Dave’s Ramble

“Stay on the old path!” reminded the grandfather as he gently guided his toddler grandson on the mossy trail in the woods. You can’t resist a chuckle at the determined young hiker, just learning to walk, so compelled to leave the safety of the trail only to stumble and roll in sticks and leaves. After all, we are all wanderers of heart, to and fro discovers, innate to give a careless toss of all doom and danger to the wind. Eventually, disciplined by law and regulation, he will become a strict trail adherer; but for the moment I marvel at this youth’s exploring reveille; offering a momentary reassuring hand to his grandfather.

I am afraid its agriculture’s fault, for we have become far too civilized and perfected. Bound increasingly tighter to our pathways, agriculture has ended our wandering, putting an end to our hunger and thirst. Agriculture has laid before us a wonderful mossy trail; yet, our hearts allow us no peace; we affix on dangerous cliffs and doomsdays. Agriculture, its endless boredom, has driven us all insane; only to eat, drink and complain, “All the Noise! Noise! Noise! Noise!”

Spring will come and we will plant. With the help of the early and latter rains our crops will grow and yield. We will be thankful and share; mundane, but necessary. It has been discouragingly stated that, “there is nothing new under the sun,” but, during the travails, allow time to hunt for a new way or gather a new idea. Be mindful, a novice, such as your child or grandchild will have to go with you in order to make this discovery.

Hope lies ahead; first, we must surrender ourselves again to that heart of an adventurer; all of us are meant to explore and discover. Just beyond the borders, excitement begins; grab someone’s hand. “America, we need a new path!”

Calendar of Events

Mark Your Calendars -- Plan To Participate

- January 7 - Pesticide Certification Training - DFRC
- January 16 - So. MD Forage Conference - Brandywine
- January 16 - A Developing Opportunity for Contract Produce Growing - SMECO
- January 19 - Bee Keeping 101 - Wye REC
- January 22 - 2013 MD Buyer-Grower Expo - Annapolis
- January 25 - Central MD Vegetable Meeting - Upperco
- January 28 - Pesticide Certification Exam - DFRC
- January 28 - What the Affordable Care Act Means for You, Your Business & Your Family - SMECO
- Jan. 30 – Mar. 6 - Annie’s Project: Managing for Today and Tomorrow - variety of sites
- February 6 - So. MD Vegetable & Fruit Meeting - St. Mary’s
- February 20 - Bay Area Fruit School - Wye REC
- March 25 - Pasture & Field Crop Workshop NM/PAT - DFRC
- April 12 - On-Line Nutrient Voucher Recertification
- April 19 - On-Line Pesticide Applicator Recertification
- NM Farm Training & Certification Course: Write Your Own Nutrient Management Plan - page 7 for dates

Inside This Issue

- Winter Meetings
- Grain Market Highlights
- MDA News
- EPA News
- Newtrient News
- Farmer School

Local Governments • U.S. Department of Agriculture

The University of Maryland is equal opportunity. The University’s policies, programs, and activities are in conformance with pertinent Federal and State laws and regulations on nondiscrimination regarding race, color, religion, age, national origin, sex, and disability.
WINTER MEETINGS
Mark your calendars now and plan to be a part of the fall and winter meetings.

Become a MD Certified Private Pesticide Applicator
Training – January 7, 2013
Exam – January 28, 2013

If you have allowed your Private Pesticide Applicator Certification to expire or are a new applicant, then you are invited to attend the Private Pesticide Applicator Certification Training and Examination.

It's a two-step process:

**Step 1: A Private Applicator Certification Training**
will be conducted at the Davidsonville Family Recreation Center (DFRC) from **6:00 to 8:00 p.m.** on **January 7, 2013**.

**Step 2: A Private Pesticide Applicator Exam** will be given at the Davidsonville Family and Recreation Center (DFRC) from **6:00 to 8:00 p.m.** on **January 28, 2013**.

Maryland/Delaware Forage Council Southern MD Hay & Pasture Conference
January 16, 2013

Make plans to attend the Southern Maryland Hay & Forage Conference, on **January 16, 2013**, held at the Baden Volunteer Fire Department 16608 Brandywine Road, Brandywine, MD 20613. 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](http://www.mdforages.umd.edu) or through local county Extension and NRCS/Soil Conservation District offices in Maryland.


A Developing Opportunity for Contract Produce Growing
January 16, 2013

6 p.m. at SMECO Auditorium
15035 Burnt Store Road, Hughesville, MD 20637

Bernie Fowler Jr., founder of Farming 4 Hunger, and potential partners will discuss an exciting new revenue opportunity for Southern Maryland farmers to raise produce for area food pantries while assuring farmers receive a fair wage for their efforts/products.

*(In case of inclement weather, please dial the SMADC Hotline: (301) 274-1922. When the welcome recording begins, dial *829 to hear workshop status recording).*

**RSVP** to Susan McQuilkin at smcquilkin@smadc.com or call SMADC staff at (301) 274-1922.

What the Affordable Care Act Means for You, Your Business, and Your Family
January 28, 2013

6 p.m. at SMECO Auditorium
15035 Burnt Store Road, Hughesville, MD 20637

A forum with state and local health insurance experts to discuss the impact and opportunities for farmers (and other small businesses) resulting from the upcoming Affordable Care Act.

For directions CLICK HERE. *(In case of inclement weather, please dial the SMADC Hotline: (301) 274-1922. When the welcome recording begins, dial *829 to hear workshop status recording).*

**RSVP** to Susan McQuilkin at smcquilkin@smadc.com or call SMADC staff at (301) 274-1922.

Beekeeping 101
2013 Session

January 19, 2013

The opening session of the 2013 Beekeeping Class will be held at the Wye Research and Education Center, Saturday, January 19, 2013 from 9:00 AM - 12:00 noon. There will be 5 classes in the Spring and 2 classes in the Fall. All classes will be held on a Saturday.

Please contact Michael Embrey: 410-827-8056 ext. 148, membrey@umd.edu, for any program questions and contact Jean Hopkins 410.827-8056 ext. 114, jhopkin2@umd.edu, for registration.
2013 Maryland Buyer-Grower Expo
January 22, 2013

The Maryland Department of Agriculture would like to invite you to the 2013 Maryland Buyer-Grower Expo on January 22, 2013 at the Navy-Marine Corps. Stadium - “N” Room in Annapolis, MD. The purpose of this expo is to connect Maryland growers, producers, and processors with buyers from grocery retailers, restaurants, schools, and other venues.

The event is set up as a trade show, where growers, producers, and processors are each provided a table to display their business information and products. Products from past events have ranged from fruits and vegetables to dairy, meats, specialty foods, seafood, and wine. With the growing demand for local foods, businesses that buy local can attract more customers and help support farmers throughout our community.

Registration is available through the below links. Please be sure to select the link that applies to your organization.

The registration deadline is January 7, 2013 to be included in the directory. Over 500 copies of the Buyer-Grower Expo directory will be printed and distributed, as well as a PDF version being placed on our web site.

**Link to Registration for Maryland Growers, Producers, and Processors** (please note there is a fee for growers, producers and processors to exhibit)

**Link to Registration for Buyers**

**Link to Registration for Other Organizations**

Additional information on the event will be posted at [www.marylandsbest.net](http://www.marylandsbest.net)

Please contact Stone Slade at 410-841-5779 or stone.slade@maryland.gov with any questions.

Central Maryland Vegetable Growers Meeting
January 25, 2013

This well sponsored, large grower meeting always offers a great deal of vegetable industry information. The Central Maryland Vegetable Growers Meeting held on January 25, 2012 at the Friendly Farms Restaurant from 8:15 a.m. to 3:15 p.m.

Pesticide recertification credits are awarded for attending this meeting.

For full meeting details, and to register call the Baltimore County Extension Office at 410-666-1024 today.

Annie’s Project:
Managing for Today and Tomorrow
January 30 – March 6, 2013

The University of Maryland and Delaware Cooperative Extension will conduct Annie’s Project II during the winter of 2013 at sites in Maryland and Delaware. Annie’s Project II is a program designed to help farmwomen become involved in the journey of transitioning the farm legacy. Special focus will be placed on the woman’s role in transition planning, which is the process of creating and implementing an overall strategy to move the farm business from one generation to the next. Topics for the sessions cover Succession Planning, Estate Planning, Retirement Planning and Business Planning.

The course will be 6 sessions held at a variety of sites in Maryland and Delaware. Locations include: Chesapeake College, Wye Mills MD; Cecil County Administration Building, Elkton MD and Carvel Research & Education Center, Georgetown DE.

Classes will be held weekly starting on January 30th and ending March 6th from 9am - noon.

Registration deadline is January 25th. Space is limited. Course fee $60 includes lunch and class materials For more information visit the website at: [www.anniesproject.umd.edu](http://www.anniesproject.umd.edu) or call 410-758-0166. If you require special assistance to attend the classes please contact the site at least two weeks prior.

Southern Maryland Vegetable & Fruit Production Meeting
February 6, 2013

Make plans to attend the Southern Maryland Vegetable and Fruit Production Meeting on February 6, 2013, St. Mary’s County.

This meeting will provide Private Applicator Recertification & Nutrient Applicator Voucher Recertification. 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. Please attend and make this meeting the best ever.

Please call your local Extension office to register.
Bay Area Fruit School
February 20, 2013
Attention all fruit growers! Plan to attend the Bay Area Fruit School on February 20, 2013 at the WYE Research and Education Center in Queenstown, MD from 8:30 a.m. to 3:30 p.m.

This all day meeting will provide Private Pesticide Applicator Recertification Credit.

For full meeting details and registration call Debbie Dant, WYE REC at 410-827-8056, Ext. 115.

Field Crops & Pasture IPM Workshop
March 25, 2013
Make plans to attend the Field Crops & Pasture IPM Workshop, Monday, March 25, 2013 at the Davidsonville Family Recreation Center (DFRC), 3789 Queen Anne Bridge Rd., Davidsonville, MD from 6:00 p.m. to 9:00 p.m.

This workshop will explore advanced concepts of pasture and field crop production in the Southern Maryland region from establishment to harvest, including animal utilization. Topics will include: Crop selection; integrated crop management; soil fertility; weed control; insect control; and disease control for soybeans, corn, wheat, barley and hay crops.

Private Pesticide Applicator Recertification & Nutrient Management Voucher Recertification will be awarded for full class participation.

To register for this event contact the Anne Arundel County Extension Office at 410-222-6759.

Live On-Line Session
Private Pesticide Applicator Recertification
April 19, 2013
If you would like the opportunity to learn from home, yet still be engaged, then be sure to enroll in this Live On-Line Private Pesticide Recertification Training, scheduled for April 19, 2013 from 4:00 to 6:00 p.m. The session will focus on pesticide use and related topics for all field crops, fruits and vegetables. This Adobe Connect recertification session will be live via the internet directly from the University of Maryland. Adobe Connect is a student interactive system that will document your attendance. To participate in a live Adobe Connect session a high speed cable or satellite internet connection is required.

Private Pesticide Applicator Recertification credit will be awarded for full 2-hour session participation.

Registration by April 17th is required in order to receive Adobe Connect login instructions. To register for this on-line event contact the Anne Arundel County Extension Office at 410-222-6759.

Grain Marketing Highlights
Carl German, Extension Crops Marketing Specialist
cgerman@udel.edu

USDA’s December 2012 S/D Report Summary
Overall this report should be viewed as neutral to bullish. The impact to commodity prices is expected to be short lived. Commodity markets are expected to trend sideways until the January reports are released.

Corn Analysis
• There were no changes made to the domestic corn supply and demand balance sheet from last month.
• Traders were expecting a cut to be made in domestic corn use.
• World corn stock estimates were reduced from last month.
Soybean Analysis
- Ending stocks for U.S. soybeans were reduced by 10 million bushels from last month, which lowered the stocks-to-use ratio from 4.6 to 4.3%.
- This was lower than pre-report expectations.
- World soybean stock estimates were reduced from last month.

Wheat Analysis
- U.S. wheat export estimates were reduced 50 million bushels.
- The reduction in the export estimate lead to a 50 million bushel increase in domestic carryout, consisting mostly of hard red winter wheat. Only 10 million bushels of the reduced export number was attributed to being soft red winter wheat.
- Domestic wheat ending stock estimates were at the high end of pre-report estimates.
- World wheat ending stock estimates were increased 2.77 MMT from last month.

Currently, Dec ‘12 corn futures are $7.23; Mar ‘13 corn $7.29; Dec ‘13 corn $6.30; Jan ‘13 soybeans $14.72; Nov ‘13 soybeans $13.26; and July ‘13 SRW wheat is trading at $8.46 per bushel.

For technical assistance on making grain marketing decisions contact: Carl L. German, Extension Crops Marketing Specialist, Department of Applied Economics and Statistics, 208 Townsend Hall, University of Delaware, Newark, DE 19716-2130, Phone: 302-831-1317 Fax: 302-831-6243
E-Grain Marketing Club grn-mktdg@udel.edu
Farmer’s Grain Marketing Decision Aid www.webixi.com/grainguide

Soybeans & Corn in Maryland
Latest soybean and corn Trial Results available at:
http://mdcrops.umd.edu/
http://mdcrops.umd.edu/Soybeans/index.cfm
http://www.mdcrops.umd.edu/Corn/AgronomyFact sNo54_11_07_12.pdf
Ag Census: Your Voice. Your Future. Your Responsibility

The U.S. Department of Agriculture will mail the 2012 Census of Agriculture to millions of farmers and ranchers in mid-December, and MDA urges all Maryland farmers to participate.

The Ag Census defines a farm as any place that produced and sold, or normally would have sold, $1,000 or more of agricultural products during the Census Year (2012).

The Census of Agriculture is a complete count of U.S. farms and ranches, and the people who operate them. It is the only source that has detailed agricultural information down to the county level. Local and national leaders use the Census to make decisions that directly impact your business, your community and your industry.

The Ag Census is taken every five years. This year, there will be several new questions asking farmers about the conservation measures they take on their farms. This information will be critical to showing the work farmers are doing collectively to be good stewards of the environment. You will be hearing more about the Ag Census in December. Be sure you are counted. Your participation is also required by law.

For complete information.

MDA Issues Guidelines for Implementing New Nutrient Management Regulations

MDA this month issued new guidelines for farmers and wastewater treatment operations outlining immediate actions necessary to comply with Maryland's newly revised nutrient management regulations, which took effect October 15.

The revised regulations redefine how a farm nutrient management plan is developed and implemented while changing the way organic nutrient sources and other materials are managed. They are designed to help Maryland meet nutrient reduction goals spelled out in its Watershed Implementation Plan to protect and restore the Chesapeake Bay and its tributaries. The new guidelines issued by MDA address the implementation requirements affecting the remainder of the 2012-2013 season, which is now well underway.

For more information.

Maryland Agricultural Commission Tours Anne Arundel County & Baltimore City Operations

The Maryland Agricultural Commission, which tours different agricultural operations around the state twice a year, toured Baltimore City and Anne Arundel County during its Fall tour last month. Among the Baltimore stops were the Domino Sugar Plant, which produces 6.2 million pounds of sugar every day; the Real Food Farm, an urban agricultural enterprise growing fresh produce on six acres of land in Clifton Park in northeast Baltimore; and the Samaritan Women Farm, which includes 2.3 acres of cultivated farm and 4,300 square foot of greenhouse/hoop house space. The Anne Arundel County visits included Hancock's Resolution, a historic farm; Papa John's Farm stand, owned by the Schiller family for four generations; and Thanksgiving Farm Vineyard and Winery, which sits on 58 acres off Route 2. After the tours, the Commission held a public meeting at MDA where participants discussed issues impacting the agricultural community.

To view photos of the tour.

BILLING CODE: 3410-34-P

DEPARTMENT OF AGRICULTURE
Animal and Plant Health Inspection Service
9 CFR Parts 71, 77, 78, and 86
[Docket No. APHIS-2009-0091] RIN 0579-AD24

Traceability for Livestock Moving Interstate

AGENCY: Animal and Plant Health Inspection Service, USDA.

ACTION: Final rule.

SUMMARY: We are amending the regulations to establish minimum national official identification and documentation requirements for the traceability of livestock moving interstate. Under this rulemaking, unless specifically exempted, livestock belonging to species covered by the regulations that are moved interstate must be officially identified and accompanied by an interstate certificate of veterinary inspection or other documentation. These regulations specify approved forms of official identification for each species but allow the livestock covered under this rulemaking to be moved interstate with another form of identification, as agreed upon by animal health officials in the shipping and receiving States or Tribes. The purpose of this rulemaking is to improve our ability to trace livestock in the event that disease is found.

EFFECTIVE DATE: USDA plans to publish the new rule in the December 28 Federal Register. Its provisions will take effect 60 days later, on February 26, 2013.

FOR FURTHER INFORMATION CONTACT: Mr. Neil Hammerschmidt, Program Manager, Animal Disease Traceability, VS, APHIS, 4700 River Road Unit 46, Riverdale, MD 20737-1231; (301) 851-3539.
This issue contains information on the new nutrient management regulations as well as a list of upcoming training opportunities.

We are hosting another webinar series this winter. The webinars have been very popular in the past so please register early for the ones of interest to you.

Also, mark your calendar for the Nutrient Management Plan Update session in your area. Check your 2012 nutrient management plan to determine if you need to take new soil samples for your 2013 plan. If you apply manure on your farm, now is a good time to send in a sample for analysis. Make sure you have this information in time for the update session. A nutrient management specialist will be there to answer your questions and help you complete your plan.

Heather Hutchinson, Nutrient Management Specialist, University of Maryland, 301-432-2767 X 339, hhutchin@umd.edu

**Farmer Training & Certification**

**Winter 2013**

**“Write Your Own Nutrient Management Plan”**

The Farmer Training and Certification course provides an opportunity for farmers to learn how to write nutrient management plans for their own operations. As a producer, you have firsthand knowledge of your own crops, animals, and equipment. Who better to write your nutrient management plan than you? This course will teach you how to do it!

**You will receive:**

- **A comprehensive training binder** - the training binder will be used during the class, serve as a reference during the exam, and as a valuable resource when you write future plans for your operation.

- **Certification** - producers who pass the exam will be certified by MDA to write their own nutrient management plans.

- **Voucher training credits** - this class will fulfill the nutrient applicator voucher training requirements.

**You will have the opportunity to:**

- **Complete a nutrient management plan** for your operation that meets MDA regulations.

- In order to work on your own plan, you need to begin gathering information now. You will need a map or sketch of your operation, soil tests that are less than two years old, and a recent manure analysis (if manure is applied to your land). Contact your county Extension office if you need assistance with this.

**Registration Information**

Space is limited and applications are accepted on a first-come basis; therefore, register early.

Paid registrations must be received 10 days before the first class. For more information, please call 410-841-5959. **Classes will be cancelled if there is lack of interest.**

<table>
<thead>
<tr>
<th>Crop Operations using Manure and Fertilizer</th>
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<tr>
<td><strong>Evening Classes 5:30 - 9 PM ($20):</strong></td>
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<tr>
<td>March 7, 14 (training),</td>
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<td>March 21 (exam) and</td>
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<td>March 28 (plan writing)</td>
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<td>University of MD</td>
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<td>Montgomery County Office</td>
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<td><strong>Day Classes 9:30 AM - 4:30 PM ($35, includes lunch on first day):</strong></td>
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<tr>
<td>January 15 (snow date Jan.18) and January 24 (exam &amp; plan writing) (snow date Jan. 29)</td>
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<td>University of MD</td>
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<tr>
<td>Baltimore County Office</td>
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<tr>
<td>February 5 (snow date Feb. 8) and February 15 (exam and plan writing) (snow date Feb.21)</td>
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<td>University of MD</td>
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<tr>
<td>Wye Research &amp; Education Center</td>
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<tr>
<td>February 19 (snow date Feb. 22) and February 28 (exam and plan writing) (snow date March 4)</td>
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<tr>
<td>University of MD</td>
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<td>Washington County</td>
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Soil Fumigant Phase 2 Labels Take Effect

As of December 1, 2012, a final set of soil fumigant product label changes went into effect, fully implementing important new protections for workers and bystanders. The amended product labels incorporate the second and final phase of mitigation measures required by the EPA’s 2009 Reregistration Eligibility Decisions (REDs) for the soil fumigants methyl bromide, chloropicrin, metam sodium/metam potassium, and dazomet. Fully implementing the new risk mitigation measures represents a sea change in worker and public protection. These measures will help protect workers, handlers and bystanders from exposure to potentially harmful airborne concentrations of the fumigant pesticides.

The new measures appearing on soil fumigant Phase 2 labels include buffer zones and posting, emergency preparedness and response measures, training for certified applicators supervising applications, Fumigant Management Plans, and notice to State Lead Agencies who wish to be informed of applications in their states. Measures added to labels in the first phase of implementation included Phase 1 Fumigant Management Plans, good agricultural practice requirements, and new worker protection measures among other things. Phase 1 labels were approved in 2010.

After December 1, 2012, only soil fumigant products bearing the Phase 2 measures may be sold and distributed by registrants. Distributors and retailers who are not registrants may sell and distribute existing stocks of products bearing Phase 1 labels until their supplies are exhausted. Likewise, growers and applicators may apply products bearing old labels until those supplies have been exhausted.

The newly approved labels are available through the Pesticide Product Label System (PPLS) at: www.epa.gov/pesticides/ppls

Visit the Office of Pesticide Programs’ Soil Fumigant Toolbox at: www.epa.gov/pesticides/reregistration/soil_fumigants/ for more information about soil fumigants and new requirements for their safe use.
More information on the Partnership for Sustainable Communities:
http://www.sustainablecommunities.gov/index.html

EPA Site Quick Finder

About EPA’s Pesticides Program
Overview of EPA’s program evaluating potential new pesticides and uses, providing for special local needs and emergency situations, reviewing safety of older pesticides, registering pesticide producing establishments, enforcing pesticide requirements, pesticide issues in the works, overview of risk assessment in the pesticide program

Types of Pesticides
Pesticides are often grouped according to the type of pest they control or by chemical or source.

Frequently Asked Questions
Answers to questions from the public.

Fact Sheets
Search general interest and technical fact sheets.

Information Sources
Additional information of general interest.

Pesticide Program Reports
Reports produced by the Office of Pesticide Programs Annual Reports, Performance Management & Accountability, Pesticide Industry Sales and Usage, Progress Reports, Restricted Use Products Reports

Pesticide News Stories
Pesticide related articles appearing in news media

Publications | Glossary | A-Z Index |

Southern High FFA Video

Colton France, Southern High School FFA President

Exciting news from the Southern High FFA: In an attempt to share the opportunities available through the FFA and the Agricultural Sciences program at Southern High School, a few members of the FFA have put together a video to highlight agriculture careers. Please follow the link to view the video at:
https://www.youtube.com/watch?v=s5B8a1VQxto

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/agbulletins.cfm

Ag Web Modules
Website features 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/
Farmer School
On-Line Farming Education Series
“Tomorrow’s Farmers” Web Modules”

http://anneandarldens.umd.edu/AGNR/FarmersSchool.cfm

Module 1: Introduction to Farming & Course Orientation: “Tomorrow’s Farmers”
Module 2: The Science and Stewardship of Soils
Module 3: Fundamentals of Farm Machinery
Module 4: Plants that Farmers Grow
Module 5: Integrated Pest Management
Module 6: Farm Business and Enterprise Development

Future Module Topics:
- Modern Vegetable Farmer
- Modern Fruit Farmer
- Grain Farming
- Pasture and Hay Management
- Livestock that Farmers Raise

Whether you grew up on a farm or not, the web modules will open your eyes to the world of farming. A course designed for the young and old alike. It just may make a farmer out of a “city kid” or a “hayseed.”

After viewing the series in its entirety take the Final Exam. All participants receiving a final Exam Grade of 70% or above will receive a “Certificate of Farming Competency,” compliments of the Anne Arundel County Extension Office.

4-H News
Amanda Wahle, 4-H FEA
University of Maryland

Are you between 8 and 18 or know someone who is? If so have you considered joining 4-H? The Anne Arundel County 4-H program is growing and is always looking for new members and volunteers. The program has community clubs located throughout Anne Arundel County but is also looking for volunteers and members to lead new groups. There are a variety of projects members can participate in including animal science, environmental sciences and human sciences. We are also looking for adults to do seminars or presentations to help 4-Hers learn how they can further their projects.

To receive more information, please contact Amanda Wahle in the Anne Arundel Extension Office at 410-222-6759 or at: awahle@umd.edu

CDMS:
Pesticide Labels and MSDS On-Line at: http://www.cdms.net/

Gardening questions? Pest problems?
The Home and Garden Information Center can help!
Consultants are available by phone Monday-Friday 8:00 AM - 1:00 PM. Call 1-800-342-2507 or 410 531-1757 or visit the HGIC website at: www.hgic.umd.edu
Thanks for Partnering

Thanks for partnering with the University of Maryland Extension, and supporting our programs. I also hope you enjoy this newsletter. If you are no longer interested in receiving this newsletter, please call or write the office for the removal of your name from the mailer.

Anne Arundel County Extension
http://annearundel.umd.edu/files/Extensionflyer.pdf

Family & Consumer Sciences
For more information call 410-222-6756

Master Gardener Program
For more information, contact Mike Ensor at mensor@umd.edu call 410-222-6757

4-H Youth Development
For more information, contact Amanda Wahle at awahle@umd.edu or call 410-222-6755

Nutrient Management
For more information, contact Krista Mitchell at kristaw@umd.edu or call 410-222-6759

Sea Grant
For more information, contact Matt Parker at mparke11@umd.edu or call 410-222-6759

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

Prince George’s County Extension
6707 Groveton Drive
Clinton, MD 20735
301 868-8783

Anne Arundel County Extension
7320 Ritchie Highway, Suite 210
Glen Burnie, MD 21061
410 222-6759 or 301 970-8250

Note: Registered Trade Mark® Products, Manufacturers, or Companies mentioned within this newsletter are not to be considered as sole endorsements. The information has been provided for educational purposes only.
Spray Program for Multi-Tree Fruit Orchards

Many local orchards are composed of multi-fruit combinations producing for fresh market apples, peaches, pears, plums, nectarines, and cherries. Aggressive fruit tree spray programs are required to achieve high quality fruit. These multi-fruit orchards create many spray management challenges for the achievement of good pest control in accordance to label guidelines.

Therefore, the following multi-fruit orchard spray program for the control of major tree fruit pests and diseases may offer some assistance:

**Multi-Fruit Spray Program for**

<table>
<thead>
<tr>
<th>DATE</th>
<th>PROGRAM</th>
<th>PRODUCT</th>
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</thead>
<tbody>
<tr>
<td>April 5</td>
<td>Peach Bloom</td>
<td>Captan® 80WDG 3.0 lbs</td>
</tr>
<tr>
<td>April 15</td>
<td>Peach Petal Fall</td>
<td>Captan® 50W 3.0 lbs</td>
</tr>
<tr>
<td>May 5</td>
<td>1st Cover Spray</td>
<td>Captan® 80WDG 4.0 lbs</td>
</tr>
<tr>
<td>May 15</td>
<td>2nd Cover Spray</td>
<td>Captan® 80WDG 3.0-4.0 lbs</td>
</tr>
<tr>
<td>June 1</td>
<td>3rd Cover Spray</td>
<td>Captan® 80WDG 3-4.0 lbs</td>
</tr>
<tr>
<td>June 15</td>
<td>4th Cover Spray</td>
<td>Captan® 80WDG 3-4.0 lbs</td>
</tr>
<tr>
<td>July 1</td>
<td>5th Cover Spray</td>
<td>Captan® 80WDG 3-4.0 lbs</td>
</tr>
<tr>
<td>August 1</td>
<td>7th Cover Spray</td>
<td>Captan® 80WDG 4.0 lbs</td>
</tr>
<tr>
<td>September 1</td>
<td>9th Cover Spray</td>
<td>Captan® 80WDG 4.0 lbs</td>
</tr>
<tr>
<td>September 15</td>
<td>Trunk Bore Spray</td>
<td>Lorsban® 4E 1.5 pts</td>
</tr>
</tbody>
</table>

**Organic Approach Substitutions:**

<table>
<thead>
<tr>
<th>Conventional Product</th>
<th>Organic Certified Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Captan® &amp; Topsin-M®</td>
<td>Surround® (?) or Sulfur or Lime Sulfur</td>
</tr>
<tr>
<td>Rally®</td>
<td>Kaligreen (Powdery Mildew Eradicant)</td>
</tr>
<tr>
<td>Listed Insecticides</td>
<td>Neem® or Pyganic® or Entrust® (Stone Fruits Only)</td>
</tr>
<tr>
<td>Agrimycin®</td>
<td>Agrimycin® or Fixed Copper (Apples &amp; Pears Except During Bloom)</td>
</tr>
<tr>
<td>Gramoxone®</td>
<td>Scythe®</td>
</tr>
</tbody>
</table>

**Important Note:** The calendar spray dates given are an average estimate for Anne Arundel and Prince George’s County Orchards, and may vary by location in Southern Maryland. Be sure to adjust your spray schedule application dates accordingly. The above recommendations very closely reflect the current spray program utilized at the University of Maryland Research and Education Center, Upper Marlboro Facility for its research orchards. Remember to always “Read the Label”

Reviewed by Alan R. Biggs, Professors, Extension Pathologist, WVU
Spray Program for Multi-Small Fruit Plantings

Many local farms are composed of multi-small fruit combinations for fresh market blackberries, raspberries, blueberries, strawberries and grapes. Aggressive fruit spray programs are required to achieve high quality fruit. These multi-small fruit plantings create many spray management challenges for the achievement of good pest control in accordance to label guidelines.

Therefore, the following multi-small fruit spray program for the control of major small fruit pests and diseases may offer some assistance:
Labeled as noted in 2013 for All Small Fruit – Strawberries, Brambles: Blackberries, Raspberries, Blueberries, and Grapes.

**FUNGICIDES: [FRAC]**

<table>
<thead>
<tr>
<th>Fungicide</th>
<th>Rate</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lime Sulfur</td>
<td>10.0 gals</td>
<td>Dormant Fall Sanitizer</td>
</tr>
<tr>
<td>JMS Stylet Oil</td>
<td>1.0 qal</td>
<td>Apply Temp 35-85°F</td>
</tr>
<tr>
<td>Kocide DF</td>
<td>2.0 lbs</td>
<td>Other Fixed Coppers</td>
</tr>
<tr>
<td>Captain</td>
<td>2.0 lbs</td>
<td>General Protectant</td>
</tr>
<tr>
<td>Ziram 76DF</td>
<td>5.0 lbs</td>
<td>General Protectant</td>
</tr>
<tr>
<td>(Except for Strawberry use Thiram)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sulfur 95W</td>
<td>3.0 lbs</td>
<td>General Protectant</td>
</tr>
</tbody>
</table>

(Grape variety sensitivity)

**INSECTICIDES: [IRAC]**

<table>
<thead>
<tr>
<th>Insecticide</th>
<th>Rate</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rally 40W</td>
<td>4.0 ozs</td>
<td>Powdery Mildew &amp; Black Rot</td>
</tr>
<tr>
<td>(Except for blueberry use Tilt)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pristine</td>
<td>14.5 ozs</td>
<td>Fruit Rots, Fruit Spots, Powdery</td>
</tr>
<tr>
<td>&amp; Downy Mildew</td>
<td></td>
<td>&amp; Cane Blight</td>
</tr>
<tr>
<td>Elevate 50 WG</td>
<td>1.5 lbs</td>
<td>Botrytis &amp; Powdery Mildew</td>
</tr>
<tr>
<td>Switch 62.5 WG</td>
<td>11.0 ozs</td>
<td>Anthracnose, Mummy Berry,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Phomopsis, Sour Rot &amp; Botrytis</td>
</tr>
<tr>
<td>Phostrol</td>
<td>4.0 pts</td>
<td>Downy Mildew &amp; Red Stele</td>
</tr>
</tbody>
</table>

**I N S T R U M E N T S:**

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Rate</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provado Admire</td>
<td>4.0 ozs</td>
<td>Grubs, Aphids, Hoppers &amp; Curculio</td>
</tr>
<tr>
<td>or Actara</td>
<td>12.0 ozs</td>
<td>Clipper Beetle, Plant Bug, Mites</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Root Weevil</td>
</tr>
<tr>
<td>Malathion</td>
<td>2.0 pts</td>
<td>Scale, Fruit Moths &amp; Whitefly</td>
</tr>
<tr>
<td>Sevin 50W</td>
<td>4.0 lbs</td>
<td>Japanese Beetles,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hornets &amp; Sap Beeties</td>
</tr>
</tbody>
</table>

*Rate for 50-100gal Acre Concentrate Spray
**Be sure to follow all labels closely for PHI and REI!!

**Multi-Small Fruit Spray Calendar**

**March 5 -** Spring Dormant Spray

JMS Stylet Oil. 1.0 gal (Scales & Mites)

**April 10 -** Early Strawberry Bloom

Captain 50W 2.0 lbs

Thiram 75WDG 5.0 lbs (Strawberry Only)

**April 15 -** Strawberry Bloom/ Blueberry Early Bloom

Captain 50W 2.0 lbs

Ziram 76DF 5.0 lbs (Except Strawberry)

Brigade WSB 12.0 ozs (Clipper Beetle, 0-day PHI)

**April 25 -** Strawberry Full bloom/ Blueberry Mid-Bloom/ Grape Bud Break

Captain 50W 2.0 lbs

Pristine 14.5 ozs

Brigade WSB 12.0 ozs (Clipper Beetle, 0-day PHI)

**May 5 -** Strawberry 1st Cover & Early Harvest Spray/ Blueberry Full Bloom/ Grape & Bramble Shoot Growth

Captain 50W 2.0 lbs (0-3 Day PHI & 4-Day REI)

Elevate 1.5 lbs (0-day PHI)

Provado 4.5 ozs (Curculio & Aphids; 7-Day PHI)

**May 15 -** Strawberry 2nd Cover & Harvest Spray/ Blueberry 1st Cover/ Grape Bloom Spray/ Bramble Cane Development

Captain 50W 2.0 lbs (0-3 Day PHI & 4-Day REI)

Switch 11.0 ozs (0-day PHI)

Malathion 2.0 pts (Curculio, Scale & Fruit Moths; 0-3-day PHI)

**June 1 -** Strawberry 3rd Cover & Harvest Spray/ Blueberry 2nd cover/ Grape 1st Cover/ Bramble Bloom

Captain 50W 2.0 lbs (0-3 Day PHI & 4-Day REI)

Pristine 14.5 ozs (0-day PHI)

Malathion 2.0 pts (Curculio, Scale & Fruit Moths; 0-3-day PHI)

**June 15 -** Strawberry 4th Cover & Harvest Spray/ Blueberry 3rd Cover & Early Harvest/ Bramble 1st Cover/ Grape 2nd Cover

Captain 50W 2.0 lbs (0-3 Day PHI & 4-Day REI)

Elevate 1.5 lbs (0-day PHI)

Sevin 50W 4.0 lbs (sap beetle, 3-Day PHI)

**July 1 -** Strawberry Renovation/ Blueberry 4th Cover & Harvest/ Bramble 2nd Cover & Early Harvest/ Grape 3rd Cover

Captain 50W 2.0 lbs (0-3 Day PHI & 4-Day REI)

Pristine 14.5 ozs (0-day PHI)

Rally 40 W 4.0 ozs (Except Blueberry, 0-day PHI))

Brigade WSB 12.0 ozs (0-3-day PHI)

**July 15 -** Strawberry Post Harvest/ Blueberry 5th Cover & Harvest/ Bramble 3rd Cover & Harvest/ Grape 4th Cover & Veraison

Captain 50W 2.0 lbs (0-3 Day PHI & 4-Day REI)

Switch 11.0 ozs (0-day PHI)

Sulfur 95W 3.0 lbs (0-day PHI)

or Kocide DF 2.0 lbs (0-day PHI)

Malathion 2.0 pts (0-3-day PHI)

**August 1 -** Strawberry Post Harvest/ Blueberry 6th Cover & Harvest/ Bramble 4th Cover & Harvest/ Grape 5th Cover & Early Harvest

Captain 50W 2.0 lbs (0-3 Day PHI & 4-Day REI)

Pristine 14.5 ozs (0-day PHI)

Sevin 50W 4.0 lbs (Japanese Beetle, 3-Day PHI)

**August 15 -** Strawberry, Blueberry & Bramble Post Harvest/ Grape 5th Cover & Harvest

Captain 50W 2.0 lbs (0-day PHI & 4-Day PHI)

Elevate 1.5 lbs (0-day PHI)

Phostrol 4.0 pts (0-day PHI)

Sevin 50W 4.0 lbs (Hornets – 3-Day PHI for All Fruit)

**September 1 - October 30 -** Strawberry Post Harvest/ Grape 6th Cover & Harvest

Captain 50W 2.0 lbs (0-3 Day PHI & 4-Day REI)

Phostrol 4.0 pts (0-day PHI)

Sevin 50W 4.0 lbs (Hornets – 3-Day PHI for All Fruit)

**November 25 -** Fall Dormant

Lime Sulfur 10.0 gals

Kocide DF 2.0 lbs (0-day PHI)

**HERBICIDES: [HRAC]**

<table>
<thead>
<tr>
<th>Herbicide</th>
<th>Rate</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gramoxone</td>
<td>1.0 qts</td>
<td>Burndown, Directed Spray</td>
</tr>
<tr>
<td>Roundup</td>
<td>1.0 qts</td>
<td>Burndown, Shielded &amp; Directed Spray</td>
</tr>
<tr>
<td>Devrinol</td>
<td>4.0 lbs</td>
<td>Spring/Summer 35-day PHI</td>
</tr>
<tr>
<td>Princep</td>
<td>1.0 qts</td>
<td>Spring Dormant, Avoid High pH Soils</td>
</tr>
<tr>
<td>Solicaam</td>
<td>2.5 lbs</td>
<td>Spring/Fall Dormant, 1-yr Established</td>
</tr>
<tr>
<td>(except strawberry)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aim</td>
<td>2.0 ozs</td>
<td>Directed Spray to Weeds, 3-day PHI</td>
</tr>
<tr>
<td>Shark</td>
<td>2.0 qts</td>
<td>Spring/ Summer, Prowl 60 day PHI</td>
</tr>
<tr>
<td>Poast</td>
<td>1.5 pts</td>
<td>Summer Grasses, Variable PHI</td>
</tr>
<tr>
<td>Sinbar</td>
<td>4.0 ozs</td>
<td>Fall Dormant, 1-yr Established</td>
</tr>
</tbody>
</table>

*Lowest Use Rate Recommended Initially

**Organic Product Substitutions:**

<table>
<thead>
<tr>
<th>Conventional Product</th>
<th>Organic Certified Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Captain</td>
<td>Surround® &amp; Sulfur</td>
</tr>
<tr>
<td>Rally®</td>
<td>Kaligreen (Powdery Mildew Eradicant)</td>
</tr>
<tr>
<td>Listed Insecticides</td>
<td>Neem® or Pygic® or Entrust® or Dipel®</td>
</tr>
<tr>
<td>Gramoxone® or Roundup</td>
<td>Scythe®</td>
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</tbody>
</table>

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R. David Myers
Extension Agent, Agriculture