

St. Mary's County Office P. O. Box 663 Leonardtown, Maryland 20650
(301) 475-4484

ST. MARY'S COUNTY FARM NEWS

SEPTEMBER 2009



*By all these lovely tokens - September days are here,
With summer's best of weather - And autumn's best of
cheer- Helen Hunt Jackson, September, 1830-1885*

Another growing season will soon be under wraps! It has been an interesting season at best. Winter drought concerns, followed by ample spring rains led to a tough time for planting and crop establishment. Barley and wheat fields took a beating as continuous rains during flowering and harvest damaged grain quality. A cool June and July delayed harvest, and 4 weeks of drought in mid-summer halted growth and yield potential for many crops. Now the rains are back and many fields once again look promising. It should be a good soybean year, especially for double crop beans. Looks like another bumper deer year too. Vegetable fields that survived disease pressure have yielded well and prices have held up fairly well over the last few months. These are interesting times, but remember interested or bored, people always eat. Here's to you for providing another bountiful harvest.

2009-2010

Calendar of Events

- Pumpkin & Sweet Corn REC Twilights:
September 22 & 24
- St. Mary's County Fair:
September 24-27
- Pesticide Recertification:
St. Mary's Extension Office – 6:30 to 8:30 p.m.
October 15th
- Nutrient Voucher Applicator Training:
St. Mary's Extension Office – 6:30 to 8:30 p.m.
October 29
- Pesticide Exam in St. Mary's:
St. Mary's Extension Office
 - Training Optional:
 - November 10th 6:30 to 8:30 p.m.
 - Exam Only
 - November 17th, 6:30 to 8:30 p.m.
- Crop Management School, Ocean City
November 17-19th
- Lambing & Kidding School:
Holiday Inn, Waldorf, November 21st
- Southern Maryland Crops Dinner:
Isaac Walton League, December 2nd
- Southern MD Forage Conference:
Isaac Walton League, January, 2010, TBA
- Southern Maryland Vegetable & Fruit Meeting,
Davidsonville, February 10, 2010

**Private Pesticide Applicator
CTraining & Exam
November 17, 2009-Exam
November 10, 2009-Optional Review**

Need a Private Applicator Pesticide License? If so, we have scheduled an exam with the Maryland Department of Agriculture (MDA) on November 17, 2009, at 6:30 p.m. here in the Extension Office. An optional review session will be held on November 10, 2009 at 6:30 p.m. in the Extension Office for those interested. Please call the office to register and request a copy of the study materials.

**Pesticide Re-certification
October 15, 2009**

Plan to attend recertification training if your license expires December 31, 2009. Recertification training will be held October 15, 2009 in the St. Mary's County Extension office. If you miss one of these programs, don't worry, spring certification dates will enable you to keep your old license without having to take the exam again. Please call to register at 301-475-4484.

**Nutrient Voucher Training
October 29, 2009**

This season's first Nutrient Management Applicator Voucher training will be held at the Extension Office in Leonardtown from 6:30-8:30 p.m. on October 29, 2009. The applicator training consists of two hours of instruction. There is no fee or test.

**Pumpkin & Sweet Corn Twilight
WYEREC - 124 Wye Narrows Road
Queenstown, Maryland
September 22, 2009
4:30 p.m. to 7 p.m.**

The WYEREC is holding the first of two pumpkin and sweet corn twilight meetings. Come join the

University of Maryland experts to discuss their pumpkin research project results. This twilight tour is for current growers and those interested in starting their own pumpkin patch. You'll see 30 varieties of pumpkins; no-till on vetch; in addition to information on the progress of our Bt sweet corn research project. A light fare will be available.



If you missed the first twilight tour, come to this second pumpkin twilight.

**Pumpkin & Sweet Corn Twilight
September 24, 2009
WMREC – 18330 Keedysville Road
Keedysville, Maryland
4:30 p.m. – 7 p.m.**

This pumpkin twilight meeting is intended to provide producers the opportunity to get a firsthand look at several of the ongoing research projects. Highlights will include:

- ✓ 30 varieties of pumpkins
- ✓ Dr. Chris Walsh's work on new apple varieties on their own rootstocks
- ✓ Dr. Galen Dively's work on Bt sweet corn
- ✓ New mobile high tunnel
- ✓ Safety aspects of high tunnel production
- ✓ Updates from University of Maryland specialists

Sandwiches and other refreshments will be provided. Registration is not required, but your RSVP will help us to plan for materials and food. Please RSVP to cmason@umd.edu or 301-432-2767 x 350.

**St. Mary's County Fair
St. Mary's County Fairgrounds
Leonardtown, Maryland
September 24-27, 2009**

This year marks the 63rd annual St. Mary's County Fair. Mark your calendars and plan to attend. The fair is a great way to see exhibits, animals and relive much of our rural heritage. Remember to support the 4-H auction and provide a word of encouragement to the many 4-H members participating. If you get a chance, stop by the Extension building and say hi!

**University of Maryland
Annual Horse Conference
November 7, 2009**



The 5th Annual UME Horse Conference will be held at the Montgomery County Community College on Saturday, November 7, 2009. Registration begins at

8 a.m. and informative equine presentations will run throughout the day from 8:45 a.m. until 4 p.m. Topics of interest will include:

- Horse health and nutrition
- Equine business management and marketing
- Pasture management
- Careers in the equine industry

Veterinarians, trainers, horse breeders, horse owners and anyone involved in Maryland's equine industry are encouraged to attend. All attendees will receive conference proceedings, breakfast, lunch, and the opportunity to ask questions of experts. For more information, please contact Kelly Brannan at kbrannan@umd.edu

**Mid-Atlantic Crop Management School
November 17-19, 2009
Princess Royale Hotel, Ocean City, Maryland**



Are you a Certified Crop Advisor? Are you in need of CEU's? Come join us at the Princess Royale Hotel in Ocean City for advance training in soil and water,

soil fertility, crop production and pest management. This session entails hands-on, intensive sessions that provide continuing education units (CEU's) for the Certified Crop Advisor (CCA) program. Please register online at

<http://www.psla.umd.edu/extension/crops/home.cfm>

**Lamb & Kidding School
November 21, 2009
Holiday Inn in Waldorf, MD
~ Maryland Sheep News, July 2009**

Mark your calendars! The University of Maryland Extension holds a bi-annual lambing and kidding school at different locations in Maryland. The 2009 school will be held on **Saturday, November 21, 2009** at the **Holiday Inn** in **Waldorf**, Maryland!

This year's main speaker will be Dr. Susan Kerr, an Extension Educator from Washington State University. Dr. Kerr earned a Doctor of Veterinary Medicine



from Cornell University and received a PhD in education from Kansas State University. She has been involved nationally with the 4-H animal science curriculum. The program this year will be suitable for both youth and adults, beginning and experienced sheep and goat producers. For more information, please contact Susan Schoenian at (301) 432-2767 x343 or sschoen@umd.edu.

**Southern Maryland Crops Dinner Conference
December 2, 2009**

Your Southern Maryland Agents would like to invite you again to join our University specialists in a question and answer session discussing crop production and pest control. This session will be held on **December 2, 2009**, from **4 p.m. to 8:30 p.m.** at the **Isaac Walton League Conference Center** in **Waldorf**, Maryland. Attendance at this conference satisfies the Private Pesticide Applicator Recertification and Nutrient Management Voucher.

Please call the Charles County Extension Office at 301-934-5403 to register. Plan now to attend.

**Maryland/Delaware Forage Council
Southern Maryland Hay & Pasture Conference
January, 2010 TBA**



We again are hosting the **Southern Maryland Hay & Pasture Conference in January, 2010**, at the Isaac Walton League in Waldorf, Maryland. This program will address key issues and concerns facing hay and pasture producers. Many agribusinesses will be available with their displays and exhibits, and registrants will be able to obtain information on seed, fertilizer, equipment, and fencing. Further details will be posted on the web at <http://www.mdforages.umd.edu> or contact the Extension Office at 301-475-4484.

**Southern Maryland Fruit & Vegetable
Production Meeting
February 10, 2010
8 a.m. to 4 p.m.**

Make plans to attend our **Southern Maryland Fruit & Vegetable Production Meeting** on Wednesday, **February 10, 2010**. This year's meeting will be held at the Davidsonville Ruritan in Davidsonville, Maryland from 8 a.m. to 4 p.m. Speakers will provide IPM updates, production topics, and sponsors will be available with information regarding their products and services. State vegetable organization leaders will be present to recruit and answer your questions. For full conference details, please contact Dave Myers, Extension Agent, Anne Arundel County Extension Office at 410-222-6759. Please register no later than February 8, 2010.



**Maryland Cooperative Extension Gets
New Name**

- In an effort to strengthen the connection between the University of Maryland (UM) and its land-grant extension mission a name change has been approved by the University of Maryland Board of Regents from Maryland Cooperative Extension to University of Maryland Extension (UME).

"It is very exciting that Extension programs, which are based in the College of Agriculture and Natural Resources (AGNR) and delivered to Maryland citizens in every county and Baltimore City, will now be formally recognized as the outreach vehicle of the University's research and teaching across the UM campus, the University of Maryland System's many institutions, and across the entire state," says Dr. Cheng-i Wei, AGNR dean and UME director.

But positioning the historic organization for the future involves more than a name change. As Dr. Nick Place, associate director of University of Maryland Extension, explains, "In positioning UME for the future, it's important to keep our programs responsive to the needs of the community, economy and environment." In order to do this, UME will focus on four impact areas:

- local food and agricultural systems,
- environment and natural resources,
- healthy living and
- resilient communities.

Unbiased, research-based programs related to the four impact areas are available through offices in the city of Baltimore and all 23 Maryland counties. The traditional Extension programs of 4-H Youth Development, Family and Consumer Sciences, Sea Grant Extension, Agriculture/Horticulture and Natural Resources will serve as keystones in this client-needs-focused effort.

To find out more about University of Maryland Extension's four impact areas, visit www.extension.umd.edu.

New Vegetable Insecticides for 2009

Joanne Whalen, Extension IPM Specialist;

jwhalen@udel.edu



We have received a number of new insecticide registrations for the 2009 season. Be sure to check the label for labeled crops, labeled crops within a crop grouping, use rates and restrictions. In addition, you should also check the Delaware Department of Agriculture's website to be sure these materials are labeled in Delaware (to use a material it must have both a state and federal label)

<http://www.kellysolutions.com/de/pesticideindex.htm>

Single Ingredient Products:

buprofenzin (Courier) – leafhoppers, whiteflies on cucurbits, lettuce, snap beans and tomatoes

<http://www.cdms.net/LDat/ld6LP007.pdf>

extract of *Chenopodium ambrosioides* (Requiem) – aphids, thrips, whiteflies, mites, leafminers on numerous vegetables

<http://www.cdms.net/LDat/ld8R9000.pdf>

chlorantraniliprole (Coragen) – worm pests on cole crops, cucurbits, fruiting vegetables and leafy vegetables

<http://www.cdms.net/LDat/ld8KF012.pdf> NOTE:

The following general resistance management statement appears on the label: make no more than 2 applications of Coragen per generation to the same insect species on a crop; make no more than 2 successive applications within a 30-day period to the same insect species on a crop.

flubendiamide (Synapse) - worm pests on cucurbits, fruiting vegetables, leafy vegetables and cole crops

<http://www.cdms.net/LDat/ld8LK003.pdf>

spirotetramat (Movento) – aphids, whiteflies on fruiting vegetables, leafy vegetables, cole crops and potatoes <http://www.cdms.net/LDat/ld8L5008.pdf>

Combination Products

NOTE: Be sure to read the general resistance management statement on all of the following labels.

chlorantraniliprole + lambda-cyhalothrin (Voliam Xpress) - worms, beetles on cucurbits, cole crops and fruiting vegetables

<http://www.cdms.net/LDat/ld8N5000.pdf>

chlorantraniliprole + thiamethoxam (Durivo) (drip only; one application per crop season) -worms, thrips, beetles, leafminers, leafhopper and whiteflies on cole crops, cucurbits and fruiting vegetables and leafy vegetables

<http://www.cdms.net/LDat/ld8NA000.pdf>

chlorantraniliprole + thiamethoxam (Voliam Flexi) – aphids, CPB, flea beetles, ECB and

potato leafhopper on potato only

<http://www.cdms.net/LDat/ld8NH004.pdf>

Forages: Planning One Year Ahead to Improve Establishment Success

From Penn State Agronomy Guide



The high costs associated with seeding forage crops makes it a rather "high stakes" farming operation. The days of spreading some seeds on the ground and hoping for nature to cooperate are past. Today, success is imperative. Forage producers must minimize risk as much as possible to ensure successful forage crop establishment. Here are some practices that can improve the successfulness of forage crop seedings. Like most other high risk farming operations it is important to plan ahead. Planning ahead can not only improve the chances of successful forage establishment, it can also greatly reduce the amount of personal worrying after a forage has been seeded.

Select Forage Species. Decide which forage species or mixture will be seeded. Some species are better suited to certain soil types than others. For example, alfalfa does not tolerate poorly drained or low pH soils. Red clover or reed canarygrass perform very well under these conditions. In many cases, it is difficult and expensive to change soil characteristics, however, species can be changed easily with little or no expense. Proper matching of forage species to soil characteristics not only makes establishment easier but also improves production over the life of the stand. Refer to a series of Penn State Agronomy Fact publications on forage species


and their adaptability to Pennsylvania conditions. Do not attempt to seed alfalfa back into an alfalfa field within 1 year from when the old alfalfa was killed. Established alfalfa plants produce a chemical which is toxic to alfalfa seedlings. Rotating out of alfalfa for a minimum of one year will allow the chemical to decompose. In addition, rotating to another crop will help reduce alfalfa disease and insect pests.

Soil Test. A soil test should be completed and lime added to correct low pH conditions at least six months prior to forage seeding. Planning a year in advance will also allow several opportunities to apply any nutrients that the soil test recommends in large quantities. Refer to Agronomy Facts 31-A "Soil Fertility Management for Forage Crops: Pre-establishment" for more information about soil testing and adjusting soil pH.

Control Weeds. Weed control in previous crops can significantly reduce weed infestations during forage seedling establishment. However, herbicide use during the year preceding a forage seeding should be monitored closely. Carryover in the soil of triazine herbicides used on the previous corn crop will cause yellowing and potential death of young legume seedlings. Avoid using triazine herbicides in the last year of corn. If triazine is used in the year preceding forage seeding, rates should be less than one pound per acre. Refer to the Agronomy Guide or product labels for information about herbicides containing triazine.

Building a New Market for Barley

~ Dr. Robert Katochvil, UME, Specialist, Agronomic Crop Production

I received this announcement  from Osage Bio Energy, the company that will be buying barley next summer for the Virginia-based ethanol plant, regarding the partnership they have created with Perdue for buying barley. If any growers are interested in learning more about this, here is the info I received.

“Together, we're building a bright future for barley.”

Osage Bio Energy is pleased to announce that we are working with Perdue AgriBusiness to secure local barley to operate Appomattox Bio Energy, the

first major barley-to-ethanol bio-processing facility in the United States. Osage Bio Energy and Perdue are committed to providing local farmers a new opportunity to create a viable and sustainable market for barley in the Southeast and Mid-Atlantic.


Are you ready to grow barley?

To find out how to contract barley for Osage Bio Energy, please contact Steve Norris at Perdue Grain and Oilseed at (410) 726-9104 or steve.norris@perdue.com. For more information about Osage Bio Energy visit www.osagebioenergy.com”

Agronomic Crop Insects

~ Agronomic Crop Insects – Joanne Whalen, Extension IPM Specialist; University of Delaware Cooperative Extension

Alfalfa, Grain Sorghum, Late Planted Field Corn and Grass Hay Crops

Over the past week, we  have received reports from consultants in Maryland and Delaware regarding fall armyworm damage to all of these crops. In corn and grain sorghum, control will be difficult since armyworms feed deep in the whorls of plants. For the most effective control, materials must be directed into the whorls and at least 25 gallons of water used per acre to get a reduction in populations. Also, in many cases one application is often not enough to get satisfactory control—especially if larvae are large and feeding deep in the whorls. For alfalfa, field corn and grain sorghum, a number of pyrethroids, as well as Lorsban and Lannate are labeled for armyworm control. Labeled pyrethroids often indicate that larvae should be small (first and second instar only) and/or the highest labeled rate is needed, especially if larvae are larger. In grass hay crops, fields should be watched closely after cutting for armyworm damage to the regrowth. Baythroid XL, Mustang MAX, and Warrior II are all labeled for armyworm control on grass hay crops. Insects must be small at the time of treatment to achieve control.

Before treatment, be sure to check all labels for the rate; comments on control under high populations and size of larvae; days to harvest,



forage/silage restrictions, as well as other use restrictions.

Soybeans

As the potential for late season insect control increases, be sure to check all labels for the days from last application to harvest as well as other restrictions.

In double crop soybeans, be sure to watch for an increase in defoliators, especially green cloverworm. Remember, double crop soybeans can not tolerate as much defoliation as full season soybeans.

Unfortunately, we do not have a threshold for the number of green cloverworms per sweep. A treatment maybe needed if defoliation has increased from one scouting visit to the next, especially if other defoliators are present at the time of treatment. Diseases can help to crash populations; however, we have only found a few diseased worms so far this week. Continue to scout all soybeans (full season and double crop) for soybean aphids. We continue to find aphids in fields throughout the state and in some locations populations are increasing. We have heard of hot spots on the eastern shore of Maryland as well. When scouting for aphids, you need to look at the entire plant – not just the stems. Often times you will see the first aphids on the newest emerging trifoliolate that is not fully expanded. As a general guideline, treatment is needed through the R-5 stage (seed is 1/8 inch long in the pod of one of the four uppermost nodes on the main stem) of soybean development if economic levels are present. It may also be beneficial to spray through R-6 stage (pods containing a green seed that fills the pod cavity at one of the four uppermost nodes on the main stem) -- reports vary as to the benefit of spraying once plants reach the R-6 but in some years and some situations there has been an economic return. Spraying after R-6 stage has not been documented to increase yield in the Midwest. ***The suggested treatment threshold from the Midwest is still 250 aphids per plant with 80% of the plants infested with aphids.*** Although we are not seeing high levels of beneficial insect activity, we are starting to see an increase in lady beetle number as well as parasitized aphids. You can also consider using speed scouting to make a treatment decision. Information on how to use speed scouting can be founds at:

http://www.nwroc.umn.edu/Cropping_issues/2007/Issue9/07_17_07_no4.htm or
<http://breeze.ag.vt.edu/speedscouting>.

We continue to find sporadic and low levels of corn earworms in fields throughout the state. As corn dries down, moths emerging from larvae found in corn fields will lay eggs in soybeans. Remember, corn earworms will feed on the foliage and the pods. The only way to know if you have an economic level will be to scout. Therefore be sure to scout all fields for podworms. States to our south, including Virginia, have reported control failures with pyrethroids in soybeans in 2007 and 2008. Up until 2008, poor control in our area has been the result of treating too late, treating large worms or using too low of a rate. If you use a pyrethroid for earworm control, you should be using the highest labeled rate. In addition to the pyrethroids, Steward or Lorsban should also be considered, especially if armyworms are in the mix. In the past, we have used the treatment threshold of 3 corn earworms per 25 sweeps in narrow row fields and 5 corn earworms per 25 sweeps in wide row fields (20 inches or greater). These are static thresholds that were calculated for a 10-year average soybean bushel value of \$6.28. A better approach to determining a threshold is to access the Corn Earworm Calculator (<http://www.ipm.vt.edu/cew/>) which estimates a threshold based on the actual treatment cost and bushel value you enter.

Mother Stalk Asparagus Production System

~Gordon Johnson, Extension Ag Agent,
Kent Co.;
gjohn@udel.edu



There is a potential for extended production of asparagus using the mother stalk production system. With this system, it is possible to harvest from spring through fall. This would be of benefit to direct marketers providing sales out of the normal harvest season. In a normal asparagus production system, all spears are harvested for the first 6-8 weeks (in a mature stand) and then the field is allowed to go to the fern stage. The harvest period is from late April to early June. In the mother stalk production system, three shoots are allowed to reach full maturity (go to fern stage) from the start and all

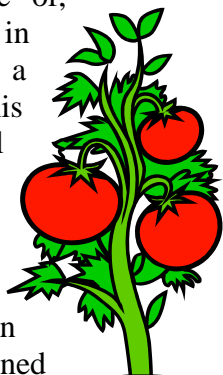
subsequent spears are harvested throughout the season from late April until October. The mature mother plants produce enough food reserves to replenish the crown and provide for spear production. Originally developed in Asia, the system has shown to have no effect on the long-term health of asparagus crowns. Researchers at Rutgers have tested the mother stalk system and have also found it to work in our area. The key is to start with a mature stand (4 or more years old) and to maintain the mother stalks in good health. More than 3 mother stalks will reduce spear production, fewer than 3 will not produce enough reserves to maintain the crowns. Peak production period is April-June with another peak in September and October. In July and August, production is low. However, you still need to check daily for spear emergence and harvest during this period. Growers will have to decide if they have the labor to manage such a system throughout a 6-7 month growing season.

Tomato Ripening Problems and the Role of Potassium

~Jerry Brust, IPM Vegetable Specialist,
University of Maryland

For the last month or so in our area there have been problems with tomato ripening that are called by various names such as blotchy ripening, yellow shoulder, grey wall, internal whitening, etc. They all have the same root cause; lower levels of potassium (K⁺) than what is needed by the fruit to ripen properly. But just as in blossom end rot the factors that lead to the ripening problems are much more complex than just reduced levels of K⁺.

The first problem I was aware of, mostly because it was happening in my research high tunnel was a problem of internal whitening. This is different from grey wall because there are blotches of hard white corky tissue instead of collapsed dark tissue (common in grey wall) in the outer wall of the fruit. In addition the corky white tissue is not confined to the outer wall but is found throughout the interior walls of the fruit. Other high tunnel growers in the southern part of Maryland and on the Eastern Shore



were also having these same problems at the same time. There were many peculiar factors with this problem; first that it happened over a large geographical area, second that it happened across many varieties and third that the ripening problem occurred much more often in a high tunnel than outside. A couple of growers from the different high tunnels took soil and tissue samples and consistently found that the soil was at adequate levels or greater for K⁺, but the tissue samples were always low to very low in K⁺. What could cause a reduction in K⁺ in the plant when there was plenty in the soil? One explanation is the weather we had in May and June. As you recall we either set records or came close for those two months for rain. This also meant we had very cloudy skies. Whether it was the very wet weather or the very cloudy skies or both, tomato plants were not able to take up enough K⁺ to stop the ripening problems. This may seem odd but anything that interferes with the ability of the plant to take up K⁺ will result in ripening problems, especially when there is a heavy fruit load on the plant. What makes me think the fruit load is important, in a small study I removed 50% of the fruit (various sizes of all green fruit) off of 10 plants scattered throughout a high tunnel. A month later the incidence of ripening problems was about 20% on the plants that had no fruit removed and almost 0% for the plants that I had removed the fruit.

Now we are seeing problems in the field and high tunnels with yellow shoulder and uneven ripening (fig 3). It comes around in mid to late summer when plants are putting on fruit and temperatures and humidity are high. The cause is the same, K⁺ levels too low in the plant, but for different reasons. Some of the reasons are plants are under stress, an inadequate moisture level or a too small or damaged tomato root system that does not allow the plant to take up the proper amount of K⁺. If the roots are concentrated in the top 6 inches of soil and the plant canopy is poor this can expose the black plastic to the sun and raise soil temperatures to the point where water as well as K⁺ uptake is reduced enough to cause ripening problems.

You will notice that I have not mentioned any real solutions to the various factors that cause ripening problems. Saying “be sure you have enough K⁺ in your soil” does not seem to be the solution any more. I know that some growers use a foliar spray

of potassium sulfate or potassium phosphate two or three times after flowering to move more K⁺ into the plant. I have no idea whether this will work or not. Some growers use white plastic mulch to reduce soil temperatures and have fewer problems with yellow shoulder in late summer. What I hope to do is conduct several studies next year looking at many of the above factors and their possible solutions.

Downy Mildew on Cucurbits

~Bob Mulrooney, Extension Plant Pathologist;
bobmul@udel.edu



The weather continues to be very favorable for downy mildew. It is spreading now to hosts other than cucumber. Cantaloupe, watermelon, winter squash and pumpkin have all been infected in the region. The spots are much smaller on butternut squash and watermelon but still produce the small tuft of fungus growth on the underside of the leaf. **All cucurbit growers need to be including a fungicide specific for downy mildew** in their spray rotation such as Previcur Flex, Ranman, Presidio, or Tanos at this time. Follow the label directions for plant-back restrictions, mixing partners such as Bravo and mancozeb, and adjuvants. See the [2009 Commercial Vegetable Productions Recommendations](#) for more information.

Late Summer and Fall Cover Crops for Vegetable Ground

~Gordon Johnson, Extension Ag Agent, Kent Co. ;
gcjohn@udel.edu

Vegetable growers should make plans to put in late summer or fall cover crops after summer vegetables are harvested. Cover crops help to maintain organic matter, recycle nutrients, reduce compaction, and maintain overall soil health. These benefits far outweigh the cost of establishing the cover crops.

The following are some cover crops to consider:

Winter Annual Legumes

These cover crops will produce significant biomass (organic matter) and, at the same time, provide nitrogen for the following crop through biological

nitrogen fixation: hairy vetch, crimson clover, field peas (winter peas). Hairy vetch makes an excellent mulch for no-tilling vegetables into. Plant by September 30.

Small Grains

These winter annual grasses will provide significant biomass, recycle nutrients (especially nitrogen), and produce excellent mulch for no tilling vegetables in the spring: rye, triticale, wheat, barley, winter oats. Spring oats can be used where you want to get fall cover but need the crop to winter kill for early spring vegetable crops. Plant by the end of October.

Mustard Family Cover Crops

These include both fully hardy over-wintering species and species that will winter kill. They provide significant organic matter, recycle nitrogen, can reduce compaction, and offer the potential for biofumigation. Plant by September 15. Included are:

Rapeseed and Canola – overwinter and are good biofumigants.

Forage Radish, Oilseed Radish, and Daikon Radish – very good for reducing compaction in soils; forage radish winter kills, oilseed radish is more hardy.

Mustards (brown and yellow mustards as well as garden mustard) - offer good biofumigant potential; half hardy.

Turnips (forage and garden types) – good biomass production; half hardy.

Kale (forage and garden types) – winter hardy; good biomass production.

Hybrid Forage Brassicas (such as ‘Typhon’) –these are hybrid crosses of two or more species that will produce excellent fall growth and some will overwinter

Annual Ryegrass

This winter annual grass offers easy establishment, even when overseeded, and puts on significant fall and spring biomass. It scavenges nitrogen and is a quick decomposer in spring. Plant by October 15. For seeding rates, contact you County Extension Office.

It is often advantageous to plant several of these cover crops together and most will mix well. Use the planting deadline for the species that has to be planted the earliest. Reduce the rate of each component in the mix by 1/3 to 1/2. I particularly like a rye-hairy vetch-crimson clover mix.

Corn Earworm and Fall Army Worm Alert

Moth counts from black light traps and larvae populations for both corn earworm and fall army worm are very high.



Fall armyworm is expected to remain a consistent problem through frost. Fall Armyworm has caused significant damage to sweet corn fields in the area. As corn dries down, we can expect these pests to move into green crops—primarily soybeans and vegetable fields. Keep your eye out and be prepared to spray if needed.

The following is an alert from Joanne Whalen, University of Delaware.....The potential for corn earworm pressure in soybeans is high statewide. Trap catches remain high throughout the state, moths can be found laying eggs in double crop fields statewide and larvae are being found. With the continued high trap catches throughout the state, be sure to check all fields for earworms. Although open canopy blooming fields will be the most attractive to egg laying moths you should check all fields to be sure you do not miss an infestation. As a general guideline, a treatment should be considered if you find 3 podworms per 25 sweeps in narrow row fields and 5 podworms per 25 sweeps in wide row fields (20 inches or greater). However, these static thresholds were calculated for a 10-year average soybean bushel value of \$6.28. The best approach is to access the Corn Earworm Calculator (<http://www.ipm.vt.edu/cew/>) which estimates a threshold based on the actual treatment cost and bushel value you enter. As reported in previous newsletters, states to our south, including Virginia, have reported control failures with pyrethroids in soybeans in 2007 and 2008. As of the 2008 season,

poor control with pyrethroids in our area has been the result of treating too late, treating large worms or using too low of a rate. If a pyrethroid is used for earworm control, you need to be using the highest labeled rate. In addition to the pyrethroids, Steward, Lorsban or Larvin should also be considered, especially if armyworms are in the mix. In some fields, fall armyworm and beet armyworm can also be found.

On the lighter side.....

“There’s a party talking to a ship at sea that says, “Ship at sea, please divert your course 15 degrees to the south to avoid a collision.”

“Now the response was, “Recommend you divert your course 15 degrees to the north to avoid a collision.”

“The first party says, “Sorry, sir, but you will have to divert your course 15 degrees to the south to avoid a collision.”

“The answering party says, “This is the captain of a naval ship. I say again, divert your course.”

“The first party says, “Pardon me sir, you must divert your course.”

“Now the ship says, “This is an aircraft carrier, the second largest ship in the naval fleet. We are accompanied by three destroyers, three cruisers, and numerous support vessels. I demand that you change your course 15 degrees north. I say again, that is 1-5 degrees north or counter-measures will be taken. Do you understand?”

“The response was, “Dear Captain, the next move is your call. This is a lighthouse.”

Hope you have a bountiful fall.....

Ben Beale

Ben Beale, Extension Educator, CED

Adam Lyon, Nutrient Management Advisor
Jennifer Horton, Program Assistant
Master Gardener Coordinator
Kathi Dionne, Administrative Assistant II