Inside this issue:

- What’s new?
- Reducing Pesticide Spray Drift
- Cutworm Control in Tomato
- First Organic Crops Field Tour A Success
- EQUIP Funds Available for Certified or Transitional Organic Growers
- Of special interest:
  - Drift Reducing Spray
  - What’s new?
  - Tennessee Vegetable News

What’s new?

Hurry! Only a Few More Days for Organic Growers to Apply for Nearly $1 Million in EQUIP Funds

The USDA-Natural Resources Conservation Service (NRCS) announced that $970,000 is available to TN growers to encourage more organic agriculture. Funding for the initiative is being made available as part of the Environmental Quality Incentives Program (EQIP).

Nationally, $50 million has been set aside for organic producers and those transitioning to organic production. Organic producers may also apply for assistance under general EQIP.

“There is an increasing demand for organic products in Tennessee and across the nation,” Brown said. “We hope this initiative will encourage more organic farm production.”

Under the National Organic Initiative (NOI), required minimum core conservation practices will be determined. The practices are: crop rotation, cover cropping, nutrient management, pest management, prescribed grazing and forage harvest management. TN will add other applicable practices that meet the state’s organic producer resource needs.

Applications from organic producers or producers in transition to organic farming will be accepted until May 29 and ranked upon receipt.

To assist with eligibility questions there are two separate National Screening Tools for applicants (one for producers transitioning to organic production and one for certified organic producers). Ranking criteria has been established based on resource concerns linked to the National Organic Program (NOP) objectives and core conservation practices. NOP is overseen by the USDA-AMS.

The 2009 NOI is being administered by the NRCS. Interested producers should visit their nearest USDA Service Center to determine eligibility. Additional information on the 2009 EQIP Organic Initiative is available at: www.nrcs.usda.gov/programs/equip/

DEADLINE: May 29, 2009

First UT Organic Crops Field Tour A Success

The inaugural Organic Crops Field Tour was held on May 15 at the ETREC’s Organic Crops Unit. Over 150 growers and gardeners from across TN and neighboring states attended. A range of topics were covered by experts in the field:

- ETREC’s own Lee Ellis covered thinking of new, sustainable uses for your old field equipment.
- Mary Rogers, Research Associate in the Organic & Sustainable Crop Production Program, discussed insect and disease management.
- Michael Wilson, Entomology graduate student, gave an overview of his research on cultivating native bees for pollination of fruit and vegetable crops.
- Vegetable Specialist Annette Wszelaki covered how to use of high tunnels for season extension.
- Matthew Young from TCIA outlined how to get certified for organic production.
- Alan Bruhin, Sevier Co. Extension Agent, and Leo Lubke, Master Gardener discussed how to use growing degree days in planning a home garden.
- John Coykendall, from Blackberry Farm, shared his experiences with heritage seed and seed saving.
- John Skinner, Apiculturalist, gave the latest buzz on bees & your garden.
- Jeff Ross, of Blackberry Farm, Lisa Phipps, Master Gardener and John Wilson, Blount Co. Extension Agent, provided tips of growing organic home-grown tomatoes.
- Bill Lively, farm manager of the Organic Crops Unit and Bobby Simpson, Assistant ETREC Director, gave an overview of the Organic Crops Unit.

A fun and educational time was had by all and the only complaint we heard was that the tour wasn’t long enough! We look forward to many more Organic Field Tours.

CORRECTION:

In the last edition of SPROUTS, the incorrect date was listed for the Steak & Potatoes Field Day. Please mark you calendar for the correct date Tuesday, August 4, 2009.
Written plan is key to dealing with neighbors, agencies

By Scott Christie

With the field season in full swing, and conditions favoring insect, disease and weed development, it’s a good time to think about being a good neighbor & having a written spray plan in place.

The influx of residential developments into predominantly agricultural areas can create friction between growers and their new neighbors. It’s a problem that has long been occurring in CA, but is becoming more common even in more rural states.

The chip-producing area around Hastings, FL, has seen acreage disappear as more houses pop up. In 2007, a group of students tested the air around a local elementary school, and the results prompted the students to call the Pesticide Action Network North America (PANNA), which released the results of its own air quality study in September. The group, which is opposed to the use of pesticides, found endosulfan, diazinon, trifluralin and chlorothalonil in the air - and is calling for the area’s farmers to use organic methods, mandatory notification of pesticide use and “pesticide-free zones” around schools and other sensitive sites.

The report indicates that the most likely cause of the chemicals in the samples was from volatilization into the air from evaporation - although three spikes that corresponded to applications on nearby fields did indicate drift. Michigan also has seen more residents complaining about chemical applications, said Jeff Zimmer, pesticide and plant pest regional supervisor for the MI Dept. of Ag (MDA). Zimmer spoke about the state’s role in investigating drift issues to a group of potato and vegetable growers at the 2008 Great Lakes Fruit, Vegetable and Farm Market EXPO in Grand Rapids, MI.

“We seem to have increasing concern in the potato growing regions near Grand Rapids,” Zimmer said.

In 2007, 34 of 178 MDA investigations (19%) were for drift complaints. That’s in line with previous years, with drift complaints making up 18% of MDA investigations in 2006 and 23% in 2005.

But the state doesn’t investigate every complaint that a resident calls in - there has to be some evidence, Zimmer said. The agency receives many calls about odors, noise and airplane flyovers, but those issues usually don’t warrant an investigation. The first question the agency will ask is if the individual saw a droplet. If the answer is no, then they go no further. If there’s a medical or veterinary concern, the agency will ask for evidence from a doctor or veterinarian before proceeding, Zimmer said.

“MDA does know how hard it is to farm, to apply pesticides and keep them on your property, especially if you’re hiring an aerial applicator for your potatoes,” Zimmer said.

In order to manage the responsibilities under MI Regulation 637 - or any other state’s guidelines on drift - Zimmer said a draft management plan would meet the state’s requirements for notification and minimizing drift, and while it’s not required for every application it is a good practice that may be required in the future as more states push for mandatory plans on the label registration. The purpose of a drift management plan is to minimize the occurrence of off-target drift and reduce the adverse effects. A plan is required when off-target drift is likely due to the nature of the product being applied or conducive weather conditions.

The plan must be in writing and list in detail the precautions being taken on the farm, including a description of how those measures will reduce drift. The plan is annually reviewed by applicators, and a record should be kept of when and where the plan was implemented. Those records should be kept for 1 year for general use pesticides and 3 years for restricted use pesticides.

"We access those records in case we do have a complaint," Zimmer said.

The first component of a drift management plan is the informed consent of the residents who could be affected by an application. This can be written or verbal notification that will include the timing and application, as well as the contact information for the farm. Another benefit to notifying neighbors is the chance to educate residents who might not know how important the chemical applications are. Communicating with neighbors goes a long way toward alleviating some of the concerns and complaints that might otherwise be reported.

The second part to a drift management plan is the farm’s minimization practices. This portion includes a record of the equipment being used, how the applicator is managing droplet size, what additives and buffer zones are being used, the wind speed and direction and the use of wind shields or breaks.

Having a drift management plan doesn’t exempt a grower from complying with regulations, especially label requirements, but having a plan can be taken into account when MDA considers enforcement actions, Zimmer said. The Michigan potato growers who had complaints investigated and then developed a drift management plan haven’t had further complaints filed, which shows that there is a benefit even if it’s not required.

The EPA is expected to focus on drift mitigation measures in 2009, including greater emphasis on buffer zones, sensitive sites and mitigating practices. If label requirements don’t include drift management plans in the near future, Zimmer said, then EPA may require them from growers.

This article was written by Scott Christie, Managing Editor of Spudman, and originally appeared in their February 2009 Issue. To read more from Spudman, visit: www.spudman.com/.
Question of the Week

Q: The last two years I have had some tomato plant losses from cutworms. I am a commercial producer. What would you recommend? - J.D.

A: Commercial producers have several chemical options available for cutworm control. Those that are most effective are the pyrethroids, including Baythroid XL, Asana XL, Proaxis 0.5 EC, Warrior 1 EC and Mustang MAX. Since these are all pyrethroids with the same mode of action, using any of these repeatedly will encourage insecticide resistance. Alternative measures should also be considered. For information on recommended application rates, visit page 171 of the 2009 Southeastern Vegetable Crop Handbook, which can be downloaded at: www.sripmc.org/docs/SoutheasternVegetableGuide.pdf.

WARNING: This is a large file. Do not attempt with a dial-up connection!

NOTE: Always read the pesticide label before application.

In addition to insecticides, there are several alternative controls for cutworm. One is to scatter bran or corn meal mixed with Bacillus thuringiensis on the soil surface. Bt is a naturally occurring soil bacteria that is specific to caterpillar pests and crystallizes in their gut when ingested and discourages feeding. The bran and corn meal both expand in their gut, also preventing further feeding.

For small scale growers or home gardeners, collars, toothpicks or sticky substances, like sawdust and molasses, have been shown to stop cutworms in their tracks when placed at the base of each plant.

Cutworms also have their share of predators and parasitoids. Ground Beetles, Lacewings and Praying Mantids are known predators. Snellenius maniae is a small Braconid wasp species. This parasitoid wasp is host specific to cutworm larvae. A female wasp will lay 3-5 eggs inside the cutworm larva. Once hatched, the parasite eats the body fluids and the larva for its development, then forms a cocoon next to the host’s body. The tachinid fly is another parasitoid of the cutworm. The female fly lays her eggs near or into the larvae and can lay up to 2000 eggs in her lifetime.

These natural enemies can all be encouraged by avoiding or judicious use of insecticides and planting beneficial habitat for them, like flower strips or a perimeter crops around the cash crop. Flowering plants such as dill, cosmos, sunflower, carrots and dandelions are good sources of pollen and nectar for adults. Also, providing a water source during dry spells will ensure these beneficials stick around.

Onion, garlic, peppermint or coriander can repel cutworms when interplanted with the cash crop, too.

If you have a question, send it to: annettew@utk.edu.

Weather Report

For the first time in a long time, weather conditions last week allowed TN farmers to make some planting progress. We got our 15 variety snapbean trial planted in Crossville last Tuesday and are now trying to take data out at the Organic Crops Unit on the conservation-tillage broccoli study without sinking!

In East and Middle TN, conditions promise to be steamy on in to the end of the week, with highs in the low 80’s and a good likelihood of thunderstorms through Friday. Low’s will stay in the mid-50’s to low 60’s.

In West TN, temperatures will be similar with the rain clearing out by tomorrow evening.

Be on the lookout for tomato diseases! The warm, moist conditions favor several diseases, such as Septoria Leaf Spot, which begins as small gray circular spots with dark borders on the older leaves, and Bacterial Spot, with greasy looking leaf spots.

As the temperatures cool down over night, this tips the scales toward Gray Mold and Late Blight. Gray Mold is aptly named as the signs include dark gray, fuzzy fungal growth. It occurs when temperatures are below 77 degrees and humidity is above 90%. Late Blight can devastate a field within a day or two and appears as greenish-black lesions on leaves. It also prefers mild, moist weather.

Some pathogens are just waiting for an opportunity to be splashed dispersed in the rain drops, like Early Blight, which has the distinctive bull’s eye appearance on fruit leaves and also starts on the older leaves.

For more on these and other foliar diseases of tomato and their control, download UT Extension Publication “SP-277W Foliar Diseases of Tomato” by Dr. Steve Bost at: www.utextension.utk.edu/publications/spfiles/SP277-W.pdf.
Upcoming Events


2009 Southeast Greenhouse Conference, June 18-20, 2009, Greenville, SC
For more information, visit: www.sgcts.org.

UT Highland Rim Research and Education Center Tobacco, Beef & More Field Day, June 25, 2009, Springfield, TN
For more information, visit: http://highlandrim.tennessee.edu/dynamic/events.asp.

UT Gardens Blooms Days, June 27-28, 2009, Knoxville, TN
For more information, visit: http://bloomsdays.tennessee.edu/.

UT West TN Research and Education Center Summer Celebration, July 9, 2009, Jackson, TN For more information, visit: http://westtennessee.tennessee.edu/events/SummerCeleb.asp.

UT Plateau Research and Education Center Steak and Potatoes Field Day, August 4, 2009, Crossville, TN For more information, visit: http://plateau.tennessee.edu/dynamic/events.asp.

2009 NCSU Fresh Market Tomato and Vegetable Field Day, August 11, 2009, Mills River, NC For more information, visit: http://www.cals.ncsu.edu/agcomm/writing/Field_Days/.

UT West TN Research and Education Center Pumpkin Field Day, October 9, 2009, Jackson, TN For more information, visit: http://westtennessee.tennessee.edu/events/.

2009 UT Organic Workshop Series
Workshops will be broadcast using ITV technology to 3 locations across the state:
Knoxville, UT Agriculture Campus, 156/157 Plant Biotech Bldg., 2:00-5:00pm EST
Nashville, Ellington Agriculture Center, Central Region Extension Bldg., 1:00-4:00pm CST
Jackson, West TN Research and Education Center, Ag Extension Meeting Room B, 1:00-4:00pm CST
Dates and topics include:
June 8- Identifying & Managing Weeds
July 13- Identifying & Managing Pests
August 10- High Tunnel Production
September 14- Identifying & Managing Diseases
October 12- Developing an Organic Plan
November 9- Marketing Organic
There is no fee for participating in the workshops, but registration is required. Please contact Mary Rogers at 865.974.0710 or mroger30@utk.edu to register for a workshop or visit http://organics.tennessee.edu for more information.


Come to THE horticultural meeting in Tennessee. This is a joint meeting between the TN Fruit & Vegetable Association, the TN Viticultural and Oenological Society, the American Wine Society, the TN Farm Wine Association, the TN Flower Growers Association, the TN Farmers’ Market Association and now this year, the TN Agritourism Association. This horticultural extravaganza will have an expanded tradeshow, plus the added comradery of the other associations. Mark your calendar! More information coming soon.

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.