

**In This Issue**

---

<b>2</b>	<b>Association News</b>
<b>3</b>	<b>Welcome New Members</b>
<b>3</b>	<b>U of D News</b>
<b>4</b>	<b>Many Uses of Compost</b>
<b>5</b>	<b><i>Xanthorhiza simplicissima</i></b>
<b>6</b>	<b>SOD Update from DDA</b>
<b>7</b>	<b>Center to Introduce Two New Exciting Plants</b>
<b>8</b>	<b>Progress with Research on Native Shrubs</b>
<b>9</b>	<b>Leadership Mythology</b>
<b>11</b>	<b>People Solutions Coaching</b>
<b>13</b>	<b>Diagnosing Plant Problems</b>
<b>15</b>	<b>Gardening Consumer Preferences Reported</b>
<b>16</b>	<b>Websites and Understanding Your Market</b>
<b>12</b>	<b>Maintenance and Repair of Interlocking Concrete Pavements</b>
<b>20</b>	<b>Pesticide News</b>
<b>20</b>	<b>Research Briefs</b>
<b>24</b>	<b>Publications</b>
<b>25</b>	<b>Calendar</b>

**Board of Directors**

Executive Director	Valann Budischak	888-448-1203 610-274-2166
Past President	Bruce Paulish	653-9336
President	Wendy Rezac	734-2060
Vice-President	Joe Wick, Jr	653-9000
Treasurer	Norm Hedrick	284-9677
New Castle County Rep	Tony Lemper	292-1847
Kent County Rep	Rexene Ornauer	734-2060
Sussex County Rep	John Wiest	629-8799
Directors-at- Large	Steve Sterling	653-7060
	Jay Windsor	875-2457
	Naomi McCafferty	239-7719
Board Support Members	Susan Barton	831-1375
	Tracy Wooten	856-7303
	Lynn Harrison	698-4500

Editor: Susan Barton, Extension Specialist, University of Delaware  
 The DNLA Newsletter is produced with the assistance of University of  
 Delaware Cooperative Extension.

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

The Summer Turf and Nursery Expo and Golf Tournament was held on August 18<sup>th</sup> at Jonathan's Landing Golf Club in Magnolia. Mother Nature continued to shine down upon us, deciding to hold the rain until after our golf tournament had concluded. More than 100 people had the opportunity to visit with each other, with exhibitors, and to see some exciting educational demonstrations. Bob Mulrooney had us guessing with his problem solving challenge. Don Knezick and Dan Segal of Pinelands Nursery & Supply used the 17<sup>th</sup> hole on the golf course to give a fabulous talk and demonstration on erosion control. Jeff Heisserman of EP Henry, with help from Patrick Giles of Angerstein's, gave a "how to" demo on step construction with segmental wall materials. Following the delicious pig roast, twelve foursomes revved up their carts and took to the golf course to participate in our 7<sup>th</sup> Annual Golf Tournament. Our winning foursome was the Tunnell Companies, consisting of Cameron Marcelle, Bud Kimble, Paul Baldwin and Greg Ewell. Congratulations!! Thanks to our many tournament sponsors and program advertisers. Your continued support is what makes the Expo and Golf Tournament a success.

Events like the Summer Expo give me the chance to visit with our members. I feel so fortunate to have gotten to know so many fine individuals. People who strive to get better at what they do each and every day; that act as mentors to new business owners and operators. This group is comprised of men and women who have devoted many years of their lives to the green industry, and to our organization. Sometimes we have the opportunity to recognize a few of them. Such was the case at the Delaware Horticulture Industry Expo that was held in January. At that time Norman Hedrick,

formerly of Norm's Landscape Service, was made an Honorary Member of the DNLA. Jay Windsor, of Lakeside Greenhouses and DE Cooperative Extension, was inducted into the DNLA Hall of Fame. Norm is a former DNLA president, and is the current treasurer. Jay has served as the DNLA president, an educational advisor, and continues to serve on the DNLA board. We are so grateful for their past and continued service to the green industry. Thanks, guys!

**Keep the Date:** The Ornamental and Turf Workshop is just around the corner (November 17<sup>th</sup>), and the Delaware Horticulture Industry Expo (DHIE) isn't far behind. We hope to see you there. Back by popular demand is Frank Gouin (The Facts About Mulch) who spoke two years ago. Frank will talk about the "Benefits of Using Compost." Other topics include: "Turf Establishment – Why Do Failures Occur?"; "Understanding Stress in the Landscape"; "Leyland Cypress – Problem Plants"; "Screen & Windbreak Alternatives"; and "Landscape Design for DE – A Regional Approach". The DHIE will be held on January 12<sup>th</sup> and 13<sup>th</sup> at the Modern Maturity Center in Dover. It will, once again, join forces with the Delaware Pesticide Conference. Both events promise to be winners!

On a more somber note, the DNLA would like to express their deepest sympathy to the family of Tom Huber. Tom, a DNLA Hall of Fame Member, and owner of Huber's Nursery & Garden Center died on August 30 after a 3-month battle with lymphoma. He will be sorely missed.



**WELCOME NEW MEMBERS:**

**Carter-Trettel Agency**

Joe Trettel  
1485 S. Governors Avenue  
Dover, DE 19904  
1- (866) 734-8004

**First State Equipment, Inc.**

John Huwer  
1950 S. DuPont Boulevard  
Smyrna, DE 19977  
(302) 653-5311

**U of D NEWS**

**Susan Barton, Extension Specialist**

Fall offerings in the Ornamentals Short Course program include:

**Fertilizing Greenhouse and Nursery Crops** – Gordon Johnson and Jay Windsor, Research and Education Center, September 28, 7-9 PM

**Landscape Design for Delaware** – Susan Barton, Kent County Extension Office, October 19, 7-9 PM

Look for **Managing New Construction Sites** and **Landscape Drainage** workshops to be held in Kent County at a soon to be announced date and time this fall.

This winter session the Plant & Soil Science Department is offering an exciting new undergraduate course entitled “Pests of Ornamental Plants.” This five-week long course will be taught from 3:00 PM to 4:30 PM every Monday through Friday from January 3 through February 4. The course will be taught by Bob Mulrooney (Extension Pathologist, Dept. of Plant & Soil Sciences, U of DE), Casey Sclar (IPM specialist, Longwood Gardens and Adjunct Faculty, Dept. of Plant & Soil Sciences, U of DE), Sue Barton (Extension Specialist, Dept. of Plant & Soil Sciences, U of DE) and Steve Hart (Weed Scientist, Rutgers University). The course will include two weeks of insect pests of ornamentals, two weeks of diseases of ornamentals and one week of weed problems with ornamental plants. The course will include identification and control strategies and be geared toward practical solutions to pest problems on ornamental plants. Anyone in the industry is welcome to take this class as a continuing education student. To register, call the Access Center at 831-2741. For Delaware residents, this 3-credit course will cost \$789 and for non-residents the fee will be \$2001.

**MANY USES OF COMPOST**  
**Frank Gouin, Professor Emeritus**  
**University of Maryland**

*Editor's Note: The July 2004 issue of the Mid-Atlantic Grower included an excellent article written by Frank Gouin on the many uses of compost. The following is a list of the uses Frank recommends.*

1. **Improve garden soils by incorporating compost.** Compost can replace peat moss and has the following advantages over other soil amendments:
  - a. Compost is only slightly acid.
  - b. Compost releases nutrients slowly and only when the soil is warm and plants are growing.
  - c. Compost is high in lignin so it doesn't shrink quickly. Compost's effect on reducing bulk density is long-lasting. One hundred tons of compost per acre lasts for 8 years, whereas peat moss improves bulk density for one year only.
2. **Use compost as a component of container media.** Soilless mixes that incorporate up to 50 % compost have been shown to yield excellent plant growth.
3. **Mix compost into soil for turf establishment.**
  - a. Lawns with compost incorporated have less disease.
  - b. Lawns with compost incorporated have less thatch build-up.
4. **Vertical mulch older trees with compost.** Dig 3-inch wide holes to a depth of 10-12 inches at 2- to 3-foot intervals outside the drip line of established trees and fill with compost. You can also dig 12- to 18-inch trenches in a wagon wheel pattern extending out

from the tree trunk and fill each trench with compost.

5. **Use compost to help silt fences filter out clay.** Use a 12-inch berm of compost on the downside of silt fences. (You can also plant tall fescue on the berm to trap nutrients.)
6. **Improve the water absorbing capacity of water retention ponds with the addition of compost.** Dig 4- to 6-inch wide trenches to a depth of 4- to 6-feet and fill with compost.
7. **Apply compost as a one-inch layer of mulch.**

***XANTHORHIZA SIMPLICISSIMA***  
**A LITTLE KNOWN NATIVE PLANT**  
**Barry Glick, Sunshine Farm and Garden**  
**E-mail: [barry@sunfarm.com](mailto:barry@sunfarm.com)**

I had to travel across the Atlantic Ocean to appreciate a plant that was literally growing in my back yard. *Xanthorhiza simplicissima* is the only woody member of my favorite plant family, Ranunculaceae.

The flowers it produces in early spring are interesting, <http://www.biology.duke.edu/dnhs/pics/Xanthosim.jpg> but inconsequential. What really knocks me out is the autumn color, an indescribable shade of purple that persists for weeks. I was in the UK visiting my friends, John and Galen Carter at Rowden Gardens, Brentor near Tavistock England. It was a crisp, clear November day and the autumn foliage of the surrounding forest was magnificent. As we rounded a curve around one of the many water beds in the garden, I was struck like a ton of bricks by the most fantastic shrub growing against a fence in the back of the garden. I asked John what it was and he laughed, "Why you should know that shrub, it came from you" And so it did. What John had done was to give our native "Yellow Root" a bit more sun, a good feeding and it grew to about 4' tall and produced a fall foliage display that was unparalleled.

In the wild, it grows happily on stream banks in sandy soil under a canopy of dappled sunlight. In my garden, I've underplanted it in a grove of tall maples along a meandering path.

*Xanthorhiza simplicissima* is easy to propagate from the many underground runners it produces. You'll understand why the common name is "Yellow Root" when you dig it up to divide it. In fact a yellow dye was made from the roots by Native Americans.

Family – Ranunculaceae  
Genus – Xanthorhiza  
Species – simplicissima  
Common name – "Yellow Root"  
Synonyms – *Xanthorhiza apiifolia*  
USDA Hardiness Zone – at least 5, possibly 4 or 3  
Light preference – Open bright shade to full shade  
Soil fertility preference – Average to rich  
Soil pH preference – neutral to acidic  
Soil moisture preference – Moist to average  
Bloom time – Early Spring  
Bloom color – Bronze  
Fragrance – None  
Foliage – Medium green, dissected  
Autumn Foliage – An indescribable shade of purple  
Spread – 12" – 24"  
Height – 8" -36"  
Deer palatability – Seems deerproof, at least my deer don't seem interested  
Landscape uses – Front to mid shade border or wild garden

*Reprinted from Landscape Plant News, Volume 15, No. 2, 2004.*



**SOD UPDATE FROM  
DELAWARE DEPARTMENT OF  
AGRICULTURE**

**Background on Sudden Oak Death:**

*Phytophthora ramorum*, the causal agent of sudden oak death (SOD), was first identified in 1993 in Germany and The Netherlands on ornamental rhododendrons. The first detection of *P. ramorum* in the United States was in California in the late 1990s. Since its discovery in North America, *P. ramorum* has been confirmed in forests in California and Oregon and in nurseries in California, Oregon, Washington, and British Columbia. It was thought to be restricted to the west coast until it was recently found at a large nursery in California and its satellite nurseries in other states. Since its detection in the west coast nursery trade, it has been identified in the retail industry in several other states across the US. If established in Delaware, SOD would present a serious threat to many woody ornamental plants vital to the State's \$30 million/year nursery industry, as well as to 250,000 acres of Delaware red oak forests.

**DDA Involvement:**

In March, SOD was found in Monrovia Nursery in Azusa, CA. The disease was not thought to exist in certain counties in California; therefore, nurseries in those counties had not been previously surveyed. The USDA conducted trace forwards on Monrovia host material shipped in 2003 and early 2004. Four DE businesses received material in 2003 from Monrovia Nursery; all of the businesses had sold the 2003 material. Since the Monrovia outbreak, the California counties not previously surveyed for SOD were being inspected by regulatory officials. The Delaware Secretary of Agriculture, Michael Scuse, activated an Emergency Order prohibiting entry of all California SOD hosts and associated plants into Delaware. Businesses most likely to receive

shipments of SOD host materials were mailed a SOD informational packet. Businesses that purchased material from Monrovia and/or CA were surveyed.

In April, the 2004 Sudden Oak Death Surveyors' Manual was released by the United States Department of Agriculture (USDA). The manual was distributed to the state departments of agriculture. Inspectors in each state made plans to survey for the presence of SOD in nurseries.

In May, June, and July, 26 businesses in DE were inspected following the USDA SOD protocol. Symptomatic host plants were sampled. Samples were sent to the University of DE and the USDA lab for testing. Businesses that received host material from OR, WA, CA, Europe, and British Columbia were included in the inspections. In June, a new SOD threat hit Delaware. Means Nursery in Scappoose, OR tested positive for SOD. The nursery shipped host plants to seven businesses in DE. All businesses with shipments prior to June were inspected following the federal protocol. By August, the final results were received for SOD inspections. All samples taken during the initial inspections and the trace forward inspections tested negative for *Phytophthora ramorum*.

The United States Forest Service released an inspection protocol for SOD in early 2003. State forestry sections throughout the country have been surveying for the disease since the release of the manual. In August 2004, the DE Department of Agriculture Forest Service established permanent survey plots throughout the state. The plots were placed in two different environments: within forests and next to nurseries. The forested plots will be surveyed on a yearly basis.

*Phytophthora ramorum* may already be present in Delaware. Delaware Department of

Agriculture plant regulatory officials and foresters will continue to monitor the situation.

If you would like to know more information about Sudden oak death in Delaware, please contact the DE Department of Agriculture, Plant Industries Section, at (302)698-4500 or (800)282-8685 (DE only).

**CENTER TO INTRODUCE TWO  
EXCITING NEW PLANTS  
Harold Pellett**

We are currently propagating two exciting new plants that will be the first introductions from the Center's breeding efforts. A non-vining selection of *Clematis* is the result of a cross between *C. integrifolia* and *C. hexapetala*. It combines the blue flower color from the female parent and upfacing flowers of the male parent. Flowers are 1 ½ to 2" in diameter. They emerge dark blue and fade to a purple-blue with a white spot in the center of the petals.

They flower profusely from mid June to mid July with a scattering of later flowers. Foliage is dark glossy green. Plants grow to a height of 2' but require staking to support them upright.

Our other exciting selection is a ninebark (*Physocarpus opulifolius*) that has very attractive foliage color. Emerging leaves are reddish pink with a yellow-green base where the leaf blade attaches to the petiole. As the leaves expand, the color changes to red and eventually dark maroon on mature leaves. The plant resulted from a cross between *Physocarpus opulifolius* Diabolo™ by P.O. 'Dart's Gold'.

We are currently propagating both of these new plants so that we can provide propagating stock to nursery growers that we will license to produce them.

*Reprinted from Landscape Plant News, Volume 15, No. 2, 2004.*

## PROGRESS WITH RESEARCH ON NATIVE SHRUBS

**Dr. William R. Graves, Professor  
Iowa State University**

With help from the Landscape Plant Development Center, research is continuing on various North American species of shrubs with potential for increased use in landscapes. These species are predicted to perform well when faced with environmental challenges like shade, high soil pH, and variable and extreme soil moisture. In some cases, the species also are ecologically threatened in their native habitats. For such species, our hope is that the research we conduct will not only impact horticulture but also help with efforts to conserve wild populations. Following are brief updates on the status of research with selected taxa.

### **Indian Cherry** (*Rhamnus caroliniana* or *Frangula caroliniana*)

This native member of a rather notorious genus may merit more use in the landscape if it proves less invasive than its Eurasian relatives. Concern also has centered on which members of the *Rhamnaceae* family serve as alternate hosts for a recently introduced Asian aphid that has attacked soybean fields in the eastern half of the United States. Our recent findings include:

1. Soybean aphids do not choose to overwinter on Indian Cherry; they also ignore members of other genera in the *Rhamnaceae* (such as *Ceanothus americanus*), choosing to overwinter on the invasive *Rhamnus cathartica* and certain other *Rhamnus* spp.
2. Some selections of Indian Cherry are cold-hardy to at least USDA hardiness zone 4b. Near the border of zones 4b and 5a in Ames, Iowa, some plants have overwintered successfully for multiple winters while others have been killed. This illustrates the

importance of selecting specific genotypes for use in northern climates.

3. Indian Cherry is the only species in its genus that I have seen reliably develop good foliage color in autumn in Ames. Plants also develop attractive, horizontally stratified branches. Although the flowers are not showy, fruits of Indian Cherry provide several weeks of color in the summer and autumn. The extent to which the seed in these fruits will cause unwanted spread of the species is unclear but probably will vary depending on location.

### **Leatherwood** (*Dirca* spp.)

The three species in this genus form dainty yellow flowers very early in the spring and reliable yellow autumnal leaf color. But these shade-tolerant shrubs tend to be rare in the wild and difficult to propagate. Research with seeds of the three species has led to reliable strategies to improve germination rates. We also are completing work to compare the species genetically, have initiated an effort to breed Leatherwoods for improved traits, and are studying the ecology of the three species in their native habitats. Among our recent observations is that Leatherwoods regenerate in the wild via rhizomes.

### **Seaside Alder** (*Alnus maritima*)

This rare alder grows in flooded soils in three geographically separated locations in the United States. Seaside alder is the only North American alder that blooms in autumn. And unlike other alders, we have observed autumnal coloration of foliage in Ames. The association of this species with bacteria that fix atmospheric nitrogen gas should lead to a good capacity for plants to thrive on nutrient-poor soils. Our recent findings regarding this species include:

1. Genetic and visually apparent differences exist between plants from the three locations. The most recent publication describing these differences is: Schrader, J.A. and W.R. Graves. 2004 Systematics of *Alnus maritime* (Seaside Alder) Resolved by ISSR Polymorphisms and Morphological Characters. Journal of the American Society for Horticultural Science 129:231-236.
2. The natural population in Oklahoma tends to contain plants that are more attractive than those native to Georgia or the Delmarva Peninsula. We have selected a Seaside Alder from Oklahoma that grew especially rapidly and expressed good ornamental features. For a description of this new cultivar, see: Graves, W.R. And J.A. Schrader. 2004. ‘September Sun’ seaside alder, and autumn-blooming shrub native to North America. HortScience: 438-439.
3. Considering they are restricted to flooded soils in nature, Seaside Alders have shown remarkable resistance to drier soils. See: Schrader, J.A., S.J. Gardener, and W.R. Graves. 2004. Resistance to water stress of *Alnus maritime*: Intraspecific variation and comparisons to other alders. Environmental and Experimental Botany: in press.
4. The capacity for Seaside Alder to form root nodules that house nitrogen-fixing bacteria beneficial to plants is influenced by flooding, but, unlike other alders, this species can sustain functional root nodules under water. See: Kratsch, H.A. and W.R. Graves. 2004. Location and anatomy of nodules on *Alnus maritime* subjected to flooding. Journal of the American Society for Horticultural Science: in press.

*Reprinted from Landscape Plant News, Volume 15, No. 2, 2004.*

## LEADERSHIP MYTHOLOGY

**Gregory P. Smith**

Leadership is probably one of the most talked about business concepts, but the least understood. Leadership is about getting things done and helping people reach their potential. My experiences as a consultant has shown me many organizations do a pitiful job helping people reach their potential. One reason for this is old-fashioned leadership techniques –out-dated leadership concepts or what I call, “leadership mythology.”

A myth is something that is false, but believed to be true. As in many things in life, there are several myths surrounding the concept and practice of leadership. Unfortunately, these myths prevent qualified people from rising to the top. By listing these leadership myths, it is my hope to dispel many of the false beliefs.

**Myth 1 – Leadership is a rare ability only given to a few.** Many people still think leaders are born not made. This can’t be further from the truth. Most people have the potential to become good leaders. Leadership is not like a diet pill. Like most learned skills, it takes time, training, and lots of trial by error. The key ingredient making people good leaders is the ability to care about others. The second ingredient is a sense of purpose, vision or mission. A good leader charts a course and provides direction to those they lead.

**Myth 2 – Leaders are charismatic.** Many leaders are charismatic, but closer scrutiny shows that most leaders are not. Some of the world’s most famous leaders had warts – some sort of shortcoming or personality issue. In a leadership role, people skills are very important – more important than technical skills. However, the best leaders are those who work toward a goal. Your cause, your purpose and

your mission in life will make you charismatic, not the other way around.

**Myth 3 – The person with the title, most rank or the highest position is the leader.** True leadership is not based on position or rank. It is based on action, performance, ability, and effectiveness. We all relate to working for those people who were placed in leadership roles who did more to demoralize and destroy the business than anything else.

The best companies strive to develop and create as many leaders as possible. W.L. Gore & Associates, makers of Gore Tex and other products, have a unique approach to leadership. The practice of natural leadership “leadership by followship.” They don’t appoint people as leaders . . . they let the true leaders surface to the top. People naturally gravitate to those they want to follow, respect, and work with. There are no limiting job descriptions, job titles, and few rules and regulations. If a person comes up with a new idea, he or she puts a team together of people who have the desire and knowledge to make it work.

**Myth 4 – Effective leadership is based on control, coercion, and manipulation.**

Leadership is about the future, not the past. Joel Barker’s has the best quote about leadership, “A leader is someone you would follow to a place you would not go to by yourself.” Good leaders gain followers out of respect and their ability to cause people to work toward a particular goal or achieve a destination. People follow because they can relate to the vision or goal personalized by the leader. A good leader helps people become better than they are. A good leader creates a work environment that attracts, keeps and motivates its workforce.

**Myth 5 – Good leaders have more education than other people.** Educational degrees may mean you have a good education, but it doesn’t

necessarily mean you are a good leader. When it comes to leadership, experience is the best teacher. The U.S. military has the best leadership development program in the world. In the military, you start out at the bottom. You are placed in leadership positions and closely evaluated. As your experience broadens, so does your responsibility. This practical experience is reinforced with weeks and months of formal training throughout the individual’s career.

The secret of success is those years of experience on the front-line. This is where a person learns to manage those interactions, experiences, and conflicts. You learn how to balance the needs of the mission versus the needs of the individual. Those officers and non-commissioned officers who fail to advance must exit the military. The military model of leadership development may not be perfect, but remains unequalled by any other organization.

*Greg Smith is a nationally recognized speaker, author, and business performance consultant. He has written numerous books including his latest, Here Today, Here Tomorrow: Transforming Your Workforce from High Turnover to High Retention. Greg has been featured on television programs such as Bloomberg News, PBS television, and in publications including Business Week, USA Today, Kipliger’s, President and CEO, and the Christian Science Monitor. He is the President and “Captain of the Ship” of a management-consulting firm, Chart Your Course International, located in Atlanta, Georgia. Phone him at 770-860-9464.*  
<http://www.chartcourse.com>

*Reprinted from VNLA Newsletter, May/June 2004.*

**PEOPLE SOLUTIONS COACHING, A  
WAY OF LIFE – QUALITIES OF A  
COACH**

**Bob Coulter, JP Horizons, Inc.**

Every person needs someone that will help them reach the next level of their expertise and whether it's in business, personal growth or sports excellence, "coaches" fill this basic need.

Before legendary Phil Jackson became head coach of the Chicago Bulls there was a tremendous group of individual athletes including Michael Jordan that combined to make a team that had never won a national championship. It wasn't until a great coach came along and helped them see how their individual talents and strengths could combine to make a dynamic team that they experienced true stardom. Jackson made sure Michael Jordan knew that although he was the very best player in the league, he would never play on a championship team without helping the rest of the team reach their potential. And that, of course, is what he did which led him and the Bulls to six NBA National Titles.

Employees are no different from athletes who rely on their coach for direction and a clear vision of what a win looks like and feels like. A great coach will let you know if you are hitting the marks, is there to pick you up when you're down and will make the tough decisions when a player can't see the whole picture in the flow of the game. A coach keeps perspective and helps each team member make the choices, improvements and adjustments that will lead to future success.

The job of a coach is to communicate each individual's connection to the magic of the rest of the team. How can you make the team better without personal recognition and how do you support the team? Does it matter if you do the slam-dunk or feed the pass that makes it

possible? When human nature gravitates to individual glory, the great coach pulls it back to the team.

Another key element of coaching is in building relationships. As a coach in business or sports, you must understand people, see their needs and meet those needs the best you can. You must read the signals that show if a player needs direction or support or reinforcement or a good swift kick. We all need all of these responses at various times and the coaches that guide their teams to greatness consistently know what to say and when to say it.

To be a successful leader or a great coach, you don't need to know or care anything about sports. Coaching is all about building sincere relationships and helping individuals reach their goals so they can help their team win.

### **Dennis Barriball's Coaching Credo: The 4 Keys**

1. People don't change that much.
2. Don't waste time trying to put in what was left out.
3. Try to draw out what was left in.
4. That is hard enough!
  - When selecting someone, select for talent; not simply experience, intelligence, or determination.
  - When setting expectations, define the right outcomes; not the right steps.
  - When motivating someone, focus on strengths; not weaknesses.
  - When developing someone, help him find the right fir; not simply the next run of the ladder.

### **Power of Compliments**

"Lack of criticism is a compliment," the rather gruff plant manager said to me when I asked him how often he says thank you to his employees on the plant floor. From the plant

manager's perspective, the mere fact that he was not criticizing or yelling at an individual was compliment enough for the employees who tried to work for him. After talking with each employee, however, which numbered around 75, the key weakness that they mentioned for the company and plant manager was that they were not appreciated for the work performed. "No one ever says thank you," they said. "No one ever tells me nice job." "No one ever lets me know how I'm doing." From this example and many others that are similar to it across the country with organizations that we work with, it is evident that individuals are dying for appreciation. If this is true, then why don't more people use compliments?

My answer to this is that most people don't understand the art. In mastering the art of complimenting there are a few rules that hold true and have powerful results for everyone involved. The first step in learning to compliment is learning to feel good about yourself. By listening to positive tapes and reading motivational books you can learn to find the good in yourself, which will be followed by finding good in others. Though you may think, "I don't like that positive thinking stuff," I promise you'll like the results.

The next step is to get in the habit of saying the little things that make a big difference. "Good morning," "Great job," and the magic work "Thanks" coming from management or even a co-worker will literally change people's attitudes and productivity.

After you've practiced getting in the habit of saying the "little things" then it's time to remember some basics on becoming an expert good finder, one who sincerely appreciates people and compliments others regularly.

**Rule #1:** Try to compliment face to face with a smile, looking that person in the eye. If this is

uncomfortable, begin by writing a quick note and you might even progress to giving high fives throughout your office.

**Rule #2:** Deliver a compliment as soon after it is earned as possible. Start in the morning by coming in and thanking everyone for being there, “nice job on the report yesterday,” “sales are headed in the right direction,” “thanks.”

**Rule #3:** Whenever possible, deliver a compliment in front of other individuals. It makes you look good in their eyes, as well as adds to the impact of the person being complimented.

**Rule #4:** Compliment a person to someone else, allowing the person being complimented to overhear your conversation. Try this with children and witness the great results.

**Rule #5:** Only compliment qualities and actions you sincerely appreciate. When you are in the habit of looking for good, you will find it.

Considering most individuals feel that no feedback means, “I’m not doing my job well,” then it is a leader’s responsibility to break that pattern, share compliments, and make people feel better about themselves. The more you create good feelings in your staff and teammates, the more positive results you’ll all enjoy. The best reward you can give someone for a great job is to draw attention to it, which creates the habit of excelling again and again.

*Reprinted from VNLA Newsletter May/June 2004. For more info contact: JP Horizons Inc., P.O. Box 2039, Painesville, OH 44077, Phone: (440) 254-8211, Fax: (800) 715-8326, e-mail: [jim@jphorizons.com](mailto:jim@jphorizons.com) web site: [www.jphorizons.com](http://www.jphorizons.com)*

## DIAGNOSING PLANT PROBLEMS

Diagnosis of plant problems is often a difficult task. There can be many different causes for a given symptom, not all of them related to insects or diseases. Soil nutrition and texture, weather conditions, quantity of light, and other environmental and cultural conditions influence the health of a plant.

The most effective approach is to know what questions to ask to narrow down the possibilities. For example, you need to consider recent rainfall and fertilization schedule if you notice brown, dry edges on the leaves of your plants since both dry weather and excess fertilizer can cause such damage. As another example, both excessively dry soil or waterlogged soil can cause the same plant reaction – wilt. Even insect damage can sometimes be confused with plant diseases caused by microorganisms.

### Causes of Plant Damage

Factors causing plant damage can be grouped into two major categories. Living factors include pests (insects, mites, rodents, rabbits, deer) and pathogens (disease causing microorganisms, including fungi, bacteria, viruses, nematodes). Non-living factors include mechanical factors (breakage, abrasions), environmental factors (temperature, light, moisture, oxygen, lightning, wind), and chemical factors (fertilizer or pesticide excess, nutritional disorders).

### Use a Systematic Approach

*Define the problem.* Closely examine the entire plant and others around it. Take note of all the symptoms. For example, if the plant has insects, examine the leaves with insects on them; do they have brown spots, holes, chewed edges? Are they turning pale green or yellow? Is there more than one kind of insect present?

*Look for patterns.* Do other plants have the same problem? Are they all in the same place or in different locations? Are they all the same type of plant? Damage to all different types of plants in a particular spot can indicate non-living factors. Damage to a few species of plants or only to plants of the same species can indicate living factors.

*Examine spread of problem.* Is the problem spreading gradually? This can indicate living factors. If the problem occurred suddenly and remains in a particular spot or on a particular plant, this points toward non-living factors.

*Determine likely cause of damage.* Based on the pattern and spread, decided if the problem is more likely caused by living factors or non-living factors. If living, is the problem a pathogen or a pest?

### **Living Factors**

If disease is a possibility, check the following general guidelines for identifying the different causes of disease:

*A fungal pathogen* often causes round leaf spots, stem rots with a dry/papery texture, concentric rings, discoloration, or wilt. Fruiting structures (sometimes microscopic) may form on affected tissue.

*A bacterial disease* can take the form of galls (swollen areas), irregularly shaped leaf spots, wilting (then yellowing and dying), or rot (often a wet rot).

*A viral pathogen* can inhibit chlorophyll formation, causing degrees of yellowing or mottling, stunting, distortion, or dieback of part of the plant. Viruses usually debilitate rather than kill, as they are parasitic.

*Nematodes* are microscopic roundworms that cause disease-like symptoms. Stem nematodes

feed on stems and cause shortening of internodes. Root nematodes feed underground, damaging the root system; this leads to moisture and nutrient stress which shows up as wilting and stunting. Foliar nematodes cause angular leaf spots.

If an insect problem seems likely, check the following:

A chewing/rasping insect feeds on plant tissue and can cause ragged/chewed or missing leaves (caterpillars, slugs, beetles, grasshoppers), rolled leaves (leafroller), tunnels in between upper and lower leaf surfaces (leaf miners), holes in stems, branches or trunk; sections of tree dying; or premature yellowing (wood borers), girdled or dead stems (cut-worms, twig girdlers, or stem borers), or general decline of plants due to root damage (soil dwelling insects)

A sucking insect feeds on plant fluids and injects toxins into the plant. The toxins can cause leaf spotting or stippling (aphids, leafhoppers, spider mites, other bugs), leaf distortion such as curling or puckering (or more commonly this can be damage from leafhoppers and thrips), or poisoning of entire plants, resulting in stunted growth and/or yellowing (scale, mealybugs, mites, aphids, whitefly).

### **Non-living Factors**

Damage caused by mechanical factors is usually revealed by close visual examination; check for broken or girdled stems or roots, also bruised, punctured, or broken leaves.

Damage due to physical factors often results from environmental extremes. Cold damage is characterized by death of exposed foliage. Container plants are susceptible to cold damage to the root system, characterized by blackened or spongy roots with lack of new growth or root hairs, usually near the container edge.

A rapid change from low light to high light intensity, or vice versa, can cause yellowing of leaves, reduce growth, and leaf drop or death. Too little light can reduce, delay, or prevent flowering.

Excess heat usually causes scorch symptoms on leaf tips and interveinal areas. Portions of leaves shaded by other leaves or leaves on the shady side of the plant, may be undamaged. Frequently, heat damage will occur uniformly over all plants in an affected area.

Drought and waterlogging produce many of the same symptoms on the above-ground parts of the plant, mainly chlorosis (yellowing leaves), abscission (shedding older leaves), and wilt. Waterlogging of the root zone also results in oxygen deficiency, leading to a halt in root growth and metabolism, death of the roots, and wilt.

Damage due to chemical factors – inappropriately used pesticides or excessive rates of pesticides can cause symptoms, such as leaf burn, distortion, chlorosis, or bleaching, depending on the chemical. On a field basis, pesticide or fertilizer damage symptoms frequently are associated with application patterns.

### **Double-Check the Obvious**

It never hurts to look again for obvious problems. Is the stem/trunk badly damaged? Has the plant been sitting in a saucer of water for a week? Has your neighbor sprayed weedkiller lately? Does your cat enjoy fern salad? Is your dog deprived of fire hydrants? Do your children “help” you by cleaning the plants with furniture polish or window cleaner?

*Reprinted from the VNLA Newsletter, May/June 2004.*

## **GARDENING CONSUMER PREFERENCES REPORTED IN SURVEY** **Robert LaGasse, Garden Writers Association**

Four out of five American households have a yard or garden. Southern residents are the most likely to have one and those earning less than \$30,000 are least likely to have a yard or garden. This trend is reported by the Garden Writer’s Association based on an April survey of 1,000 randomly selected American households.

The most popular activities are relaxation and growing plants, flowers or shrubs. More Americans plan to use their yard or garden for entertaining and socializing this year than last. About one-third also plan on using the yard for children’s play areas and another third for food production.

In addition to relaxing, some homeowners have other plans for the lawn. Weed removal is a major priority. Weed control is the most commonly planned lawn activity among American households with lawns or gardens, followed by insect control and over-seeding with new seed. More than ever, Americans with lawns or gardens are most likely to remove the weeds by hand. Treating weeds with chemicals and mulching have also gained in popularity over last year. Households with children are the most likely to seed by hand. More than half of the households plan to mulch their garden waste with a mower or grinder. The remaining common waste solutions are composting, sending waste to the landfills and recycling centers. Younger Americans aged 18-24 are the most likely age group to send their waste to a recycling center.

Size matters more to younger Americans. The vast majority (80 percent) of Americans with a lawn have no plans to change the size of their green expanse this year. Younger Americans 18-44 are more than twice as likely to increase

the size of their lawns than those aged 45 or older. When it comes to lawn care, it is do it yourself or leave it to the pros. In the majority of the households surveyed, the men are the primary caretaker of the lawn, followed by adult women. The next most popular option is to leave the lawn care to the professionals. This is especially true of Americans older than 65. Only 3 percent leave the work to a neighborhood teen.

Consumer spending for container gardening continues to grow. Nearly twice as many Americans this year plan to increase their spending on container plants as compared to last year. The consumers aged 25-44 are the major spenders. Only one in five American households don't use container plants. When it comes to deciding what to plant, past experience with a particular type of plant is a major factor. One in four state that their decisions are mostly influenced by selection and availability in the store or nursery where they shop. The least likely factor to influence a purchase is a recommendation by the retailer. Only 4 percent said it played a role in the decision process. As might be expected, those aged 18-24 are far less likely to rely on past experience and are most influenced by gardening communications, especially an article or picture in a publication.

The *Late Spring Garden Trends Research Report* was funded by the Mantis Division of Schiller-Pfeiffer Co and was conducted by Techometrica Market Intelligence. It is available from the Garden Writer's Association.

Contact Robert La Gasse at 703-257-1032, [www.gardenwriters.org](http://www.gardenwriters.org)

*Reprinted from VNLA Newsletter, May/June 2004.*

## **WEBSITES AND UNDERSTANDING YOUR MARKET**

**Glenn Rieker, BS Landscape Architecture,**

I think quite a few people in our industry are missing the boat with their websites; however, not nearly as much those in our industry that don't even have a website. When I developed our website my goal was to create a website that reflects our business and our values and qualifications. I prefer to write with humor and passion to promote our profession and our business.

I believe I am selling beauty and as such our website is heavy with pictures to show people what we can create and help them envision what they can have. I do include links to companies that we work with, public gardens, and, a story in *USA Today* where I was featured in their section called "Dream Jobs"

I believe you should NEVER advertise on price unless you want to get into that game forever. If you have outstanding plant material, you will develop a following that will pay your price. When we had our garden center we never had a fall sale. We would either call good customers and offer them a few plants that we knew they would like, or donate them to the local Vo-tech club, or create more display gardens. If we were to give away \$2500 worth of plants to outstanding customers that goes a lot farther than spending \$25500 on a year end sale ad. But that's our market. It may not work everywhere else.

We believe in customer service; however, the customers also need to play by our rules. Our Dwarf Alberta Spruces were \$80.00 for a 30/36" size. One customer said well the place up the street has them for \$60.00. My response was of course, why didn't you buy them? And their response was: "Well they weren't as nice."

There will always be customers or contractors looking for a better price on plants. We should not have to lower our prices to meet their expectations. Last year we decided our retail garden center would serve us better as a display garden for our garden construction clients and as a healing garden for our clients and friends with cancer. So we closed the retail center and are in the process of developing extensive gardens to meet these goals. We also realized that people, including myself, have been Walmartized. A lot of people expect independent garden centers to offer the same price as Walmart--not only for plants, but for everything.

Getting a little off the subject, it always amazes me when I see letters to the editor in trade magazines asking how much they should charge per hour for craftsmanship (labor). If Sears can charge \$75.00 to show up including the first 15 minutes and \$18.50 for each fifteen minutes thereafter, why can't we? I feel we have as much if not more training in plants than they do to repair appliances. Of course, it is a little hard to justify such rates if you show up in a torn t-shirts, cut off jeans and a truck that smokes more than Fidel Castro. One of my mentors told me you shouldn't be in business unless your goal is to be the best. In the same breath he also said the second most important thing to remember is humility and being humble.

So I constantly balance the two when talking to clients. Some don't know that I have a degree in Landscape Architecture and more importantly 33 years of working day in and day out in the field. If I get the feeling that a new client is talking down to me during our first appointment, I can just as easily switch to Latin names and technical droning until I see they get my point. Then we can go back to customer-friendly terms. Unfortunately, the perception of garden contractors is that we are backwoods, teeth missing, can't find the shower farm boys and girls. They don't see us using Autocad,

Excel spreadsheets, Nextel, PDAS, mini skid steers, beneficial bacteria and beneficial insects in our daily business. It is about perception and customer service.

I have read the book, *Customers for Life* by Carl Sewell. I don't see my \$10,000 garden construction client as a \$10,000 customer, I see her as a \$150,000 customer for her life. That person who buys \$50.00 worth of perennials five tie a year at your garden center is a \$5,000 customer over 20 years. We should be on our knees asking them what we can do for them.

For our garden construction clients we use a Brother Label system to label the plants we put in for them. We place the label on a metal stake. They think this is for them. Well, it is, but more for me. Instead of them saying, "hey Glenn that green pointy thing doesn't look good." They can say that Japanese Garden Juniper doesn't look well. I know to bring one with to replace it or at least have the right chemical to treat it. Did, I mention I also put our website on this label. The neighbors stop over and their comment is: "My landscaper didn't do that for me."

We also loan our clients a complete portable tripod sprinkler system with the appropriate number of sprinklers, hoses, electronic timers and such to irrigate their project for the first month so they don't have to lug hoses around the sod. (Due to our elevation, cool summers and rocky soil, in ground irrigation is not common, although we do install drip and micro-mist for our clients

It is all about being professional and finding what works in your market. We all need to understand our market and keep true to our values.

*Excerpted from VNLA Newsletter May/June 2004.*

**MAINTENANCE AND REPAIR OF  
INTERLOCKING CONCRETE  
PAVEMENTS  
A GROWTH OPPORTUNITY  
Brian Burton**

According to the majority of experts we spoke to, the maintenance and repair of interlocking concrete pavements (ICP's) has the potential to become an extremely large and profitable sector of the landscape industry.

A recent industry survey revealed that the growth in ICP markets has been quite extraordinary - and shows no sign of slowing down in the future. Over the past five years, for example, the growth in sales in residential and commercial markets has increased by almost 20% each year – reaching an all-time high of over 300 million sq. ft. installed the U.S. in 2003.

**Periodic Maintenance and Upkeep is Essential.** Like any landscaping or construction system, periodic maintenance and upkeep is essential in order to optimize performance and appearance. At the volume of installation activity we're seeing, it's not surprising that demand for maintenance and repair is accelerating rapidly. There is also an increasing demand for the procedures, products and equipment used for the most common maintenance and repair of ICP's. These include procedures for cleaning and sealing, products that address problems associated with the loss of joint sand and the equipment used to effect repairs to areas where settlement or rutting has occurred.

**Routine Maintenance and Repair.** The first sign of spring is the perfect time to check your concrete pavement installations. In this regard, you may want to pay particular attention to chewing gum residuals and oil stains, both of which can be removed with some of the newer

proprietary cleaning products. As a rule, the longer these stains remain, the harder they are to remove. Power washing of ICPs in prominent locations is an excellent way to improve their appearance.

Here are some pointers on what to look for when inspecting ICP installations, and how to make repairs where required.

**Repairing Settlement of Pavers.** In some cases, the combined effects of frequent freeze-thaw cycles, moisture, and the loads from vehicular traffic over time can result in a noticeable settlement of the base, bedding sand, and pavers. A common problem is settlement of individual pavers or groups of pavers near curbs, site fixtures, walls, or at locations where pavers meet other pavement materials.

Settlement is often due to insufficient compaction of base materials in confined areas that were difficult to reach with mechanized compaction equipment during installation. Settlement can also occur when bedding sand or base materials is lost as a result of rainfall. Settlement can occur near downspouts, an area where water flows directly onto the pavers during rainstorms. Fortunately, this is not a permanent defect and can be rectified.

To repair settlement of paving units that have shifted or settled, (and those in close proximity to the shifted pavers), the pavers should be removed and set aside for re-instatement later. If the settlement is minor additional bedding sand can be installed, and the pavers re-instated at slightly higher elevations than their neighbors, and compacted level with the pavement surface.

If settlement is greater remove the bedding sand; fill the depression with aggregate base material and compact. Replace the bedding sand and pavers as previously described. When there are

many cut pavers to reinstall, it's a good idea to number the pavers with chalk prior to removal to facilitate re-installment. When re-installing pavers, keep the joint between pavers tight. After installing the pavers and compacting them, fill the joints with sand and compact the pavers again.

**Removal of Individual Units.** Although cracked or chipped pavers are rare occurrences, accidental breakage occasionally occurs. One of the benefits of ICPs is the ability to remove individual units and replace them with new ones. (At the completion of a new project, the contractor should leave extra pavers at the site for this purpose, thereby avoiding any noticeable variation in color.) Removal can be accomplished by carefully wedging individual pavers out of position using hand tools such as a metal pry bar or screwdriver. Special tools are now available to remove pavers. Removal can be made easier by removing as much joint sand as possible with a putty knife and/or shop vacuum and wetting the joint sand. Begin prying on the short ends of the paver. The paver will rise a small distance with each pry. Once the first paver is removed additional units can be easily removed if required. In some cases the stubborn pavers may need to be broken with a cold chisel to enable removal. Always wear protective eye goggles during this procedure.

**Weed Growth Between Pavers.** Should weeds appear, it may be due to excessive space between pavers. The widened joints may be from lack of a stable edge restraint or loss of bedding or joint sand. When separation occurs and the joint spaces between pavers become enlarged over time, soil can enter the void. This process creates conditions that can support weed growth.

Although weed growth can be controlled by application of herbicides, this maintenance activity will have to be repeated. Unless the

joints widths are tight and the soil between the pavers is removed and replaced with joint sand, and a sealer is applied to the joints. Stabilizing the joint sand with a sealer upon completion of the installation is the best measure for preventing weed growth. (Always use sealers and joint sand stabilization materials that are specifically recommended for concrete pavers.)

**Stablizing Sand.** The joint sand, which fills the small space between ICP's, plays an essential role in long-term performance and appearance. Its presence creates interlock between the neighboring units – transferring vertically applied loads in a horizontal direction by shear forces on the sides of the pavers. Ensuring the integrity of tightly compacted joint sand prevents the units from loosing interlock and moving in isolation to adjacent pavers. When joints are tight and the sand in them is secure, the result is a homogenous, flexible pavement that can be used in a range of applications.

Joint sand, without treatment of one form or another, has a tendency to “disappear” over time as the result of cleaning, traffic, wind, insects, and the combined effect(s) of rain, snow and ice. When this sand is lost it is typically replaced by soil, thereby creating conditions that can result in the growth of moss and/or weeds.

Separation of pavers results in a larger space between the individual units and leads quickly to the permanent loss of joint sand. This sand is quickly replaced by soil and creating an ideal environment for the growth of weeds. The installation of sand stabilizer can eliminate joint sand loss.

As a result of research that was conducted specifically to prevent this problem from occurring in commercial and industrial pavements, several companies have developed a new and innovative “sand stabilizer” that is effective and economical.

These new products have proven to be remarkably effective. In addition to preventing the loss of joint sand the use of stabilizing joint sand minimizes maintenance requirements and improves performance characteristics under heavy vehicle loads.

Most ICP's are designed with spacer "nibs" that help maintain a uniform 1/8-inch space between paver units. This slight gap is just wide enough to enable the grains of sand, (which are applied after placement of the pavers), to penetrate and completely fill this small void.

When applied at the time of installation, the procedure is almost identical to using regular joint sand. The procedure used when applying the product to existing driveways to control weed growth is somewhat more involved. If the contractor determines that removal of pavers is not required, the surface is power washed to ensure that all soil is removed from between the pavers. After this process is complete the pavement is allowed to dry thoroughly. Then the sand is swept across the surface to re-fill the space between the pavers. This installation will permanently eliminate excessive weed growth and help ensure interlock is maintained.

*Brian Burton is a Member of the Standing Committee for Technical Evaluations for the Canadian Construction Materials Commission and a member of the Society of Environmental Graphic Design. To contact the author e-mail [bburton@bba.on.ca](mailto:bburton@bba.on.ca)*

*Reprinted from Free State Nursery and Landscape News, Summer 2004.*

## Pesticide News

### **2004 pesticide safety education training:**

The following dates and times can also be found at: <http://www.udel.edu/pesticide/Cal.htm>

Sept 28 - 29, 2004, Kent Co. University of Delaware Cooperative Extension Office, Pardee Center, Dover

December 14 -15, 2004, Kent Co. University of Delaware Cooperative Extension Office, Pardee Center, Dover.

The first day is training -- 8:30 am - 4:30 pm. Training continues the morning of the second day, 8:30 am - noon. The exam starts at 1:00 pm the second day.

# Research Briefs

## ***Propagation:***

**Use light or ethephon to promote germination of Echinacea.** Low and erratic germination of Echinacea seeds has impaired field establishment and diminished grower profitability. The results of this study indicate that light is required for germination of *Echinacea angustifolia* and *E. pallida* seed. Or light can be replaced by treating seed with ethephon. (L. Qu, X. Wang, J. Yang, E. Hood and R. Scalzo.)

*Excerpted from HortScience 39(5):1101-1103, 2004.*

**Auxin application via rooting substrate can improve rooting response for woody stem cuttings.** Auxins as root-promoting chemicals are typically applied to stem cuttings as a basal quick-dip. Woody stem cuttings can be rooted successfully in an auxin-treated, stabilized organic substrate. Benefits include less employee exposure to concentrated chemical solutions; and greater compatibility with automated productions systems since cutting do not need to be bundled. (E.K. Blythe, J. L. Sibley, K.M. Tilt and J.M. Ruter)

*Excerpted from J. Environ. Hort. 22(2):63-70. June 2004.*

**Rooting oaks using a container layering technique.** Rooting percentages of oaks using a container layering technique were highest when 10,000 ppm of IBA was dissolved in less toxic auxin solvents like acetone and ethanol. Also, 500 ppm GA<sub>4+7</sub> applied every fourth day was most effective in increasing the number of buds growing per cut back stock plant. Interestingly, unlike in cutting propagation, rooting percentages did not decline as the stock plant

aged, at least for 6 years. Lastly, sever cutting back of the stock plant prior to layering improved rooting in shoots originating from the proximal parts of the stem. (J.N. Amisshah and N.L. Bassuk)

*Excerpted from J. Environ. Hort. 22(2):80-84. June 2004.*

## ***Greenhouse Production:***

**Growth regulators control height and spread of ‘Pacino’ sunflowers.** Marketable sized ‘Pacino’ potted sunflower plants were produced with B-Nine foliar sprays (4000-8000 mg/l) or with Bonzi drench doses of 2 to 4 mg a.i . per pot. Cutlass is another growth regulator that has been labeled for ornamental crop use in the USA. B-nine had no effect on plant diameter. Cutlass and Bonzi drenches of 2 mg offer the economic advantage to producers of increased plant density on greenhouse benches, while plants treated B-nine would require a greater amount of bench area. Producers should evaluate the trade-offs between the added costs of a drench applications vs. the higher cost-per-square-foot-week of production space. (B.E. Whipker, I.McCall, J.L. Gibson and T.J. Cavins)

*Excerpted from HortTechnology 14(3):411-414, July-September 2004.*

## ***Container Production:***

**Processed poultry feather fiber containers offer advantages over peat containers.** Processed feather fiber was successfully used as an alternative to peat and paper in making a biodegradable growing container. Containers made from the feather fiber had significant advantages over traditional peat containers, including requiring less water during crop production, higher wet strengths, less algae and fungal growth on the container walls, and a more rapid decomposition rate when planted

into the field. With a decomposition rate of 56-66%, after 16 weeks in the field, little of the feather container remained; thus removal would not be required. (M.R. Evans and D. Karcher)

*Excerpted from HortScience 39(5):1008-1011, 2004.*

**Plant growth is good in poultry feather fiber containers.** Root growth of geranium and vinca was not inhibited by the container walls of either peat or feather containers. Plants grown in feather containers and transplanted into simulated field conditions had dry root and shoot weights similar to those grown in plastic containers that were removed prior to planting. Geranium grown in feather containers had higher dry shoot weights than those grown in peat containers. This result may have been an artifact or the result of additional N being available from the feather container.

Regardless, feather containers could be planted directly into the field, did not impede plant growth, and plants in feather containers performed as well in the simulated field conditions as plants grown in plastic and peat containers. (M.R. Evans and D.L. Hensley)

*Excerpted from HortScience 39(5):1012-1014, 2004.*

**Fertilizer placement affects preemergent weed control in containers.** Controlled release fertilizer (CRF) placement influences weed control with herbicides. Dibbly fertilizers (placement of the fertilizer below the liner rootball while potting) reduced germination of common groundsel and prostrate spurge, and reduced subsequent growth of these species and creeping woodsorrel. Dibbling fertilizer reduced weed establishment and growth across herbicide rates, suggesting herbicide rates could be reduced with changes in fertilizer management. Dibbling fertilizer resulted in similar crop shoot growth compared to

topdressing CRFs, and slightly improved growth compared to incorporating. (J.E. Altland, G.B. Fain, and K.V. Arx)

*Excerpted from J. Environ. Hort. 22(2):93-99, June 2004.*

**Nursery floor affects containerized plant growth.** ‘Skogholm’ cotoneaster were grown on four different nursery floor surfaces—black plastic, black ground fabric over black plastic, white plastic and gravel. Plants grown on white plastic were smaller with reduced N and P efficiencies compared to all other nursery floors in this study. These difference may be accounted for by increased canopy and substrate temperatures in plants grown on white plastic. White plastic or other white surfaces should be avoided as a nursery floor. (S.L. Warren and T.E. Bilderback)

*Excerpted from J. Environ. Hort. 22(2):100-105, June 2004.*

### **Field Production:**

**Shearing date affects growth and quality of Fraser fir Christmas trees.** Although there is a wide window of opportunity for shearing Fraser fir, early shearing (July) yielded fewer leaders, straighter leaders, longer leaders, higher branch density, and longer first- and second-order laterals, compared to late shearing (October). These effects tend to increase quality and retail value. Often, however, trees are not sheared at the optimum time. This if given a choice between shearing in late fall (October) or late winter (March), results suggest that March might be a better alternative. (L.E. Hinesley and S.A. Derby).

*Excerpted from HortScience 39(5):1020-1024, 2004.*

### ***Landscape management:***

**Vermicomposted waste material is not effective as a turf fertilizer.** Vermicomposting is the process of fragmenting organic wastes with certain species of earthworms. Based on the results of these studies, the use of vermicompost as a fertilizer material on established turfgrass is not warranted. The nitrogen contained in vermicompost does not become available to turf immediately, but rather is released over a period of 2-3 months. Therefore, it may be desirable to mix vermicompost into the soil at the time of establishment. (D.S. Gardner)

*Excerpted from HortTechnology 14(3):372-375, July-September 2004.*

**Seasonal effects of transplanting on northern red oak and willow oak.** This study sought to determine the effects of fall vs. spring (November vs. March) transplanting on height and trunk growth of northern red and willow oak and determine when roots resume growth following transplanting. Root growth was not observed within or outside of root balls of fall-transplanted trees of either species until early spring, indicating that while it may be advantageous to transplant these species in fall, it is not due to late fall and/or early winter root growth. Thus, first-season irrigation practices should focus on the root ball and nearby adjacent soil. November transplanting did not result in increased height and trunk diameter growth or red oak. However, November-transplanted willow oaks exhibited greater trunk expansion than the March transplants. Survival of red oak was 100%, however, survival of November- and March-transplanted willow oak was 67% and 83%, respectively. Thus, March may actually be a better time of year to transplant willow oak in climates similar to Blacksburg, VA. (L.E. Richardson-Calfee, J.R. Harris and J.K. Fanelli)

*Excerpted from J. Environ. Hort. 22(2):75-79, June 2004.*

### ***Weed Control:***

**Ground ivy control strategy in cool-season turf.** The results of these experiments suggest the following control strategy for ground ivy in cool season turf. First, the turf site should receive an annual nitrogen application of 196 kg/ha to improve or maintain turf density. Second, applying 1.1 kg/ha isoxaben with or after a postemergence herbicide in the fall will severely curtail regrowth from uncontrolled stolons. Third, a postemergence herbicide product containing 2, 4-D, fluroxypyr or triclopyr should be applied in the fall at the highest labeled rate for a given turfgrass species. Proper nitrogen fertility programming, preemergence herbicide application and postemergence herbicide application can improve ground ivy control. (E.A. Kohler, C.S. Throssell, J.J. Reicher)

*Excerpted from HortScience 39(5):1148-1152, 2004.*

### ***Disease Control:***

**Heritage 50W for powdery mildew and Cercospora leaf spot control on bigleaf hydrangea.** At the 4 oz/gal rate, Heritage 50W was as effective in controlling powdery mildew and Cercospora leaf spot on hydrangea as the industry standard (Eagle 40W) and superior to Cleary's 3336. Heritage 50W rates as low as 1 oz/100gal significantly reduced the incidence of powdery mildew on hydrangea. When applied on a 3-week schedule, Heritage 50W failed to consistently provide effective control of powdery mildew. To insure effective control of powdery mildew on bigleaf hydrangea, application of the 1-4 oz/100 gal rates should be made at no longer than 2-week intervals.

Exclusive use of Heritage 50W or alternating applications with a related fungicide such as Compass O over an extended period of time, particularly in a nursery or greenhouse will result in a control failure due to resistance. To safeguard efficacy, Heritage 50W should be used no more than 1/3 of the total number of applications in a disease management program on any ornamental crop and no more than two consecutive applications of a fungicide in this class should be made. When tank-mixed with a fungicide that has a different mode of action, Heritage 50W application may total up to ½ of those made to a specific ornamental crop. SunSpray Ultra-Fine Oil also has good activity against powdery mildew and would be an effective alternative to synthetic fungicides or be a rotation partner in a resistance management program. (A.K. Hagan, J.W. Olive, J. Stephenson and M.E. Rivas-Davila)

*Excerpted from J. Environ. Hort. 22(2):58-62. June 2004.*

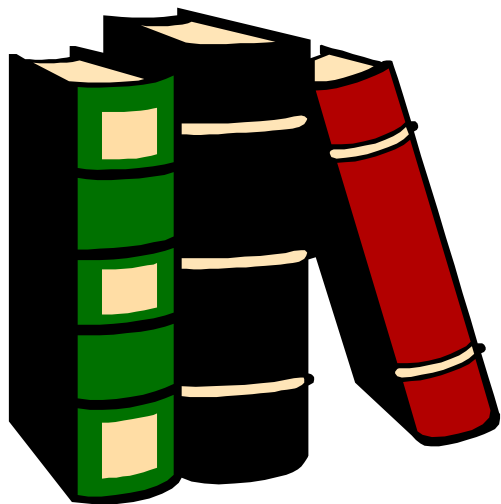
## Publications

**Arboretum America** by Diana Beresford-Kroeger, forward by Edward O. Wilson, photographs by Christian H. Kroeger, University of Michigan Press, \$24.95. This illustrated guide to native trees of the North American continent offers an informative and entertaining blueprint for rebuilding the biosphere. Beresford-Kroeger's "Bioplan" covers all aspects of trees, from their history and use by Native Americans, to their organic care, medicinal and therapeutic properties, design and horticultural considerations. For information, visit [www.press.umich.edu](http://www.press.umich.edu).

**Recommended Urban Trees: Site Assessment And Tree Selection For Stress Tolerance** by Nina Bassuk, Deanna F. Durtis, Maribea Marranca, and Barbara Neal, Cornell Cooperative Extension, \$16.95. This 127-page book is designed to help facility managers to determine which trees are most appropriate for their urban situation. Profiles of species and numerous cultivars of small trees suitable for planting under overhead utility wires or in restricted space are featured as well as 57 medium to large trees that do well in city environments. A complete site assessment and transplanting guide, USDA plant hardiness zone map, and a soil moisture and pH chart are included. To order, visit [www.cce.cornell.edu/store](http://www.cce.cornell.edu/store), or email [resctr@cornell.edu](mailto:resctr@cornell.edu), or call 607-255-2080.

**Hydrangeas For American Gardens**, Timber Press to release two new hydrangea publications by Michael Dirr and **ENCYCLOPEDIA OF HYDRANGEAS**, by C.J. van Gelderen and D.M. van Gelderen, are scheduled for release in June 2004 and August 2004, respectively. In *Hydrangeas for American Gardens*, famed woody plant expert Michael Dirr offers his full range of personal growing experience to the

reader, describing the selection, care, and culture of hydrangeas. Gardeners and growers seeking the complete line-up of hydrangeas will find everything they need in *Encyclopedia of Hydrangeas*. This substantial work by authors and respected nurserymen C.J. and D.M. Gelderen, covers 1,000 hydrangea species, subspecies, varieties, and cultivars, and has nearly 800 photography. For more information contact: Timber Press (800)327-5680 or visit [www.timberpress.com](http://www.timberpress.com).



## Calendar

**September 18** – Invasive Plants identification and management, Longwood Gardens, Kennett Square, PA (610)388-1000, [www.longwoodgardens.org](http://www.longwoodgardens.org)

**September 21** – Greenhouse and Interiorscape Pest Management, Longwood Gardens, Kennett Square, PA. (610)388-1000 Ext. 507, [www.longwoodgardens.org](http://www.longwoodgardens.org)

**September 23** – Scott Arboretum Evening Lecture: “Greening the Concrete Jungle,” at The Scott Arboretum of Swarthmore College, Swarthmore, PA. Judy Zuk, President and Chief Executive Officer of the Brooklyn Botanic Garden and former Director of The Scott Arboretum, will use BBG as an example to illustrate the part public gardens play in protecting open space and biodiversity; in environmental education and advocacy; and the therapeutic way gardens contribute to the quality of life in the city. For information, visit [www.scottarboretum.org](http://www.scottarboretum.org).

**September 23** – Nursery and Garden Center Tour, Eastern Shore of Maryland and Delaware. Contact: Dave Suchanic (610)489-4315 for more information.

**September 28** – Fertilizing Greenhouse and Nursery Crops taught by Jay Windsor and Gordon Johnson from 7-9 PM at Research & Education Center. Contact Dot Milsom, 302-831-2531.

**September 28-29** – Pesticide Training, Kent Co. University of Delaware Cooperative Extension Office, Pardee Center, Dover. The first day is training -- 8:30 am - 4:30 pm. Training continues the morning of the second day, 8:30 am - noon. The exam starts at 1:00 pm the second day. For more information visit <http://www.udel.edu/pesticide/Cal.htm>

**September 30** – Trees in Your Community, White Oak Road Parks & Recreation Center, Dover, DE. Contact Bryan Hall (800) 282-8685 or 302-739-4811.

**October 4-8** – Tree Climbing School, Ridley Creek State Park, Media, PA. Contact Cheryl Bjornson (610) 696-3500, ext. 20.

**October 12, 14, 19, 21** – Pesticide Short Course – preparing Spanish speaking professionals to take the certified pesticide applicator’s exam. Neshaminy Manor Center, Doylestown, PA. Contact Nancy Bosold or Scott Guiser (215) 345-3283.

**October 15** – Perennial Plants Conference, Scott Arboretum, Swarthmore College, Swarthmore, PA – 8am – 4:15pm. Call (610)388-1000, Ext. 507.

**October 19** – Certified Nursery Professional Exam. DE Dept. of Agriculture, Dover, DE. Contact Valann Budischak at (888) 448-1203.

**October 19** – Landscape Design for Delaware taught by Sue Barton from 7-9 PM at Kent County Extension Office, contact Dot Milsom 831-2531.

**October 21 and 22** – 13<sup>th</sup> Annual Pennsylvania Urban and Community Forestry Conference, Tofrees Resort, State College, PA. Contact Dr. Bill Elmendorf or Carol Leitzell at (814) 863-7941.

**October 25-29** – Horticulture Short Course, Montgomery County, 4-H Center, Creamery, PA. Contact: Mary Concklin, (610)489-4315 for more information.

**October 27** – 2004 Horticulture Short Course for Spanish Speaking Employees. Montgomery County 4-H Center, Creamery, PA. Contact Mary Concklin (610) 489-4315.

**November 5** – Where the Roots Hit the Curb: Urban Tree Plants – Toward Best Practices, Franklin Institute Science Museum, Philadelphia, PA. Contact Penn State Extension 610-489-4315.

**November 17** – Turf and Ornamentals Workshop, Hockessin Fire Hall, Hockessin, DE. Contact Valann Budischak 610-274-2166.

**December 14-15** – Pesticide Training, Kent Co. University of Delaware Cooperative Extension Office, Pardee Center, Dover. The first day is training -- 8:30 am - 4:30 pm. Training continues the morning of the second day, 8:30 am - noon. The exam starts at 1:00 pm the second day. For more information visit <http://www.udel.edu/pesticide/Cal.htm>

**January 12-13** – Delaware Horticulture Industry Expo and Pesticide Conference. Modern Maturity Center, Dover, DE. Contact Valann Budischak 610-274-2166.

