

Calendar of Events Fall 2011



October 21 & 28: Private Pesticide Applicator Course

St. Mary's Extension Office
6:30-8:30 p.m. Class on 10/21
Exam on 10/28

November 16-18: Mid-Atlantic Crop Management School
Ocean City, MD

December 1: Southern Maryland Evening Crops Dinner Meeting
4 p.m. - 8:30 p.m.
Izaak Walton League, Waldorf
Attending this session will satisfy requirements for Nutrient Voucher and Private Pesticide Recertification.

December 8, 2010 Pesticide Recertification
6:30 to 8:30 p.m.
Charlotte Hall Library

December 10: Loveville Produce Auction Annual Meeting
Loveville

January 19, 2011: Southern Maryland Hay & Pasture Conference
Waldorf

February 9, 2011: S. MD Vegetable & Fruit Meeting
8 a.m. - 4 p.m.
Held in St. Mary's County - Location to be Determined

Fall, 2010



For man, autumn is a time of harvest, of gathering together.
For nature, it is a time of sowing, of scattering abroad.
Edwin Way Teale

Here's What's Happening This Fall with University of Maryland Extension:

October 21 & October 28, 2010

Private Pesticide Applicator's Course and Exam

Need a Private Applicator Pesticide License?

Anyone who is interested in acquiring their private pesticide applicator's license, plan to attend our next scheduled workshop to be held on October 21, 2010. The optional workshop will help prepare you to take the exam the following week on October 28, 2010. Please call the office at 301-475-4484 to register and obtain the necessary study materials. The training class will be held at the University of Maryland Extension Office from 6:30 p.m. to 8:30 p.m. The actual exam will be held the following week on October 28, 2010, same time; same place.

November 16-18, 2010

Maryland Atlantic Crop Management School

The **Mid-Atlantic Crop Management School** will be held at the Princess Royale Hotel in Ocean City on **November 16-18, 2010**. Individuals seeking advanced training in soil and water, soil fertility, crop production and pest management will have an opportunity at hands on, intensive sessions that also provide continuing education units (CEU's) for the Certified Crop Advisor (CCA) Program. You may also register on line at:



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

December 1, 2010

Southern Maryland Evening Crops Conference

4 p.m. to 8:30 p.m.

The Southern Maryland Agents would like to invite everyone to join with our University specialists to have your questions answered about crop production and pest control at the Southern MD Crops Conference on December 1, 2010, 4:00 to 8:30 p.m. , at the Izaak Walton League Conference Center in Waldorf, MD.

Attendance at this conference will satisfy the requirement for the **Private Pesticide Applicator Recertification & Nutrient Management Voucher**. **Please call the Charles County Extension Office at 301-934-5403 to register.** Make plans now to attend.

December 8, 2010

Pesticide Recertification

6:30 p.m. to 8:30 p.m.

Plan to attend recertification training if your license expires December 31, 2010. The next class will be held on Wednesday, December 8, 2010, from 6:30-8:30 p.m at the Charlotte Hall Library. Space is limited, if you miss one of these programs--don't worry--spring recertification dates will enable you to

keep your old license without having to take the exam again. Please call ahead to register at 301-475-4484.

December 10, 2010

Loveville Produce Auction 6th Annual Meeting

The Loveville Produce Auction invites all interested farmers and buyers to attend the annual meeting on December 10, 2010. The meeting will be held at 25730 Dove Point Road. Take Rt. 247 (Loveville Road) to Parsons Mill Rd. Dove Pt Ln is ½ mile on left. More information will be forthcoming.

January 19, 2011

Southern Maryland Hay & Pasture Conference

Make plans to attend the **Southern Maryland Hay & Pasture Conference, January 19, 2011**, at the Izaak Walton League Conference Facility in Waldorf, MD. Topics will be presented covering all aspects of hay and pasture production. The programs will address key issues and concerns facing hay and pasture producers. The conferences also features displays and exhibits by numerous agribusinesses. Attendees will be able to obtain information on seed, fertilizer, equipment, fencing, etc. needed for hay and pasture production and management.



More detailed program information on the Southern Maryland conference will soon be available on the Web at: <http://www.mdforages.umd.edu> or through local county Extension and NRCS/Soil Conservation District offices in Maryland. **Pesticide recertification and nutrient voucher credits available.** Register by calling the University of Maryland Extension – St. Mary's office at 301-475-4484.

February 9, 2011

Southern Maryland Vegetable & Fruit Conference

8 a.m. to 4 p.m.

Make plans to attend the **Southern Maryland Vegetable and Fruit Production Meeting on Wednesday, February 9, 2011**. This year the meeting will be held in St. Mary's County (location to be determined) from 8:00 a.m. to 4:00 p.m.

Speakers will provide IPM updates and present on a broad range of production topics. Also meeting sponsors will showcase their products and services, and state vegetable organization leaders will be present to recruit and answer your questions.

Full conference details will be announced soon. Please call the University of Maryland Extension - St. Mary's County Office at 301-475-4484 to register.

MD Drought Handbooks Available

Two new publications have been compiled to assist producers in dealing with the 2010 drought. The first Drought Handbook was originally compiled in 2007 by Craig Yohn, West Virginia University Extension Agent-Jefferson County in response to the widespread drought of that time. The handbook was adapted to Maryland conditions and distributed to farmers by Maryland Extension Agents in the summer and fall of 2007. We had hoped it would stay on the shelves and collect dust for a while longer. Unfortunately, that is not the case.

The summer of 2010 has been a challenge for most producers around the state. The spring started off without a hitch. Crops were planted on time and looked very good heading into the summer growing season. However June and July brought record heat coupled with sporadic rainfall. The result has been a very poor growing season. We anticipate a marked decline in yields of many crops, particularly hay, pasture and corn.

Thus, the University of Maryland Agriculture Profitability team, in conjunction with industry and government partners, revised the Drought Handbook for use in 2010. The handbook has been expanded to include a [grain edition](#) and [forage/animal edition](#). These handbooks contain a wide variety of information relevant to drought conditions. Please utilize the links above to peruse the online version or contact your county extension office for a print version.

Grain Edition:

<http://www.agnr.umd.edu/Extension/local/SaintMarys/files/2010%20Drought%20Handbook%20for%20Grainbb1.pdf>

Animal/Forage Version:

<http://www.agnr.umd.edu/Extension/local/SaintMarys/files/2010%20Drought%20Handbook%20Forage-Marylandbbeale%20090710.pdf>

Maryland Department of Agriculture Offering Free Grain/Forage Testing Program

The Maryland Department of Agriculture (MDA) is offering a free testing program to drought impacted Maryland farmers for nitrate and prussic acid in forage and for aflatoxin in corn grain. Prussic acid poisoning is mostly associated with sorghum and related species. The program is a cooperative effort between MDA and the University of Maryland Extension. Testing is done by the MDA State Chemist's Section.

Farmers can bring their samples to their nearest UME office so that UME can assist them with paperwork and make sure the samples and paperwork are properly prepared. MDA will pick up the samples daily (Monday through Friday) and fax results to farmers usually within 24 hours.

Instructions for preparing and packing samples for testing are below. Use one Sample Identification and Information Sheet for each sample submitted. Place samples in a plastic bag and refrigerate or freeze as soon as possible, especially if held overnight, and keep on ice during transport. Each separate field should have its own paperwork and sample.

Taking corn samples for aflatoxin analysis:

- Collect 12 ears of corn from different areas of the field to get a representative sample.
- Keep cold as described above.

(Note: Shelled corn already harvested can also be tested. Collect a 1 quart representative sample and bring to the Extension office)

Taking silage samples for nitrate and prussic acid analysis:

- Collect at least 10 stalks from different areas of the field to get a representative sample.
- Chop silage up into 6" pieces and thoroughly mix samples together.
- Prussic acid samples must be kept frozen at all times to prevent volatilization of prussic acid (hydrocyanic acid).

Crop Rotation Planning and Revision
Gordon Johnson, Extension Vegetable & Fruit
Specialist; University of Delaware
gcjohn@udel.edu

Fall is a good time for vegetable growers to plan or revise rotations. The following are some general thoughts on rotations.

Three years is the minimum rotation for crops in the same family or with similar disease profiles. Five or more years is recommended for vine crops. Field crops such as corn, small grains, and sorghum are good rotational crops. Soybeans may be a good rotation for some crops but not for legumes such as lima beans or snap beans.

Problems often arise where growers increase vegetable acreage without adequate ground for rotation. Base your acreage decisions on available fields that fit rotational schemes.

Where vegetables are the main income for a farm, consider using soil improving crops (green manures, biofumigant crops, soil improving cover crops) in lieu of standard field crop rotations. While some income will be lost on field crop revenues, there will be long term gains with improved vegetable yields.

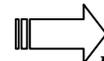
Where rotations are tight, it is critical to consider some disease reducing crops in the rotation (mustard family and sorghums for example). Try to build up organic matter in these fields as this generally improves overall soil health.

Rotate vegetable families where possible. Do not rotate within a family (such as the bean family, vine crop family, or tomato family). Sweet corn is an example of a good vegetable rotational crop to break up disease cycles on many farms.

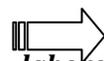
The Maryland Plant Nematology Diagnostic
Laboratory Closing in October

The Maryland Extension Plant Diagnostic Laboratory will NOT be handling/routing nematode soil samples. Maryland residents will be directed by Maryland Extension Personnel and Web Resources to alternate avenues for submitting soil samples for plant-parasitic nematode diagnostics as they are identified. Home gardeners should work with the Home and

Garden Information Center to solve landscape problems (telephone 1-800-342-2507 or visit their website at <http://www.hgic.umd.edu>).

 ***The Delaware Plant Diagnostic Clinic has agreed to accept Maryland Extension nematode samples.***

Plant Diagnostic Clinic
151 Townsend Hall
University of Delaware
Newark, DE 19716-2170
Phone: 302-831-1390
E-mail - bobmul@udel.edu
Fax: 302-831-0605
Web site: ag.udel.edu/Extension/pdc/index.htm
(for sample submission instructions and forms)

 ***The Virginia Tech Nematode Assay laboratory has agreed to accept Maryland Extension nematode samples.***
Nematode Assay Laboratory
115 Price Hall
Virginia Tech
Blacksburg, VA 24061-0331 Phone: (540)231-4650
Fax: (540)231-7477
Email: jon@vt.edu
Web site:
<http://www.ppws.vt.edu/~clinic/nematode.php>
(for sample submission instructions and forms)

Brown Marmorated Stink Bug Runs Amok

Jerry Brust, UME IPM Vegetable Specialist
jbrust@umd.edu

By now everyone has heard about the brown marmorated stink bug (BMSB) *Halyomorpha halys* that was accidentally introduced into the United States in shipping containers arriving from Asia. The first confirmed specimen was collected in Allentown, PA in October 2001, although there is evidence that it was collected from black light traps in New Jersey as early as 2000. Since becoming established in Pennsylvania, the BMSB has spread throughout the mid-Atlantic as far south as Virginia. It also has been found in several southern and Midwestern states.

The BMSB more than likely has a single generation per year in Maryland. Adults emerge from overwintering sites during late May through the

beginning of June. They mate and lay eggs from June through August and probably into September. The eggs hatch into small black and red nymphs that go through five molts throughout July and August. Adults begin to show in mid-August. Their flights for overwintering sites start in mid-September and continue through October.

If you look at web sites that discuss BMSBs many maintain that it is just a nuisance pest and mostly to home owners, but not to commercial fruit or vegetable growers. That has all changed this year. Fruits such as apple, peach, and raspberries have been attacked in western and to a lesser degree in north central Maryland. When BMSBs feed on apple they cause cat facing as well as deformation and internal brown spotting of peaches rendering all of the fruit unmarketable for fresh market. It also has been found feeding on sweet and field corn (where there is no kernel development), tomato (where there is fruit distortion and cloudy spot), pepper (fruit distortion and cloudy spot), and to a lesser degree on okra and sunflower in central and southern Maryland (Fig 1). The damage from BMSB feeding is especially bad on some vegetables where it can deform the fruit more severely than other stink bug species (Fig 1). Whether this is due to greater amounts or different types of enzymes in its saliva is not known. The BMSB also seems to more readily introduce yeast contaminants into its feeding sites that further degrade the fruit. I have found some populations of BMSB in almost every vegetable field I have looked at over the last few weeks. In most cases the pest is doing some damage, but not a great deal. The worst vegetables for damage appear to be tomato and pepper.

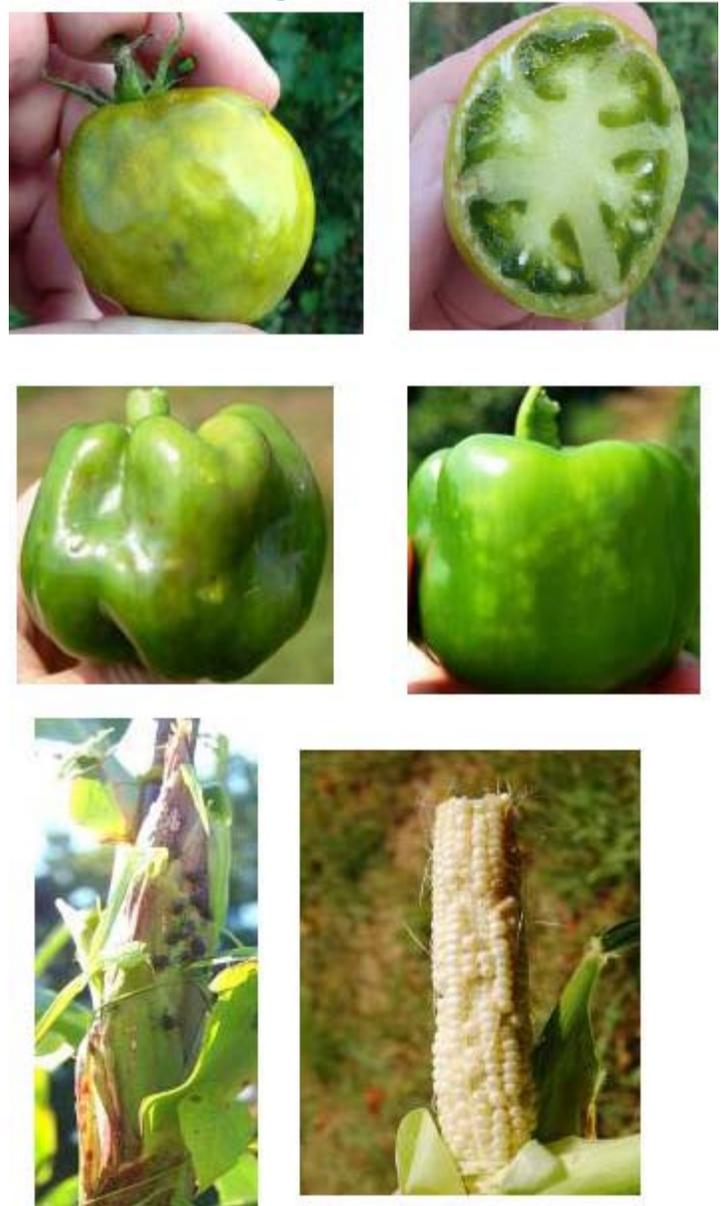
I do not know if BMSB populations will continue at these extraordinarily high levels in the next couple of years. We had a “perfect storm” develop this summer for the Brown marmorated population to explode. We had a severe drought early in the summer along with extreme heat. These two factors literally dried up the usual wild plant hosts of not only BMSB but other pests as well and drove them into our fruit and vegetable fields. The dry weather appeared to be conducive to BMSB survival as their population exploded in August. We probably will not have these same conditions next year and will most likely not see these high populations again-hopefully. However, we just don’t know enough to predict accurately what the situation will be in the coming years. I, like many others, will be conducting studies next year to see if we can find some consistent strategies for their control (this will include organic treatments too).

This pest is something we should be watching for in our vegetable fields and taking note of, but it should not cause panic.

Fig. 1 Brown marmorated stink bug nymph and adult



Fig. 2 Damage to various vegetables by Brown marmorated stink bug



Wheat Production Basics

Dr. Bob Kratochvil
Extension Specialist – Grain and Oil Crops
University of Maryland
Email: rkratoch@umd.edu

Variety Selection

Choose varieties that have good agronomic characteristics including yield potential, disease resistance, lodging tolerance, and test weight. Information about the agronomic performance of wheat varieties grown in this region is compiled by the agronomists and breeders at the region's Universities and posted at their respective websites. The University of Maryland's web address for this information is www.mdcrops.umd.edu.

After you have selected your varieties, find outlets where you can purchase certified seed to ensure that you will be planting wheat that is clean, free of weed seeds, and has been laboratory tested to verify its germination.

After the yield potential for a variety, I consider test weight to be an extremely important trait. It can be affected (reduced) if the harvest season is plagued with periods of rainy, wet weather. When wheat is harvest ready, the kernels are dense and compact. If a rain event occurs followed by unsuitable weather for rapid drying of the harvest canopy, the kernels will absorb moisture and swell, losing their original compact size. Even though subsequent dry weather returns the crop to a harvest ready condition, the kernels will not return to their original compact size. Instead, they are slightly larger. When test weight is measured, there are fewer kernels comprising the test weight sample resulting in a lower test weight. Depending upon the severity of the rainy, wet period, test weight reductions from slight (less than one pound/bushel) to severe (four to five pounds/bushel) can occur. Both high and low test weight varieties will suffer similar reductions but by starting with a 59 lb/bu wheat versus a 57 lb/bu variety, there will be a smaller price penalty. Of course, this last statement depends upon whether pre-harvest sprouting occurred that caused reductions in falling number, an important baking characteristic for many soft red winter wheat products.

Another important agronomic consideration is to choose more than one variety especially if you are producing substantial acreage. As you select varieties, pay attention to their flowering or heading

dates. By selecting varieties that have different flowering dates you will be helping to reduce your risk for Fusarium (scab) infection. Wheat is most susceptible to Fusarium infection during flowering although some infection is possible during early kernel development. Wheat at flowering that is experiencing temperatures ranging from 65-85° F. and extended periods of rainy, wet weather is most susceptible to infection. By having varieties with a range of flowering dates, you provide an opportunity to avoid infection by not having your entire crop at the same stage of development at the same time.

Planting Date

Wheat should be planted by a date that will allow it to germinate, emerge, and have adequate growth and development during the fall so that it is healthy when it enters the winter dormancy period. It is important to not plant too early, a practice that can result in more growth than necessary during the fall causing the wheat's crown to possibly be overly stressed before it enters the dormant period. Planting too early also increases the potential for Hessian fly infestation. Hessian fly prefers wheat over barley or rye as its primary host. Hessian fly infestations have increased in prevalence during recent years because of the use of wheat planted early for cover crop purposes and with the increase of no-till planting of double crop soybean into wheat stubble that can have varying levels of volunteer wheat.

The Hessian fly life cycle requires the presence of wheat seedlings where it can lay its eggs upon the young leaves. The eggs hatch within a few days and the larvae migrate to the whorl and ultimately to the crown area below ground. Severe, early leaf feeding can result in plants dying causing stand problems in the fall. The larvae that migrate to the underground crown eventually enter a pupae stage that allows them to overwinter. In the spring, a new generation of adults will hatch from the pupae. These adults repeat the egg-laying cycle producing larvae that will migrate into the wheat stems, killing tillers, feeding on the stems causing them to be weakened, and increasing the potential for lodging to occur. Significant infestations of Hessian fly will result in reduced yields by causing small, poorly filled wheat heads that contain kernels of poor quality.

The Hessian fly does not survive freezing temperatures. Fly-free dates that are associated with the average first-frost date have been identified for the Mid-Atlantic region. In Maryland, the fly-free dates range from late September in the northern and western counties to October 9-11 for the Lower

Eastern Shore counties. By planting within an approximate three-week period following the fly-free date for your area, you will be reducing your risk for Hessian fly infestation while ensuring that you will accumulate an adequate amount of heat-units to establish a healthy wheat crop as it enters the winter dormant period. Planting during this window has also proven to optimize yield with the ideal time to plant closer to the beginning of the three -week period rather than later in the window. And, if planting does not occur until after the end of the window, yield reductions of approximately 10% per week can be expected up to about Thanksgiving.

Seeding Rate

The long-time volumetric standard for planting wheat, two bushel per acre, should not be used if you want to achieve the plant population, 1.3 to 1.4 million plants per acre, needed to optimize yield. To achieve this population, two seed characteristics need to be considered, germination rate and seed size. A seed lot with a germination rate of 95% will require less seed to be planted than a seed lot that has 85% germination. One of the primary reasons to purchase certified seed is the assurance that you have pure seed that has excellent germination. So, if your seed lot has a germination rate of 90%, to attain the population goal of 1.3 to 1.4 million plants, you will want to plant approximately 1.5 million seeds per acre.

Though wheat seed is relatively small, it does vary in size from large (approximately 10,000 seed per pound) to small (15,000 seed per pound). If you simply set your drill to plant two bushel per acre, you will under-plant if you have a large-seed variety and over-plant with a small-seed variety.

So, how do you achieve the planting goal with your drill? You need to calibrate it for each of your seed lots, a relatively easy task. First, mark a known distance in an area where you can make a few calibration runs; a distance of 50 feet is often sufficient. Set the drill for a known seed setting using the chart provided for the drill (i.e. two bushel per acre is a good place to start). Next, put enough seed in the drill to cover the seed hopper and attach small zip lock bags under 4-5 of the seed units where they attach to the seed hopper. Make a test run with the drill in the ground and at the ground speed you will use when planting. Collect the bags of seed and weigh (if you have a scale that can weigh small amounts) or count the number of seed collected to determine how much seed each unit is planting and then calculate the average.

With this information, you can estimate the amount seed that would be planted at the setting you have used. An easy way to determine this is to calculate the length of row necessary for one unit to plant one acre. If you have a drill with 7 inch row spacing, the length of row required is 74,674 feet. If your drill has 7.5 inch row spacing, the length of row necessary for an acre is 69,696 feet. To achieve 1.5 million seed per acre, you need to plant 20 seeds per foot for the 7 inch drill and approximately 21.5 seed per foot with the 7.5-inch drill. For the 50 foot test run, you want to collect 1,000 seeds for the 7-inch drill and 1,075 seeds for the 7.5-inch drill. If you have not achieved the seed rate goal at the drill setting you have used, adjust it accordingly and make another test run, repeating the calibration steps until you are satisfied with your result.

Orchardgrass Strategy Round-Table Dave Myers, Extension Educator Davidsonville, MD August 27, 2010

Area farmers met with faculty from the University of Maryland Extension and NRCS colleagues to participate in the Orchardgrass Strategy Round-Table on August 27th. They came together to develop hay and pasture strategies that address the continued orchardgrass decline in our region.

Farmers shared their current hay and pasture seeding practices that have been successful or unsuccessful, with the goal of answering the following questions: 1) Do we need to develop a grass based forage rotation that relies less on orchardgrass to break the current disease and insect cycles in our fields? 2) Should we strive to incorporate other forage species that may be productive in our hay and pasture systems such as: bluegrass, smooth brome grass, fescues, oats, timothy, millets, sorghums, lespedezas, clovers, alfalfa and others? What strategy do we need to develop that especially focus on the following key pests?

Key Insect Pests: white grubs, wireworms, billbugs, curculio, mites, thrips, aphids and nematodes. Key Diseases: anthracnose, septoria leaf spot, brown stripe and yellow barley dwarf.

Summary of Shared Observations:

- Older established stands of orchardgrass are still surviving well, while newer

establishments are failing at establishment or within a year or two.

- Everyone agreed that they were still planting the same old orchardgrass varieties: Hallmark, Benchmark and Potomac.
- Newly seeded orchardgrass fields seem to be growing better and surviving along the fence edges and field borders that are not cut or trampled.
- The group of farmers preferred fall seeding, however, often overseed in the spring. All agreed that the severe heat in April of this year was especially damaging to young stands.
- It was often observed that low organic matter soils and compaction led to poor root system development of newly established orchardgrass. One grower stated that manure application seemed to stimulate plant vigor.

Orchardgrass Strategy:

- Persist, a new variety from King's AgriSeed of orchardgrass may be a viable option. Also be sure to buy certified tagged germination tested seed like Benchmark+.
- Seed orchardgrass mixtures that include novel endophyte tall fescues such as Max Q and BarOptima Plus E34 a new leafy type from Barenbrug Seed, with Kentucky bluegrass, Timothy and a legume.
- Treat the seed with Captan®, Thiram® or Allegiance® for control of the seedling damping-off diseases: Phytophthora, Pythium and Rhizoctonia.
- Choose your best fields with deep well drained soils that have organic matter and are friable for the expensive seeding packages. Make manure applications to increase organic matter, combined with sub-soiling, chiseling or no-till ripping may be advantageous. Green manuring, the practice

of turning down a lush cover crop for soil building may also be valuable.

- Watch the root development of the newly seeded orchardgrass stand, not just the top growth. Allow the roots to establish deep into the plow layer before heavy cutting or grazing pressure is applied.
- Monitor for the key insects and diseases of orchardgrass, have them laboratory identified, and rotate out of orchardgrass for at least a year before re-establishing using rotational crops like oats, rye, millets and sudax.
- Consider applying labeled fungicides and insecticides to orchardgrass stands that economically producing such as Kumulus®, Fosphite®, Malathion®, Sevin® etc. A recent Section 18 emergency label has been approved for Quadris® in some states applied at 10 oz/A for disease management in orchardgrass clover stands.
- Always keep the cutter bar height high, manage harvests to reduce compaction and provide 45-day rest and regrowth interval between hay harvests; Adjust grazing intervals to allow visible plant recovery.

Mid-Atlantic Orchardgrass Survey Orchardgrass Growers Needed Complete the On-line survey at:

<https://survey.vt.edu/survey/entry.jsp?id=1257537284074>

Don't Forget to Clean Out Those Greenhouses



Sanitation is a critical component of a greenhouse disease control program. Viral diseases such as Tobacco Mosaic Virus can be carried over on infected residue left or introduced into the greenhouse. We have seen

an increase in the incidence of this disease in the last two years. Other fungal disease can also be carried over. Take a few hours and clean out your houses to

prevent weeks of headache in the growing season. Follow these recommendations:

Remove all foreign material such as plant residue, potting soil and trays from the greenhouse. Residue as large as ¼" can harbor disease that disinfectants cannot reach.

Wash all surfaces with an approved disinfectant. "All surfaces" includes the greenhouse plastic benches and non-porous floors. Disinfectants include:

Chlorine Bleach: Use 1/2 % final solution. For most household materials, this would be 1 gallon of bleach to 9 gallons of water. Use the mixed solution within 2 hours or chlorine will evaporate.

Hydrogen Dioxide: Zeritol, use at ration of 1 part hydrogen dioxide to 49 parts water.

Quaternary Ammonium Chloride Salt: Greenshield, Phisan 20 or Prevert. Soak objects for at least 10 minutes. Organic material inactivates so be sure to remove all organic material.

In addition, growers are cautioned not to use Round-up in or around the greenhouse. We have seen a couple of instances where Round-up has carried over from the previous year on plastic containers and pots. Remember that Round-up is in-activated very quickly once it comes in contact with soil, however can remain active if it sits on plastic.

USDA Publishes New National Organic Program Guide

From the September 2010 eOrganic Newsletter (<http://eorganic.info/>)

The first edition of the U.S. Department of Agriculture's handbook for the organic sector was published on Sept. 2, 2010. Prepared by the National Organic Program (NOP), the handbook provides guidance about national organic regulations for those who own, manage, or certify organic operations. It is intended to serve as a resource for the organic sector to help participants comply with federal regulations. It is available online at www.ams.usda.gov/NOPProgramHandbook. Printed copies can be made available upon request to the Standards Division, National Organic Program, 1400 Independence Ave., SW., Room 2646-S, Ag Stop 0268,

Washington, D.C. 20250-0268; telephone: (202) 720-3252; fax: (202) 205-7808.

The handbook provides guidance on the allowance of green waste and approval of liquid fertilizers in organic production systems; certification of organic yeast; processed animal manures in organic crop production; reassessed inert ingredients; and the calculation of dry matter intake to verify compliance with the NOP's pasture requirements. It also includes instructions concerning organic certification, such as recordkeeping, steps to certification, and organic certificates; accreditation procedures, such as how to apply to become an accredited certifying agent; international procedures, such as how USDA determines equivalence of foreign organic standards to those of the NOP; compliance and enforcement measures, such as how to handle complaints; and appeals procedures for certified operations or accredited certification agents.

The handbook explains the difference between NOP regulations and guidance/instruction documents and outlines their purpose, legal effect, and the process by which the NOP authorizes, reviews, revises and disseminates them to the public.

Season Extension and High Tunnel Webinar Series Offered

Learn more about pest management in season extension production systems such as high tunnels by registering for a new webinar series sponsored by the Great Lakes Vegetable Working Group, the University of Illinois Extension, and a Sustainable Agriculture Research and Education Professional Development grant. There will be five 1-2 hour webinars produced on November 1st, 3rd, 8th, 16th, and 18th. The first three webinars will focus on an introduction to pest management in various season extension systems, focusing on tomatoes and winter crops. The last two webinars will be geared toward soil, water, and nutrient management, plus a summary of the Environmental Quality Incentive Program (EQIP) high tunnel pilot project initiated in 2010.

Why consider participating in the season extension and high tunnel production webinar series? Pest complexes in season extension production systems like high tunnels are different than field grown fruits and vegetables, and an understanding of that difference is needed to capitalize on early and late

season markets. High-tunnel production can lengthen the growing season and provide producers with a means to enter the market earlier with high value crops. In addition, in several states the Natural Resource Conservation Service (NRCS) is providing monetary incentives and assistance through EQIP to growers who use high tunnel production systems. Like Agriculture Deputy Secretary Kathleen Merrigan says "The adoption of growing crops using high tunnels provides 'great potential' ...to expand the availability of healthy, locally-grown crops".

Webinar One is titled "Introduction to Pest Management for Season Extension" and will air on November 1, 2010 at 6:30-8:30 pm EST (5:30-7:30 pm CST). Bill Lamont from Pennsylvania State University, will provide an overview of season extension methods and the pros and cons of getting into season extension: low tunnels, row covers, high tunnels, greenhouses, extended storage and basic economics. Judson Reid and Meg McGrath with Cornell University will speak on basic pest management considerations in high tunnels for insects, mites and diseases, respectively. Brad Bergefurd at The Ohio State University will discuss best weed management options in high tunnels.

Webinar Two is titled "Pest Management of Tomatoes in High Tunnels" and will be offered on November 3, 2010 at 6:30-8:30 pm EST (5:30-7:30 pm CST). Matt Kleinhenz, with The Ohio State University will start with an overview of production systems and economics for tomatoes and other solanaceous crops. Shubin Saha, with Purdue University will address cultural controls, pesticide use, biocontrols, and organic methods for pest and mite management of tomatoes under high tunnel production. Sally Miller, with The Ohio State University will discuss cultural controls, pesticide use, grafting, and organic methods for disease management.

Webinar Three is titled "Pest Management in Winter Crops". This webinar will be held on November 8, 2010 from 6:30-8:30 pm EST (5:30-7:30 pm CST). An overview of winter crop production systems including a discussion of economics, sanitation, plastic management, production sequences, crop selection, sanitation for simple hoop-house, greenhouse, in-ground, in container, row covers, and low tunnels will be given by Adam Montri from Michigan State University. Judson Reid will cover pest and mite management for winter crops and Ann Hazelrigg, with the University of Vermont will offer disease management options for winter crops.

Vegetable storage management will be covered by Matt Kleinhenz.

Webinar Four is titled "Management of Nutrients, Water, Soil, and Other Production Considerations in High Tunnels" and will be broadcast November 16, 2010 at a different time than the previous three webinars. This will be a brown-bag lunch webinar airing from 1-2 pm EST (noon-1 pm CST). Mike Orzolek with Pennsylvania State University will be the presenter for this topic. The first 50 participants or organizations to include webinar four as part of their registration, will receive a free copy of the *High Tunnel Production Manual* published by Penn State.

Webinar Five is titled "Interpreting NRCS High Tunnel Project Guidelines". This will also be a brown-bag lunch webinar on November 18, 2010 at 1-2 pm EST (noon-1 pm CST). The guidelines pertaining to the high-tunnel production pilot project will be outlined and discussed by Ruth Book, State Conservation Engineer, Ivan Dozier, Assistant State Conservationist, and Brett Roberts, State Agronomist, with NRCS in Illinois. Not all states in the North Central or North East region participate in this program, so check with your local state NRCS office for more details and applicability.

Pre-registration for this webinar series is mandatory and can be found at http://www.surveymonkey.com/s/season_ext. The cost for the series is \$30 whether you attend one or all five webinars. Each webinar will be recorded and available on several state IPM or vegetable oriented websites for viewing soon after its original airdate. For people who do not have a broadband connection, we are identifying several sites throughout each state to host the webinar series. Please visit the Great Lakes Vegetable Working Group website at <http://glvwg.ag.ohio-state.edu/index.php>, and click on *Projects* at the top of the page to find more information and a pre-registration link for this webinar series.

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**Chrysanthemums: Late, late, late....
Greenhouse TPM/IPM Bi-Weekly Report
Stanton Gill; UME specialist**

We have had reports from several mum growers that the plants are huge this year, but due to the high temperatures the blooms are just not opening at a normal pace in 2010. Also, during the 90 and 100 °F weather several growers using control release fertilizers reported a dumping of nutrients in a very short time. You may need to check your soluble salt levels to determine if the the levels are high and causing root injury now. If the soluble salt reading is low, then the fertilizer was released at one time, you may need to do supplemental feeding since there will be very little fertilizer in the substrate and mums tend to be fertilizer “hogs”.

Check the root system on your mums and look for signs of root rots. The heavy rains 7 - 10 days ago followed by the high temperatures are stressing mums and may result in root rot diseases moving into the weakened plants. You may need to apply a soil drench fungicide. Hopefully, it is not too late at this point.

**Nutrient Management Update – Fall 2010
Adam Lyon, Nutrient Management Advisor**

Now is the perfect time to update your Nutrient Management Plan for the next cropping season! Below is a list of items that are essential to develop a proper plan:

1. **Soil tests** must be less than three years old.
 - Fields with differing crop or nutrient histories, as well as differing soil types should be sampled apart from others.
 - Please keep in mind that Pastures should be sampled as well.
 - We have plenty of bags and all the tools necessary to take good soil samples.
2. **Manure samples** must be taken every year, before manure is spread.
 - If manure is collected from animals and spread onto crop or pastureland, samples

of that manure must be analyzed before spreading.

3. **Animal units** should be documented.
 - Type of animal, average weight, confinement time, and bedding material.
4. **Field histories** should be updated, showing crops from previous years.
 - Multiple cropping scenarios can be planned for. You don't have to be certain, instead, a plan can be developed that covers many different crops!
 - Manure/Sludge, as well as Legume histories should be documented.
5. **Yield Goals** for every crop should be developed based on prior yield records.
 - If you are unsure, or have no realistic yield goals developed, we can help!

Plans should be updated every year (or sooner) depending on the type of operation. So if you are ready to have your plan updated, or if you are unsure, please give us a call at (301)-475-4480 and I will do my best to meet your needs. I look forward to hearing from you and wish everyone a wonderful fall season.

**Late Blight Update:
Ben Beale**

Late blight was found early in the season in St. Mary's County on several farms. Thankfully, with the quick actions of affected producers to apply fungicides, cull plants and manage the disease, along with the very hot and dry summer weather, we did not see any significant losses this summer. Last week, we toured several farms searching for additional samples of late blight and were not able to find any.

As you may remember, what made this case troublesome was the earliness it showed up with no real explanation for how the pathogen arrived. Late blight was not thought to overwinter in this area of the country or to be able to carry-over on treated seed.

What new do we know now? Since the find in the spring, scientists have been working to answer these questions and explain the source of the pathogen. While the work is ongoing, they have made some interesting findings on the type and strain of the particular late blight pathogen.

This is where we need your help. If you suspect late blight in your fields this fall, please give me a

call. We need to get additional samples so that the findings from last spring can be confirmed. The cool wet weather should spur any latent infections into active infections. In the meantime, continue with preventative spray programs. More info on this disease and what steps you should take this winter will be forthcoming.

On-line Newsletters

Two statewide newsletters, “**Vegetable and Fruit Headline**” and “**Agronomy News**” are now available for our Maryland agriculture family. This is a new initiative of University of Maryland Extension's, Agriculture & Natural Resources Profitability Impact team. The newsletters were published twice a month during the growing season and included topics pertinent to crop production, marketing, IPM, and profitability. To be added to the list of folks who receive these newsletters, please call 301-475-4484 or visit the sites below:

State Vegetable & Fruit Headline News

A bi-weekly publication for the commercial vegetable and fruit industry available electronically in 2011 from March through September around the following dates: March 18; April 1 & 15; May 6 & 20; June 3 & 17; July 8 & 22; August 5 & 19; September 2 & 16. To view issues from the past year go to: <http://annearundel.umd.edu/AGNR/VegFruitNews.cfm>

Agronomy News

This newsletter will be published twice a month during the growing season and will include topics pertinent to agronomic crop production. To view issues from the past year go to: <http://dorchester.umd.edu/AgNaturalResources/AgronomyNewsNewsletter.cfm>

On the Lighter Side:

The drought of 2010 has been stressful. Sometimes you just have to laugh about it. As I put this newsletter together, it rained over 8 inches. I think it may have been to keep me from putting in any more dry weather jokes. Here are some of the favorites I have found:

It was so dry that the cows were giving powdered milk.

It was so dry that the trees were whistlin' for the dogs.

It was so dry here that the fire hydrants were chasing the dogs around.

It was so dry, they were encouraging people to pee in the pool.

It was so dry the fish were asking for a drink of water.

It was so dry the birds were building their nests out of barbed wire.

It was so dry all the fish had ticks.

It was so dry you're only permitted to eat watermelon between 8pm and 8am.

It was so dry they've had to close two lanes at the swimming pool.

It was so dry the river only runs twice a week.

And one for the heat: I didn't realize how bad the smog was getting until they started making highway signs in Braille.

I hope you are having a productive fall. If you have any questions that I can help you with, please feel free to call anytime. I look forward to seeing you at our upcoming meetings.

Sincerely,

Ben Beale, Extension Educator
Agriculture & Natural Resources

Adam Lyon
Nutrient Management Advisor

Jennifer Horton, Master Gardener Coordinator
Extension Program Assistant

Kathi Dionne, Administrative Assistant II
Administration/Agriculture & Natural Resources

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