

Production Pointers

Fall 2002



Calendar of Events

Mark Your Calendars --- Plan To Participate

- ◆ October 23rd – Pest Recert. - Clinton Office
- ◆ November 2nd – Mid-Atlantic Forest Stewardship Conf.
- ◆ November 2nd – Small Farm Loan Application Training
- ◆ November 19-21st – Crop Management School
- ◆ November 20th – Pest Recert. - Clinton Office
- ◆ December 3rd – So. MD Crops Conference - Waldorf
- ◆ December 16th – Pest Recert. & Voucher - DFRC
- ◆ January 6th – Pesticide Cert. Class - DFRC
- ◆ January 13th – Pesticide Cert. Exam - DFRC
- ◆ January 16-19th – Horse World Expo - Timonium
- ◆ February 5th – So. MD Veg & Fruit Meeting - Ruritan
- ◆ February 17th – Pest Recert. & Voucher - DFRC
- ◆ February 19-22nd – MADMAC - Timonium
- ◆ March 10, 17, & 24th – Intro to Farming - DFRC

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Fall & Winter Meetings Slated

Mark your calendars now and plan to be a part of the winter meetings. The **Southern Maryland Crops Conference** will be held on December 3, 2002, at the Waldorf Holiday Inn. For full conference details, contact the Charles County Extension Office at 301 934-5403.



On Wednesday, February 5, 2003, the **Southern Maryland Vegetable and Fruit Production Meeting** will be held at the Davidsonville Ruritan. This meeting will provide Private Applicator Recertification credit.

Private Pesticide Applicator & Nutrient Management Voucher Trainings

A Private Pesticide Applicator Recertification & Nutrient Management Voucher Training will be held at the Davidsonville Family Recreation Center (DFRC) from 5:00 p.m. to 9:00 p.m. on December 16, 2002 and February 17, 2003. The **Pesticide Applicator Recertification** portion of the program will be from 5:00 to 7:00 p.m. and the **Nutrient Management Voucher Training** will be from 7:00 to 9:00 p.m. - both evenings.

Two additional **Private Applicator Recertification Trainings** will be conducted at the Clinton Extension Office from 7:00 to 9:00 p.m. on October 23, 2002 and November 20, 2002. Also a **Private Pesticide Applicator Recertification** will be offered as part of the **Southern Maryland Vegetable and Fruit Production Meeting** on February 5, 2003.

Become a Certified Private Applicator

If you have allowed your pesticide certification to expire or are a new applicant, then you must attend the Private Pesticide Applicator Certification Training and pass the exam. **A Private Applicator Certification Training** will be conducted at the Davidsonville Family Recreation Center (DFRC) from 7:00 to 9:00 p.m. on January 6, 2003. **A Private Pesticide Applicator Exam** will be given at the Davidsonville Family and Recreation Center (DFRC) from 7:00 to 9:00 p.m. on January 13, 2003.



Mid-Atlantic Forest Stewardship Seminar Offers Something For Everyone November 2, 2002

Woodland owners from Maryland, Pennsylvania, West Virginia and other Mid-Atlantic will have an opportunity to increase their knowledge of forest-related issues at the **2002 Mid-Atlantic Forest Stewardship Seminar**. Scheduled for Saturday, November 2, 2002 at the Frederick Community College in Frederick, Maryland. Maryland Cooperative Extension sponsors this full-day educational

event in cooperation with the Maryland Department of Natural Resources, and the Frederick Community College.

A panel of representatives from private forestry organizations and woodland owner associations will provide a keynote panel discussion on, "Making your voice heard in forest conservation." Representatives from the Partnership for Sustainable Forestry, Forestry Boards, Tree Farm, Maryland Forests Association, and Woodland Owners of the Southern Alleghenies will provide insight into how forest landowners can have their voice heard.

Following the keynote address, participants will attend one of three topics offered in each of four workshop sessions. Choices include:

- ◆ Hands-on Forest Stewardship – a two-session workshop targeted to new forest landowners
- ◆ Reducing Hidden Forest Ownership Costs: Property, Timber and Estate Taxes
- ◆ How to Watch and Photograph Wildlife
- ◆ Chainsaw Safety and Other Tools of the Trade
- ◆ Create a Wildlife Habitat Plan for our Property
- ◆ Why Should I Cut Trees in My Forest
- ◆ Managing Wild Turkeys
- ◆ Incorporating Forest Stewardship into Conservation Easements
- ◆ Marketing Timber from your Property

This is your chance to talk and learn from experts and network with other forest landowners. A more complete description of the workshop topics and speakers can be found at: www.naturalresources.umd.edu.

Advance registration costs \$30 and includes coffee, donuts, lunch, and educational materials. After October 25, registration increases to \$35. For more information or a registration form, contact Wilma Holdway, Frederick County Cooperative Extension, at 301-631-3576 or wh89@umail.umd.edu.

Beginner & Small Farm Operator Loan Application Training November 2, 2002

If you are a beginning farmer or a small farm operator in need of a business start-up loan, then consider attending the **2002 Southern Maryland Small Farmers Loan Application Training** on Saturday, November 2, 2002 from 9:00 a.m. to 1:00 p.m. at the Prince George's County Extension Office in Clinton Maryland. The Maryland Cooperative Extension, in collaboration with the Farm Service Agency, The Small Business Administration, and the Maryland Department of Agriculture, will present this event. The participants will discover the current loan and grant options available, including: Direct Loans, Guaranteed Loans, Small Business Loans, Rural Development and Business Loans, and SARE Grants. For registration and additional information, contact the Prince George's Extension Office at 301 868-8783. There is a \$5.00 registration fee. You may also call Okarsamaa B. White at 301 877-1461 for more details.

Mid-Atlantic Crop Management School

November 19-21, 2002

The **Mid-Atlantic Crop Management School** will be held at the Princess Royale Hotel in Ocean City on November 19-21, 2002. This excellent educational event offers 35 program options during 2.5 days of breakout sessions. Individuals seeking advanced training in soil and water, soil fertility, crop production and pest management will have an opportunity at hands on, intensive sessions that also provide continuing education units (CEU's) for the Certified Crop Advisor (CCA) Program. For more program details and registration information give me a call or contact Dr. Ron Ritter on campus at 301 405-1329.



Horse World Expo

January 16-19, 2003

The **Horse World Expo** at the Timonium Fair Grounds is scheduled for January 16-19, 2003. If you have never attended this event, I guarantee that you will be amazed at the crowd and excitement generated. Join the fun, and see why the 1.7 billion dollar a year Maryland horse industry is a shining star agricultural industry for the state.

You are also invited to visit with Extension faculty at the MCE Horse Expo Exhibit Booth, and plan to attend one or more of the University of Maryland Seminars.



Introduction to Farming Short-Course

March 10, 17 & 24, 2003

Whether you grew up on a farm or not, you may need to sign up for this **Introduction to Farming Course**. This three-day course 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." Money Back Guarantee! The spring classes will be conducted at the **Davidsonville Family Recreation Center (DFRC)**. Make plans to attend.



Agronomy Update Section

Drought Kit

By Les Vough

If you are looking for information concerning the 2002 drought and its effects upon forage quality and availability be sure to access the following web pages offered by Dr Les Vough the University of Maryland State Forage Specialist:

The updated **Maryland Forages Program** web page is located at: www.nrsl.umd.edu/extension/forages/

From the Maryland Forage web site is a link to the revised **Drought Information** web page at: www.nrsl.umd.edu/extension/forages/drought.cfm

Nitrate, Prussic Acid & Aflatoxin

Testing Program

The Maryland Department of Agriculture (MDA) is offering a free testing program to drought-impacted Maryland farmers for nitrate and prussic acid in forage and aflatoxin in corn grain. The program is modeled after similar cooperative efforts carried out in 1997 and 1999 with Maryland Cooperative Extension (MCE) and MDA as partners. The testing is done by the MDA State Chemist's office.

Farmers can bring their samples to MCE offices so that MCE can assist them with the paperwork and make sure the samples are properly prepared. MDA will pick up the samples daily and fax the results to farmers usually within 18-24 hours.

The following drought related fact sheets are available online at the Extension forages page or at my office:

- ◆ FS 426: Causes and Prevention: Nitrate Poisoning of Livestock
- ◆ FS 427: Causes and Prevention: Prussic Acid Poisoning of Livestock
- ◆ FS 433: Harvesting and Feeding Drought Stressed Corn
- ◆ FS 644: Evaluating Hay Quality

After Drought Cover Cropping

Be mindful that the best time to utilize Rye for a cover crop is following a drought. Rye is the best cover for nitrogen uptake and sequestering. For adequate cover establishment, drill 1.5 to 2.0 bushels/acre. Many of you may be participating in the MDA cover-crop program. Remember, that the cover-crop program requires the usage of germination-tested seed, and a 2 bushels/acre minimum seeding rate. The real advantage of the program this year is the granted ability to harvest the cover crop for feed or bedding.

MDA Hay Hotline

Let me help you, but first you have to help yourself. I recently downloaded the Maryland Department of Agriculture, **Maryland Hay and Straw Directory** compiled by Tony Evans. It was last updated on June 11, 2002. This MDA web site may be accessed at:

www.mda.state.md.us/market/haystraw.htm

To my disbelief, there were only six listings for Anne Arundel County and five listings for Prince George's County in the directory. I am receiving numerous calls from individuals seeking to locate a local hay source. Thus my dilemma is such - How can I fairly suggest one? I will first go to the directory listing and give the closest listed sources for the new customer. Secondly, if you call and request that I include your farm as a hay or straw source I will do so. It amazes me that so many of our livestock owners have hay delivered from Pennsylvania. You can't sell it if you don't market it! Call Tony Evans at 1 800 492-5590 ext. 5770 and add your farm to the listing -- Its Free!

2002 Graziers Notebook Beef, Sheep, Goats & Horses

I have acquired copies of the pocket sized 78-page *2002 Graziers Notebook for Beef, Sheep, Goats & Horses*, published by the USDA NRCS and ARS Departments. This is an excellent reference which covers the following livestock management processes:

- ◆ Pasture Allocation
- ◆ Livestock Body Condition Scoring
- ◆ Pasture Soil Fertility
- ◆ Biosecurity
- ◆ Animal Record Keeping
- ◆ Parasite Control

For a free copy call give me a call at 410 222-6759.



Alfalfa the Forage Champion

Someone asked me a question worth pondering – How much alfalfa can be produced per acre per year? To answer such a question required some deep dairy farming recollections. When I first arrived at the Naval Academy Dairy farm in the spring of 1980, the herd size averaged around 200 milking cows and there was 220 acres of alfalfa in production. The total herd including dry cows, heifers and calves totaled 450 head. Corn silage and alfalfa haylage or dry alfalfa hay made up the bulk of the feed ration. The average total annual alfalfa yield was 1,540 tons, or 7 tons per acre per year, generally harvested five times.

During the 1980's dieticians at the Naval Academy felt that the rear ends of the Mid-shipman were too large (fat), therefore, the whole milk was reduced to 2 percent. Of course this killed the taste of the best and freshest milk in the country, so milk consumption for the first time dropped at the Naval Academy. Interestingly, rear ends continued to enlarge – but I digress. The dairy reduced its milking herd to around 150 milking cows and the subsequent herd dropped to about 350 head.

Coinciding with this period of downsizing the alfalfa acreage dropped from 220 acres to 95 acres of very intensely managed hay production. Upon examining a ten-year period of alfalfa production from 1987 to 1997, the 95 acres produced on average 1,051 tons per year, or 11 tons per acre per year. How can it be possible to produce 11 tons of alfalfa per acre per year? Let me share the following **Alfalfa Forage Champion Formula**:

- ◆ Do some homework and plant the champion varieties that have quick recovery and multi-leaf yield capabilities. Plant 20 to 25 lbs of inoculated and treated alfalfa seed per acre.
- ◆ Be sure to have the soil adequately limed to a pH above 6.8, with a high calcium soil index. Alfalfa removes calcium at a 10:1 ratio to magnesium.

- ◆ Control weeds during dormant periods and between cuttings, especially the summer grasses that out compete alfalfa for the available potassium.
- ◆ Fertilize adequately for the high end yields in a split maintenance application of 600 lbs 0-10-40 after the first and fourth cutting (1200 lbs total per year). For each application add 1 lb per acre of boron, and if the field has no recent manure application history, then add 15 lb per acre of sulfur.
- ◆ Cut the alfalfa every 28 days beginning in April at the full bud stage. Expect to cut a minimum of five times and occasionally six cuttings should be made per year.
- ◆ Make haylage or baleage for the first, most of the second, and fifth cuttings. This will dramatically reduce harvest losses. This 11-ton dry matter yield is due mainly to minimized leaf losses when making alfalfa haylage.
- ◆ When drying alfalfa for hay, be sure to handle the windrows gently to reduce leaf loss, and during curing keep the hay in as tight a swath as possible to avoid color loss. At least 25% of the leaves are lost normally when curing and baling alfalfa hay, with as much as 50% loss under certain weather and management circumstances.
- ◆ Use integrated pest management, especially the use of sweep nets for the monitoring of potato leafhoppers. Spray when the leafhoppers exceed thresholds, this is normally required for the second and third cutting every year. If the field turns yellow at anytime you have already suffered a yield loss, and possibly damaged the subsequent cuttings.
- ◆ Lime on the third year, typically topdress with 1-1.5 ton per acre of hi-calcium ag-lime.
- ◆ When stand thins rotate it out. Expect a high-managed alfalfa field to last between three to five years depending upon weather and disease related stresses. Do not keep any alfalfa field longer than five years before rotating it out. Going into the fifth year the field may be over-seeded with triticale in the fall for enhanced first cutting yield.

Fall Lime for Acid Roof Soils

Last year I was reminded at the Mid-Atlantic Crops School by Dr Douglas Beagle from Penn State Agronomy Department, that no-till production leads to soils with an "Acid Roof". He explained that no-tillers need to pay close attention to the pH in the top 2 inches of soil. After all, this is where our seeds start out every year. For every 1 lb of ammonium (NH_4^+) fertilizer applied, 3 lbs of calcium carbonate (CaCO_3) is required to neutralize the acidification. Therefore, when we continually no-till we need to add lime more frequently at lower rates to the soil surface to offset this acid roof phenomena. Anytime the pH drops to 6.0 in the top 2 inches of soil add 1 ton of ag-lime per acre. This will typically require an application every three years to our silt loam soils.

Maryland Weed Reporter & Small Grain Weed Control

By Ron Ritter

Maryland Weed Reporter brings you up to date on new products, label changes, and other weed science news. The information may be accessed on the web at:

www.agnr.umd.edu/users/weed/

Dr. Ronald L. Ritter, Extension weed control specialist, compiles the reports. The following information is excerpted from the Weed Reporter Volume 17, No. 1, September 2001:

Small Grain Weed Control Update

There appears to be an interest in planting small grains under minimum-till or no-till conditions. While this may not be the best route to go with disease concerns, small grains will continue to be planted in this fashion.

A good knock-down treatment will be necessary where emerged vegetation exists. Roundup® Ultra Max, Touchdown and Gramoxone Max® are the 3 products most widely used for knockdown control of existing vegetation. For Roundup® Ultra Max, 19 to 26 ounces/acre, or for Touchdown, 1.5 to 2.0 pints/acre should control most small emerged vegetation. For Gramoxone® Max, use 0.75 to 1.75 pints/acre.

In-Crop Weed Control - Broadleaf Weeds

Harmony® Extra has the lion's share of the market where broadleaf weed control in small grains is needed. For wheat and barley, applications can be made after the crop is in the 2-leaf stage, but before the flag leaf is visible. For Spring oats, make applications after the crop is in the 3-leaf stage, but before jointing.

For barley and wheat, apply 0.3 to 0.6 ounce/acre. Do not exceed 1.0 ounce/acre per crop season. For heavy weed pressure, especially where wild garlic is present, consider 0.5 to 0.6 ounces/acre. Best activity on wild garlic will occur when plants are less than 12 inches tall with 2 to 4 inches of new growth. Plants hardened-off by cold weather and/or drought stress may be more difficult to control. Thorough spray coverage of all garlic plants is essential. Harmony® Extra has activity on Canada thistle. Use 0.6 ounce/acre when all thistles are 4 to 8 inches tall with 2 to 6 inches of new growth.

For Spring oats, Harmony® Extra applications are limited to 0.3 to 0.4 ounce/acre. Do not make more than one application of Harmony Extra per crop season on oat.

Harmony® GT is also available and is actually one of the components in Harmony® Extra. Rates and timings are the same as Harmony Extra. While good on common chickweed and garlic, Harmony® GT is weak on henbit and will not control Canada thistle. For both herbicides, do not graze or feed forage or hay from treated areas to livestock. However, the harvested straw may be used for bedding and/or feed.

Small Grain Grass Control

With the wide spread use of Harmony® Extra, we are seeing more grassy-type weeds invade small grain fields. The following lists the more common ones.

Grasses Invading Small Grain Fields

- Annual bluegrass
- Bromegrass species
- Bulbous oatgrass
- Italian ryegrass
- Roughstalk bluegrass

Axiom® (by Bayer) was given a Section 18 (emergency use exemption) in Virginia for the 2000 - 2001 growing season for preemergence use in wheat for control of ryegrass. While they are renewing the Section 18 for the 2001 - 2002 cropping season, they are now looking at a delayed application of Axiom®, after the wheat is out of the ground. We have been looking at Axiom and Dual® II Magnum (by Syngenta) for preemergence control of ryegrass in wheat over the past three years. Both look very promising! The following two tables are averages for 1999 and 2000. We applied Axiom® and Dual® II Magnum right after planting wheat in the Fall of 1998 and 1999. The data presented were observations made in the Spring of the year. Our 2000 - 2001 data look similar.

Product	Rate (lb ai/acre)	% Ryegrass control
Axiom	0.213	74
	0.319	94
	0.425	94
	0.532	99
Dual II Magnum	0.25	69
	0.38	78
	0.50	95
	0.75	95
	1.00	95

We have taken these plots to yield and have seen no injury nor yield reduction with neither product.

One new herbicide that we've been looking at for control of grassy weeds in wheat is a product from Monsanto called Maverick®. Maverick® is labeled for control of a variety of bromegrass species including downy brome, cheat and hairy chess, which are common in our region. We have studied its use on annual bluegrass, roughstalk bluegrass and bulbous oatgrass, and have found excellent control of annual and roughstalk bluegrass.

Bulbous oatgrass control has varied, but Maverick® is the only product that we have found that has any activity on this particular grass.

Use rate is 2/3 ounce/acre plus surfactant. Maverick® is labeled preemergence, Fall postemergence and Spring postemergence. Consult the label for the proper application timing for your specific needs.

Maverick® is a sulfonylurea and safety to double-crop soybeans is a concern. The current Maverick® label says, "Do not plant to any crops other than winter or spring wheat for a period of one year following Maverick® herbicide application." We have two year's data, which shows that a planting of STS soybeans, even where Maverick was spring applied, will not show any signs of injury or yield reduction. Recently, the label was amended

to allow for a planting of STS soybeans where Maverick® has been used.

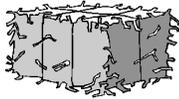
Another sulfonylurea labeled for grass control in wheat and barley is the Dupont product Finesse®. It will also control the ryegrass, bluegrass and brome species. Finesse® may be used preplant, preemergence, or postemergence from the first leaf to boot stage. The recommended rate for grass control is 1/3 ounce/acre. Again STS soybeans are required when double-cropping.

Roundup® Resistant Weed Watch

Have you seen them? They are unfortunately popping-up – Roundup® resistant weeds. Well we knew that an eventual weed shift would occur as we become ever more dependent upon the Roundup® Ready Technology. Here is a suspect list of those weeds that have now gained the status of possessing resistant genetic types:

- ◆ Marehail
- ◆ Goosegrass
- ◆ Daisy fleabane
- ◆ Ryegrass
- ◆ Others?

Individuals are considered Roundup® resistant when a ten-fold rate of Roundup® no longer takes them out. If you think you are seeing resistant types let me know. In the meantime rotate in a few of the old standard herbicide crop programs to lessen the likelihood of resistance development. I can still remember the good old days of Lasso® and Aatrex® before the triazine resistant pigweeds and lambsquarters sprang up.



Max Q Fescue Looks Encouraging

I have copies of two recent research publications, one entitled *Update on Max Q Tall Fescue*, by University of Georgia researchers Carl Hoveland and Mark McCann; and the other published in the Georgia Cattleman newsletter citing many new research findings entitled *Max Q Update*. The articles summarize preliminary studies that show encouraging results for the tall fescue with a non-toxic fungal endophyte. There has been marked animal performance improvement on the Max Q tall fescue and the stand has proven to be as productive and persistent as the toxic endophyte infected varieties. The endophyte free tall fescue varieties lost 77% more stand than the same tall fescue endophyte infected varieties during a two-year intensive grazing study in 1998 and 1999; whereas, the Max Q only lost 12% more stand. There were also no animal health complications associated with the non-toxic fungal endophyte in Max Q, and the animals gained twice as much weight per day as the livestock grazing the toxic endophyte infected fescue varieties. If you would like copies of these articles give me a call.

Commodity Marketing Advice

Are you looking for grain marketing help? A newly developed University of Maryland Commodity Marketing web page is now up and running according to Michael Haigh, from the University of Maryland Agricultural Resource Economics Department. The information may be accessed at:

www.arec.umd.edu/Extension/Grain/arehome.htm

Michael welcomes you to visit the new site and make suggestions for improvement.

SMRFM Hay & Straw Auctions

The Southern Maryland Regional Farmers Market wishes to remind you of the upcoming **Hay and Straw Auctions**, which are scheduled for the first and third Saturday morning at 10:00 a.m. beginning in November. The auctions will run through March. If you have hay or straw to consign, or are an interested buyer, then please contact Margie Wilkinson at the market office, at 800 533-FARM or call Bob Chase at 410 798-1580.

Market Tip-Line

Weekly SMRFM market price quotes are available by calling the MCE Market Tip-Line at 410 761-8911. The quoted prices are compiled and updated each week during the produce auction season. The hay and straw auction price quotes will also be available by the second auction in November. Give me a call if you have any questions or suggestions for the improvement of this marketing tool.

GAFLLP Job Descriptions Wanted

The Greater Annapolis Farm Labor Provision Project is ready to service your needs. The GAFLLP Steering committee met on September 16, 2002 to initiate a process to bring the project to a successful spring of 2003 start. The following three agenda items were addressed as being critical to the projects success:

1. The ability to spread the word about GAFLLP to both the farm and worker communities.
2. The development of a worker transportation system to and from the farm communities.
3. The commitment by farm operations to hire and provide descriptive job positions for workers.

Attached at the back of this newsletter is a GAFLLP Hiring Questionnaire for farmers seeking farm workers to fill out. This is the most vital step required for the project to go forward and become successful. Please fill out the form and mail it to the GAFLLP Project Chair, Ms. Lolita Harley as soon as possible. The committee has a goal of offering at least 20 positions to the Latino community of Annapolis by next spring. If 20 jobs are secured then the logistics of utilizing a Bus service becomes a reality for the transportation of the workers to and from the farm communities. We need your commitment today. If you have any questions feel free to call me at 410 222-6759 or Lolita Harley at 301 627-4080.

Command 3ME Rate Alert

An important notice has been sent out by Rutgers University concerning the labeled use rates of the New Command 3ME (Micro Encapsulated) formulation. The cautions expressed are such:

Warning: The labeled rates for Command 3ME for some vegetables is not consistent with the rates recommended for use in New Jersey by Rutgers University. The crops and rates are given as follows, the lower rates should be used on the lighter soils:

Crop	Labeled Rate Pints/A	NJ Rec. Rate Pints/A
Snap Beans	0.4 to 0.67	0.25 to 0.5
Cabbage	0.67 to 1.3	Not Rec.
Cucumber	0.4 to 1.0	0.25 to 0.67
Muskmelon	0.4 to 0.67	0.25 to 0.67
Peas	1.3	0.67 to 1.3
Peppers	0.67 to 2.67	0.67 to 2.0
Squash (Winter)	0.67 to 2.0	0.67 to 1.3
Squash (Summer)	0.67 to 1.3	0.25 to 0.5
Sweet Potatoes	1.3 to 4.0	1.3 to 2.67
Watermelon	0.4 to 0.67	0.25 to 0.67

Also the growers should be aware that the command 3ME is still very prone to causing drift injury during windy or air inversion conditions. The encapsulation does greatly reduce the incidence of volatilization and subsequent vapor drift injury. This will make this product much more useful as a vegetable herbicide. The Command 4E formulation will be phased out.

Heavyweight Row Cover

It has been noted by researchers that floating row covers can offer a 2-5 degree level of frost protection. This level of protection of young fruit and flower buds is sometimes all that is required to keep a valuable crop from being completely lost. This past spring at the WYE REC Strawberry Twilight, Bob Rouse and Mike Newell discussed the use of the heavyweight row covers. The heavier denier fabric maximizes this blanketing effect and holds up to more weather and management abuses. Henry Hilleary was present at the twilight and provided an information handout and price sheet for the heavyweight 2.1-ounce Strawberry row cover. The specifications are as follows:

Strawberry Bed Covers

2.1-ounce Amoco 4801 needle punch polypropylene

Available in widths of 5', 7.5', 15', 30', and 45'

Cost \$0.395/square yard

5' width - \$0.22/linear foot

7.5' width - \$0.33/linear foot

15' width - \$0.66/linear foot

30' width - \$1.32/linear foot

45' width - \$1.98/linear foot

The row covers may be ordered through Henry at:

Hilleary Associates, Inc.

215 Waltham Farm Lane

Centreville, MD 21617

410 758-1858

Vineyard Reckoning

The **Southern Maryland Vineyard Team** wishes to share the account reckoning of the Southern Maryland research vineyard planted at the Upper Marlboro Research and Education Center. The research vineyard contains 25 viniferous varieties or varietal clones, and 2 hybrids that are used for winemaking. The project goal is to screen for varieties with good fit for the development of a Southern Maryland wine industry. The project has progressed well. The vines were planted on April 4, 2001, and the trellis development has been completed this summer. The vineyard is comprised of 32 vines for each of the 27 varieties, having 8 vines in four randomized replications. The 864 vines are spaced 10' between the rows and 6' within the rows, occupying a total area of 1.19 acres. The following tables reveal the actual itemized costs for vineyard supplies and labor. A complete breakdown of labor activity and time involved in the accomplishment of tasks gives good insight to the labor investment required.

Vineyard Supply Log

Upper Marlboro REC

March 1, 2001 to August 31, 2002

MATERIAL BURDEN 2001	COST
864 - Grapevines	
Sub Total	3,072.15



Trellis Materials	
180 - 3" x 4" x 8' Treated Posts CCA	1,035.00
3 - 10 lb units of 11 GA Galvanized Brace Wire	26.07
60 - 4"-5"X10' End Posts Treated CCA	597.00
4 - 6"X6"X10' End Posts Treated CCA	74.76
4000' 12.5 gauge aluminum clad wire	51.00
1651' 12.5 gauge aluminum clad wire	19.81
5000' 14 gauge galvanized wire	434.00
38 - Tighteners	70.30
5 - Packages 100 Sleeves 14-16 gauge	33.00
1 - Package 100 Sleeves 12.5 gauge	9.00
3 - 10 lb. Galvanized Smooth Wire 11 gauge	26.07
1500 - Bamboo Supports; 72 - Earth Anchors	819.60
2 - Max-Tapeners & Vine Ties	107.13
2 - 50 lb Falcon Fescue	109.90
1 - 50 lb K 31 Fescue	49.50
Shipping/Handling	69.07
Sub Total	3,531.21

Pesticides	
2 - Surflan Herbicide 2.5 gal	459.80
1 - Nematicur - Nematicide 2.5 gal	198.00
2 - Gramoxone Extra 2.5 gal	159.90
2 - Captan 5 lb bags	31.95
1 - Nova 1 lb bag	85.00
1 - DeFac- Adjuvant Spreader 2.5 gal	22.50
5 - Benlate SP 1 lb bag	89.95
1 - Guthion 2.5 gal	120.00
2 - Lorsban 4E 2.5 gal	121.95
2 - Princep 4L 2.5 gal	42.50
1 - Agri-Mycin17 2 lb.	42.50
1 - Devrinol 59 DF - 4 lb.	36.00
Sub Total	1,410.05
Total 2001	8,013.41

MATERIAL BURDEN 2002	COST
Trellis Materials	
Miscellaneous Irrigation Supply	69.58
Miscellaneous Irrigation Supply	58.83
8 - Brace Wire 10 lb units of 11 gauge	65.55
Galvanized Nails 60 - 22.5 lbs & 12D - 50 lbs	56.52
2000 - Catch Wire Clips & Vine Training Supplies	190.00
500 - Crimp Sleeves for Wire	38.00
3/16" Chain	292.50
10,000' Trickle Tape Roll	136.00
40 - Trickle Tape Connectors	20.40
Sub Total	937.38

Pesticides	
PPE Equipment	315.24
1 - Captan 50W 5 lb bag	59.80
1- Thiodan 2.5 gal	79.90
1 - Lannate 1 gal	127.50
3 - Imidan 4 lb units	83.40
1 - Solu-Bar 5 gal	35.00
4 - Dithane 12 lb units	112.00
5 - Vendex 1 lb units	124.75
1- Pounce 1 gal	149.00
Sub Total	1,086.59
Total 2002	2,013.97
Grand Total 2001 & 2002	\$10,027.38

VINEYARD LABOR LOG

Upper Marlboro REC

March 1, 2001 to August 31, 2002

MCE Investigators, CMREC Facility Labor and Volunteers

Task	Hours
Layout of Vineyard Site	9
Layout Posts and Brace Anchors	6
Auger Holes	10
Apply Fertilizer, Lime – At Planting	3
Vine Planting	57
Drive Posts	19
Auger in Anchors	15
Brace Wire	18
Cordon Wire	20
Trickle Irrigation Lines	14
Bamboo Training Stakes	7
Herbicide Applications 2001	19
Fungicides/Insecticides 2001	10
Vine Training/Pruning 2001	85
Nematicide	3
Hoe Weeds	8
Mowing	10
Drill Fescue Alleys	2.5
Fertilizer Lime, Litter 2002	4.5
Trickle Irrigation Lines	40
Herbicide Applications 2002	8.5
Fungicides/Insecticides 2002	17
Vine Training/Pruning 2002	118
Plot Evaluations 2001/2002	12
Catch Wire Placement	70
Hoe Weeds	26
Mowing, Replant Fescue Alleys	11.5
Harvest	10
TOTAL HOURS	634

Total Labor Value – 634 hrs @ \$15.00/hr = \$9,510.00

Recovering from Apple Fireblight

Just when you thought that fireblight damage to your apple trees reached a maximum level in 2001 along comes the 2002 season to really depress you. That's how I felt this year and I know that I am not alone. Talking with Dr. Chris Walsh, University of Maryland State Fruit Specialist recently, he revealed that weather conditions this spring were ideal for a once in about every ten-year epidemic fireblight outbreak. The outbreak this year ran along the piedmont front range down into the coastal plains. Apple growers in this broadband region reported significant early and late fireblight strikes. It is apparent to me that apple producers in Southern Maryland can expect epidemic fireblight strikes more frequently, about one in every four years. It also seems that the Streptomycin® sprays are highly erratic in offering control. Even growers utilizing the Maryblight system, which is the best possible fireblight protection management strategy, report troubling tree damage and losses. What can we do? We can hope that a fireblight resistant dwarfing rootstock is discovered or genetically engineered soon, and select the scion varieties that have shown the most resistance to fireblight infection.

In 1999 an apple variety trial was planted at the University of Maryland Upper Marlboro Research and Education Center. The research and demonstration orchard contains 13 varieties on M9 rootstocks. The fireblight has been very damaging to the research orchard especially as the trees reached bearing age in 2001 and 2002. This replicated and randomized orchard variety study has allowed for the comparison of varieties under this period of severe fireblight stress. The table below compares the level of fireblight resistance for the 13 varieties on the M9 rootstock. A score above 6.0 may be considered to indicate that a variety possesses an acceptable level of Fireblight resistance.

Apple Fireblight Evaluation Upper Marlboro REC 2001 & 2002

Variety	Score 1= Dead to 10= No Disease
Royal Court	9.2
Yataka	8.8
Crown Empire	7.8
Jon De Coster	7.8
Sun Fuji	7.8
Snapp Stayman	7.7
Braeburn	6.7
Ginger Gold	6.0
Suncrisp	5.5
Cameo	4.2
Nittany	4.2
Honey Crisp	3.8
Pink Lady	3.8

Dormant Fireblight Strategy

This fall as soon as the apple leaves drop I'll cut and remove all fireblight cankers and apply a heavy copper cover spray. At spring bud swell another copper spray will be applied. The Streptomycin® bloom sprays will follow, and hopefully the fireblight scourge will be abated.

El Mercado Latin Farmers Market

A thriving new market is being operated in the heart of an Annapolis Latino Community. **El Mercado** a Latin Farmers Market has become a popular shopping spot for all who enjoy the spicy Latin American dishes. The new market is located at:



El Mercado
Salvation Army Parking Lot
351 Hilltop Lane
Annapolis, MD 21403

Mr. Robert Morales the Annapolis City Police Departments Hispanic Liaison wishes to invite area farmers interested in producing and selling Latin American vegetables to work with the market operation. The market and community would embrace a local source of seasonally fresh ethnic vegetables. For more details contact Mr. Robert Morales at 410 268-9000.

SCD News

Right to Farm Resolution

In an initiative spearheaded by Jeff Opel, Anne Arundel Soil Conservation District Manager, and members from the County Executive's newly appointed Anne Arundel Agricultural Advisory Committee, County Council Chairman Bill Burlison introduced an Anne Arundel County "Right to Farm" Resolution. Council Members voted unanimously (7 to 0) to adopt Resolution #52-02 The "Right to Farm" in Anne Arundel County. I concur with Jeff in stating, "The adoption of this resolution represents a platform from which the agricultural committee can work from to develop ideas, and make changes which will benefit agriculture today and into the future for Anne Arundel County." Committee members that were present at the County Council Chambers to testify and support the resolution on September 3, 2002 definitely made a difference. Members present were, Jeff Opel, Kenneth Carr, Joel Greenwell, Martin Zehner, Earl Griffith, John Minnick and David Myers.

Remember to express your thanks to Jeff Opel, Members of the Anne Arundel Agricultural Development Advisory Committee, the Honorable Janet Owens and the Anne Arundel County Council Members for a job well done.

Prince George's Farm Service Center Relocates

Please make note that the offices of our Prince George's County USDA Farm Service Center have moved to:

5010 Brown Station Road,
Unit 195 (Marlboro Shopping Center)
Upper Marlboro, MD 20772

This farm service center is home to the Prince George's Soil Conservation District (SCD), the Farm Service Agency

(FSA), and NRCS offices. The phone number, 301 574-5162, has remained unchanged and is the same for all of the above agencies. Keep in mind that the Prince George's FSA office services both Prince George's and Anne Arundel Counties.

Deep No-Till Rippers Conservation Equipment Tax Credited

Thanks to a lot of work from the Anne Arundel County farmers, Anne Arundel County Soil Conservation District Staff, MCE and your political representatives the deep no-till rippers are now eligible for the Maryland Income Tax Subtraction Modification for Conservation Equipment program. The full cost of the equipment may be deducted off the total gross farm income. Eligibility extends back to purchases made since 1985. For full program details contact your Soil Conservation District Office.



Nutrient Management Update

Oh Boy, Its Implementation Time!

I would just like to give a cheer and remind you that, **Oh Boy, Its Implementation Time!** We reached the deadline, and now it is time to comply and implement our Nutrient Management Plans. Krista Wilson will be returning to Anne Arundel County Extension as soon as a new advisor is hired in Montgomery County. She will then be assigned to a two-county split position for Anne Arundel and Howard counties. At which time Diana Canter will return to the fulltime advisor position in Prince George's County. Both are Certified Nutrient Management Advisors, and would love to help you with the process. Give them a call soon to assure that the implementation of your Nutrient Management Plan remains compliant to the new state regulations.

Nutrient Management Law

Nutrient Management Laws are applicable to an agricultural operation with a minimum of \$2500 annual gross income, or a livestock operation with eight or more animal units as defined by the federal regulations. According to federal regulations, one animal unit equals 1000 lbs of live animal weight.

- A. Operations using commercial fertilizer are required to have a Nitrogen and Phosphorus based plan by December 31, 2001. The plan must be fully implemented by December 31, 2002.
- B. Operations using animal manure or sludge are required to have a Nitrogen based plan by December 31, 2001. The plan must be fully implemented by December 31, 2002.
- C. Operations using animal manure or sludge are required to have a Nitrogen and Phosphorus based plan by July 1, 2004. The plan must be fully implemented by July 1, 2005.

Nutrient Management Applicator Voucher

Remember that the state Nutrient Management Laws also require that the operator of a farming operation that applies nutrients in accordance to the farm's Nutrient Management Plan possess a Nutrient Management Voucher. A Nutrient Management Voucher is obtained by attending a two-hour training every three years. Please take the opportunity to attend a nutrient Management Voucher Training offered this fall or winter.

Thanks for Partnering

Thanks for partnering with the Maryland Cooperative 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.

Enjoy the Harvest!



R. David Myers
Extension Educator
Agriculture and Natural Resources
Anne Arundel & Prince George's Counties
Fruits and Vegetables

NACAA
National Association of
County Agricultural Agents



**NACAA Communication Award
Individual Newsletter
2002 National Winner**

**Prince George's Cooperative Extension
6707 Groveton Drive
Clinton, MD 20735
301 868-8783**

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

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