Labor –grants employers the H-2 labor certification, labor law compliance
Immigration and Naturalization Service
approves the H-2 visas at consulates in the workers' home countries.

Like all government programs, the H-2B program has its advantages and disadvantages.

Pros:

All H-2B workers are documented to work legally in our country and specifically for your

organization, even having your company's name in their visa. If for some reason they leave your employment but remain in the U.S., their status changes to illegal and they can be reported to INS.

You are able to plan now for next year's seasonal staff needs. Estimate the number of workers you think you will need next year. From this estimation you will need to petition the government for the same number of visa spots. Because workers can be recruited throughout the season, you may want to add additional visa spots to account for replacement workers (perhaps someone will need to go home for an emergency) or for an increase in your company's workload.

Typically, H-2 workers will come back to your company for several seasons in a row if they are treated fairly, earn a good salary and are provided appropriate, low-cost housing. Their return drastically reduces your training costs.

Workers are here for a pre-determined amount of time, not more than 10 months, thus eliminating the need for lay-offs during the winter months.

Cons:

Agencies that provide this service charge fees per worker or in some instances large attorney's fees to process the paperwork and pay the recruiters. With the right agency you can pay as a little as \$150 per worker with a replacement guarantee. Be careful of agencies that are just out to make a profit from you and the worker. Inquire about the fees the workers pay before they arrive in our country. A worker who feels taken advantage of will continue to feel that way under your employment.

In most cases you are not required to provide housing for your H-2B workers; however, they

arrive in our country with no resources contacts and, in some instances, very little money. It is important that you arrange housing and transportation for them immediately. Providing housing to a large number of your employees will surely provide it's fair share of challenges, but you may find less absenteeism when you know where they reside and transportation to and from work is your responsibility.

Unfortunately, the presence of a foreign workforce in the community may bring a negative perception to the company of "taking jobs away from able-bodied Americans." Most landscape contractors, and just about anyone in the service industry, knows that is not the case. When you get involved in a government program such as H-2B, you commit yourself to educating your community on the subject.

To date neither the Department of Labor nor the Immigration and Naturalization Services has taken responsibility for the administration or enforcement of the H2B program. As the program gains even more popularity, the government may very well intervene and require many difficult policies and procedures for the now somewhat simple program. To make matters worse, legislation has been tossed around to change the now 10-month maximum stay per year to 6 months. This would make it impossible for H-2B workers to fill the gap of the entire season. Additionally, they have discussed transferring some of the now 66,000 H-2 visas to H-1 status used primarily in technical fields (permanent, skilled).

What steps are involved?

Approximately 90 – 120 days from the date the workers are needed, the employer must file the necessary paperwork with the Department of Labor and INS. (Forms ETA 750 and I129) Around the same time, it is necessary to post an advertisement with your local employment

commission for the same position you are petitioning the government to fill with foreign workers. This position must be seasonal and your advertisement must be for the exact position that you petitioned the government for and the same date range. This process proves to the government that you are unable to fill all the necessary positions within your company, thus establishing the need to bring in foreign workers. After you have advertised the position and informed the Department of Labor of your responses or lack of responses, you must wait for your certification approval from DOL and INS. Once you have received your approval, you can begin your recruitment process. H-2B workers can be recruited from many countries; however, the Latin American countries seem to be the most interested in utilizing the programs.

The paperwork and recruitment steps can be done directly by the employer, but most contractors will find it much easier and less expensive to deal with a firm that specializes in H-2B certifications. These same companies offer assistance on issues such as social security numbers, payroll questions, housing codes, etc. that will arise once you receive your foreign workforce. ALCA supplier members that provide this service are:

Mid-Atlantic Resources Association
Libby Whitley, General Manager
180 Emily's Gap Road
Roseland, VA 22967

Amigos Labor Solutions, Inc.
Bob Wingfield
5415 Maple Avenue, Suite 112A,
Dallas, TX 75235
214-634-500 www.amigos-inc.com

GTO, Inc.
Jeffrey West
PO Box 82474 Rochester, MI 48308
248-608-1827

www.mexicanlabor.com

H-2B is just one of the many very underutilized programs for a foreign workforce. Please keep reading the upcoming RECRUITSCAPES issues for additional programs.

In addition to H-2B as a foreign labor option, there are several groups of legal foreign labor already in the United States that are an excellent pool of recruitable employees.

Group I: Includes all individuals that are currently in the U.S. through the TPS/NACARA (Temporary Protective Status/Nicaraguan and Central America Relief Act). These visas were issued to individuals from countries such as Honduras, Nicaragua and Guatemala who fled their countries due to civil wars and natural disasters. In addition, citizens from El Salvador that are either a) under immigration procedures, b) have cases that have been closed or c) are under deportation orders can still apply for protection under NACARA.

Group II: The AAA (Andean Adjustment Act) is an act currently being reviewed that would allow asylum for Colombians and Peruvians escaping acts of terrorism in their countries.

Group III Diversity Visa Lottery is another government program that allows 50,000 visas each year from various countries. This program offers a permanent visa with a green card to the selected individuals and their families. Applications are taken for this program October 2nd through November 1st. The lottery is drawn in May. This has been a very underutilized program and a missed opportunity for employers to recruit permanent, key personnel.

For more information about TPS, NACARA, AAA, and DV 2001, contact Angelo Mino at 913-438-3364. For information on H-2B, contact Maria Threadgill at 800-813-0003.

RECRUITING HISPANIC WORKFORCE THE FUTURE FOR THE GREEN INDUSTRY!

**Maria Threadgill, CLP of James River
Grounds Management**

It's nearly impossible to attend a seminar, read a Green Industry periodical or exchange ideas with another contractor, without hearing something about the popularity of immigrant labor in our industry.

With Generation X demanding instant success and a high paying management role, we are forced to be more creative about our front line labor needs. This situation as well as the U.S. Census Bureau's proclamation that by the year 2050 one in four residents of the United States will be of Hispanic descent, makes the Hispanic worker a reality for us.

Where do I go to recruit?

Many contractors are fortunate enough to have a Hispanic community that already exists in their area. You can reach this community by scouting for predominately Hispanic apartment complexes, ethnic food stores and restaurants. Advertising on a Spanish-speaking radio station is another effective recruitment tool. One good Hispanic contact usually opens the door for many other potential employees.

It's not uncommon for contractors without a local Hispanic community to provide housing and/or bus workers in from larger metropolitan areas. If you are going to make this level of commitment, than we suggest you consider the H-2B program.

H-2B is a government program gaining in popularity for our industry. It allows seasonal employers to bring in a specific number of foreign workers for up to 10 months in any season. The process is fairly simple but does

require the commitment of housing and transportation for your workers. For more information on this program, call ALCA's office at 1-800-395-2522.

After the Recruitment Process

Understand that your Hispanic workers are going to differ significantly from your American workforce. They have cultural differences that may require a slightly different management style, obvious language barriers and a uniqueness that makes their work ethic perfect for the nature of our business. If you make this commitment, you will find a workforce that shows up to work on time, works at a fast, consistent pace with little or no complaints, and will be very happy to put in as many hours as you will allow. Rarely do we hear of a contractor who tried hiring this workforce, only to go back to the traditional American worker. Here are some important suggestions for contractors before they make this change...

Make your site Hispanic friendly. Be sure all your employee notices and forms are in both Spanish and English (employment forms, safety signs, recognition announcements, etc.)

- Hire bilingual administrative staff. Communication is critical!
- Conduct multicultural training for your existing employees. Explain why you are making this change and what it means for their future success. Help them understand what the cultural differences are and how they will need to manage differently.
- There are consultants that can help in this area.
- Have fun! What a wonderful opportunity to bring together many unique cultures. Take

advantage of the wonderful holidays and traditions and bring them in to the workplace for all to enjoy.

- Prepare your customer for this change. You have a golden opportunity to dispel the myth that these workers are taking jobs away from Americans. We all know this is not true. Make your customers understand the labor challenges you face in your business. Also make them understand the personal side of your Hispanic workforce –that they come here in search of the American dream to provide a better opportunity for their children. Use your newsletter as a way to share their personal experience with your customers.
- Don't discriminate against your American workers. Celebrate our culture too! If an American worker comes in that meets your requirements, hire them!

Get involved!

As you all now, our industry faces a SERIOUS labor crisis. As one voice, we have a chance to show the government that a foreign workforce is currently our only solution for the growth of business and our industry. Most of you are well aware of the potential legal ramifications of hiring a foreign workforce and the fear of an INS visit to your site. ALCA is working behind the scenes lobbying fiercely for our cause regarding immigration issues. Be involved and stay on top of the changes in immigration laws. The government must assume responsibility for low unemployment levels, and Generation X and Y for not being interested in pursuing careers in our industry. Take a stand by writing your local legislators and share your concerns. We are in this together and the battle has just begun!

Provided by ALCA, 3/01

THE VALUE OF INTERNSHIP PROGRAMS

**Joe Parr, Assistant Project Manager
OneSource Landscape & Golf Services, Inc.
Busch Gardens, Tampa, Florida**

OneSource Landscape & Golf Services, Inc. hosted seven bright college interns from across the country and across the ocean this past summer at Busch Gardens, Tampa, Florida. OneSource has maintained the beautiful landscapes there for a remarkable 26 years. Seasonal interns offer enthusiasm, solid work ethics, and a fresh perspective as well as new ideas. They are excited to be working for OneSource at one of the finest theme parks in Florida with an award winning horticultural team. The intern group we had this summer was among the best we have ever experienced.

Participating interns included Sara Pate from the University of Tennessee, Laura Lanzon, Ondrea Kassarijian, and Kelly Brady from Michigan State, Jody Naegeli and Janelle Werk from North Dakota State and Monica Cassanovas from the University of Barcelona, Spain.

The landscape management team at the 365-acre Busch Gardens has actively recruited and looked to the internship program for new management talent for the past several years. Karen Odden, alumni of the internship from 1998, currently serves as a supervisor at Bush Gardens and as the internship coordinator.

When a supervisory position opened at the park a couple of years ago, we immediately thought of Karen as a potential candidate. The internship is an excellent screening process for future employees. Karen has a strong positive attitude. She is very flexible and finds a way to solve most problems and accomplish her goals. During her internship she volunteered to work landscape construction after the normal

internship hours. The work was hard, dirty and the schedule was extremely demanding. Her outstanding performance left a very favorable impression, which was remembered by the interviewing staff when it became time to fill the supervisory opening. Karen was already familiar with the project. She hit the ground running and has never slowed down.

New interns normally arrive in May or June and stay until August, although we have had students in the program through October. The program is typically about ten weeks long, but it is flexible and can be lengthened to meet the individual needs of the student. We have been so pleased with the quality and caliber of the students participating that we are considering accepting students for a winter session. It is stressed during the interview process that potential participants can expect an eye opening summer full of hard work, much practical and useful information, and real hands on experience unavailable in a textbook setting. We have a job to get done and a service to provide. The students receive no special favoritism, but blend in as an important part of the permanent team.

In pairs, the group is mingled with the full-time employees. Some start out learning irrigation by installing new systems, performing maintenance or repairs. Others work with the annual color crew working with color beds or on containerized materials. Interns have the opportunity to test their creativity combining plant material, colors and textures in hanging baskets, pots and planters. The best are placed on display inside the park. Other parts of the schedule include turf or pest management, arboriculture and general landscape maintenance. The turf quality segment covers turf scouting, pesticide usage and sod installation. Arboriculture covers chainsaw usage and safety, proper pruning techniques and equipment maintenance. Volunteers can tower 40 to 50 feet above the ground in a high reach or

put on a safety harness to get a feel for climbing.

General landscape maintenance may include small equipment, utility vehicle and tractor operation and safety. We cover the basic essentials of pruning, weeding, watering, raking, mulching, fertilizing and detailing. Time permitting, we include some plant material information and landscape installation. Since the park is also a well-respected zoo, we stress animal safety in regard to plant foraging the pesticide usage. The group gets to mount a feed truck and head out onto the African-themed veldt for a close encounter with the park's animal inhabitants. The group is also treated to a visit to Busch Gardens' one hundred-acre zoological breeding and holding facility in neighboring Pasco County. To further diversity the program, students may choose to fulfill their internship requirements at the 30-acre Adventure Island water-park adjacent to Busch Gardens, where OneSource also maintains the landscapes.

Our client sincerely appreciates the added value brought to Busch Gardens by our interns. The interns are beginning lifelong careers, are keenly interested and willing to learn. While here, they are encouraged to visit other area theme parks and maintenance operations during organized field trips. At the internship's conclusion, the participants are required to complete a program evaluation. Every student remarked about the quality of their experience and offered that they would recommend the program to future students.

Provided by ALCA , 2/01.

NEW DISEASES OF HERBACEOUS PERENNIALS

Ethel Dutky, Plant Pathologist, U. of MD
Anne B. Sinderman, MD Dept. of Agriculture
T. Michael Likins, VA Dept. of Agriculture

In recent years a number of new diseases have been detected in ornamentals. This article reports on the appearance of a new rust on daylily, first detected in the US in the summer of 2000, that is not yet present in Maryland or Virginia, and an unusual disease of the ornamental grass *Pennisetum alopecuroides*.

A New Rust on Daylily. A new rust disease was detected on daylily in the summer of 2000. It has been confirmed in nurseries in four southern states: Florida, Georgia, South Carolina and Alabama. To date, daylily rust has not been detected in Maryland or Virginia.

The symptoms of rust vary depending on the susceptibility of the daylily cultivar. Symptoms include leaf spots, leaf browning from the tips, and leaf blight. To detect the rust you have to look closely at the undersurface of the leaf to see the rust pustule-small swollen areas on the leaf containing orange, powdery spores. The common disease daylily leaf streak has similar symptoms, but no pustules with powdery spores are present. However, from a distance, the damage to the plant may look similar. Daylily cultivars found to be susceptible to this new rust include: 'Pardon Me,' 'Stella De Oro,' 'Gertrude Condon,' 'Starstruck,' 'Joan Senior,' 'Colonel Scarborough,' 'Crystal Tide,' 'Imperial Guard,' 'Double Buttercup,' and 'Attribution.' The cultivar 'Pardon Me' is highly susceptible. Inoculated plants produce symptoms of leaf spot and blight within a few days, and plentiful sporulation.

The rust is a *Puccinia* species with the uredial

and telial stage daylily. The uredial stage re-infects the daylily, and builds up amount of infective fungal spores during the growing season may be the Asian species, *Puccinia hemerocallidis*, however, species identification is still uncertain. If this is *P. hemerocallidis*, it can also infect plants in the genus *Patrinia* as the alternate host. Another uredial host for *P. hemerocallidis* is *Hosta* species. This may be a new unknown rust. So far neither *Hosta* nor *Patrinia* have been infected in trials. Trials on fungicide management are on-going.

Balansia head blight of *Pennisetum alopecuroides* cultivars. In the fall of 1998 the Maryland Plant Diagnostic Laboratory had several samples of the popular ornamental grass *Pennisetum alopecuroides* ‘Hameln’ submitted showing very odd, distorted heads. Rather than the pretty, fluffy, pink foxtail type heads that perennial fountain grass normally has, these plants showed heads that looked like dirty pipe cleaners. The flower parts were greatly reduced, and seed was replaced with a dark, gelatinous fungal stroma and spores. These structures were identified as a fungus in the genus *Ephelis* which is the conidial stage of the fungus *Balansia*. This fungus had never been reported in the United States and this is the first report of it on this species of grass. Since the initial detection in 1998, specimens of this disease have been submitted to diagnostic labs in Maryland and Virginia every year. Mike Likins, a Plant Pathologist at the Virginia Department of Agriculture Plant and Pest Services Laboratory, reports that the *P. alopecuroides* cultivars ‘Hameln’ and ‘Moudry’ were received as infected specimens at the laboratory. The fungus can only be diagnosed in the late summer and fall when the grass is producing seed heads. During the rest of the year the fungus lives on the surface of the plant and produces no symptoms. When a fungus does this it is called an epiphyte. A fungus that grows inside the plant without showing external symptoms is

called an endophyte. References report that *Balansia* can be either an endophyte or an epiphyte. Specimens have been sent to researcher Dr. James White of Rutgers, an authority on epiphytic and endophytic fungi. At the present time, one of Dr. White’s graduate students is working with the fungus to determine the species, origina and host range.

We have been looking carefully at landscape plantings of *Pennisetum alopecuroides* cultivars, and have not yet found symptomatic plants in Maryland landscapes. All of the Maryland specimens came from the same large Florida wholesale producer. It is possible that this interesting fungus cannot survive winters in Maryland and Virginia. As with the daylily rust, if you see this disease, report it to your local state Department of Agriculture, and submit a specimen for confirmation.

As we increasingly participate in global economy, more new pests and diseases will sneak in on shipments of plants. Your Cooperative Extension service and state Department of Agriculture labs are here to serve you. If you see unusual symptoms, please contact your local plant disease lab for a diagnosis.

If you see what you suspect to be daylily rust, contact your local state Department of Agriculture immediately. If you see rust symptoms in a shipment you have just received, hold the plants in a block and call your local state Department of Agriculture for an inspection. To view color pictures of this new disease, visit the Florida Department of Agriculture web site – <http://doacs.state.fl.us/~pi/enpp/pathology/daylily-rust.html>) and the USDA-APHIS site www.sphis.usda.gov/npb/daylily.html).

Reprinted from *VNLA Newsletter*, July/August 2001.

USING STRAW FOR POND ALGAE CONTROL

Dan Terlizzi, Center of Marine Biotechnology, Baltimore, MD

Last year I was asked to provide biographical information to a program moderator so he could introduce me as a speaker at a program on pond management. After a few moments reflection I realized that I had spent about half of my career learning how to grow algae and the other half trying to kill them.

This is not a lament. In fact, I find that knowledge of what is required for algal growth is essential in preventing excessive growth and this approach of prevention and control provides an “integrated” approach to pond management. This integrated approach makes use of chemical, biological and mechanical techniques and because this approach is in its infancy I am always looking for new alternatives.

One of the most intriguing new treatments for pond algae is barely straw. Although I was skeptical at first, I suggested this treatment several years ago and have since received a number of reports that it does appear to reduce mat forming algae. The observation that barely straw would reduce algae growth in ponds was made accidentally in Britain by the Aquatic Weeds Research Unit after bales of hay fell accidentally into a farm reservoir... “which then grew far less scummy algae than hitherto” as noted in the British publication *The Garden*. Even in the field of aquatic management, the U.S. and Britain are two nations separated by a common language. Anyway this observation prompted more detailed study that has led to some clarification.

First, hay does appear to have an inhibitory effect. However, straw is more effective and

barely straw appears to be the best of all. It is not clear what the nature of the inhibition is, but it is suggested that during the decomposition of straw in water a chemical is released that is inhibitory to algae. Researchers at the Aquatic Weeds Research Unit strained credibility a bit by naming this proposed inhibitor “Factor X” which sounds like the active ingredient of some “snake oil” remedy.

Because this inhibitor is released from decomposing straw it is necessary to apply it to the pond at least one month in advance and replace it with fresh at least two to three times during the growing season. The effectiveness of barley straw has recently been supported by research conducted by Bryan Butler as part of his Masters Degree requirements at Hood College. Bryan has recently rejoined the Carroll County Extension Office and will hopefully be able to continue this work. Bryan’s investigation supports the use of barely straw for inhibiting some types of algae and the results of a survey of Barley straw users confirms the effectiveness of barely straw.

Early Spring – say mid-March to April – is an ideal time to begin preventive treatments for pond algae problems. The proposed inhibitor in barley straw does not appear to kill algae present in the pond at the time of application so early treatment before algae growth has gotten out of hand is advisable. The amount of barley straw required has not been fully evaluated. We have been recommending 3-4 bales per pond surface acre, which appears to be adequate, based on reports we have received from past years trials. It has been suggested that loose straw is more effective than tight bales; however the bales will be easier to handle and remove after a month or two in the water. With either loose straw or bales an enclosure of poultry wire or plastic mesh should be used to simplify removal of the rotting straw. In Britain the straw has been encased in plastic mesh in a sausage-like form

by pushing it through a Christmas tree baler.

In summary, barley straw appears to offer an inexpensive and ecologically sound method for preventing nuisance algal growth. Although we can't state conclusively how it works this practice is gaining acceptance and might be useful in your aquatic management situation. Or, as one of my clients recently said of trying barley straw "it can't hurt, it might help, and I won't break the bank finding out."

Reprinted from *VNLA Newsletter*, July/August 2001.

RETIREMENT PLANS ARE FOR SMALL BUSINESSES TOO

**Chip Jamerson, Associate VP Investments
Legg Mason Wood Walker, Inc.,**

A tax-qualified retirement plan offers employees an attractive means of saving for retirement and is an effective way for employers to get tax benefits. Unfortunately, small businesses don't always offer their employees any retirement plan at all due to the common misconception that such plans come with high costs and heavy administrative demands. Instead, employers may encourage their employees to establish Individual Retirement Accounts (IRAs). But IRAs alone aren't always enough to help these employees retire comfortably, and small businesses are in danger of losing employees to larger businesses that offer more attractive benefits packages. In order to attract and retain valuable employees, many small businesses may want to consider offering employees one of the following plans.

The Simplified Employee Pension IRA, or SEP IRA, is very popular in the small business community because employer contributions are fully discretionary each year, and employers may take a tax deduction for the amount contributed on behalf of each employee. The contribution, if any, is not taxable to the participants until withdrawn. The self-directed SEP IRA offers employees the ability to accumulate more assets than possible through a Traditional IRA and to choose investments that meet their specific retirement needs.

The SIMPLE IRA, designed for companies with 100 or fewer employees, is a salary deferral plan structured to eliminate many of the complex administrative requirements often associated with 401(k) plans. The SIMPLE plan allows for employee salary deferral contributions of up to the lesser of \$6,500 or earned income, made on a pre-tax basis. The

required employer contribution can take the form of either a 3% match or a 2% non-elective contribution. While the burden of funding the plan is shared by employer and employee, the employer gets a tax deduction for the entire amount contributed on behalf of each employee. Investment earnings accumulate tax-deferred until distributed from the plan.

The Profit Sharing Plan is a qualified retirement plan that allows for discretionary tax-deductible contributions of up to 15% of total compensation paid to all eligible employees. All contributions are made by the employer and the percentage contributed can vary from year to year. With this plan, the employer retains the flexibility of excluding some part-time workers while the employee enjoys an employer-funded benefit plan that offers the possibility to accumulate significantly more assets on a tax-deferred basis than through a Traditional IRA.

A Money Purchase Pension Plan is a qualified retirement plan established by an employer to allow for tax-deductible contributions of up to 25% each of each participant's total compensation. Employers benefit from the ability to contribute a greater percentage of compensation than is available in most other plans – an attractive advantage for the employer who may be attempting to maximize the dollars contributed on his or her own behalf. Like the Profit Sharing Plan, this plan allows the employer to retain the flexibility of excluding some part-time workers and the employee to enjoy an employer-funded benefit plan that offers the ability to accumulate significant assets on a tax-deferred basis.

By establishing a retirement plan, you can effect a dramatic difference in tomorrow's standard of living for yourself and your employees.

Excerpted from VNLA Newsletter, July/Aug 2001.

Publications

Diseases of Woody Ornamentals and Trees in Nurseries. Edited by Ronald K. Jones and D. Michael Benson. *Diseases of Woody Ornamentals and Trees in Nurseries* covers diagnosis and control of more than 65 ornamental crops (shrubs, ground covers and shade trees) grown in nurseries throughout the United States. A summary of timely control measures is given for each disease in this book. These control strategies provide an in-depth guide to integrated disease management including, cultural control, sanitation, resistance, fungicides and bactericides as well as information on control of various pathogen groups. Many of the crop chapters include information on cultivar resistance to plant disease. The role of recycled water in disease development and ways to manage pathogens in recycled irrigation water is also covered. Readers are helped further by 160 color plates illustrating disease symptoms, tissue culture techniques to eliminate pathogens from propagation stock, a state-by-state list of disease occurrences to make you aware of local problems, and an explanation of the role of plant diagnostic clinics in assisting nurseries in disease diagnosis. 2001; 8 1/2" x 11" softcover; 482 pages; 160 color photographs (est.) ISBN 0-89054-264-3
ORDER ON-LINE
<http://www.shopapspress.org/disofwoodora.htm>
↳ OR TOLL-FREE 1-800-328-7560

Attention Gardeners: Take a University Grafting Course from Home! If you've always wanted to learn grafting but don't have time to attend a scheduled course or don't live near a university, you can now learn this advanced gardening technique on your own time, from any place you like. With access to a properly equipped computer and the Internet, you can take *The How, When, and Why of Grafting for*

Gardeners, a noncredit distance-learning course that includes web-based lectures and quizzes, video demonstrations, hands-on grafting with live plants, and interactive discussions. The course is being offered by Cornell University's Department of Horticulture and will be of particular interest to serious gardeners and horticulturists.

Upon registration, students will receive a password to access the course web site. From the site, students can read weekly lectures, view still images and video clips of grafting procedures, engage in online discussions with fellow students and the instructor, and take multiple-choice quizzes. With live hibiscus plants and a grafting knife supplied by Cornell, students will practice hands-on grafting in the comfort of their own homes. The ten-week course will require about four to eight hours of work per week and will be offered twice: November 5, 2001, through January 18, 2002 (this includes a one-week break over the holiday season), and February 18, 2002, through April 26. Plants will be shipped about three weeks before class begins so they have a chance to acclimate.

To view a sample lecture, "Reasons for Grafting and Budding," and to see a listing of all lectures, visit

<http://instruct1.cit.cornell.edu/courses/hort494/mg/>

Course size is limited to 50 students, so register early! The registration fee for the November-January course is \$215 if postmarked by October 1, 2001, and \$240 after October 1; all registrations for this course are due by October 22, 2002, for the lower rate; all registrations for this course are due by February 4. Included in the fee are a password to access the web site, several varieties of 2 – to 3 – foot-tall hibiscus plants, a grafting knife, a CD of videos of grafting techniques, shipping costs to send

plants and supplies, and a certificate of completion issued by Cornell's college of Agriculture and Life Sciences. Students are responsible for pots and soil for the hibiscus plants, which are shipped bare-root with planting instructions.

Course prerequisites include a high school or college biology course; previous gardening experience; convenient access to a computer, the Internet, and e-mail; and commitment and motivation to undertake serious learning. Hardware and software requirements include a Pentium or Macintosh computer with a CD-ROM drive; Internet access (56.6K modem or high-speed connection); a Java-capable browser (Netscape or Microsoft Explorer, version 4.0 or higher); and the QuickTime plug-in, version 4.0 or higher. (Instructions for downloading this free plug-in will be provided for those who do not have it.)

To register for either the November – January course or the February – April course, or for more information, contact NRAES, 152 Riley-Robb Hall, Ithaca, NY 14853-5701; phone (607) 255-7654; fax (607)254-8770; e-mail-nraes@cornell.edu. A brochure for *the How, When, and Why of Grafting for Gardeners* that includes a registration form, a course syllabus, and more information is available online at-www.nraes.org

Evapotranspiration Equations Now Available on Irrigation Association Web.

A resource list of evapotranspiration (ET) equations for the United States is now available on the Irrigation Association's Web site. John Ossa, chair of the IA Water Management Committee, compiled the list as a comprehensive resource tool for water managers.

The IA's list includes ET equations, reference crop coefficients, and agency and contact

personnel for state and regional ET information. According to the IA, the list serves to minimize confusion over ET equations that arises from the lack of standardization between states.

The IA plans to revise and update the list as needed to maintain its accuracy. The IA has also requested help from people within the industry who can assist in making the ET information better understood and more readily available. For details, see <http://www.lawnandlandscape.com/article1.asp>

For more information contact Warren Quinn, Esp., Director of Operations, American Nursery & Landscape Association, 1250 I St., NW. Suite 500, Washington, DC 20005; e-mail wquinn@anla.org

Locate Outstanding Woody Ornamentals

Online. Agricultural Research Service scientists have created a unique Web site with vital and extensive information on over 175 kinds of woody plants with potential ornamental use. The Web site includes information about how a new plant may be an improvement over currently available ones. This might be because of aesthetics or adaptation based on experience with new plants at one or more sites, or derived from hypothetical performance of wild plants based on the climate and soil of their native habitats. Visit the Web site at <http://www.arsgrin.gov/ars/MidWest/Ames/trialhmpge.html>

For more information contact Mark P. Widrlechner and A. Paul Ostrom, USDA-ARS North /Central Regional plant Intro. Station, Iowa State University, Agronomy Hall, Room G-212, Ames, IA 50011-1170; phone 515-294-3511/34541 fax 515-294-1903, e-mail nc7mw@ars-grin.gov or nc7ao@ars-grin.gov

New Plant America/Dirr CD. PlantAmerica and Dr. Michael A. Dirr announce the brand new interactive Plant reference CD that combines the images and the text at last.

PlantAmerica, in conjunction with Michael Dirr, is proud to announce that it has completed a brand new interactive CD, the Interactive Manual of Woody Landscape Plants. This brand new plant reference CD, which combines the images and the text of his 5th edition textbook, is now available for purchase. If you have the previous Dirr CD you will value this CD even more. The CD provides information on more than 1,670 species and 7,800 cultivars of woody plants.

The Interactive Manual can also be used in concert with the Photo-Library of Woody Landscape Plants on CD-ROM. This brings over 7,600 photographs featuring habit, flower, fruit, fall color, bark, and design considerations to the user. PlantAmerica sells the Photo-Library separately.

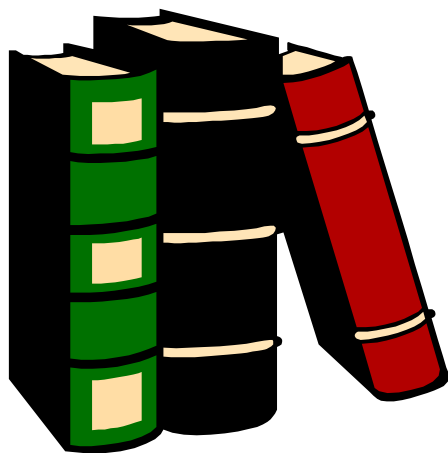
The cost of the CD is \$79.95 (plus shipping and handling). Visit www.plantamerica.com or call (888)PLANT-CD for more information.

Turfgrass Problems: Picture Clues and Management Options.

A new pocket guide can help turf managers and lawn care aficionados identify problems and implement appropriate management strategies to achieve and maintain healthy plants. Contains 130 color photos and is available for \$24.95 plus S&H/sales tax; 214 pages – NRAES-125. Cooperative Extension, 152 Riley-Robb Hall, Ithaca, New York 14853-5701. For more information or a free publications catalog, contact NRAES by phone at 607-255-7654, by fax at 607-254-8770, or by e-mail at nraes@cornell.edu.

Nursery & Landscape Weed Control Manual. This newly revised edition has been lengthened by approximately 100 pages and explains the theories behind physical, cultural and chemical control practices used in the nursery and landscape industries as well as the use of small-scale equipment used in ornamentals. Also included is a complete listing of herbicides registered for ornamentals plus the mode of action, registered ornamental species weeds controlled and directions for use. This new edition is now available from Thomson Publications, P.O. Box 9335, Fresno CA 93791 or you can place your order by calling (559)266-2964. Fax (559)266-0189, or our website www.agbook.com. Cost is \$36.95 plus tax, if applicable and \$5.50 for UPS shipping.

I-9 Process In a Nutshell. This bulletin provides employers – with basic guidance for compliance with requirements to complete, up-date, and retain I=9 forms for all employees, whether United States (US) citizens or non-citizens. This is an excellent source for up-to-date information on I-9 and Farm Worker regulations. <http://www.usda.gov/occ/occe/labor-affairs/i9nutshell.htm>



Pesticide News

The next Pesticide Applicator Training dates are: Sept 4-5 and Dec 17-18. Both at the Kent Co. Office. This info is announced at: <http://www.udel.edu/pesticide/Cal.htm>

Insecticides:

FLORAMITE (bifenazate)-Uniroyal-Label changes include restricted entry interval from 12 hours to 4 hours, the addition of bamboo spider mite, and the restriction – Do not make more than 2 applications per year. Usage areas are defined as greenhouses and shadehouses, nurseries including Christmas tree/conifer plantations, landscapes, interiorscapes, residences, public commercial industrial and institutional areas, recreational areas such as campgrounds, golf courses, parks and athletic fields, rights of way, and other casements.

URARA – (IKI-220) – ISK – A new insecticide being developed by this Japanese company that has a new mode of action and is effective against aphids, thrips and other sucking insects. It will be developed for use on fruit crops, vegetables, ornamentals and tea

Herbicides

FINALE (glufosinate-ammonium) – Aventis – Label changes include the removal of the control of woody species from the label and to add the usage on dormant bermudagrass, aerial application and usage in greenhouses.

Research Briefs

Propagation:

Prostart promotes germination. Prostart is an aqueous smoke solution and has been shown to promote germination of two herbaceous perennials species that require fire for germination. (A.Kidwell, G.R. Bachman, E. Davis)

Summarized from 2001 SNA conference; proceedings will be available on SNA Website.

Landscape:

Rapid field determination of N status. The Cardy Nitrate Meter is a tool that measures sap nitrogen of bedding plants in the field. Sap N is related to foliar N, so this tool can be used to detect nitrogen deficiencies in the field prior to plants exhibiting deficiency symptoms. (J. Altand, C. Giliam, G. Keever, J Sibley and D. Fare).

Summarized from 2001 SNA conference; proceedings will be available on SNA Website.

Kalmia establishment is affected by exposure and N status. Kalmia from 2 gallon containers exhibited better survival than plants from quarts or 5 gallon containers. The 2 gallon plants had a better root to shoot ratio. Plants in locations with a N or E exposure also exhibited better survival (probably because these sites did not have the temperature extremes associated with the S and W exposures from too much winter sun). (A.N. Wright, S.L. Warren, F.A. Blazich)

Summarized from 2001 SNA conference; proceedings will be available on SNA Website.

***Illicium* sp. vary in sun tolerance.** Nine taxa of *Illicium* were studied in a variety of sun

exposures. *Illicium parviflorum* was the only species that tolerated full sun. All nine of the taxa looked good in 50% shade. (J.J. Griffin and T.G. Ranney)

Summarized from 2001 SNA conference; proceedings will be available on SNA Website.

Feeding deterrents for white-tailed deer.

Deer dislike annual vinca (*Catharanthus roseus*), so researchers have tried to isolate the compounds that repel deer and incorporate them into a new repellent product. These compounds appear to be volatile have not proven effective. Of the products tested, those containing putrescent egg solids were the most effective. (C.E. Harris Ciker, D.J. Eakes, E.H. Simonne, M. Davis)

Summarized from 2001 SNA conference; proceedings will be available on SNA Website.

Soil depth for green roof systems. Green roof systems have become popular in Europe and are increasingly sought after here in the US. A green roof system includes in the following order: water-proofing, drainage material, filter, growing medium, vegetation and edge protection. Six perennials were evaluated in Canada at three different media depths (2, 4 and 6 inches) for cold tolerance. The perennials tested were *Ajuga reptans*, *Arenaria verna* 'Aurea', *Armeria maritime*, *Draba aizoides*, *Gypsophila repens* and *Sedum xhybridum*. Based on this research, a minimum of 4-inches of substrate is recommended for green roof construction in northern latitudes. (M Boivin, M. Lamy, A. Gosselin and B. Dansereau)

Excerpted from *HortTechnology* 11(3), July-September 2001.

Mulches and their susceptibility to artillery fungus. All mulch products in this project eventually supported some growth and

sporulation of the artillery fungus. It is doubtful that any organic landscape mulch exists that is resistant to the artillery fungus over a long period of time (i.e. more than 3 years). Cedar, cypress, and large pine bark nuggets are recommended as mulches that support less colonization and sporulation than other products tested. However, even the more tolerant mulches should be replaced on a regular basis. The ultimate control for this problem is replacing organic landscape mulch with stone or vegetative ground cover in critical areas. (E.A. Brantley, D.D. Davis and L.J. Kuhns)

Excerpted from *J. of Environ. Hort.* 19(2), June 2001.

Tree Lilac Cultivars Tested as a Street Trees.

Three Japanese tree lilac (*Syringa reticulata*) cultivars two each in 11 communities, were planted for evaluation as street trees. Cooperators in the Municipal Tree Restoration Program using standardized methods measured them annually for three years, and periodically afterwards. 'Ivory Silk', 'Regent', and 'Summer Snow' performed well at all locations. All three cultivars grew slowly initially, and their foliage tended to turn yellow in late summer. Height growth of 'Summer Snow', reputed to be slower than 'Ivory Silk', was not slower at all locations.

Excerpted from *Journal of Arboriculture* 25 (4): July 1999, 185-187.

Greenhouse production:

Controlled seedling height by soaking.

Tomato seeds were soaked in water for 30 hours. This treatment provided significant height control. The 30-hour treatment also provided the best drought resistance. This technique might also work for bedding plants. (S.E. Burnette, P. A Thomas)

Summarized from 2001 SNA conference;

proceedings will be available on SNA Website.

Subirrigation and fertilizer rates.

Subirrigation benches are a viable method for growing 'ultra White' petunias when compared with hand watering. However, when Peter's 20-10-20 was used at concentrations greater than 100 ppm of N, subirrigation appeared to be detrimental to petunia growth (probably due to high EC concentration in the substrate). On the other hand, the use of subirrigation with Nutricote 13-13-13 type 100 incorporated at all of the rates tested did not appear to be detrimental to petunia growth. (K.A. Klock-Moore and T.K. Broschat)

Excerpted from *HortTechnology* 11(3), July-September 2001.

Substrate and fertilizer type affect bedding plant growth.

Plants grown in Pro Mix BX were generally larger and produced more flowers or fruit than those grown in a pine bark mix. Two different prill types were tested: 15-6.5-12.5 (a 1-1-1 ratio) and 21-3-11.7 (a 3-1-2 ratio). Increased fertilizer quantity (100, 200 or 300 mg/L N) enhanced plant quality, but there was no effect of the prill type. Therefore there is little reason to use the more expensive 1-1-1 ratio prills, since they generally did not improve plant quality and may increase phosphorous runoff from bedding plant nurseries. (T.K. Broschat and K.A. Moore)

Excerpted from *HortTechnology* 11(3), July-September 2001.

Container Production:

Irrigation scheduling can reduce N leaching.

The most important factor affecting N leaching from containers is irrigation scheduling. Pulse irrigation can be used most effectively to help nurseries reduce N loss from container plants. (A.G. Ristvey, J.D. Lea-Cox, D.S. Ross)

Summarized from 2001 SNA conference; proceedings will be available on SNA Website.

Maples grow best from small liners in large containers. ½” maple liners exhibited more growth and caught up to 1” liners by the end of the study. Plants also grew best in the larger containers (15 gal. as opposed to 7 or 10 gal. containers). (A.Newby and D. Fare)

Summarized from 2001 SNA conference; proceedings will be available on SNA Website.

Irrigation scheduling to increase growth.

Total plant growth (top and root) was increased 34% to 57% when irrigation was applied throughout the day compared to early morning irrigation. Maximum growth occurred when irrigation was applied at noon, 3 pm and 6 pm. In addition, water use efficiency, which is calculated as the liters of water required to produce one gram of plant dry weight, was the lowest for predawn (3, 5 and 7 am) and PM applications (12, 3 and 6 pm). These data strongly suggest that irrigating during nontraditional times may significantly increase plant growth. (T.E. Bilderback and S.L. Warren)

Excerpted from *VNLA Newsletter*, July/August 2001.

Use the pour-through method for evaluating nutrient needs of perennials. This research helped determined standards for soluble salt content (as measured by electrical conductivity-EC) of the extracted root zone solution when water is poured through a perennial plant container.

Low fertility (150 ppm N)

EC (mS/cm) = 0.75-2.00

Heuchera x ‘Mt. St. Helen’

Physostegia virginica

Moderate fertility (250 ppm N)

EC (mS/cm) = 2.00-3.5

Astilbe chinensis

Campanula carpatica

Coreopsis verticillata

Perovskia atriplicifolia

Veronica x ‘Goodness Grows’

High fertility (350 ppm N)

EC (mS/cm) = 3.5-5.0

Gaura lindheimeri

Lamium maculatum

Penstemon x ‘Sour Grapes’

Salvia nemerosa

(H.L. Scoggins and R.D. Wright)

Excerpted from *VNLA Newsletter*, July/August 2001.

Preemergent bittercress control on a gravel groundcover.

To achieve 6 to 8 months of bittercress control on gravel production areas, growers should apply sprayable formulations of the preemergent herbicides Factor and Goal. Two times normal rates appear to be sufficient for long term control. Princep was not effective in controlling bittercress in gravel production beds and because of possible contamination of groundwater should not be used for this purpose. (J.Briggs, E. Whitwell, M.B. Riley, R. Smith and G. Legnani)

Excerpted from *J. of Environ. Hort.* 19(2), June 2001.

Marketing:

Evaluating ornamental cabbage and kale for retail sale.

‘Osaka Red’ is the best red ornamental cabbage because it was 5 days quicker in developing color as compared to other popular red cultivars. ‘Rose Bouquet’ is a good tall cultivar with rose colored center and undulating leaf margins. ‘Tokyo’ series cultivars

were not recommended due to their small color diameter. 'Osaka White' was the best white because it had a more attractive center color, a larger plant diameter, and the leaf margins were slightly serrated, giving this cultivar a unique textural quality. 'Osaka Pink' and 'Color-up Pink' were both suitable for retail sales but 'Osaka Pink' had a very bright pink to fuchsia center color, which may be attractive to retail customers. 'Chidori Red' was the preferred red curly kale with purple foliage and 'Nagoya Red' was the preferred red curly kale with green foliage (shorter time to coloration than other cultivars). 'Sparrow White' and 'Kamone White' (larger diameter) were selected as best white curly kales with their deeper green foliage color. Other recommended cultivars included: 'Coral Prince' or 'Snow Prince' for white notched kale with shallowly notched leaves; 'Peacock White' as a deeply notched white kale; 'Flamingo Plumes' as a medium notched magenta-rose colored kale; and 'Coral Queen' as a rose colored shallowly notched kale. (J.L. Gibson and B.E. Whipker)

Excerpted from *HortTechnology* 11(3), July-September 2001.

Insects:

Black vine weevil control on Rhododendron. Orthene, Talstar and Scimitar provided the best black vine weevil control of all the materials tested on Rhododendron 'Catawbiense Album'. (R.L. Rosetta and S.E. Svenson)

Summarized from 2001 ASHS Conference; abstracts can be found in *HortScience* 36:3, June 2001.

Leaf rollers damage cannas. To control leafrollers in canna, cut dead canna plants to the ground and remove the cut material from the property in late winter. This will remove the overwintering stages and reduce the spring

population. Any contact herbicide treatment should be directed downward to penetrate the open tops of the rolled leaves. Since leafrollers are concealed, applications of a pyrethrin-based insecticide (Astro, Decathlon, DeltaGard, Scimitar or Talstar) is recommended to act as an irritant and coax the insect from its concealed location, resulting in greater chemical contact. Orthene also works since it is systemic. (P.B. Schultz)

Excerpted from *VNLA Newsletter*, July/August 2001.

Flea beetles damage perennials. Carefully scout to detect the first adult emergence. Treatments are warranted if populations are high. Orthene Decathlon and Merit (Marathon) provided excellent control. (P.B. Schultz)

Excerpted from *VNLA Newsletter*, July/August 2001.

Dogwood and birch species resistance to insect pests and diseases. *Cornus kousa* and *C. kousa* x *florida* hybrids had more borer activity and injury than most *Cornus florida* hybrids. *Cornus kousa* 'National' had the most injury. *Cornus mas* had no borer injury. Birch trees resistant or tolerant of bronze birch borer included *Betula populifolia* 'Whitespire', *B. papyrifera*, *B. nigra* and *B. nigra* 'Heritage'. *B. platphylla szechuanica* (and its cultivar 'Purpurea') were very susceptible as was *Betula pendula*. *Betula nigra* and *B. nigra* 'Heritage' had the greatest number of aphids of the birch species evaluated. *Betula Jacquemontii* was the birch species most injured by Japanese beetle feeding. All *Cornus florida* cultivars with the exception of 'Cherokee Brave' were susceptible to powdery mildew. Of the others, *C. mas* and *C. kousa* are resistant, and the *C. florida* x *C. kousa* hybrids along with *C. florida* 'Cherokee Brave' were intermediate. The species and cultivars *B. pendula*, *B. nigra* and *B. nigra*

'Heritage' were the most susceptible to birch leaf spot and *B. jacquemontii* and *B. papyrifera* were the least susceptible. (M.P. Johnson, J.R. Hartman, R.E. McNeil and W.M. Fountain)

Excerpted from *J. of Environ. Hort.* 19(2), June 2001.

Asian elms resistant to adult elm leaf beetle.

Ulmus chenmoui, *U. elongata*, *U. glaucescens*, *U. propinqua*, *U. propinqua* var. *suberosa* and *U. szechuanica* appear to have low suitability for the elm leaf beetle. In other studies these species have also shown poor suitability for the adult Japanese beetle and elm leafminer, both potentially damaging insect pests of elms. As a group, Asiatic elms appear to be resistant to Dutch elm disease. (F. Miller, G. Ware)

Excerpted from *J. of Environ. Hort.* 19(2), June 2001.

Diseases:

Fireblight resistance in pears. 'Chanticleer' was the callery pear with the greatest fire blight resistance. The Landscape Development Center has another pear under trial that is completely resistant to fireblight but it has not yet been named or released to the industry. (A.C. Bell, T.G. Ranney, T.A. Eaker, T.B. Sutton)

Summarized from 2001 SNA conference; proceedings will be available on SNA Website.

Preventing bacterial soft rot of hosta in cold storage. There was no Erwinia (soft rot) found when hosta were stored above 2°C. Cold storage must be 4°C or below to fulfill the dormancy requirement. (K.W. Parida, J.L. Williams-Woodward)

Summarized from 2001 SNA conference; proceedings will be available on SNA Website.

Elm cultivar resistance to Dutch elm disease. 'Valley Forge', 'Princeton' and 'New Harmony' appeared able to respond and recover over time from fungal inoculation, expressing a true tolerance to *Ophiostoma*, the fungal agent causing Dutch elm disease. 'American Liberty' did not express such resilience. (A.M. Townsend and L.W. Douglass)

Excerpted from *J. of Environ. Hort.* 19(2), June 2001.

New Plants:

Recent woody ornamental plant releases from the U.S. National Arboretum.

Red Maple, *Acer rubrum* 'Brandywine' (1994) Long-lasting red-purple fall color, tolerance to potato leafhopper, no seed; zone 4-8

Red Maple, *Acer rubrum* 'New World' (1997) Elm-like crown structure, tolerance to potato leafhopper, no seed; zone 4-8

Red Maple, *Acer rubrum* 'Red Rocket' (1997) Cold hardy, strongly columnar crown structure, tolerance to potato leafhopper; zone 3-8

Chinese redbud, *Cercis chinensis* 'Don Egolf' (2000) Slow-growing compact habit, easy to propagate, seedless; zone 6-9

Crapemyrtle, *Lagerstroemia indica x fauriei* 'Chickasaw' (1997) Miniature, densely branched compact habit, fine-textured mildew resistant foliage; zone up to 7b

Crapemyrtle, *Lagerstroemia indica x fauriei* 'Pocomoke' (1998) Miniature plant, deep rose flowers, glossy dark green mildew resistant foliage; zone up to 7b

Flowering cherry, *Prunus* 'Dream Catcher' (1999) Large medium-pink single flowers,

disease tolerance, well-suited to nursery production; zone 6-8

Lilac, *Syringa* 'Betsy Ross' (2000)
Pure white fragrant flowers, field tolerance to powdery mildew, relative adaptation to warmer climates; zone 5-8

American elm, *Ulmus americana* 'New Harmony' (1995) High tolerance to Dutch elm disease, broadly V-shaped crown with slender terminal branches; zone 5-7

American elm, *Ulmus americana* 'Valley Forge' (1995) High tolerance to Dutch elm disease, upright, arching vase-shaped habit; zone 5-7

Burkwood viburnum, *Viburnum x burwoodii* 'Conoy' (1988) Compact habit with fine-textured dark green foliage, fragrant white flowers, persistent fruit; zone 5b-8

Leatherleaf viburnum, *Viburnum rhytidophyllum* 'Cree' (1994) Dark green evergreen foliage, cold hardiness, densely branching habit; zone 5-8

Excerpted from *HortTechnology*, 11(3), July-September 2001.

Calendar

September 17 – Ornamentals Research Expo from 4-8 pm at UDBG, Newark, DE. Cost is \$25 (includes dinner). Contact Susan Barton (302-831-2531).

September 20 - Pesticide Container Recycling, Sussex Conservation District Maintenance Yard, Shortly Road, Georgetown DE, Collections from 9:30 am - 1:30 pm All containers must be properly rinsed plastic crop protection product containers. For more info, contact Grier Stayton or Bill Milliken, DDA, 302-739-4811; www.usagrecycling.com

September 24 – 30 – Bedding Plant International Conference, Hyatt Hotel, Baltimore, MD. Contact: Kathy Miller (Bluemount Nursery) (410)329-6226 or Mary Mycka (Bedding Plants International), 1-800-647-7742.

September 25, October 2 - Identification & Control of Diseases on Woody Landscape Plants from 4 to 6:30 pm in Fischer Greenhouse, Newark, DE. Cost is \$25. Contact Susan Barton (302-831-2531).

September 26 – ALCA Business Boot Camp & Tech Knowledge, Baltimore, MD; Contact: 703-736-9666, www.alca.org

September 27-29 – Thirteenth Conference on Restoring Southern Gardens and Landscapes – Cultivating History (Exploring Horticultural Practices of the Southern Gardener), Old Salem. Location: MESDA Auditorium in the Frank L. Horton Museum Center, 924 South Main Street, Winston-Salem, North Carolina. Registration fee: \$250 per person, student fee \$185. For more information contact: Kay Bergey, Conference Registrar: (336)721-7378, Fax: 336-721-7335.

September 28 – Mid Atlantic Composting Association – Annual Meeting. Chesapeake College, Kent Humanities Bldg, Wye Mills, MD. Cost: \$20(\$30 after Sept. 20th & at the door). Fax: 410-827-9039. Questions may be directed to: 410-827-8056.

September 30-October 3 – Eastern Region International Plant Propagators' Society Annual Meeting. Lexington, KY. Contact: Margot Bridgen, 26 Woodland Road, Storrs, CT 06268, phone (860)429-6818, e-mail: mbippser@neca.com

October (TBA)– Rescheduled Weed Short Course.

Taught by Steven Hart, Rutgers University. 9-12 AM.
Contact Susan Barton (302)831-1375.

September 30-Oct. 3 – MAC-ISA Annual meeting,
Hagerstown, MD. Contact 703-753-0499,
macisa@erols.com

October 10 – Griffin Greenhouse & Nursery Supplies
Customer Appreciation Day, East Lancaster, PA; Contact:
978-851-4346.

October 11 and 12 – The Healing Power of Nature,
Brookside Gardens Wheaton, MD. Early Registration
\$115, Reg. Registration \$125, Late Registration, after
9/22 \$135, Student Rate \$80/CEU Fee \$20/AHTA
Certificate \$10. Make checks payable to Chesapeake
Chapter-AHTA. Fax: 540-837-1523. Contact Cindy
Waring – cwaring4@aol.com or phone: 301-459-1064 for
further information.

October 18 - Pesticide Container Recycling, Sussex
Conservation District Maintenance Yard, Shortly Road,
Georgetown DE, Collections from 9:30 am - 1:30 pm
All containers must be properly rinsed plastic crop
protection product containers. For more info, contact
Grier Stayton or Bill Milliken, DDA, 302-739-4811;
www.usagrecycling.com

October 18-21 – Sixth Annual Student Society of
Arbiculture Conference. Clemson, SC. Contact: Tim
Walsh, 715-346-4211, Fax; 715-346-3624, e-mail;
twalsh@uwsp.edu, Url; <http://depts.clemson.edu/for/student.htm> or <http://www2.champaign.isa-arbor.com/conferences/html/971114900.html>

October 23, - Certified Nursery Professional Exam – at
the Department of Agriculture, Dover, DE. For more
information call: Val Budischak at the DNLA (888)448-
1203.

November 1, 8 – Integrated Landscape Management
Course. Sponsored by DNLA and DE Coop. Ext.
Hockessin Memorial Hall. Cost is \$38/ day and \$70 for
both days. Pesticide credits will be approximately 5/day.
Contact ValAnn Budischack at the DNLA (888)448-1203.
or Susan Barton (302) 831-1375.

November 13-15– 42nd VIRGINIA Turfgrass &
Landscape Conference & Trade Show, Virginia Beach,
VA; Contact: VTC at 540-942-8873, thevtc@cfw.com

January 8-10, 2002 – MANTS, Baltimore, MD; Contact:
800-431-0066.

January 15-19, 2002 – NCAN “Green Growin’ Show”,
Winston-Salem, NC; Contact: 919-816-9118.

January 17 & 18 – Delaware Horticulture Industry Expo
and Pesticide Conference. Modern Maturity Center,
Dover, DE. For more information call: Val Budischak at
the DNLA (888)448-1203.

January 31-February 3, 2002 - ANLA Management
Clinic.. Louisville, KY. Contact: ANLA, 202.789.2900;
Fax, 202.789.1893; <http://www.anla.org>

June 19-22, 2002 – Southeast Greenhouse Conference.
June 19-Industry Tour, June 20-22 –Educational Sessions,
June 21-22 – Trade Show. For more information call:1-
877-927-2775 to receive a \$15 discount coupon.
www.sgcts.org

