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Palmer Amaranth

There is a new weed that is starting to show up on the shore, Palmer Amaranth. If you haven't heard of this weed, it has been described as "pigweed on steroids" or a "game changer". It has become an enormous problem in the southeast, especially in cotton fields, but also in corn, soybeans and vegetable crops. The weed has been moving steadily north and has been reported on the Delmarva during at least the last two summers. The Palmer Amaranth is very competitive for moisture and nutrients, and even small population can cause significant yield loss. Plants grow very rapidly and can reach over six feet tall. Unfortunately, a small population can quickly explode into a huge one the next season, as a single plant is capable of producing 500,000 seeds. The seeds are tiny and can easily be spread by equipment throughout the entire field and from an infected field to a clean field. To make matters worse, the weed is very likely to develop herbicide resistance. There are herbicide resistant populations in the south, with cases of multiple resistance increasing. Another aspect of this plant is that it has both male and female plants. Herbicide resistance can be carried by the male pollen and then infect a non-resistant population from quite a distance. Therefore, if you discover Palmer Amaranth in your field, it is very important not to let it go to flower.

We are relying on the land grant Universities to our south for most of the information about this pest. Early identification is of utmost importance. Virginia Tech has an excellent weed ID website and the link to Palmer Amaranth is http://www.ppws.vt.edu/scott/weed_id/amapa.htm. The University of Florida also has some good information at <http://edis.ifas.ufl.edu/ag346>. There was a good presentation at the Mid Atlantic Crop School this past November. That presentation can be seen online at <http://www.viddler.com/explore/craigyohn/videos/312/>. If you find Palmer Amaranth in your field this year, please contact your local UME office.

Jay Douthit, Kent County



UPCOMING EVENTS

February**February 4th**

POULTRY EXPO, 9:00 a.m. - 4:00 p.m., Carroll County Extension Office, 700 Agriculture Center, Westminster, MD. *Contact:* Dale Johnson 301-432-2767 x325.

February 8th

SOUTHERN MARYLAND VEGETABLE AND FRUIT PRODUCTION MEETING ON WEDNESDAY. 8:00 a.m. to 4:00 p.m. Bowie Elks Lodge. Register with the St. Mary's County Extension Office at 301-475-4484.

February 8th

MDA & MDE RECORDKEEPING AND REPORTING REQUIREMENT - 11:30 a.m. Tilghman Terrace, Centerville, MD 21617. This workshop will help you complete your AIR and learn required recordkeeping for both MDE and MDA. Lunch will be provided. Please call 410-758-0166 to register.

February 9—10th

WOMEN IN AGRICULTURE. Location: Dover Downs, Dover DE. The conference goals are to offer women who are involved with agriculture an opportunity to come together to learn about current issues. <http://ag.udel.edu/extension/kent/womeninag.htm>

February 10, 2012

RESCHEDULED 2012 MT. TOP FRUIT AND VEGETABLE CONFERENCE. Garrett College – Room 205. 8:15 a.m.–4:15 p.m. The cost for the workshop is \$12 and can be paid at the door. Please register for the workshop by calling the Garrett County Extension Office (we need a lunch count) by February 7th: 301-334-6960.

February 11th

MARYLAND WINE AND GRAPE INDUSTRY PRUNING CLINIC # 1. 9:00 a.m. to noon. North Central - Carroll County, Copernica Vineyards, Westminster. Contact: Jack Johnston, 410-848-7577.

February 14th

GRAIN MARKETING MEETING 6:30 a.m. Higgy's Restaurant, 5306 Church Hill Rd., Church Hill, MD

February 15th

2012 BAY AREA FRUIT MEETING - Annual fruit growers meeting. Preregistration is required. *Time:* 8:30 a.m.-3:30 p.m.. Wye Research & Ed. Ctr., Queenstown, MD. *Contact:* Michael Newell 410-827-7388.

February 15th

CAROLINE COUNTY AGRONOMY DAY. *Time:* 5:30 p.m.–10:00 p.m.. Location: Caroline County 4-H Park, Denton MD. Register: 410-479-4030 or jlewis2@umd.edu

February 16th

DELMARVA DAIRY DAY 9:30 a.m.-2:30 p.m. Hartly Fire Hall, Hartly DE. **RSVP NEEDED FOR LUNCH:** Please contact Carol Hrupsa by phone 302-730-4000 or email carolm@udel.edu by February 3, 2012.

February 17th

GRAIN MARKETING UPDATE 7:30 a.m. – 11:30 a.m. Chesapeake College in the Higher Education Center HES-110. Topics include trading technology, tax considerations, crop insurance, speculators and a marketing outlook for 2012. Register by February 14th contact sdill@umd.edu or 410-822-1244. Cost: \$20 per person and includes breakfast and materials.

February 18th

MARYLAND WINE AND GRAPE INDUSTRY PRUNING CLINIC #2. 9:00 a.m. to noon. Eastern Shore - Kent County, Crow Farm, Kennedyville. Contact: Judy Crow 410-648-5687. Instructor: Jennie Schmidt. www.crowfarmmd.com.

February 18th

SAVE FARM FAMILIES FUNDRAISER 3:00 a.m.-8:00 p.m., Queen Anne's County 4-H Park. Sponsored by Cecil, Kent, QA, Talbot & Caroline Farm Bureau. Contact your local farm bureau for more info or Virginia Albers at valbers@yahoo.com or 410-758-4076. Tickets \$25 in advance. Lots of Food, Farming, Fun and Fellowship. www.savefarmfamilies.com

February 21st

EASTERN SHORE VEGETABLE MEETING Location: English Hall, Eastern Shore Hospital Center, Cambridge MD. Register: 410-228-8800 or samathew@umd.edu

February 22nd

GOOD AGRICULTURAL PRACTICES (GAP) TRAINING FOR SOUTHERN MARYLAND REGION FRUIT AND VEGETABLE PRODUCERS 9 a.m. to 4 p.m., at the Calvert County Fairgrounds, 140 Calvert Fair Drive, in Barstow. Registration fee is \$20 per person which includes lunch and training materials. To RSVP call 410-535-1600, ext. 2337, or email penfieca.md.us. For a registration form visit www.calvertag.com

February 24th and 25th

MARYLAND WINE AND GRAPE INDUSTRY ANNUAL MEETING. Clarion Hotel, 6400 Oxon Hill Road, Oxon Hill, MD, US, 20745. For directions, the hotel website is http://www.clarionhotel.com/hotel-oxon_hill-maryland-MD246. For more information or to register for the conference please access: www.marylandgrapes.org

February 28th

GRAIN MARKETING MEETING 6:30 a.m. Higgy's Restaurant, 5306 Church Hill Rd. Church Hill, MD

Getting to Know the Enemy

Mark Sultenfuss, CPAg

Mark is the Program Manager—Field Crops & Soils Wye Research and Education Center University of Maryland

Military strategists stress knowledge and identification of the enemy as essential for a complete and resounding victory in battle. The battle we face in our wheat and barley fields is the battle against weeds. Some of the weeds right now are tiny and appear insignificant; others are well established and can easily be identified as an adversary.

In order to defeat these enemies, proper identification is essential. The first thing you need to do is go out and meet the enemy. Three species of broadleaf weeds are frequently present and established now. Fortunately, they are easily recognizable and relatively easy to kill with appropriate herbicide applications. They are chickweed, henbit and deadnettle. To make identification easier, I have found some good photos of these weeds to help you identify them. You will notice that henbit and deadnettle are very similar, since they are in the same botanical family. Recognizing one from the other can be confusing; however, they both can be easily controlled with the same herbicide regime.

Chickweed may pose a challenge to be adequately controlled with Harmony or Harmony Extra, since the regional population has begun to develop resistance to that particular family of herbicides, known as the ALS herbicides. There are pockets of chickweed that cannot be killed with Harmony or Harmony Extra, and, like you do with glyphosate resistant marestail, you need to use another herbicide to control them. So, beware that if you know that last year you had poor chickweed control in your small grain fields on your farm, it likely was due to the fact that you have a Harmony resistant population. You will need to change your herbicide program to address these ALS resistant weeds. Some of the old standby herbicides like 2,4-D and Banvel are still quite effective. Check the labels of these products for application rates, and particularly remember the restriction to apply them **after tillering but before jointing**. Starane Ultra is also available and affords control of ALS resistant chickweed. It has a wide window of application from 2-leaf stage up to and including flag leaf emergence. However, the smaller the weed, the better the control. Starane Ultra is only labeled for use in wheat.

You may ask, "How did we develop ALS resistant chickweed?" The answer might be just as simple as how we developed glyphosate resistant weeds. We used a very effective herbicide as the only control method for certain weeds year after year. Try to remember when was the last time you used something other than Harmony or Harmony Extra for broadleaf weed control in your wheat? It was probably a family generation ago. Since the widespread adoption of the various Harmony products over the past twenty years, many of us have not used anything else to control chickweed in our wheat. Over the years, we have gradually developed members in the chickweed population that are resistant to the chemistry in Harmony. Now, even though we rotate to other crops and chemistries, there is a segment of the chickweed population that is resistant to Harmony. As that segment reproduces and increases in numbers year after year, the overall population leans to more and more plants that are resistant to ALS herbicides, leading to an overall inability of Harmony to control the pest.

Two other common grassy weed pests in small grain fields are annual bluegrass and Italian ryegrass. I have the most trouble at the Wye with annual bluegrass, but many have trouble with both. Italian ryegrass is particularly vicious since it can drastically reduce wheat yields and cause harvesting difficulty. Additionally, Italian ryegrass goes through the combine and its seed is then distributed throughout the rest of the field and from farm to farm. It is not uncommon to see strips of Italian ryegrass in fields that are just a bit wider than the combine, suggesting the seeds were spread by the straw chopper during the previous wheat harvesting process. Frequently, we find fields of Italian ryegrass that are resistant to the herbicide Hoelon. That leaves us with the herbicide Osprey as the only recommended herbicide for control of both Italian ryegrass and annual bluegrass. Keep in mind that Osprey is only labeled for use in wheat. If applied to barley, injury will result.

Last year I used Osprey for the first time to control annual bluegrass in wheat. It very successfully controlled the annual bluegrass and performed handsomely on the chickweed, henbit and deadnettle. I am certain that it performed so well because I had a very small seed increase of barley in the wheat field I was spraying. I had to skip spraying the Osprey over the barley area, and you could see the difference to the exact line where the Osprey was applied and where it was not. A subsequent application of Harmony to the barley controlled the broadleaf weeds, but the annual bluegrass thrived.

According to Dr. Ron Ritter, from now until wheat jointing is the appropriate stage for applying Osprey to control these two grassy weeds in wheat. Read the Osprey label thoroughly, see what tank mix partners it has that you can use, and remember that it needs metholated seed oil (MSO) as an adjuvant. Additionally, there must be a 14 day window between Osprey application and ammonium fertilizer application. This means you need to wait two weeks between applying fertilizer, then the herbicide or vice versa. Last year I used dry urea as a greenup nitrogen source, spread the day after I applied the Osprey. I observed no injury to the wheat.

Comparing Apples and Apples *or* Limes and Limes

One of the most important soil amendments we buy regularly is lime. We add lime to the soil, from time to time to adjust the soil pH (an indexing method to express the relative level of soil acidity) and to add calcium and magnesium. We adjust the pH of the soil to make the soil acidity most hospitable for the plant roots of the species we are growing as well as managing soil pH for optimum nutrient availability. Different crop nutrients are most available at a certain soil pH, and we strive to maintain soil pH at the “sweet spot” so that we maximize available soil fertility. As well, some soil bacteria, necessary for the conversion of nitrogen in the air to plant available forms are sensitive to acid soils and prefer a soil pH between 6.0 and 7.0.

We frequently satisfy our perceived liming needs by telling the salesman to apply a ton of lime per acre, or we ask him to quote his price for a ton of lime and then compare his price (sometimes) to that of his competitor. When we make these rather arbitrary comparisons, we are assuming we know the characteristics and effectiveness of the products that we are comparing. Often, however, a ton of lime from one supplier is not the same as a ton of lime from another supplier. Thus the title of this article: Comparing Limes to Limes. We need to be sure that we are comparing proverbial equals.

Like fertilizer, lime must have a label, stating the chemical and physical characteristics of the product. These labels are available from the lime quarry or from the retail dealer. You should obtain a copy of the lime label from vendors that you use so that you can accurately determine how much lime is necessary and what available nutrients you are getting from a ton. By referring to the label, you can use vendors' prices to accurately compare the liming and nutrient value of different products. Then, and only then, can you be sure that you are comparing products fairly. One liming product may cost more per ton, but may be a more effective liming material, requiring less product per acre to obtain the same effect as a less expensive, but less effective product.

Several characteristics are taken into account to determine the Effective Neutralizing Value (ENV) of a liming material. They are total oxide content and fineness. In Maryland, both of these values should be listed on the lime label. Fineness is listed as the percentage of the product that passes through wire mesh screens of various sizes, such as 20, 60 or 100 wires per inch. Therefore, the ENV takes into account the total oxide content and the fineness in an equation to standardize the quality of a lime product so that different materials can be compared.

University of Maryland Extension's Soil Fertility Management publication SFM-5 has all of this information pertaining to calculating Effective Neutralizing Value, as well as recommended application rate tables of total oxides necessary to adjust soil pH from the current value to a target value. These tables are specific to certain crops and locations throughout the state.

For example, if we are growing the typical corn, soybean, wheat rotation in an Eastern Shore field with a silt loam soil and the pH is 5.8, Table 2 from the SFM-5 publication tells us to apply 1,500 pounds of total oxides per acre. Then we compare two lime products: Product A has a labeled ENV of 80, thus we would recommend an application of $1,500/0.8$, or 1,875 pounds of this lime product per acre. Product B has an ENV of 70, thus we would recommend an application of $1,500/0.7$, or 2,142 pounds of Product B per acre. Now let's say that Product A has a price of \$41 per ton and Product B has a price of \$38 per ton. You can compare actual cost per acre to obtain the same liming effect. Using Product A will cost you \$38.44 per acre ($1,875/2,000 \times \41), while using Product B will cost you \$40.70 per acre ($2,142/2,000 \times \38). Now you can see that product B, while less expensive by the ton, actually costs you more per acre than the “expensive” Product A, to get the same liming effect. This \$2 per acre cost over several hundred acres, adds up to a significant amount of money.

I know that this discussion may have been terribly confusing, and I have left out some minor points in writing it. But just remember not to judge limes until you know what you are comparing. They are not always the same. I suggest that you obtain a copy of University of Maryland Extension publication SFM-5, written by Dr. Frank Coale at the Extension Office or online at the following link: <http://anmp.umd.edu/files/SFM-5.pdf> Don't hesitate to call your Ag Extension agent, consultant or myself if you have questions about comparing liming products and per acre costs associated with them.

Mark Sultenfuss, CPAg

Edited by Dr. Frank Coale

March***March 2nd***

QUEEN ANNE'S AGRONOMY DAY. 8a.m. – 1 p.m. Location: Queen Anne's County 4-H Park, Centreville, MD Register: 410-758-0166 or jrhodes@umd.edu Pesticide and Nutrient Management Recertification. CCA credits. Latest research information.

March 3rd

MARYLAND WINE AND GRAPE INDUSTRY PRUNING CLINIC #3 9:00 a.m. to noon. Southern Plain - Calvert County. Fridays Creek Winery, Owings. Contact: Frank Cleary, 410-236-9463. Instructor: Pat Isles. Vines planted in 2005. Cornell GR-7 in a double cordon

March 6th

ANNUAL ORGANIC GRAIN, FORAGE & VEGETABLE WKSHP. 8:00 a.m. - 3:30 p.m. Chesapeake College Todd Performing Art Theater. Keynote speaker: Jeff Moyer, from The Rodale Institute, and break out sessions. Register by March 1st. Fee \$30 (Cont. breakfast & lunch) For more info call 410.758.0166 or email jrhodes@umd.edu or go to www.queenannes.umd.edu

March 9th

QUEEN ANNE'S COUNTY FARM BUREAU ANNUAL BANQUET is scheduled at Ruthsburg Community Club. For more information contact Virginia L. Albers, County Secretary at vlalbers@yahoo.com

March 10th

MARYLAND WINE AND GRAPE INDUSTRY PRUNING CLINIC #3 9:00 a.m. to noon. Western Maryland - Washington County. Knob Hall Winery, Clear Spring. Contact: Dick Seibert, 301-331-0022. Instructor: Ron Wates.

March 13th

GRAIN MARKETING MEETING 6:30 a.m. Higgy's Restaurant 5306 Church Hill Rd. Church Hill, MD

March 27th

GRAIN MARKETING MEETING 6:30 a.m. Higgy's Restaurant 5306 Church Hill Rd. Church Hill, MD

Web-Pages of Importance

The following are links to web-pages that offer important information:

January 2012 issue of "Nutrient News". This issue contains information on proper manure sampling procedures and tips on timing sampling to ensure you have all of the information needed to update your spring nutrient management plan. The new features and pending release of NuManPro version 3.2.2 are also discussed. Also included are a list of upcoming training opportunities, Webinars and Nutrient Management Plan Update sessions.

http://www.anmp.umd.edu/files/CFO_Newsletter_January_2012.pdf

Branching Out, Maryland's Forest Stewardship Education Newsletter, provides educational information, current news, and events and is intended to reach anyone interested in forest stewardship including landowners and natural resource professionals.

The Winter 2012 issue of Wild & Woolly, the MD Sheep/Goat Producer quarterly newsletter has been published to the web at <http://www.sheepandgoat.com/news/Winter2012.html>.

Choices Magazine— There are several articles in this edition that focus on affecting the U.S. fresh produce industry; and critical Farm Bill issues.

Fundamental Forces Affecting U.S. Fresh Produce Growers and Marketers

Fundamental Forces Affecting the U.S. Fresh Berry and Lettuce/Leafy Green Subsectors

The FDA's Food Safety Modernization Act and Its Economic Implications

Certification Schemes for Biofuel Sustainability Will Not Work

Why was ACRE a No-Go With Iowa Farmers

Distributional Impacts of Capping Eligibility for Commodity Program Payments

Crop Insurance and the Future Farm Safety Net

March 15, 2012

Mid/Upper Shore Agriculture Innovation Forum

9:00 a.m. to 3:30 p.m. The Elks Club, 502 Dutchman's Lane, Easton, MD 21601

For more information contact your local UME office.

Maryland's Phase II Watershed Implementation Plan for the Chesapeake Bay Watershed - Public Comment Period

Monday, February 6, 1:00–3:30 PM - Washington College, Chestertown

For more information access the following web-site:

http://www.mde.maryland.gov/programs/Water/TMDL/TMDLImplementation/Pages/DRAFT_PhaseII_WIPDocument_Main.aspx

NFMS '12

The first-ever mobile app for the big National Farm Machinery Show held Feb. 15-18, 2012 is now available for download. Available for the iPhone, Android and BlackBerry the National Farm Machinery Show App (NFMS '12) gives its users access to everything the largest indoor farm show has to offer.

The NFMS '12 mobile app is a free download and features an interactive exhibitor map and listings, seminars and speakers, Championship Tractor Pull schedules, and even Louisville area information to plan your trip to the largest indoor farm show in America! NFMS '12 will also provide you with digital information from exhibitors, text alerts, product updates and instant connectivity, all right in the palm of your hand.

In the interest of conserving our environmental resources, we would like to send our monthly newsletter via email. If you are able to receive our email electronically, please contact your county office and share your email address.

Thank you for helping to preserve our environment.

The University of Maryland Extension programs are open to all citizens without regard to race, color, gender, disability, religion, age, sexual orientation, marital or parental status or national origin.

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