What’s new?

REMINIDER: TFVA Board Meeting, DECEMBER 10

The Tennessee Fruit and Vegetable Association will not hold their annual conference this year. However, they will be holding a board meeting at 8:00 AM on Monday, December 10, 2007 at the Airport Marriot in Nashville. All are encouraged to attend and express their ideas to improve and reinvigorate the association. If you have ideas, but are unable to attend the meeting, please email them to: annettew@utk.edu by Dec. 7.

3rd Annual Appalachian Regional Horticultural Conference THIS WEEKEND

The Appalachian Regional Horticultural Conference and Organic Grower School will be held this weekend (Nov. 30-Dec. 1) at the Southwest Virginia Higher Education Center in Abingdon, VA. The purpose of this conference is to provide educational opportunities for both new and established specialty crop growers in the region. A trade show with vendors representing suppliers and equipment dealers in our region will be part of the conference. Registration opens at 8:00 AM on Friday. Walk-in registration is $40.00 for both days or $20.00 for one day. For more information contact Allen Straw (astraw@vt.edu, 276.944.2202).

Imported Bees Not Source of Virus Associated with CCD

Scientists from the USDA’s Agricultural Research Service (ARS) have found that the Israeli acute paralysis virus (IAPV), a virus recently shown to be associated with Colony Collapse Disorder (CCD) of honey bees, has been in the U.S. since at least 2002, according to a note published in the American Bee Journal. Research entomologists Judy Chen and Jay D. Evans, both with the ARS Bee Research Lab, conducted a detailed genetic screening of several hundred honey bees that had been collected between 2002 and 2007 from colonies in MD, PA, CA and Israel.

"Our study shows that, without question, IAPV has been in this country since at least 2002," said Chen. "This work challenges the idea that IAPV is a recent introduction from Australia." Evans added, "Our study in no way rules IAPV out as a factor in CCD. We have always believed that CCD is a complex issue involving multiple elements. Research by several groups will now focus on understanding differences in virulence across strains of IAPV and interactions with other stress factors." IAPV, first described in Israel in 2002, came to national and international attention in September when university and ARS scientists showed a strong association between the presence of IAPV and CCD.

That first study also found IAPV in honey bees from Australia that had been imported into the U.S., as well as in royal jelly imported from China. Australian bees began to be imported into the U.S. in 2005. Questions were raised about a connection between those imported bees and the appearance of IAPV in the U.S. Beekeepers have sought out Australian imports of bees to replenish their hive populations. ARS has begun several experiments to determine what factors may be most involved in CCD. Combinations of 4 areas are being examined: pathogens, parasites, environmental stresses, and bee management stresses.

CCD became a matter of concern in the winter of 2006-2007 when some beekeepers began reporting losses of 30-90% of their hives. While colony losses are not unexpected during winter weather, the magnitude and rapidity of loss suffered by some beekeepers was highly unusual. The defining trait of CCD is a low number of adult honey bees present with few signs of dead honey bees in the hive. Often there is still honey in the hive and immature bees (brood) are present, indicating recent brood rearing.

Pollination is a critical element in agriculture, since honey bees pollinate more than 130 crops in the U.S. and add $15 billion in crop value annually. There were enough honey bees to provide pollination for U.S. agriculture this year, but beekeepers could face a serious problem next year and beyond if CCD becomes more widespread and no treatment is developed. More information about CCD can be found at: www.ars.usda.gov/is/br/ccd/.

Article by Kim Kaplan from the USDA ARS: www.ars.usda.gov/}

Question of the Week

Imported Bees Not Source of Virus Associated with CCD

Upcoming Events

November 27, 2007
Top Ten Pesticide Infractions

Listed below are ten common infractions of pesticide laws as found by inspectors in one EPA region. The list provides some good points for pesticide training classes because it serves as a reminder of some of the simple things that can be overlooked. The points are valid for both private and commercial applicators.

1) Invalid business or applicator license
Do you know where your card is? If so, check the expiration date. If not, well...

2) Label violation
This includes the use of a product on plants (or sites) no longer supported by the label or not following label instructions. For example, the labels for many pesticides have been changed over the past 4 to 5 years as a result of the EPA’s re-registration program. Consequently, many uses for products, such as diazinon and malathion, have been eliminated. Some applicators may continue to buy and use products on plants (sites) that are no longer on the label. Reading the label before purchase and use is imperative.

3) Improper mixing
Read compatibility statements and other directions carefully. Problems here can be due to prohibited tank mixes that cause interactions. There can be plant reactions from combinations of certain classes of pesticides that are applied days, or even weeks, apart.

4) Failure to survey the site before applying a pesticide
This can range from overlooking or forgetting a sinkhole in a field to accidental spraying of a pet’s water bowl or children’s toys by a lawn care applicator.

5) Poor preparation for spills or other emergencies
How many application rigs carry some soap, water, disposable towels, and an eye-wash kit? Worker protection standards now are very specific about providing decontamination materials. Applicators should be familiar with how to handle spills of the pesticides they are transporting or applying.

6) Drift complaints
Particle and/or vapor drift can result in off-target movement of a pesticide. Knowledge of product characteristics and attention to environmental conditions such as wind speeds or inversions will reduce the potential for problems. Be aware of sensitive nearby crops or plants.

7) Incomplete or missing records
Private and commercial applicators must keep appropriate records of pesticide applications. Dealers who sell restricted use pesticides also must maintain records that contain specific information about products and purchasers.

8) Spray tank not properly cleaned; applicator not familiar with tank’s history
This can lead to crop damage or illegal residues. Purchase of used spray equipment should include determining the types of products that had been applied by the previous owner. Solvents in some EC formulations can serve as tank cleaners. This can result in inadvertent crop injury by the new owner.

9) Applicator makes erroneous product safety claims
While there could be cases of overselling a product, lack of familiarity with the label may be a major reason for unrealistic claims. Read beyond just the crop and rate information. Look critically for cautions or warnings, such as crop or variety sensitivity or effects of specific weather conditions on applications or product efficacy.

10) Failure to use required personal protective equipment
Requirements are spelled out now and may even require specific types of gloves or spray suits. Use quality equipment, and keep it clean and functional. Replace it as needed.

Attaining familiarity with product labels, technical bulletins, state and federal laws, and material safety data sheets, along with attention to details are keys to avoiding common pitfalls associated with pesticide applications.

This article was originally published in the Kentucky Pest News, Number 1148, November 19, 2007. On line at: http://www.uky.edu/Agriculture/kpn/kpnhome.htm. In the same issue you can also find Christmas shopping ideas for the pesticide applicator on your list! Gloves and goggles are at the top of the list. Read the article to get all of the specifications for the safest equipment and other tips on what to look for while you’re shopping to help ensure a safe new year.
Question of the Month

**Q:** I have a producer that was wanting to plant hairy vetch for the nitrogen. Is it too late? If so what can she plant now that will help with soil N? -J.E.

**A:** Unfortunately, it is too late to plant hairy vetch for the fall. And for that matter, it would be risky to plant any cover crop at this time of the year, though Tennessee weather is unpredictable… However, it is never too early to start thinking about a cover crop for spring, as cover crops can provide many benefits to your production system.

We’ve talked about cover crops and their benefits in SPROUTS before (Volume 1, Issue 13, [http://plantsciences.utk.edu/kszela/ pubs.htm](http://plantsciences.utk.edu/kszela/pubs.htm)), so let’s talk about a few that might be good for spring planting in Tennessee.

**Annual ryegrass** is a cool season grass that can help to prevent erosion, improve soil structure and drainage, add organic matter, suppress weeds and scavenge nutrients. Ryegrass will establish well on many types of soil, but does best on fertile, well-drained loam or sandy loam. For establishment, ryegrass can be broadcast (15-30 lb/A) onto newly cultivated soil. A good rain shower will cover the seed and provide enough moisture for germination. Ryegrass can also be mixed with a legume or small grain, but beware that the ryegrass can dominate the mix, especially with a legume. Use a low rate of ryegrass and two-thirds the rate of the legume. A few weeks before you are ready to plant your vegetable crop, when the ryegrass is in early bloom, it can be disked or plowed under. It is important to wait a few weeks to plant, as ryegrass can tie-up N as its biomass decomposes. Also, be forewarned that ryegrass can become a weed if allowed to set seed.

**Barley** is a cool season annual cereal grain that prevents erosion, suppresses weeds, scavenges nutrients, and adds organic matter. It is inexpensive and easy to grow. Barley grows best in well-drained, light, fertile soils. There are many varieties to choose from, so be sure to get one that was bred for use in the Southeast. It can be broadcast into a lightly cultivated seedbed (80-125 lb/A) or drilled (50-100 lb/A) from 3/4-2 inches deep in a prepared seedbed. Barley can be killed with a grass herbicide or by disking or mowing at the mid- to late-bloom stage. Barley is more prone to disease when seeded in cold, damp soils. Barley tolerates alkaline soils better than any other cereal.

**Crimson clover** is an annual legume. It provides a nitrogen source for subsequent crops, builds soil, and prevents erosion. It is rapidly growing and is good as a weed suppressing green manure. Crimson clover will grow in about any type of well-drained soil. It does not do well in alkaline or acid soils. Crimson clover requires moderate temperature and moisture for germination, but does well in cool, moist conditions, once it is established. Crimson clover must be inoculated with an R-type inoculant. In Maine, spring seeded crimson clover can yield 4,000 to 5,000 lb dry matter/acre by July, adding 80 lb N/A for fall vegetables. The seeding rate for crimson clover is 15-25 lb/A. It does best when drilled in, but can be broadcast onto a prepared seedbed at the higher rate. Crimson clover has a simple taproot, which makes it easy to kill mechanically. Wait 2-3 weeks for the decomposing clover biomass to stabilize to reduce disease pressure from microorganisms that flourish in its decaying organic matter. Beware that crimson clover harbors flower thrips and is a host for tarnished plant bug.

**Mustards** can be a good choice for spring cover crops. They prevent erosion, alleviate soil compaction, scavenge nutrients, and suppress many soilborne diseases and weeds. They can be highly beneficial for reducing soil disease pressure for vegetable crops planted in the late spring to early summer. Mustards do well in loam to heavy soils. Seeding rates for mustard have been suggested as 5-7 lb/A for small-seeded cultivars and 10-12 lb/A for large-seeded cultivars. Mustards can be killed by incorporation. For the greatest disease suppression, immediately cover the ground with plastic mulch or irrigate with 1” of water. Plant your crop within 3 weeks of incorporating the mustard.

The examples given here are only a few of the cover crops that can be planted in the spring. This information was taken from ‘Managing Cover Crops Profitably’ Third Edition. It can be downloaded at: [http://www.sare.org/publications/covercrops/covercrops.pdf](http://www.sare.org/publications/covercrops/covercrops.pdf). In this book, you can find much more detailed information on these and other cover crops, how to choose cover crops and when to plant them.

If you have a question, send it to: awszelak@utk.edu.
Upcoming Events

3rd Annual Appalachian Regional Horticultural Conference, November 30-December 1, 2007, Abingdon, VA
This 2-day conference provides educational opportunities for commercial growers, direct marketers, organic farmers and new growers alike. For more information, contact Allen Straw (email astraw@vt.edu or phone 276.944.2200).

Deep South Fruit & Vegetable Conference & Trade Show, December 5-6, 2007, Mobile, AL
For more information, contact John Braswell (phone 601.403.8939, email braswell@ext.msstate.edu) or visit: www.deepsouthfruitveg.com.

National Potato Council Seed Seminar, December 6-8, 2007, Branson, MO
The National Potato Council will hold its annual seed seminar at the Chateau on the Lake in Branson, MO
For more information, contact Hollee Alexander at hollee@nationalpotatocouncil.org or 202.682.9456.

International Irrigation Show, December 9-11, 2007, San Diego, CA
For details, call 703.536.7080 or visit http://www.irrigation.org.

Tennessee Fruit and Vegetable Association Board Meeting, 8:00 AM, December 10, 2007, Nashville Airport Marriott, Nashville, TN
Your participation and input are needed for reorganizing and improving the organization.

22nd Annual Southeast Vegetable and Fruit Expo, December 12-13, 2007, Myrtle Beach, SC
Contact Cathy Price at 919.334.0099 or fax 919.877.0940 or visit: www.ncvga.com for more information.

Application of Precision Agriculture for Fruits & Vegetables, January 6-9, 2008, Orlando, FL
The event will be held at the Grosvenor Resort in downtown Disney World. For more information, including a list of discussion topics, visit http://www.precisionag2008.com or e-mail info@precisionag2008.com.

High Tunnels Workshop and CSA Workshop, January 10, 2008, Ramada Inn, St. Joseph, MO
For more information, contact Ted Carey (email tcarey@ksu.edu or phone 913.856.2335).

Southeast Regional Fruit and Vegetable Conference, January 10-13, 2008, Savannah, GA
For more information, contact Rebecca Smith (phone 877.994.3842 or visit: www.gfvga.org.

For more information, visit the SAWG website: http://www.sawg.org/

Conference details will be made available in the next few months and will be posted on the Center for Profitable Agriculture’s Web site at http://cpa.utk.edu.

World Ag Expo, February 12-14, 2008, Tulare, CA
For more information, visit http://www.worldagexpo.com/.

Winter Vegetable Conference and NC Tomato Growers Meeting, February 21-22, 2008, Asheville, NC
For more information, contact Jeanine Davis at 828.684.3562 or jeanine_davis@ncsu.edu.

SPROUTS: Supporting Producers through Research and Outreach at UT
Programs in agriculture and natural resources, 4-H youth development, family and consumer sciences and resource development. University of Tennessee Institute of Agriculture, United States Department of Agriculture and county governments cooperating. UT Extension provides equal opportunities in programs and employment.