ANNE ARUNDEL SOIL CONSERVATION DISTRICT
would like to cordially invite you to a
MANURE COMPOSTING SEMINAR

Located at
Obligation Farm
4024 Solomon’s Island Road (Rt. 2)
Harwood, MD

WEDNESDAY, MAY 13, 2009
9:30 am -12:30 pm

Topics of Interest & Speakers

Waste Management & Farm Composting- Mr. Chris Wilson
Host and Farm Owner- Obligation Farm

Toxic Plants in Pastures- Mrs. Erin Pittman
University of Maryland, Equine Studies

Nutrient Management- Mrs. Krista Mitchell
University of Maryland Cooperative Extension

Manure Composting- Dr. Frank Gouin
Retired Composting Professional, University of Maryland

Technical Support Provided by:
Anne Arundel Soil Conservation District
Maryland Department of Agriculture (MDA)
USDA- Natural Resources Conservation Services (NRCS)
University of Maryland, Cooperative Extension Services

THIS IS A FREE EVENT!!!

ADVANCED REGISTRATION IS RECOMMENDED

PLEASE RSVP BY MAY 11, 2009 FOR MORE INFORMATION, PLEASE CONTACT: SUZI WHILDEN 410-571-6757 OR Suzi.Whilden@md.nacdnet.net

It is the policy of the University of Maryland Agricultural Experiment Station, and Maryland Cooperative Extension, that no person shall be subjected to discrimination on the grounds of race, color, gender, religion, national origin, sexual orientation, age, marital or parental status, or disability
Hay Quality and Marketing Workshop  
Wednesday, May 20, 2009  
6:30 – 8:30 p.m.  
Cheltenham Warehouse  
Cheltenham, MD  
(Route 301 South just beyond the Veteran’s Cemetery)

Featured speaker:  Dr. Les Vough, Forage Crops Extension Specialist Emeritus, University of Maryland.

Registration is free, but seating is limited, so please call the Extension office at 301-934-5403 to reserve your seat. This program is sponsored by University of Maryland Extension in Southern Maryland.

Contact: Pamela B. King- Extension Agent, (301) 753-8195 or (301) 934-5403

Wye Strawberry Twilight Meeting  
Thursday, May 21, 6:00 p.m.  
Wye Research & Education Center  
Queenstown, MD

Meet at the farm operations complex, 211 Farm Lane - signs will be posted.

Come See:
- High Tunnel Fall/Spring Fruit Production
- Annual Plasticulture System
- 2nd year carry-over plot using bare-rooted dormant plants in a plasticulture system

University and USDA personnel will speak and be on hand to discuss research and cultural aspects of strawberry production.

The meeting will be held rain or shine (bring rain gear).

Registration is not required. For more information contact Mike Newell (410) 827-7388.

For directions go to the Wye Research and Education Center’s website at http://www.wrec.umd.edu/.

Save the Date!  
SMADC Estate Planning Workshop  
Monday, June 15th, 6 p.m.  
Don't Let Uncle Sam Reap what you Sow!

Join us as local financial planners and a local estate attorney present case studies to teach you various planning techniques and strategies to leave your farm or estate to your heirs or charity and not to the government. Learn how to:

- Keep your farm in the family
- Leave more wealth to your children
- Protect your estate from excessive federal and state taxation
- Provide liquidity to pay taxes due
- Gift to charities to reduce taxes
- Generate income in your retirement

Workshop is free.  
Please RSVP by Fri. June 12, (301) 274-1922 or Info@somarylandsogood.com

Workshop to be held at SMECO Auditorium, 15035 Burnt Store Rd., Hughesville, MD 20637

This workshop is sponsored by the Southern Maryland Agricultural Development Commission (SMADC) in cooperation with Wealth Management Partners.

In case of inclement weather, call (301) 274-1922, extension 29 for more information.
You are invited to attend a twilight wagon tour of the University of Maryland Upper Marlboro Research Farm, on Thursday, August 6, 2009 from 4:30 p.m. to 8:30 p.m. Maryland Cooperative Extension will host this Annual Field Crops Research Twilight Barbecue & Ice Cream Social.

Served after the barbecue, "Old-fashioned" homemade ice cream! It's "old fashioned" ice cream because we will be using a 1929 Fair-Banks Morse antique gas engine to do the cranking.

This event will highlight all field crops, agronomic and horticultural research projects currently conducted at the CMREC Upper Marlboro Farm, possibly including but not limited to the following:

- Vegetable IPM
- Weed Control
- Vineyard Projects - Table and Wine Grapes
- Corn Stalk Nitratak Test Study
- P Phyto-Remediation Grain vs. Forage Systems
- Apple, Peach & Beach Plum Research
- Blueberry Project
- High Tunnel Specialty Vegetable Production
- Strip-Till/No-Till Vegetable Production Techniques

4-H Swine Project Safety and the H1N1 Swine Influenza Virus

Jeff W. Howard
University of Maryland,
Assistant Director and State 4-H Program Leader

Some questions have arisen around the state related to 4-H youth raising swine projects and community concerns that this could possibly contribute to an outbreak of H1N1 - Swine Influenza Virus. We received word from a County Educator that they had been contacted by a child’s school Principal who was considering preventing the youth from attending classes because they have 4-H swine projects.

With this noted, I felt the need to draw attention to the resources we have that help answer the questions that may be raised by the public as it relates to our youth raising swine projects.

USDA has the following Q&A posted that addressed the issue of animal to human transfer


Additionally, this information is available via the Maryland Department of Agriculture - http://www.mda.state.md.us/

In short, there is no evidence at this time that swine in the United States are infected with this virus strain and therefore, this is not an animal health or food safety issue.

According to the Centers for Disease Control and Prevention (CDC) and the U.S. Department of Homeland Security:

- People cannot get swine influenza from eating pork or pork products. Most influenza viruses, including the swine flu virus, are not spread by food.
- Eating properly handled and cooked pork products is safe.
- No food safety issues have been identified, related to the flu.
- Preliminary investigations have determined that none of the people infected with the flu had contact with hogs.
- The virus is spreading by human-to-human transmission.

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www.maryland4h.org

H1N1 Flu (Swine Flu) and You

What is H1N1 (swine flu)?
H1N1 (referred to as "swine flu" early on) is a new influenza virus causing illness in people. This new virus was first detected in people in April 2009 in the United States. Other countries, including Mexico and Canada, have reported people sick with this new virus. This virus is spreading from person-to-person, probably in much the same way that regular seasonal influenza viruses spread.
Why is this new H1N1 virus sometimes called “swine flu”? This virus was originally referred to as “swine flu” because laboratory testing showed that many of the genes in this new virus were very similar to influenza viruses that normally occur in pigs in North America. But further study has shown that this new virus is very different from what normally circulates in North American pigs. It has two genes from flu viruses that normally circulate in pigs in Europe and Asia and avian genes and human genes. Scientists call this a “quadruple reassortant” virus.

Do pigs carry this virus and can I catch this virus from a pig? At this time, there is no evidence that swine in the United States are infected with this new virus. However, there are flu viruses that commonly cause outbreaks of illness in pigs. Most of the time, these viruses do not infect people, but influenza viruses can spread back and forth between pigs and people.

Are there human infections with this H1N1 virus in the U.S.? Yes. Cases of human infection with this H1N1 influenza virus were first confirmed in the U.S. in Southern California and near Guadalupe County, Texas. The outbreak intensified rapidly from that time and more and more states have been reporting cases of illness from this virus. An updated case count of confirmed novel H1N1 flu infections in the United States is kept at [http://www.cdc.gov/h1n1flu/investigation.htm](http://www.cdc.gov/h1n1flu/investigation.htm). CDC and local and state health agencies are working together to investigate this situation.

Is this new H1N1 virus contagious? CDC has determined that this new H1N1 virus is contagious and is spreading from human to human. However, at this time, it is not known how easily the virus spreads between people.

What are the signs and symptoms of this virus in people? The symptoms of this new influenza A H1N1 virus in people are similar to the symptoms of regular human flu and include fever, cough, sore throat, body aches, headache, chills and fatigue. A significant number of people who have been infected with this virus also have reported diarrhea and vomiting. Also, like seasonal flu, severe illnesses and death has occurred as a result of illness associated with this virus.

How severe is illness associated with this new H1N1 virus? It’s not known at this time how severe this virus will be in the general population. CDC is studying the medical histories of people who have been infected with this virus to determine whether some people may be at greater risk from infection, serious illness or hospitalization from the virus. In seasonal flu, there are certain people that are at higher risk of serious flu-related complications. This includes young children, pregnant women, people with chronic medical conditions and people 65 and older. It’s unknown at this time whether certain groups of people are at greater risk of serious flu-related complications from infection with this new virus. CDC also is conducting laboratory studies to see if certain people might have natural immunity to this virus, depending on their age.

How does this new H1N1 virus spread? Spread of this H1N1 virus is thought to be happening in the same way that seasonal flu spreads. Flu viruses are spread mainly from person to person through coughing or sneezing by people with influenza. Sometimes people may become infected by touching something with flu viruses on it and then touching their mouth or nose.

Can I get infected with this new H1N1 virus from eating or preparing pork? No. H1N1 viruses are not spread by food. You cannot get this new H1N1 virus from eating pork or pork products. Eating properly handled and cooked pork products is safe.

Is there a risk from drinking water? Tap water that has been treated by conventional disinfection processes does not likely pose a risk for transmission of influenza viruses. Current drinking water treatment regulations provide a high degree of protection from viruses. No research has been completed on the susceptibility of the novel H1N1 flu virus to conventional drinking water treatment processes. However, recent studies have demonstrated that free chlorine levels typically used in drinking water treatment are adequate to inactivate highly pathogenic H5N1 avian influenza. It is likely that other influenza viruses such as novel H1N1 would also be similarly inactivated by chlorination. To date, there have been no documented human cases of influenza caused by exposure to influenza-contaminated drinking water.

Can the novel H1N1 flu virus be spread through water in swimming pools, spas, water parks, interactive fountains, and other treated recreational water venues? Recreational water that has been treated at CDC recommended disinfectant levels (1–3 parts per million [ppm or mg/L] for pools and 2–5 ppm for spas) does not likely pose a risk for transmission of influenza viruses. Currently, there are no documented human cases of
influenza caused by exposure to influenza-contaminated swimming pool water. No research has been completed on the susceptibility of the novel H1N1 flu virus to chlorine and other disinfectants used in swimming pools, spas, water parks, interactive fountains, and other treated recreational venues. However, recent studies have demonstrated that free chlorine levels recommended by CDC are adequate to disinfect highly pathogenic H5N1 avian influenza virus. It is likely that other influenza viruses such as the novel H1N1 flu virus would also be disinfected by these chlorine levels.

**Can H1N1 influenza virus be spread at recreational water venues outside of the water?**
Yes, recreational water venues are no different than any other group setting. The spread of this novel H1N1 flu is thought to be happening in the same way that seasonal flu spreads. Flu viruses are spread mainly from person to person through coughing or sneezing of people with influenza. Sometimes people may become infected by touching something with flu viruses on it and then touching their mouth or nose.

**What should I do to keep from getting the flu?**
First and most important: wash your hands. Try to stay in good general health. Get plenty of sleep, be physically active, manage your stress, drink plenty of fluids, and eat nutritious food. Try not to touch surfaces that may be contaminated with the flu virus. Avoid close contact with people who are sick.

**Are there medicines to treat infection with this new virus?**
Yes. CDC recommends the use of oseltamivir or zanamivir for the treatment and/or prevention of infection with these new influenza A (H1N1) viruses. Antiviral drugs are prescription medicines (pills, liquid or an inhaler) that fight against the flu by keeping flu viruses from reproducing in your body. If you get sick, antiviral drugs can make your illness milder and make you feel better faster. They may also prevent serious flu complications. During the current outbreak, the priority use for influenza antiviral drugs during is to treat severe influenza illness.

**How long can an infected person spread this virus to others?**
At the current time, CDC believes that this virus has the same properties in terms of spread as seasonal flu viruses. With seasonal flu, studies have shown that people may be contagious from one day before they develop symptoms to up to 7 days after they get sick. Children, especially younger children, might potentially be contagious for longer periods. CDC is studying the virus and its capabilities to try to learn more and will provide more information as it becomes available.

**What surfaces are most likely to be sources of contamination?**
Germs can be spread when a person touches something that is contaminated with germs and then touches his or her eyes, nose, or mouth. Droplets from a cough or sneeze of an infected person move through the air. Germs can be spread when a person touches respiratory droplets from another person on a surface like a desk, for example, and then touches their own eyes, mouth or nose before washing their hands.

**What can I do to protect myself from getting sick?**
There is no vaccine available right now to protect against this new H1N1 virus. There are everyday actions that can help prevent the spread of germs that cause respiratory illnesses like influenza. Take these everyday steps to protect your health:
- Cover your nose and mouth with a tissue when you cough or sneeze. Throw the tissue in the trash after you use it.
- Wash your hands often with soap and water, especially after you cough or sneeze. Alcohol-based hand cleaners are also effective.
- Avoid touching your eyes, nose or mouth. Germs spread this way.
- Try to avoid close contact with sick people. Stay home if you are sick for 7 days after your symptoms begin or until you have been symptom-free for 24 hours, whichever is longer. This is to keep from infecting others and spreading the virus further.

Other important actions that you can take are:
- Follow public health advice regarding school closures, avoiding crowds and other social distancing measures.
- Be prepared in case you get sick and need to stay home for a week or so; a supply of over-the-counter medicines, alcohol-based hand rubs, tissues and other related items might could be useful and help avoid the need to make trips out in public while you are sick and contagious.

**What is the best way to keep from spreading the virus through coughing or sneezing?**
If you are sick, limit your contact with other people as much as possible. Do not go to work or school if ill for 7 days or until your symptoms go away (whichever is longer). Cover your mouth and nose with a tissue when coughing or sneezing. It may prevent those around you from getting sick. Put your used tissue in the waste basket. Cover your cough or sneeze if you do not have a tissue. Then, clean your hands, and do so every time you cough or sneeze.
What is the best technique for washing my hands to avoid getting the flu?
Washing your hands often will help protect you from germs. Wash with soap and water or clean with alcohol-based hand cleaner. We recommend that when you wash your hands -- with soap and warm water -- that you wash for 15 to 20 seconds. When soap and water are not available, alcohol-based disposable hand wipes or gel sanitizers may be used. You can find them in most supermarkets and drugstores. If using gel, rub your hands until the gel is dry. The gel doesn't need water to work; the alcohol in it kills the germs on your hands.

What should I do if I get sick?
If you live in areas where cases have been identified and become ill with influenza-like symptoms, including fever, body aches, runny nose, sore throat, nausea, or vomiting or diarrhea, you may want to contact their health care provider, particularly if you are worried about your symptoms. Your health care provider will determine whether influenza testing or treatment is needed. If you are sick, you should stay home and avoid contact with other people as much as possible to keep from spreading your illness to others. If you become ill and experience any of the following warning signs, seek emergency medical care.
In children emergency warning signs that need urgent medical attention include:
- Fast breathing or trouble breathing
- Bluish or gray skin color
- Not drinking enough fluids
- Not waking up or not interacting
- Being so irritable that the child does not want to be held
- Flu-like symptoms improve but then return with fever and worse cough
- Fever with a rash

In adults, emergency warning signs that need urgent medical attention include:
- Difficulty breathing or shortness of breath
- Pain or pressure in the chest or abdomen
- Sudden dizziness
- Confusion
- Severe or persistent vomiting

What is CDC doing in response to the outbreak?
CDC has implemented its emergency response. The agency's goals are to reduce transmission and illness severity, and provide information to help health care providers, public health officials and the public address the challenges posed by the new virus. CDC continues to issue new interim guidance for clinicians and public health professionals. In addition, CDC's Division of the Strategic National Stockpile (SNS) continues to send antiviral drugs, personal protective equipment, and respiratory protection devices to all 50 states and U.S. territories to help them respond to the outbreak.

What epidemiological investigations are taking place in response to the recent outbreak?
CDC works very closely with state and local officials in areas where human cases of H1N1 (swine flu) infections have been identified. In California and Texas, where EpiAid teams have been deployed, many epidemiological activities are taking place or planned including:
- Active surveillance in the counties where infections in humans have been identified;
- Studies of health care workers who were exposed to patients infected with the virus to see if they became infected;
- Studies of households and other contacts of people who were confirmed to have been infected to see if they became infected;
- Study of a public high school where three confirmed human cases of influenza A (H1N1) of swine origin occurred to see if anyone became infected and how much contact they had with a confirmed case; and
- Study to see how long a person with the virus infection sheds the virus.
- Links to non-federal organizations are provided solely as a service to our users. These links do not constitute an endorsement of these organizations or their programs by CDC or the federal government, and none should be inferred. CDC is not responsible for the content of the individual organization Web pages found at these links.

How long can influenza virus remain viable on objects (such as books and doorknobs)?
Studies have shown that influenza virus can survive on environmental surfaces and can infect a person for up to 2-8 hours after being deposited on the surface.

What kills influenza virus?
Influenza virus is destroyed by heat (167-212°F [75-100°C]). In addition, several chemical germicides, including chlorine, hydrogen peroxide, detergents (soap), iodophors (iodine-based antiseptics), and alcohols are effective against human influenza viruses if used in proper concentration for a sufficient length of time. For example, wipes or gels with alcohol in them can be used to clean hands. The gels should be rubbed into hands until they are dry.

How should waste disposal be handled to prevent the spread of influenza virus?
To prevent the spread of influenza virus, it is recommended that tissues and other disposable items used by an infected person be thrown in the trash. Additionally, persons should wash their hands with soap and water after touching used tissues and similar waste.
What household cleaning should be done to prevent the spread of influenza virus?
To prevent the spread of influenza virus it is important to keep surfaces (especially bedside tables, surfaces in the bathroom, kitchen counters and toys for children) clean by wiping them down with a household disinfectant according to directions on the product label.

How should linens, eating utensils and dishes of persons infected with influenza virus be handled?
Linens, eating utensils, and dishes belonging to those who are sick do not need to be cleaned separately, but importantly these items should not be shared without washing thoroughly first.
Linens (such as bed sheets and towels) should be washed by using household laundry soap and tumbled dry on a hot setting. Individuals should avoid “hugging” laundry prior to washing it to prevent contaminating themselves. Individuals should wash their hands with soap and water or alcohol-based hand rub immediately after handling dirty laundry.
Eating utensils should be washed either in a dishwasher or by hand with water and soap.

Who is in charge of medicine in the Strategic National Stockpile (SNS) once it is deployed?
Local health officials have full control of SNS medicine once supplies are deployed to a city, state, or territory. Federal, state, and local community planners are working together to ensure that SNS medicines will be delivered to the affected area as soon as possible. Many cities, states, and territories have already received SNS supplies. After CDC sends medicine to a state or city, control and distribution of the supply is at the discretion of that state or local health department. Most states and cities also have their own medicines that they can access to treat infected persons.

*Note: Much of the information in this document is based on studies and past experience with seasonal (human) influenza. CDC believes the information applies to the new H1N1 (swine) viruses as well, but studies on this virus are ongoing to learn more about its characteristics. This document will be updated as new information becomes available.

More Information at the National Link for the CDC - Swine Flu:
http://www.cdc.gov/h1n1flu/guidance/
Wheat Disease Update
Observations & Recommendations

Arvydas (Arv) Grybauskas
University of Maryland
Associate Professor and
Field Crops Extension Plant Pathologist

May 4, 2009
Wheat is starting to head in many parts of Maryland, which gets us to a tricky decision point regarding disease management with fungicides. There are some out there who like to apply a fungicide product like Quilt at heading, regardless of actual disease pressure at that time. It’s viewed as an insurance policy against late season diseases and in some cases it brightens the straw so that those with a market for straw can have a more desirable secondary product. Fungicide applications at heading can be very effective in management of Stagonospora glume blotch (a.k.a. Septoria glume blotch) and rusts and in some cases still effective against powdery mildew.

However, there is new information regarding strobilurin and strobilurin-containing fungicides that impacts this decision. Recent research indicates that fungicides that have an active ingredient that belongs to the strobilurin class can affect the levels of the mycotoxin, Vomitoxin (deoxynivalenol or DON), which develops in scabby grain. The strobilurin only products that are registered for wheat are Headline and Quadris; and the registered products that contain strobilurins are Quilt, Stratego and Twinline. It has been known for some time that all these on-stem fungicides when applied at flowering for scab control can result in increased levels of DON. It is for this reason that they do not have scab suppression on their labels and are not recommended. What has only recently come to light is that the application of these products at heading can also lead to increased levels of DON if scab develops. Remember the mills are actively screening for DON and may reject loads on that basis alone. This unintentional consequence of a risk of increased DON levels due to an earlier fungicide application must be considered when thinking about fungicides at heading.

The stalled front that is fluctuating between Virginia and Maryland with pulses of low pressure systems generating showers this week and last is setting us up for an outbreak of scab. It’s also conducive for all the fungal diseases but let’s first cover scab. The long stretch of wet weather is allowing the fungus that causes scab to grow and develop on previously infected crop debris. In most of our cases this means corn stubble left in the fields. Current conditions are still on the cool side of optimum so the risk of scab if wheat was flowering today is low to moderate. Actually barley may be in flower or very close in some parts of the state and those fields are at risk of a developing some scab. As the weather continues wet and gets warmer we will have increased risk of scab in small grains. The keys are source of spores, 7-day pre-flowering weather and post-flowering weather.

The highest risk of getting scab is in fields that were planted no-till or minimum till into corn stubble. There is an equally high risk of scab in back-to-back wheat or barley crops.

The lowest risk is in small grains rotated after soybeans or anything other than corn or small grains. Wheat after double-cropped wheat-soybeans is also a high-risk rotation.

There is no zero-risk of scab if the weather is wet and warm for an extended period around flowering but the difference in disease levels that can develop is the difference between manageable and a total loss.

There is a scab forecasting web site www.wheatscab.psu.edu that provides a map of scab risk based on the 7-day pre-flower weather. I will be providing custom commentary for Maryland at this web site. This is a great way to determine if a fungicide may be needed for scab management. The drawbacks are: you need to check the risk maps frequently as wheat approaches flowering, the forecasts are only possible for a one to three day range, and the recommended products are only available in limited supply. The recommended fungicides for scab management are Prosaro, Caramba or a mixture of Proline plus Folicur. Prosaro is a premix of Proline and Folicur. Nothing else has provided comparable and consistent disease suppression to warrant recommendation.

The bottom line for wheat fungicides at heading for the current season boils down to the following questions. First, is the site high risk for scab based on cropping history? If it is then any strobilurin-containing product is an added risk and I don’t recommend it. In fact in most high scab risk sites a fungicide decision based on scab this season will provide the most return based on my observations of other diseases. Your situation may be different. See the following info on observations and risk assessment of other diseases below. If the site is not high-risk for scab, e.g. after full-season soybeans, then what are the risks of the other yield-robbing diseases?

Powdery mildew appears to have gotten a late start this season. I have not heard of any commercial fields with high levels of mildew. There are no reports of the breakdown of resistance in popular lines. In my highly susceptible mildew fungicide trial plots on 30 April there is enough disease there to expect a return from a fungicide especially since the weather is favorable now and is not expected to get hot for a while. Disease there is at 100% incidence and the flag-1 leaf has an average of 4% of the leaf area colonized.
Powdery mildew will increase in the next week or two. Only susceptible to moderately susceptible varieties have the potential for enough disease to expect a return from a fungicide this season. If there are several white fluffy mildew growths on the flag-1 leaf between flag leaf emergence and boot (and that means simultaneously much more in the leaves below) then a fungicide can provide an economical return if disease favorable weather continues. If the disease has not reached the flag-1 leaf by boot stage it is unlikely that the flag leaf will be affected by disease to the extent that a fungicide will provide a return.

We have just found our first couple of rust pustules in a susceptible variety at the Wye. This weather is favorable for rust to develop and it’s early enough to be a potential problem. It is possible that we have stripe rust as well as leaf rust. Cool temperatures are optimal for stripe rust while leaf rust prefers warm temperatures. Many of our varieties are susceptible to stripe rust. This may be an isolated find but it is important that people start looking. Fungicide applications up to flower on susceptible varieties when made before significant disease development occurs can be very beneficial.

Glume blotch has been very limited. This disease is favored by driving rains and warm temperatures. We are getting some of the rainy conditions needed for the disease but temperatures are below optimum. Threshold guidelines for glume blotch are based on 25% incidence of the disease on indicator leaves. For plants that are at full flag leaf development through boot, 25% of flag-3 leaves have to be infected to warrant a fungicide application. From boot to heading 25% of the flag-2 leaf need to be infected. I have only found lesions in some fields near the soil, approx. flag-5, and at less than 25% incidence. In another system there must be an average of 2 lesions per flag-1 leaf to warrant a fungicide application (fig 1). These levels are too low to warrant fungicide applications at this time. Consider your scab risk before you make a wheat fungicide decision this season.

Vegetable Crop Insects
Joanne Whalen, Extension IPM Specialist; jwhalen@udel.edu

Asparagus
With the recent warm temperatures the first asparagus beetle adults can be found laying eggs on spears. As a general guideline, a treatment is recommended if 2% of the spears are infested with eggs. Since adults also feed on the spears, a treatment is recommended if 5% of the plants are infested with adults.

Cabbage
Continue to scout fields for imported cabbage worm and diamondback larvae. The first larvae can be found and sprays will be needed before they move deep into the heads. As a general guideline, a treatment is recommended if you find 5% of the plants infested with larvae. If both insect species are present, Avaunt, the Bt insecticides, Proclaim, Rimon, Spintor or Radiant have provided control. Newly labeled products including Coragen and Synapse will also provide control.

Melons
As soon as plants are set in the field begin scouting for aphids, cucumber beetles and spider mites. Low levels of aphids can be found in the earliest transplanted fields. When sampling for aphids be sure to watch for beneficial insects as well since they can help to crash aphid populations. As a general guideline, a treatment should be applied for aphids when 20% of the plants are infested, with at least 5 aphids per leaf. Foliar treatments labeled for melon aphid control on melons include Actara, Beleaf, Fulfill, Lannate and Thionex. These materials should be applied before aphid populations explode. The Fulfill label states that the addition of a penetrating type spray adjuvant is recommended to provide optimum coverage and penetration. Admire and Platinum are also labeled at-planting for aphid control.

Peas
We are starting to see an increase in aphid populations. On small plants, you should sample for aphids by counting the number of aphids on 10 plants in 10 locations throughout a field. As a general guideline, a treatment should be applied for aphids when 20% of the plants are infested, with at least 5 aphids per leaf. When sampling dryland peas you may want to reduce the threshold, especially if they are drought stressed. Be sure to check labels for application restrictions during bloom.

Potatoes
Begin sampling the earliest planted and emerged fields for Colorado potato beetle adults, especially if an at-planting material was not used. Low levels of the first emerged adults can now be found. A treatment should not be needed for adults until you find 25 beetles per 50 plants and defoliation has reached the 10% level. If a neonicotinoid insecticide was used at planting (i.e. Admire, Belay, Platinum, Venom, Cruiser or Gaucho), you should not apply a foliar treatment to plants at this time. A treatment should be applied if you find 50 or more aphids per sweep. When sampling dryland peas you may want to reduce the threshold, especially if they are drought stressed. Be sure to check labels for application restrictions during bloom.

May 1, 2009 Weekly Crop Update Volume 17, Issue 7
Sweet Corn
Be sure to scout the first emerged fields for cutworms and flea beetles. As a general guideline, treatments should be applied for cutworms if you find 3% cut plants or 10% leaf feeding. In order to get an accurate estimate of flea beetle populations, fields should be scouted midday when beetles are active. A treatment will be needed if 5% of the plants are infested with beetles.

Mother Stalk Asparagus Production System
Gordon Johnson, Extension Ag Agent, Kent Co.; gcjohn@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.

Agronomic Crop Insects
Joanne Whalen, Extension IPM Specialist; jwhalen@udel.edu

Alfalfa
If economic levels of alfalfa weevil are present before harvest and you decide to cut instead of spray, be sure to check fields within one week of cutting for damage to the regrowth. If temperatures remain cool after cutting, there is often not enough “stubble heat” to control populations with early cutting. In some cases, damage to re-growth can be significant. A stubble treatment will be needed if you find 2 or more weevils per stem and the population levels remain steady.

Small Grains
With the recent warmer temperatures, we saw an increase in true armyworm catches in the Harrington, Little Creek, Rising Sun and Greenwood areas. In general, these numbers are lower compared to this time last year. Many factors, particularly disease, predation and parasitism can impact how well the eggs and caterpillars survive. Although true armyworms overwinter in our area, we can also get migrant moths from the South. Therefore, be sure to scout all small grains for armyworms. Although the combination sprays of fungicides and insecticides have worked in the past to control armyworms, it will still be important to re-check fields after application to be sure you have gotten control.

In addition to armyworms, do not forget to watch for sawflies, cereal leaf beetles and aphids. We have seen an increase in cereal leaf beetle egg laying. We have also heard reports of increased levels of aphids in barley fields; however, in many cases the aphids are still in the lower plant canopy. Since aphids feeding in the heads of small grains can result in a loss in test weight, be sure to watch for movement of aphids into the grain heads. As a general guideline, a treatment should be considered if you find 20 aphids per head and beneficial insect activity is low. You need at least one beneficial insect per every 50-100 aphids to help crash populations. Be sure to check the days between last application and harvest when selecting a spray material.

Wheat Disease Scouting
Bob Mulrooney, Extension Plant Pathologist; bobmul@udel.edu

Be on the lookout for several wheat diseases now. Powdery mildew is appearing in very dense stands and in headrows and on susceptible cultivars. The small white-to-tan spots of fungal growth are getting easy to spot when present. Most of what I have seen has been
in the lower canopy and does not require treatment. Keep scouting. The second disease worth looking for is **stripe rust**. I am seeing some reports of it in the South and there might be low levels in our area that go undetected until some yellowing of the leaves appears. Stripe rust is getting more aggressive so it is important to identify it early and apply a triazole fungicide, such as Tilt or Caramba; a strobilurin, such as Quadris or Headline; or a combination product like Quit or Stratego. If these products are applied from flag leaf fully expanded until head emergence very good to excellent control should be achieved. *None of these products labeled for powdery mildew or rust control, except Caramba, will aid in scab control.*

**Scab or Fusarium head blight suppression** is achieved with well-timed applications of Prosaro (Proline + Folicur) 6.5 fl oz/A, Caramba 14 fl oz/A, or Proline (alone) 5.7 fl oz/A. None of the other fungicides labeled for wheat will give the same level of suppression as the above three, according to work done by Arv Grybauskas at the University of Maryland. No fungicide provides the level of control that most growers would like to see, but they are the best that we have and can provide suppression of the disease, especially if conditions are favorable. Suppression of scab depends on very precise timing of the application. For the fungicides to work to the best of their ability they need to be applied when the anthers first appear. The fungus infects through the flower parts of the wheat so it is the newly flowering wheat heads that need to be protected. Once pollination takes place the fungus is only susceptible to the fungicides for a very short time. Wheat is at risk when temperatures are warm and wet during flowering, the risk increases when the wheat crop is planted in no-till corn stubble and there is no rotation. The new risk management tool is located at the Fusarium head blight website [http://www.wheatscab.psu.edu](http://www.wheatscab.psu.edu).

It can be useful once heading begins and the risk of scab increases as flowering approaches. The new version that is running now has the ability to give a 24-72 hour forecast looking at the previous several days as well as the weather forecast for the next several days. Those buttons are at the top left side of the forecast page.

**Soybean Rust Update**

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

Soybean rust is reappearing in some of the old locations on kudzu in Florida. The severity and occurrence are low on kudzu wherever it is found at the present time. The only unsettling piece of news is that it is present on kudzu in Mobile County, AL and in several parishes in LA. This is the earliest that it has been present in those locations to date. If they continue to get plenty of rain, there is the possibility of soybean rust occurring on soybeans earlier than we have seen in the past. Since frost is out of the question now, we will just have to wait and see how the season progresses. You can keep track of soybean rust by visiting the website [http://www.sbrusa.net](http://www.sbrusa.net) or [http://sbr.ipmpipe.org/cgi-bin/sbr/public.cgi](http://sbr.ipmpipe.org/cgi-bin/sbr/public.cgi).

**Still Time to Test for Soybean Cyst Nematode**

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

It is still not too late to check for soybean cyst nematode, especially if susceptible soybeans are going to be planted. Soil test bags with the submission form can be purchased at the Extension offices. If you have a fax machine and need results quickly, test results can be sent via FAX if you provide the number on the Nematode Assay Information Sheet. This information sheet can be found on the web at the Plant Clinic Website [http://ag.udel.edu/extension/pdc/index.htm](http://ag.udel.edu/extension/pdc/index.htm).

**Grain Marketing Highlights**

Carl German,  
Extension Crops Marketing Specialist; clgerman@udel.edu

**Impact of Swine Flu Outbreak on Commodity Markets**

Financial markets opened this week with a bad case of "swine flu jitters". The jitters should be alleviated with the idea that those fears are likely to be overblown. The initial reaction in the grain and oilseed markets to the swine flu outbreak was bearish. That bearish reaction took commodity prices down the first few days of this week. The longer term impact of negative implications are said to lack merit. Financial and commodity markets were bidding up in Wednesday morning’s trade.

**Planting Progress**

U.S. corn plantings have surged ahead this past week, now placed at 22% planted for the week ending April 26. This is well ahead of the 5% pace recorded last week, 9% reported last year and slightly behind the five year average progress of 28%.

U.S. soybean plantings, reported last week for the first time this year, stood at 3% as compared to 2% last year and the five year average of 5%. Unless a significant
change for the worse occurs in the weather, information from reliable sources indicates that overall conditions in the Corn Belt are not as wet this year as they were at this time last year. Nevertheless, planting progress will be watched closely each week between now and the first of June as commodity traders weigh any possible acreage shifts that may occur.

**Marketing Strategy**

Weather forecasts continue to call for wet and cool conditions in the eastern Corn Belt where planting progress is well behind the 5-year average in Ohio, Illinois, and Indiana. We could see noncommercial speculative traders add to their net-long futures position in the corn market if planting delays in these key states continues to persist in the weeks ahead. Rumors are circulating that China may be stepping out of the soybean market for awhile, leading to a possible decrease in U.S. exports.

Noncommercial traders continue to hold a netshort position in the wheat market thereby keeping seasonal downward pressure on wheat prices. Currently, Dec ’09 new crop corn futures are trading at $4.09 per bushel; Nov ’09 soybeans at $9.13; and July ’09 SRW wheat is at $5.28 per bushel. Nearby May ’09 old crop corn, soybean and SRW wheat futures are trading at $3.80; $10.08; and $5.16 per bushel respectively.

For technical assistance on making grain marketing decisions contact Carl L. German, Extension Crops Marketing Specialist.

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**Pre-Sidedress Soil Nitrate Test for Corn**

Krista Mitchell
Nutrient Management Consultant

Do you want to save money on nitrogen? I bet everyone reading this said, “Yes”! The University of MD Cooperative Extension has an in-office analysis that determines how much, if any, side-dress nitrogen is needed for your corn crop. This analysis is called the Pre-Sidedress Nitrogen Test (PSNT) and it is free. Private soil testing labs can also perform this test, but for a fee. If you’d like to purchase a PSNT kit to do the analysis yourself, contact the Howard County Extension office for details.

We all know how important it is to split nitrogen (N) applications on a corn crop to optimize N-use efficiency. The PSNT fine-tunes this even further to determine how much nitrate has recently mineralized in the top foot of soil at the specific time that the corn begins its most rapid period of N uptake. The PSNT is not for all corn fields though, such as fields where the only N source for corn has historically been commercial fertilizer nitrogen. The PSNT only works on fields with a history of manure or other organic nutrient applications, and where fields have received no more than 50 pounds per acre of commercial nitrogen fertilizer this season. Fields where legumes, like alfalfa or clover, have grown are good candidates for the PSNT as well.

All producers need to do to is take soil samples from corn fields that meet the criteria above and answer some questions regarding their field histories. Our office does have a couple of PSNT soil sampling probes available to loan out to producers. When corn is 6-12 inches tall, thirty to forty 12-inch depth soil cores should be pulled from one field and thoroughly mixed together. Soil should be spread out overnight to air-dry. Keep each field’s soils separate by placing each individual field’s soil samples in a Ziploc or paper bag labeled with the field number and your name.

When your corn is 4-5 inches tall, it’s time to call (410) 313-2709 and let me know that you’d like me to run this analysis for you. I am in the office on Thursdays, Fridays, and alternating Wednesdays and will be on leave the week of June 22nd, so take that into account when you plan your PSNT soil sampling and days when you plan to sidedress your corn crop. Results (recommended sidedress N application rates) are generated fairly rapidly with this analysis, so there’s a good chance that if a producer comes in with air-dried soil samples on a Wednesday or Thursday morning, the results will be available by close of business Friday.

For more detailed information, and to see where this article was adapted from, visit the University of MD Cooperative Extension’s Agricultural Nutrient Management website: [www.anmp.umd.edu](http://www.anmp.umd.edu) and view the Soil Fertility Management Information Sheet publication “SFM-2: Making Decisions for Nitrogen Fertilization of Corn Using the Pre-Sidedress Soil Nitrate Test (PSNT)”. 
Ag Web Modules
New website features in Anne Arundel County - Agricultural Program Teaching Modules:
http://annearundel.umd.edu/AGNR/agmedia.cfm

1. Pasture Management
https://connect.moo.umd.edu/p12049696/

2. Pasture Herbicides
https://connect.moo.umd.edu/p13059797/

3. Handling Tall Fescue Toxicity Events
https://connect.moo.umd.edu/p59425434/

4. Modern Vegetable Production Technology for Early Market
https://connect.moo.umd.edu/p75657057/

5. Vegetable Herbicides for Controlling the Top 10 Weeds of Southern Maryland
https://connect.moo.umd.edu/p25962088/

6. Sustainable Low Input Strip-Till & No-Till Vegetable Planting Tactics
https://connect.moo.umd.edu/p55665058/

7. Fruit Establishment Tactics to Maximize Our Coastal Plain Advantage
https://connect.moo.umd.edu/p61165608/

8. Vineyard & Orchard Weed Control
https://connect.moo.umd.edu/p44883980/

9. Vineyard Establishment Supplies & Equipment
https://connect.moo.umd.edu/p48194311/

Other Updated County Website Features
Anne Arundel County Extension website:
http://annearundel.umd.edu/

Ag Newsletter Production Pointers
The current and past agricultural newsletter additions are available for viewing or copy at:
http://annearundel.umd.edu/AGNR/agnews.cfm

Ag Bulletins
An agricultural bulletin page is also available for viewing or copy under our hot topics section at:
http://annearundel.umd.edu/AGNR/agnews.cfm

College AGNR 150 Anniversary
Also relive the history of Extension and University of Maryland College of Agriculture Land Grant Mission by viewing the 150 Years Anniversary PowerPoint:
http://annearundel.umd.edu/files/University%20of%20Maryland%20150%20Year%20Anniversary.pps

Thanks for Partnering
Thanks for partnering with Maryland Cooperative Extension, and supporting our programs.

R. David Myers, Extension Educator
Agriculture and Natural Resources
Anne Arundel & Prince George’s Counties