

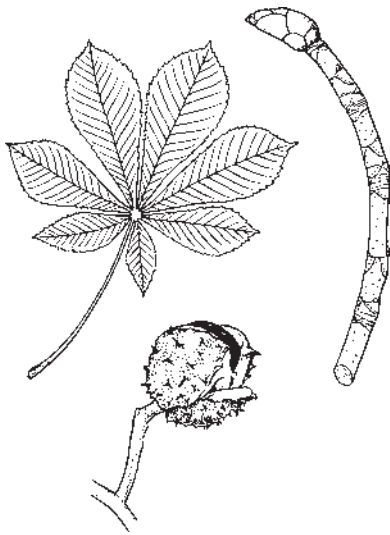
PLANT & PEST ADVISORY

LANDSCAPE, NURSERY & TURF EDITION \$1.50

SEPTEMBER 11, 2003

Plant Diagnostic Laboratory Highlights

Richard J. Buckley, Laboratory Coordinator



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Turf

In the three weeks since the last newsletter, things on the turfgrass front have slowed down considerably. Every year about this time, golf course superintendents give up the ship and commence with aerification and renovation procedures. This creates a lull in submissions, but fortunately, it does not stop them! Early in the period things were very dry, but as Labor Day passed, we had another deluge of rainy weather. All of the humidity and rain kicked up the **brown patch**. The disease was diagnosed on a number of samples from golf courses in Morris, Somerset, Bergen, Passaic, and Middlesex Counties, as well as from residential lawns in Middlesex and Somerset Counties. **Summer patch** was the other disease of note in the laboratory recently. Samples of golf turf with **summer patch** were submitted to the laboratory from Long Island (fine fescue) and Illinois, and from Middlesex and Monmouth Counties in New Jersey. We often see a surge in **summer patch** submissions at this time of year as preventive fungicide applications made in late-July wear off and susceptible grasses wear down in the dog days. Oh yea, can't forget to mention the obligatory **anthracnose** samples! We had **anthracnose** from California, West Virginia, North Carolina, and Monmouth, Mercer, Burlington, Bergen, and Union Counties in New Jersey.

Landscape

As the turf samples begin to wane, the ornamentals start to pick up steam again. Shade trees with **anthracnose** continue to be common submissions into September. White, pin, and scarlet oaks were submitted from Bergen, Mercer, and Middlesex Counties with the disease. Sugar maple samples were submitted from Somerset, and Hornbeam was sent from Mercer County with **anthracnose** as well. We have also had a run on juniper samples with **juniper tip blight**, caused by the fungus *Kabatina*. *Kabatina* attacks in mid-year through wounds. Most of the juniper samples also had plenty of **spruce spider mites**. Have you seen the **bagworms**?! Central New Jersey is having an epidemic **bagworm** year. The damage to Douglas fir and spruce has been spectacular. At this point, it is getting late for insecticide treatments, so the best bet is to continually search for and manually remove the overwintering bags. Each bag could contain nearly 1000 eggs, so get as many as you can. Next June monitor your hot spots for new hatchlings and treat with

SEE LAB HIGHLIGHTS ON PAGE 5

Diseases of Turfgrass

Bruce B. Clarke, Ph.D., Specialist in Turfgrass Pathology

Stripe Smut

This disease, caused by the fungus *Ustilago striiformis*, will soon develop on sensitive Kentucky bluegrass varieties. Symptoms typically appear as long black streaks (striations) between the veins of infected blades. These areas eventually rupture releasing abundant black smut spores. Research at Rutgers has shown that one well-timed application of a systemic fungicide in early to mid-October offers excellent control and is, therefore, far superior to multiple applications in the spring (mid-May). For best results, apply Banner, Bayleton, Cleary 3336, Eagle, Fungo, or Rubigan, now per manufacturer's recommendations.

Take-all patch

This disease, caused by the root and crown infecting fungus, *Gaeumannomyces graminis* var. *avenae*, may redevelop on bentgrass greens and fairways during the next few weeks. Although this disease is most prevalent from April through June, late-summer and fall outbreaks are not uncommon. Infection takes place during cool, wet weather and symptoms are most striking after stress. Infected grass first appears bronze to reddish-brown in color and then fades to a dull brown. Patches are usually circular or ring-shaped and range in size from several inches to two feet or more in diameter. The centers of affected turf are frequently colonized by bluegrass (*Poa* spp.), fescue (*Festuca* spp.), or weed species. Upon close examination, decaying roots and leaf sheaths appear black and dark strands of mycelium often develop parallel to the root axes. The disease is enhanced by poorly drained, light-textured, and high pH soils. Although take-all is difficult to control, best results have been achieved through the use of acidifying fertilizers during cool weather (e.g., ammonium sulfate) and preventive applications of Banner, Bayleton, Heritage, or Rubigan in October and November. If the disease has been particularly severe, fungicides should be reapplied twice next spring at 21 to 28-day intervals beginning in early April. Chemicals should be applied in 4 gal water/1000 sq ft or irrigated into the root zone (1/8 to 1/4" of water) for maximum effectiveness. Whenever practical, overseed infested areas with less susceptible grasses such as fine fescue, Kentucky bluegrass, or perennial ryegrass to mask symptom expression. Maintain soil pH at approximately 6.0 since the disease is enhanced in alkaline soils.

Turf Expo

This year's Turf Expo will be held at the Trump Taj Mahal Casino/Resort on December 9-11, 2003. This is an excellent opportunity to receive the latest turf management information from nationally renowned speakers. For additional information, please contact Bea Devine at (732) 821-7134. □

Diseases of Landscape Ornamentals

Ann B. Gould, Ph.D., Specialist in Plant Pathology

End of Growing Season Notes

The weather during the growing season this year was unusually cool and wet for extended periods, especially during the spring. Since so many pathogens attack foliage during the early season months, diseases such as leaf spot and anthracnose were very common. Still evident in the landscape are **dogwood anthracnose** (*Discula* and *Elsinoe* species); **leaf spot** and **twig blight** on various hosts; **anthracnose** (maple, oak, sycamore, plane tree, ash, birch, hornbeam); and horsechestnut and hickory **leaf blotch**. To manage leaf spots and anthracnose next year, rake away fallen leaves this autumn. This helps to remove a source of inoculum (or the source of the disease) next growing season.

Also troublesome this year in greenhouse and nursery crops was **Botrytis blight** (also known as gray mold) on Kousa dogwood, ericaceous plants, and various bedding plants. Incidence of **Phytophthora root rot/crown canker** on rhododendrons and some *Prunus* species increased toward late summer, and there is *Pythium* in the new mum crop.

Powdery mildew is still evident on many landscape trees and shrubs. Powdery mildew is a very common disease and is caused by fungi that grow on the surface of leaves. This growth is evident as "powdery" spots or mats on tissue surfaces. Hosts commonly affected by powdery mildew include ash, azalea and rhododendron, flowering dogwood, elm, lilac, oak, and rose. In most landscape trees and shrubs, powdery mildews do little harm to the host. Refer to the July 24th issue of this newsletter for more information.

Symptoms of **Bacterial leaf scorch of oak**, usually very prevalent this time of year, are only now developing on affected trees. This is most likely due to the cold temperatures of last winter and abundant rainfall during the growing season. The cold winter temperatures served to reduce populations of bacteria within infected trees, and adequate hydration this summer helped trees better tolerate infection.

Although moisture levels in New Jersey are normal, it is still important to remember that landscape trees were still severely stressed in previous years by drought. Indeed, the root systems of affected trees and shrubs are not out of the woods – it often takes trees 5 or more years to recover from the effects of a severe drought. Not only does drought stress impact the immediate growth and development of plants, it also predisposes them to other diseases (especially **cankers** and **Armillaria root rot**) and insect pests (such as **borers**). Keep this in mind during the next few years when monitoring landscape trees and shrubs for plant health. □

Damaging Exotic Stinkbug Enters New Jersey

George Hamilton, Ph.D., Specialist in Pest Management and
Peter Shearer, Ph.D., Specialist in Tree Fruit Entomology

The brown marmorated stinkbug, *Halyomorpha halys* (Stål) was first detected in Allentown, PA in 1996. Since that time it has spread throughout Lehigh, Northampton, Monroe and Pike Counties in Pennsylvania and occurs in large numbers wherever it is found. It was first detected here in New Jersey from a blacklight trap located in Milford (Hunderton County) in 1999. In 2002 it was again collected from a blacklight trap, in Little York and Phillipsburg and from plants in Stewartsville (Warren County). In addition, a homeowner from south-eastern Morris County brought an unknown stinkbug into the Morris County Cooperative Extension Office for identification. It was later confirmed as *Halyomorpha halys*. These reports are evidence that the insect is firmly entrenched in New Jersey and spreading.

This stinkbug has a large host range that includes peaches, plums, pears, raspberries and many ornamental plants including maple trees. This insect could become a serious agricultural pest. *Halyomorpha halys* is also a nuisance pest. It exhibits behavior similar to the Asian ladybird beetle and boxelder bug. Every fall, adults leave their host plants looking for hibernation sites. Unfortunately our homes provide a perfect place to spend the winter. This behavior can result in hundreds of adults aggregating on the sides of houses in late September and early October.

Halyomorpha halys adults can be distinguished from other stinkbugs by their large size (17 mm) and brown coloration (see photo). Adults also have characteristic whitish antennal segments, dark bands on the overlapping part of the rear wings and patches of coppery or bluish metallic-colored punctures on the head and pronotum (shield just behind the head). Juvenile *H. halys* are similar to adults but have very pronounced light and dark banding on the legs and antennae and reddish eyes (see photo).

Should you come across this insect or similar looking stinkbug please contact your local county cooperative extension office or the Rutgers Cooperatives Extension pest management office by phone (732-932-9801) or email (Hamilton@aesop.rutgers.edu). □



Brown marmorated stinkbug

Ornamental IPM Notes

Steven K. Rettke, Ornamental IPM Program Associate

✓ **Start-UP IPM Programs should not attempt too much too soon:** An over commitment to IPM too early can lead to financial risks and poor results. Most beginning programs should probably start slowly the first year and on only a small percentage of the total client base (i.e., perhaps only 5% or less). This conservative approach is particularly important if doubts and reservations exist about the success and profitability of the IPM philosophy. As confidence and knowledge increase over the years, then the percentage of total clients having their landscapes managed with IPM methods can and should gradually increase.

✓ **Redheaded Pine Sawfly:** These caterpillar-like pests will be active through mid-October on 2 and 3 needle pines (e.g., mugo, Scots, Japanese). Larvae feed in groups on individual branches and may cause defoliation. Prune out clusters of small sawfly larvae or drench with soap. Oil can be effective on young instars. Orthene also works well.

✓ **Indicator Weeds:** The presence of a weed in the lawn may be an indicator of conditions favoring the weed, vs. the turf. Consider changing the environment to promote turf. Some examples: Poor fertility soil = *plantain, chickweed, spurge*; Poorly drained soil = *smartweed, mustards, moss*; Compact soil = *mustards, fall panicum, crabgrass, bindweed*.

✓ **Armored Scales:** Euonymus, Elongate Hemlock, Pine Needle, Juniper, White Prunicola, Pine Oystershell, Obscure, and Oystershell are all examples of armored scales that should be monitored during the fall and winter. Look for the hard, gray scale covers of the overwintering adult females on twigs, branches or trunks. Dormant oil control sprays can be helpful, but are not as effective on armored as compared to soft scales. When infestations are very high, the scale populations may be lightly brushed off of the trunk and branches, or simply pruned out.

✓ **Witches' Brooms:** The development of witches' brooms on woody plants and the resulting formation of abnormal growth can cause curiosity and concern to your clients. Typically, the new growth is distorted and a proliferation of leaves or fruit/cones closely clumped together appears when apical dominance is lost. Witches' brooms are created on plants when the transfer of growth hormones is disrupted (perhaps caused from the introduction of a foreign substance). Insects (e.g., aphids), fungi, bacteria, phytoplasmas, and herbicides have all been implicated in causing the formation of witches' brooms in a large number of plant species. It is interesting to note that sub-lethal doses of glyphosate (Round-Up) when applied late in the season can cause

witches' brooms on new plant growth the following spring.

✓ **Is it necessary to control Cooley Spruce Gall Adelgids within nurseries and Christmas tree farms every year?** : The damage done to Douglas firs from the Cooley Spruce Gall Adelgid (CSGA) is typically a major concern within both nurseries and especially Christmas tree farms. The distortion and white webbing on infested needles of the Douglas fir is aesthetically unacceptable to the buyer. Nevertheless, studies have shown that this pest does not affect growth and vigor of the trees. Also, the feeding injury by the CSGA does not cause premature needle drop. In production settings the appearance of the ornamentals to be sold is not critical until the year of sale. Therefore, it only becomes necessary to apply control materials against the CSGA until a season or two before the projected year of sale. Two seasons of undamaged needles will more than adequately mask the damage done to the inner foliage during previous years.

The Colorado spruce (especially the blue colored forms) is the alternate host of the Cooley Spruce Gall Adelgid. The feeding by the insect produces a gall that forms at the twig terminals and makes pruning-out of the "pineapple" shaped galls relatively easy. The gall formations begin in the spring during twig elongation. During June, the green colored galls may grow to a size of two inches in length. By July, the galls begin to open up and typically become brown in color. Removing and disposing of the galls before they open can provide effective physical controls.

✓ **Dormant Oil Treatments:** Dormant oils at 2-4% rates in the late fall season can aid in the control of overwintering insects and insect eggs. Consider treating for such pests as southern red mites/eggs, spruce spider mites/eggs, eriophyid mites, spruce gall adelgids, lacebugs (deciduous plants), cankerworms (eggs), leaf tiers, psyllids, plant bugs, etc. Some landscapers have been successful applying both late fall and early spring dormant oil treatments to the same plants on the same properties. This is a reasonable approach since a single dormant oil treatment will not provide 100% control and it gives the field technician another opportunity to monitor the landscape for problems.

Nevertheless, dormant oil controls have some limitations. It is important to note that early spring dormant oils may often provide superior results and possibly with better plant safety. Furthermore, two-spotted spider mites do not overwinter as eggs, but as adults in the soil duff under the plant. Therefore, dormant oil sprays in late winter or early spring will not be effective against this mite. Numerous studies indicate the level of armored scale suppression with dormant oils may not be significant. Generally, dormant oil applicators need to remember that their treatments rarely give 100% control, and in some situations may actually provide poor results against many targeted pests.

SEE IPM NOTES ON PAGE 5

IPM NOTES FROM PAGE 4

Remember: For best results apply your dormant oil sprays to targeted areas that have been scouted for pests. Avoid the common tendency of applying blanket dormant oil treatments to large block areas that may only possibly contain susceptible pests. Blind, blanket sprays of dormant oils will unlikely achieve adequate coverage to provide satisfactory controls.

✓ **Establish an IPM Monitoring Calendar and Time Schedule:** Many pest problems (insects/mites & diseases) are host specific. As a result, many potential problems on specific plant species can be predicted to occur during certain times of the year. To refine scouting activities, a monitoring calendar for each site can be established that will contain the time of the season key pests may occur on key plants. This information will determine the time of year when monitoring visits for individual sites will be most beneficial and how often the visits are required.

The classic IPM time schedule for ornamental monitoring usually involves one late winter or dormant visit. During the first half of the growing season (late April to mid July), monitoring visits should ideally occur at two-week intervals. During the second half of the season, monitoring visits typically can be reduced to perhaps one per month.

A customized monitoring schedule is often less rigid than the classic schedule above and can be more practical. It will be determined by the site and what the customer can afford. Furthermore, the first-hand experience of the field technician working on the site should help determine how often the site needs to be visited during the year. *Keep written records of this information for each site.*

✓ **Aphids:** Cooler temperatures and rain may lead to an increase in aphid populations. Keep in mind that many insect predators and parasitoids remain active into the fall season and can effectively suppress aphids. For example, syrphid flies (also known as hover flies) prefer cooler fall temperatures and continue activity after lady beetles and lacewings have entered dormancy.

✓ **Customer Landscape Preferences:** A few years ago a published research project looked at how much value consumers placed on a good landscape. Results showed that plant size was the most important factor in the perceived value of a landscape. Increasing from the smallest to largest size plant during installation increased perceived value by 5%. Design sophistication was almost as important as plant size. Upgrading from a traditional foundation planting to include multiple bed and curved bed lines increased perceived home value by 4.5%. The relative value of plant material selected was the least important. (Reference: *Hardy et. al., J. Env. Hort. 18(4): Dec. 2000*)

✓ **Boxelder Bug Hosts:** Boxelder bugs are dark sucking insects with red wing markings/abdomens that build up large populations in late summer/early fall.

Boxelder bugs are considered to be a nuisance pest because of their habit of gathering in large numbers in sunny southern locations (such as your front door) as well as overwintering inside dwellings (such as your attic). Many older publications state that the sole plant reproductive host of the boxelder bug is the female boxelder tree (a type of maple that often grows wild). Control measures were targeted at finding and removing this plant host, although this often resulted in poor long-term control.

For over a decade there have been many reports of boxelder bugs feeding and breeding on different plants. The following is a list of plant hosts documented as a food source for boxelder bugs: apple, cherry, plum, peach, pear, grapes, almond, pistachio, strawberry, tulip, ash, pin oak, tree of heaven (*Ailanthus*), mulberry, elderberry, iris, hollyhock, peony, asparagus, ampelopsis, geranium, cacti, lilies, coleus, ageratum, pigweed, crabgrass, and foxtail grass. (Reference: *R. Rosetta, Oregon State; D. Sheltar, Ohio State*) □

Editor's Note: The remaining issues of the 2003 season Landscape, Nursery & Turf edition will be monthly through November.

LAB HIGHLIGHTS FROM PAGE 1

Bacillus thuringiensis at that time. Speaking of epidemics, **fall webworms** are having a nice year, and we just got our first phone call about **orangestriped oakworm**. Other diseases of note include **Cytospora canker** on maple samples submitted from Middlesex County; **cedar-apple rust** from a resident of Union County; **powdery mildew** on lots of things from lots of places; and a **leaf and stem blight** of boxwood caused by the fungi *Volutella* and *Macrophoma* from a Mercer County landscape. □

WORKSHOP REGISTRATION FROM PAGE 7

- American Express cards are accepted. Please have your credit card information ready.
3. By Fax: Fax your registration, including credit card information to (732) 932-8726. For non-credit card payments, include a copy of your check, money order or purchase order with your fax registration. (Payable to: Rutgers, The State University of New Jersey).
 4. By Mail: Mail your completed registration form, including your credit card information or a check, money order or purchase order to: Registration Desk, Cook College Office of continuing Professional Education, Rutgers, The State University of NJ, 102 Ryders Lane, New Brunswick, NJ 08901-8519.

Don't Miss Out On This Great Learning Opportunity To Grow Your Greenhouse Business. □

Calendar of Events

September 17, 2003 – Nursery Disease and Water Management Twilight Meeting, 5:00 – 7:00 pm, Loew's Nursery, 20 Cake Road, Bridgeton, NJ. Speakers: Dr. Gladis Zinati, Dr. Ann Gould and Dr. George Hamilton of Rutgers Cooperative Extension. NJ Pesticide Units 1-Core, 1 – PP2, 1-2A. Cost: No charge. Contact: Jim Johnson at RCE of Cumberland County at 856-451-2800.

October 2, 2003 – 2003 Sports Turf Workshop, 11:00 am – 3:30 pm, Rutgers Snyder Research and Extension Farm, Pittstown, NJ. Sponsored by Rutgers and Sports Field Managers Association of NJ. Contact: John Grande, Rutgers Snyder Farm at 908-730-9419.

October 4, 2003 – If Plants Could Talk, gardening TV series at 12:30 pm on NJN Public Television. Join us as

we tour the beautiful Rutgers Gardens to get some tips on which plants will add fall interest to our landscapes. We'll also offer some simple steps to take to aid in preventing garden problems next season.

October 20, 2003 - Greenhouse Management: Cost Accounting and Crop Production Workshop, 8:30 am - 4:00 pm, Cook College Campus, New Brunswick, NJ. Cost: \$15 (includes lunch, handouts; the cost accounting software will be provided for free). Contact Keith Wilson at 732-932-9271 ext. 617 or via e-mail at kwilson@aesop.rutgers.edu.

December 9 – 11, 2003 – Turfgrass Expo, Trump Taj Mahal, Atlantic City, NJ. Contact Bea Devine at 732-821-7134.

Weekly Weather Summary

Keith Arnesen, Ph.D., Agricultural Meteorologist

Temperatures averaged near normal. Extremes were 84 degrees at Seabrook and Cape May Courthouse on the 3rd, and 45 degrees at Charlotteburg on the 7th. Weekly rainfall averaged 1.92 inches north, 1.81 inches central, and 0.98 inches south. The heaviest 24 hour total reported was 2.91 inches at Toms River on the 4th to 5th. Estimated soil moisture, in percent of field capacity, this past week averaged 96 percent north, 91 percent central and 77 percent south. Four inch soil temperatures averaged 66 degrees north, 69 degrees central and 73 degrees south.

Weather Summary for the Week Ending 8 am Monday 9/ 8/ 3

WEATHER STATIONS	RAINFALL			TEMPERATURE				GDD BASE50		MON %FC
	WEEK	TOTAL	DEP	MX	MN	AVG	DEP	TOT	DEP	
BELVIDERE BRIDGE	2.02	37.70	12.22	83	50	65.	0	2511	192	91
CANOE BROOK	1.96	34.55	7.83	83	52	67.	1	2618	277	94
CHARLOTTEBURG	1.98	36.42	9.43	80	43	60.	-3	2024	163	92
FLEMINGTON	1.81	33.28	7.62	80	50	64.	-2	2454	52	89
LONG VALLEY	1.92	31.84	4.07	74	40	61.	-3	1949	-119	93
NEWTON	1.89	33.58	8.66	80	49	63.	0	2267	155	91
FREEHOLD	1.30	27.93	2.93	80	53	67.	-1	2655	116	88
LONG BRANCH	1.26	29.90	4.56	80	56	67.	-1	2484	3	80
NEW BRUNSWICK	1.62	31.33	6.02	81	54	66.	-3	2619	-58	89
TOMS RIVER	3.59	32.40	6.51	82	53	69.	-1	2652	176	82
TRENTON	1.29	25.88	1.90	80	53	67.	-2	2594	-179	84
CAPE MAY COURT HOUSE	.43	24.81	2.41	84	53	71.	0	2572	97	71
DOWNSTOWN	1.31	26.97	3.34	81	52	70.	1	2720	-61	85
GLASSBORO	1.33	28.05	3.35	80	49	69.	0	2862	103	86
HAMMONTON	1.23	23.85	-.84	82	53	71.	2	2841	80	76
POMONA	.44	22.75	.09	83	53	71.	3	2695	120	49
SEABROOK	1.11	28.75	6.11	84	55	71.	2	2932	136	66
SOUTH HARRISON	1.57	25.60	1.30	81	56	71	NA	2844	NA	NA
WES KLINE — GDD BASE 40 PINEY HOLLOW										
Last Week	248									
This Week	212									

NJ Information Network for Pesticides & Alternative Strategies

Patricia D. Hastings, Program Associate,
Rutgers Cooperative Extension Pest Manage-
ment Office

The **New Jersey Information Network for Pesticides & Alternative Strategies** (NJinPAS) is part of a grant-funded network designed to provide a structure to gather and transmit information on issues relevant to both current and transitional pest management strategies. Dr. George Hamilton, Specialist in Pest Management is the Coordinator of this program.

One of the key elements of this program is expedited delivery to New Jersey stakeholders of more timely pesticide-related information (such as regulation advisories, requests for comment, voluntary pesticide cancellations, pesticide security alerts, NJDEP WPS enforcement initiatives). So, NJinPAS set up and maintains nine listservs for growers, crop consultants, pesticide users, public interest groups, environmental groups, and Extension faculty and staff. There is a Network listserv for more general postings, plus 8 additional listserv subgroups for more specific distribution, including regulation notices or pesticide advisories. It is set up so that if you are on more than one listserv, you will not receive multiple postings. The information provided typically augments rather than duplicates the information you receive in the Plant & Pest Advisory, and it is maintained throughout the year.

The nine separate listserv categories for *open* enrollment are:

- Network;
- Institutions & Interiors;
- Mosquito;
- Fruit;
- Turf, Ornamentals, Greenhouse, & Nursery;
- Field & Forage Crops;
- Vegetables;
- School IPM; and
- Forests & Xmas Trees.

Contact Pat Hastings at 732-932-9801 if you would like to enroll. Or, you can enroll online at: <http://www.pestmanagement.rutgers.edu/NJinPAS/listservs.htm>.

There is an online archive of all open listserv postings made since October 2001; see: <http://www.pestmanagement.rutgers.edu/NJinPAS/listservpostings.asp>. You may choose to view postings by date, title, listserv posted, or by topic. Better yet, you can do a **word search** of the titles and topics. So for example, you can look for a specific pesticide, crop, or agency. □

Greenhouse Management: Cost Accounting and Crop Production Workshop

Monday, October 20, 2003

8:30 am - 4:00 pm

Cook College Campus, New Brunswick, NJ

Sponsored by: CSREES/USDA and the Northeast Center for Risk Management Education, Rutgers Cooperative Extension in cooperation with The Cook College Office of Continuing Professional Education

Is your greenhouse business growing GREEN (\$\$) or RED (INK)? Do you really know for sure or do you wait for your accountant to tell you?

The first part of this workshop is a software training session designed to help you better manage your greenhouse costs. During the morning session, Dr. Robin G. Brumfield, Farm Management Specialist, will introduce you to a new user-friendly cost accounting software program. The windows based application software was specifically created for greenhouse owners and managers. It enables users to easily determine the profitability of their greenhouse crops and explore a full range of cost accounting capabilities. With the software, you can analyze incremental production costs and track financial categories, as well as program costs options typically found on income statements. You will be able to generate information showing total costs, and net returns per plant. This software also will assist you when making decisions on pricing, identifying and reducing unprofitable production costs and increasing sales of profitable crops.

During the afternoon session, current trends in greenhouse crop production and environment control will be discussed. In addition, some preliminary data from the 2003 NJ Greenhouse Industry Survey will be presented.

Pre-Requisites (for the morning session):

Participants should be familiar with Microsoft Windows. To operate the free software you will receive as part of your registration fee, Microsoft Excel software should be available on your business computer.

For further information about this hands-on workshop, contact Mr. Keith Wilson at (732) 932-9271 ext. 617 or via email at kwilson@aesop.rutgers.edu.

Tuition:

\$15 (includes lunch, handouts; the cost accounting software will be provided for free)

To register:

1. Through the OCPE Website:
www.cook.rutgers.edu/~ocpe
2. By Phone: (732) 932-9271 ext. 630, Monday to Friday, 8:00 a.m. to 4:30 p.m. Visa, MasterCard or the

SEE WORKSHOP REGISTRATION ON PAGE 5

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