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The Grain Store

2013 FUNDING REPORT

Maryland Grain Producers Utilization Board

Working for You

Since the Maryland Checkoff Program began in 1991, it has been the board's privilege and challenge to invest in projects that will have a direct impact on your farm operation. Whether it be a better way to manage nutrients, a new seed developed that is ideal for our local growing conditions, telling our good news story of advancements that make the consumer's food healthier and more affordable, or opening markets across the world to increase sales, we have strived to make the most of every dollar to improve our agricultural economy. This year is no different.

Filming has begun for the new MPT television series to launch this fall, which will show viewers what today's agriculture is doing to produce their food, fiber, fuel and feed. Leadership programs are supported to develop a new generation of individuals ready to speak out for agriculture. School children are being educated on the very basics of where their food comes from. Consumer education projects continues to increase, as well as support for educational outreach to keep farmers up to date on the latest research and practices.

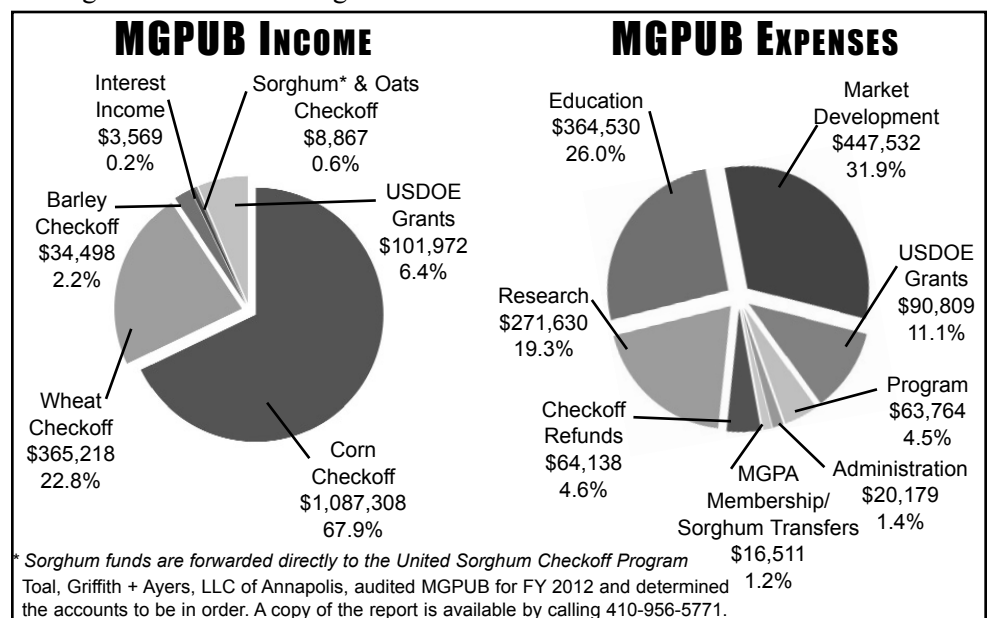
As farm practices are being developed for the Chesapeake Bay region, it is critical that there is sound science available to ensure that the practices are effective and make sense. Local research continues to be a high priority so that reliable science is available to guide any changes to practices or policies. Significant work is being done in the area of nutrient management

to maximize crop quality and yield while decreasing the use of costly fertilizers. While much work has been done on nitrogen, less is known about soil phosphorous. Researchers are exploring its activity in the soil and ways to target its effective use. Management practice research to protect crops against weeds, disease and pests, such as slugs and stink bugs, is creating options for control measures that are efficient, economical, and environmentally sound. The State Corn Test continues to provide data on how seeds perform in our local growing conditions.

Working with our national grain partners is the most effective means to developing new markets and improving trade policy to expand our grain exports. With the support of many stakeholders, we are able to leverage our investment to gain federal

marketing funds to further expand our outreach into major growth markets, such as India and Africa, for American grain. Ethanol provides domestic jobs, cleaner air, and a market for what would otherwise be surplus grain. Several initiatives are underway to support ethanol, including a Department of Energy grant to increase the number of E85 stations in the Mid-Atlantic.

Plan to attend the annual Maryland Commodity Classic on July 25 and visit with the grant recipients who are conducting the projects in this report. We also have a dynamic keynote speaker in Jay Lehr. You may have seen his fertilizer video on YouTube, "Jay Lehr visits San Francisco". He is one not to miss. Know that your feedback is always welcomed and that we are working for you.



USING AN ADAPTIVE MANAGEMENT APPROACH TO IMPROVE NITROGEN USE EFFICIENCY IN MARYLAND

JOSHUA MCGRATH

University of Maryland/Environmental Science and Technology

SINCE 2008, the evaluation of the use of active optical sensors to generate variable rate side-dress nitrogen applications for corn has been conducted. Active optical sensors can be used to measure the vigor of a crop and show variability across a field, generating variable rate N recommendations that more closely match crop need. Over this time, the technology has been successfully demonstrated on dozens of fields, and introduced to hundreds of farmers through Extension programming. It has been seen that nitrogen applications in corn can be reduced on average 20% without any yield loss. In addition, an annual Precision Agriculture Equipment field day has been held each summer, which has hosted approximately 500 attendees over the past two years and featured the premier researchers working in the area of precision agriculture.

2012 funding: \$25,000

TIMING FOR WHEAT SPRING NITROGEN

ROBERT KRATOCHVIL

University of Maryland/Plant Science

THE UNIVERSITY of Maryland Extension recommends that spring nitrogen applications be split; the first at "greenup" and the second at jointing. What is "greenup" for wheat planted on different dates across the state?

"Greenup" needs to be better defined because wheat growth is influenced by accumulation of growing degree units with 1200 GDUs (Base 32° F) required for three tillers to form. Three is the number of tillers/plant that should form by late winter and three is considered the number of tillers sufficient to attain optimum yield for a good wheat stand. Winter wheat growth is influenced by photoperiod, the increase of daylight hours. For simplicity, accumulation of 400 GDUs for jointing to initiation is measured from January 1. It is important to have adequate nitrogen

available to support wheat growth between formation of tillers and jointing, so it is theorized that the first spring N should be supplied between those two growth stages.

To assess this theory, a multi-year study began in 2010 to identify the effect that different first dates for spring nitrogen application has on wheat performance. Over the first two years of this research, two wheat varieties were planted at seven Maryland sites, ranging from early October to early November. The four "greenup" N target dates for application of 40 lb./A were: 1) accumulation of 1200 GDUs; 2) February 1-15; 3) March 1 or as close to this date as possible; and 4) March 10-20.

During 2010-2011, a colder than average winter resulted in accumulation of 1200 GDUs to not occur until mid-February (early October plant date) to mid-March (late October plant date), dates that were one and two months later than average, respectively. Accumulation of 400 GDUs for both did not occur until March 15. For this season, wheat responded best when the first spring N application occurred on or before March 1, regardless of fall planting date. This response fit the theory.

During 2011-2012, a warmer than average winter was experienced. The accumulation of 1200 GDUs occurred by the end of December. Accumulation of 400 GDUs occurred between Feb 15 and March 7 dependent upon location, with the earlier planting date on the Eastern Shore and the later for Western Maryland. These dates indicated that wheat should respond best to first application of spring N no later than early February. What actually occurred was, 1) three locations had best response when the first application occurred during the last treatment period, March 10-20; 2) one location had no yield differences; and 3) one location had best response to the 1200 GDU accumulation treatment.

In summary, 1) After two very opposite years, use of a GDU method for determining date for first spring N application has had highly variable responses; 2) Based on the results observed, Maryland Department of Agriculture's March 1 application date appears practical but should be reflective of the season's weather; and 3) Additional testing is being conducted during 2012-2013 at four Maryland locations and will continue through 2013-2014.

2012 funding: \$7,500; 2013 grant: \$8,000

NITROGEN SOURCES AND MANAGEMENT SYSTEMS IN NO-TILL AND MINIMUM-TILL WHEAT

RON MULFORD

Mulford Agronomics

This project evaluates managements systems and nitrogen use for wheat. Conducted at the University's Poplar Hill facility, the research utilized eight Syngenta varieties and two check varieties. Three spring management systems were used. Tillage systems that were evaluated included no-till wheat after no-till corn, minimum-till wheat following minimum-till corn, no-till wheat following single crop no-till soybeans, and minimum-till wheat following minimum-till soybeans. The highest yielding treatment was Monty's Liquid Fall and Spring Fertilizers blended with Fall and Spring 30% UAN. Wheat following corn yielded better than wheat following soybeans. Part of this yield advantage had to do with soil condition. Since the corn was ready to harvest before the soybeans, soil conditions following the corn were better than planting after the soybeans. Full details can be found at www.marylandgrain.com in the checkoff research projects page.

2012 funding: \$4,000

OYSTER RESTORATION PROGRAM

OYSTER RECOVERY PARTNERSHIP

www.oysterrecovery.org

The Oyster Recovery Partnership focused efforts on enhancing the oyster population in Harris Creek on Maryland's Eastern Shore in 2012. The project included recycling oyster shells from regional restaurants through the Shell Recycling Alliance and planting millions of baby oysters onto sanctuary reefs in Harris Creek, the largest oyster restoration effort ever conducted in the Chesapeake Bay and East Coast.

Oysters are a keystone species to the Chesapeake Bay and provide vital water column filtering as well as habitat for reef dwelling and reef associated fishes, crabs, mussels, and other marine life.

2012 funding: \$15,000; 2013 grant: \$15,000



CORN NITROGEN STUDY

ROBERT KRATOCHVIL
University of Maryland/Plant Science

This project follows a four-year study that evaluated the response of corn hybrids with different genetically modified traits to corn nitrogen (N) fertilizer rate. That study determined that corn hybrids with more advanced genetic technology (i.e. Triple Stack and Smart Stack) did not show a gain in N use efficiency compared to conventional or simple traited (i.e. herbicide tolerance or Bt trait for corn borer resistance) hybrids. Hybrids should continue to be selected on their overall ability to perform well over a range of environments. That research also recognized that the current yield goal method (1 lb. N/bu. yield goal) may require modification. It was observed that 1.1 to 1.2 lb. N/bu. yield goal does a better job of estimating how much N is required to produce optimum yield. One shortcoming that arose which the research did not address was whether N rate determination will adhere to the suggested yield goal method changes on a broader range of Maryland soil types.

The goal of this project is to more extensively evaluate corn yield response to N rate. This is being done two ways: First, ascertain corn yield response to N fertilizer on a wider variety of Maryland soils; and second, with the use of a labeled isotope of N (N15), do extensive measurements on corn nitrogen utilization and soil nitrogen movement. The study was planted at six University locations representing a range of soil types. Year one results are:

- 1) Similar to the outcome of the previous four-year research, this study determined that the use of the "1 lb. N/bushel yield goal rule of thumb" slightly underestimates the amount of N needed for optimum profit.
- 2) To date, this corn N rate research has determined that the N rate using the yield goal method should be calculated using 1.1 lb. N/bushel of anticipated yield.
- 3) Numerous plant and soil samples and plant based measurements related to corn N utilization and soil movement have been collected and are currently being analyzed and assessed. The results of this data will be shared in future reports.

2012 funding: \$15,000; 2013 grant: \$10,000

SULFUR DEFICIENCY DETECTION AND CORRECTION IN MID-ATLANTIC CORN PRODUCTION TO IMPROVE OVERALL NUTRIENT USE EFFICIENCY

JOSHUA MCGRATH
University of Maryland/Environmental Science and Technology

For the past three years, the University of Maryland has evaluated the response of corn to sulfur fertilizer and current soil and plant testing methods for predicting sulfur need. In addition, the use of active sensors (handheld GreenSeeker) for predicting corn sulfur need has been evaluated. Research indicates that in many instances sulfur fertilizer can significantly increase grain yield. Furthermore, current soil tests that utilize the Mehlich 3 extraction do not accurately predict the need for sulfur fertilizer. Data that has been collected over the past three years is being evaluated to determine the best method for predicting sulfur need. In the interim, it is evident that in many situations, particularly high yield environments such as irrigated corn and coarse textured, low organic matter soils, farmers should be applying sulfur to maximize yield, regardless of soil test results.

2012 funding: \$29,000

CEREAL-LEGUME COVER CROP MIXTURE TO INCREASE NUTRIENT CYCLING ORGANISMS AND CROP PRODUCTIVITY IN NO-TILL CORN

CERRUTI HOOKS
University of Maryland/Entomology

Field plots were established in Beltsville to investigate impacts of cover crops on several factors associated with corn plantings. Treatments included corn planted into rye, crimson clover, rye plus crimson clover, or no cover crop plots. Cover crop biomass was greatest in the rye plus crimson clover followed by crimson clover plots. Early season weed density was lowest in the rye plus crimson clover followed by crimson clover plots. SPAD readings, an indicator of plant nitrogen level, were highest for corn plants in the rye plus crimson clover plots. Among soil quality attributes, active carbon was significantly less in bare

ground corn when compared with pooled cover crop treatments.

There was heavy mortality of brown marmorated (BMSB) and brown stink bug (BSB) eggs in all treatment plots. The greatest mortality to BSB and BMSB was due to parasitism and collapsed eggs, respectively. Sucking predators are believed to be responsible for a percentage of these collapsed eggs. Data on nutrient cycling organisms (free-living nematodes and mites) below the soil surface is being processed. Corn plants in the crimson clover plots reached the greatest height and stalk diameter by season end, but corn yield was similar among the treatments.

2012 funding: 15,000

STATE CORN VARIETY TEST

ROBERT KRATOCHVIL
University of Maryland/Plant Science

Since 2001, the Maryland Grain Producers Utilization Board has funded the inclusion of benchmark hybrids that are used as checks in the University of Maryland Corn Hybrid Performance Tests.

During 2012, 11 benchmark hybrids were included in the three maturity group tests conducted at five Maryland locations. Five companies were represented by those 11 hybrids; Pioneer (4), Dekalb (3), Augusta Seed (2), and one each for Garst and Hubner. The 99 hybrids tested ranged the spectrum of genetic technology currently available; from conventional (non-GM) to SMART STAX and RIB (refuge in the bag).

Corn performance during 2012 was impacted significantly by the summer drought that varied widely in severity across the state. Average yield for the 99 hybrids was 147 bu./acre, eight bu./acre more than the 139 bu./acre average in 2010. The severity of the 2012 drought in different regions of Maryland is realized by comparing the average yield for the 99 corn hybrids at Wye Research and Education Center (99.7 bu./acre) and Western Maryland Research and Education Center (204.6 bu./acre). See the complete 2012 report (Agronomy Facts No. 54) as well as reports from previous years at www.mdcrops.umd.edu.

2012 funding: \$5,000; 2013 grant: \$5,750

EVALUATION OF NEW BT STACKED AND CONVENTIONAL HYBRIDS FOR PROTECTION AGAINST EAR INSECTS AND STALKS

GALEN DIVELY
University of Maryland/Plant Science

Selection of the most appropriate Bt corn hybrid or gene combination for insect pest protection has become more challenging. In this project, ear and stalk damage data were collected on non-Bt and Bt hybrids in the state corn hybrid trials during 2010, 2011 and 2012. No evidence was found of significant levels of tolerance to European corn borer injury in the non-Bt hybrids. Yields varied but not directly correlated with the level of stalk injury. Yields of many conventional hybrids were not different from the single and stacked Bt hybrids. All Bt hybrids regardless of expressed genes provided high levels of corn borer control. Genuity and Viptera traits provided excellent protection against corn earworm but yield gains were relatively small (<0.5 bushel per acre). Most hybrids expressing single Bt proteins yielded the same as the stacked hybrids. Yield differences among the Bt traits were largely the result of the genetic backgrounds and agronomic performance of the hybrids. Results suggest that the benefits of the Genuity and Viptera traits may not justify the higher seed cost, if corn earworm remains the major ear-invading pest; however, the stacked hybrids have several advantages over single protein hybrids, including broader spectrums of activity, a convenient 5% refuge deployment using the refuge-in-the-bag technology, and enhanced trait durability due to multiple modes of action.
2012 funding: \$5,020

DEVELOPING A BIOLOGICALLY BASED MANAGEMENT STRATEGY FOR SLUGS IN MID-ATLANTIC GRAIN FIELDS

JOHN TOOKER
Pennsylvania State University

The goal of this two-year project was to begin to develop viable alternative tactics for managing slugs in no-till corn, soybean, and small grain acreage in the Mid-Atlantic. According to many

no-till grain growers, slugs are the most problematic pest they face. One estimate figures that at least 20% of the no-till Mid-Atlantic acreage is infested annually with slugs. Moreover, some growers cite slugs as primary obstacles to adopting no-till, and in some areas slug damage is the reason growers have abandoned no-till and returned to tillage, potentially increasing sediment loading in the watershed. Thus, beyond yield benefits associated with better slug control, improved slug management in no-till systems has the extended potential of contributing to improved ecosystem health and the health of the Chesapeake Bay.

In this project, basic research is conducted to better understand the influence of various cover crops, types of mechanical control, and natural-enemy populations on slug populations and damage to subsequent grain crops. Research has found that slug populations following various cover crop species varied widely. Crimson clover was associated with the least amount of damage in the subsequent corn crop, whereas tillage radish facilitated the highest levels of damage to corn. Exploring mechanical control, it was found that one 3" deep, vertical disking in the spring (after burn down and before planting) was able to significantly reduce the amount of slug damage to the subsequent corn crop. This effect appeared to be mediated by residue reduction; the spring disking decreased the amount of corn residue in the field, potentially restricting slug habitat. Studying feeding preferences of commonly occurring arthropod predators, research found that two species of ground beetles were voracious predators of slugs and effectively protected soybean seedling from slug damage. Low populations of these two beetle species, *Chlaenius tricolor* and *Pterostichus melanarius*, occur in most Mid-Atlantic grain fields.

Further research is needed, but tentatively it seems that crimson clover, light vertical disking, and conserving natural enemy species may serve valuable tactics in an integrated slug management strategy for no-till grain growers in the Mid-Atlantic region. This research has been shared with farmers and associated agricultural professionals in 24 presentations on slugs and slug management in 2011 and 2012.
2012 funding: \$12,892

DISEASE RISK, YIELD LOSS AND FUNGICIDES IN MARYLAND FIELD CORN PRODUCTION

ARV GRYBAUSKAS
University of Maryland/Plant Science

The primary disease of corn that can respond to fungicide treatment is gray leaf spot. The difficulty with determining when a fungicide is beneficial in field corn in Maryland is that gray leaf spot is usually not clearly present at the time a fungicide must be applied. The rule of thumb that has emerged is that if gray leaf spot occupies more than 5% of the ear leaf area then losses due to disease are generally detectable and responses from fungicide applications occur.

In 2012 trials, gray leaf spot developed to a moderately severe level due to favorable conditions during the middle vegetative through early reproductive stages of crop development. The average disease severity on the ear leaf in untreated plots at tassel (VT) was 5.4%. Disease severity at the end of the grain-fill period was significantly reduced by most treatments when applied at R1. The treatments applied only at V5 (5 leaf stage) did not significantly affect final disease severity. The combined effect of a V5 and R1 application was not significantly different from the R1 application alone except for one experimental product. Grain yield was significantly increased over the untreated control primarily by fungicide applications made at R1. Several combination treatments significantly increased yield and had numerically higher yields than their R1 component when applied alone. However, none of these were significantly higher than their R1 component. Therefore, only a single fungicide application near tassel formation provides the greatest return on a susceptible hybrid.

Progress has been made toward the goal of getting a more universally useful measure of disease impact on yield. This metric will help devise better thresholds for determining when fungicide is likely to produce an economic return. Further analyses are being conducted at this time.
2012 funding: \$11,250; 2013 grant: \$12,000



INFLUENCE OF SEED TREATMENTS ON SLUGS AND THEIR PREDATORS

JOHN TOOKER
Pennsylvania State University

The project goal was to understand interactions among crop plants grown with insecticidal seed treatments, soil-borne, non-insect herbivores, and their natural enemies. The preliminary laboratory studies suggested that slugs, which are not harmed or killed by common insecticidal seed treatments, can pass these toxins on to their predators, often killing them and disrupting biological control.

Insecticide residue analyses was performed on lab-generated and field-collected samples to quantify the amounts of insecticides moving from seed treatments through slugs and up the food chain. The residue analyses from lab samples strongly indicate that the insecticides from seed treatments can be transferred from plants to slugs to predators and are likely responsible for the toxic effects observed in slug-eating beetles.

Residue analyses from field-collected samples confirm laboratory observations because slugs collected from soybean plants grown in the field with high rates of seed treatments contained levels of insecticides known to be toxic to beneficial insect species. The results support the hypothesis that insecticidal seed treatments hold potential to disrupt natural control of slugs by insect predators.

2012 funding: \$8,640; 2013 grant: \$25,209

FALLING NUMBER RESEARCH ON WHEAT

JOSÉ COSTA, AARON COOPER,
& ROBERT KRATOCHVIL
*University of Maryland/Plant Science,
USDA-ARS, Soft Wheat Quality Laboratory*

The level of resistance or susceptibility to field pre-harvest sprouting, measured by the Falling Number test, is being evaluated with samples from wheat cultivars grown in Maryland. The Falling number test is used by grain buyers to determine the baking quality of the grain. A high falling number indicates the wheat is sound and satisfactory for most baking processes. Some cultivars retain this even after exposure to several rain events. This information is valuable for farmers to aid in the planting choice of varieties of soft red winter wheat currently available to wheat growers.

Last year, conditions for harvest were relatively dry and thus there were no locations that were naturally exposed to field sprouting at harvest time. Samples were taken at the normal ("early") harvest time and then 40 days after ("late") harvest so they would be exposed to weathering and sprouting. Falling number tests were conducted on all samples at the USDA-ARS, Soft Wheat Quality Lab in Wooster, Ohio. After exposure to weathering, some cultivars still had relatively high Falling Number values, indicating good quality and most resistant to pre-harvest sprouting. These included: SY 9978, Coker 9553, Excel 166, SS8700, SS8600, SS8404, Merl, FS801, and USG3201, among others.

2012 funding: \$4,000; 2013 grant: \$4,000

WHEAT AND BARLEY DISEASE MANAGEMENT: EARLY FUNGICIDE APPLICATIONS AND SCAB TOXIN REDUCTION

ARV GRYBAUSKAS
University of Maryland/Plant Science

The first component of the project examined fungicide applications made at the time of spring nitrogen and herbicide applications on diseases of barley. When fungicides were applied in the spring on barley or wheat, the leaves that are present on the plant constitute the lower and middle canopy of the mature plant. The primary disease present at that time on barley was powdery mildew. All fungicides reduced mildew and slowed disease development. However, by the time the flag leaf developed powdery mildew, levels on the upper canopy leaves were not that damaging to yield. Late season rust appeared but conditions were not favorable for infection of flag leaves and no early treatments had a significant effect on yield. Only fungicides applied at flag leaf stage significantly reduced all upper canopy diseases and increased yield.

The second component of the project looked at the effect of early fungicides on wheat diseases and the trials were planted after double cropped wheat-beans. In this situation, leaf blighting diseases, such as tan spot and glume blotch, would be more likely to develop. As in the barley case, fungicide applications made at flag leaf or later had the greatest impact on disease and yield and two applications (jointing and later) were never significantly better than the late application alone.

The final component of the project examined if fungicide applied at early flower or up to seven days later could suppress scab and vomitoxin accumulation if infection occurred within two weeks of flowering. The greatest scab development occurred if infections came at early flower. Yields were similar for fungicide treatments made right at initial flowering or seven days later, but the greatest reduction of vomitoxin occurred with the earlier fungicide application.

2012 funding: \$12,000; 2012 grant: \$14,000

EVALUATE NEW PRODUCTION PRACTICES IN DRY LAND CORN PRODUCTION, USING TILLAGE METHODS & INPUTS

ROBERT KRATOCHVIL
University of Maryland/Plant Science

What should be the agronomic approach to managing corn production as populations increase and as average yields approach 175 bu./acre, and in some instances, exceeding 200 bu./acre? The real question is, how does a farmer balance maximum economic yields with increasing environmental accounting of inputs? In dry land crop production, how does one plan for additional output/acre with the annual challenge of below normal rainfall at a critical period for maximum yield response of inputs? The answers to these questions will forever challenge farmers as they weigh the inputs for maximum economic return/acre. Five studies were evaluated to meet the challenge.

STUDY 1: Corn Starter Study with, and without, "Avail", Two Tillage Systems, No-till and Strip-till:

- 1) In the no-till and strip-till tillage systems, with side dress N, grain yield was higher with "Avail" added to the starter fertilizer.
- 2) Overall grain yield was slightly higher in no-till.
- 3) Grain yield differences between starter fertilizer with Avail and no Avail in the Strip-till plots was almost 8 bu./acre and nearly 4 bu./acre in no-till.

STUDY 2: A Comparison of Dry and Liquid Nitrogen Sources and Additives: Dry Nitrogen Sources:

- 1) Urea with Agrotain Plus @ 117 lbs. N/acre plus Ammonium Sulfate @ 21 lbs. N/acre produced corn grain yields 23.3 bu./acre more than the eight other N sources and N source blends.
- 2) Adding ammonium sulfate to urea with Agrotain Plus improved grain yield by 16.7 bu./acre.

Liquid Nitrogen Sources:

- 1) On May 4th, a pre-emergence broadcast application of 41 gal/acre of Willard's 27-0-0-3 yielded 8.3 bu./acre more than the other eight N sources and N source blends.

- 2) The early pre-emergence application of Willard's 27-0-0-3 produced 8.0 bushel more/acre than 30% UAN coultter injected just after planting, 2 and 7.5 bu. more per acre at side dress (V4 growth stage) respectively than coultter injecting or dribbling UAN between rows.

- 3) A pre-plant broadcast application of YARA's 21-7-14-5.1(S) followed by a side dressing. YARA's UCAN 23 looks promising as well. The 21-7-14-5.1(S) is a homogeneous pelleted or granular fertilizer; excellent material for broadcasting with a spin spreader.

STUDY 3. Evaluating Several Methods of Applying Corn Fertilizers:

- 1) Corn yields were greater in 2011 than 2012. Three factors may enter into this result: a) corn was planted earlier in 2011, b) Hurricane Sandy blew down about 80% of the corn, and c) the 2011 corn followed single crop no-till soybeans. The 2012 corn followed the 2011 corn.
- 2) In 2012, corn planted with a pre-emergence application of 0-0-60 fertilizer and all N applied after planting and before corn emergence produced the highest corn yields, 196 bu./acre. In 2011, the best corn yield came from a preemergence application of "The Mill's" 25-0-0-3(S) and a broadcast post-emergence application of Urea w/NutrisphereN blended with Ammonium Sulfate, 220 bu./acre.

- 3) In 2012 a preemergence application of Willard's 27-0-0-3 yielded better than UAN applied pre-emergence after corn planting by coultter injection or by side dressing UAN at the V4 growth stage using coultter injection.

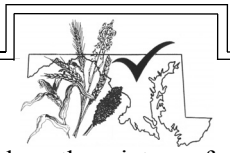
STUDY 4. Poultry Manure Project Evaluating 4 Tillage Methods with, and without, Starter Fertilizer:

- 1) Average yield of tillage systems with no starter fertilizer and all nitrogen (130 lbs. N/acre) applied at one time yield better, by 14.6 bu./acre, than the tillage systems with a starter fertilizer and side dress N.
- 2) Average yield of V-Ripping between corn rows before planting and no-till produced the best corn yields.
- 3) Overall highest corn yield came from V-Ripping between corn rows before planting. This seems to be an excellent way to reduce broiler manure runoff and conserve moisture. The theory being, after a major rain event any manure and moisture runoff flows into the slot left from the V-ripper.
- 4) At harvest, the average grain moisture and test weight of those tillage systems with a starter fertilizer were 1.3% drier and weighed of 1 lb. more respectively, than the tillage systems with no starter fertilizer.

2012 funding: \$5,000; 2012 grant: \$5,000



Dr. Robert Kratochvil (right) is awarded the Dr. James R. Miller Award from MGPA President, Jason Scott, at the 2012 Maryland Commodity Classic. Dr. Kratochvil was honored for his extensive research and education work to improve the profitability of production agriculture and service as research advisor to the MGPUB board.



A COMPARISON OF EXTENSION AND SELECT FARMER SUGGESTED BMPs FOR MAXIMIZING CORN YIELD

ROBERT KRATOCHVIL
University of Maryland/Plant Science

It is often stated that Maryland farmers are more regulated by state and federal government agencies than farmers in all other states due to the focus on water quality improvement in the Chesapeake Bay and its tributaries. Much of the current corn production research conducted by University of Maryland Extension Specialists focuses on best management practices (BMPs) for producing corn under the regulatory standards. Maryland corn farmers believe that the heavy attention given to the regulatory camp has eliminated efforts to identify the production practices that will support corn reaching its genetic yield potential. The objective of this research was to assess whether high yielding corn hybrids are yield limited when they are grown using Extension BMPs compared to corn produced using farmer suggested maximum yield practices.

Five locations were used. The five selected treatments suggested by farmers for comparison to the UM Extension recommendations were:

- 1) Seeding rate to attain 32,000 plants/acre. The UME recommendation is a rate to attain 28,000 plants/acre.
- 2) Seeding rate lower than the current recommended rate - the rate tested was to attain 24,000 plants/acre.
- 3) Use of Valent's plant growth regulator, Ryzup, applied by spray application to the canopy at V3 growth stage. Ryzup's primary active ingredient is Gibberellic acid (GA). When used at the proper rate, GA promotes cell growth and elongation by stimulating mitotic cell division resulting in improved stem and root growth.
- 4) Use of a 2X2 placement of starter fertilizer at planting. This is a UME recommended practice but is currently not done when planting the state corn test because the test plot corn planter is not equipped for starter application. There was a different 2X2 starter fertilizer mix used at each of the testing locations.
- 5) Inclusion of a corn hybrid with improved drought tolerance per seed company promotion. The hybrid used was

Pioneer brand P0210HR (Pioneer Optimum® AQUAmax™ hybrid) with corn relative maturity of 102 days. Results showed:

- 1) Very few differences were observed among the select BMP treatments in corn performance.
- 2) Since 2012 did have significant drought stress at a number of locations, the emerged plant population of 24,000 plants/acre produced comparable yield to the 28,000 and 32,000 emerged populations. This indicated that cost savings resulting from a reduced seeding rate can be realized in drought situations.
- 3) Since the 2012 growing season started with well below normal subsoil moisture across the state, the success of the lower plant population coincided with this author's recommendation to reduce seeding rates when this soil moisture condition exists at planting.

2012 funding: \$5,000

ASSESSING THE BENEFITS OF INTERSEEDING COMMODITY WHEAT INTO FORAGE

ROBERT KRATOCHVIL
University of Maryland/Plant Science

Forage radish is a Brassica species that is becoming more widely used as a cover crop in Maryland. It has the advantages of consuming high rates of residual nitrogen while at the same time potentially reducing soil compaction via the large tap root it can produce. It is killed by freezing temperatures during the winter which means no spring herbicide is necessary. It is becoming a popular aerial seeded cover crop because of its small seed size that provides economic and application efficiencies for aerial applicators. One disadvantage is the necessity for it to be planted relatively early (late August-early September) compared to cereals to achieve adequate fall growth. Aerial over-seeding of corn and soybean fields alleviates this, but as is the case for any surface broadcast method, it is dependent upon the amount and timeliness of fall rains for good stand establishment.

There have been reports from Ohio and Pennsylvania that farmers who had failed to clean their drills of residual forage radish seed prior to planting winter wheat observed improved wheat growth and

better yield where the mixture of seeds had been planted. Testimonials from farmers who conducted experiments with blends of wheat and forage radish compared to wheat alone have indicated a yield increase of 5-15 bu./acre for the wheat produced as a mixture with forage radish. Replicated trials are needed to verify if a wheat/forage radish blend truly provides a yield benefit. In addition, this study is evaluating interseeding wheat into established forage radish since Maryland wheat planting dates are considered too late for planting forage radish and still expect good fall growth.

This project started in the fall of 2012 with its establishment at Beltsville and Upper Marlboro research farms. Stand establishment for all treatments was excellent at Beltsville. It has been less successful at Upper Marlboro where it was planted two weeks later, indicating the importance of early planting for this species. This study is serving as the science fair project for an Oxon Hill High School senior. The student was given some hands-on training in data collection techniques and has since been responsible for all data that has been collected. The first year of this project will conclude with the harvest of wheat in June 2013.
2012 funding: \$5,000; 2013 grant: \$6,000

DOE HARVEST INCENTIVE PROGRAM

MARYLAND FARM BUREAU
www.mdfarmbureau.com

The 2012 Doe Harvest Challenge was expanded to include Carroll and Frederick Counties, joining the regions of Southern Maryland and the Eastern Shore. Each time a hunter donated a legally harvested doe to a participating Farmers and Hunters Feeding the Hungry (FHFH) processor, they were eligible to enter into a drawing for a prize package in multiple drawings conducted through the season. A donation to FHFH offsets the processing cost. This program has provided multiple benefits. It helps reduce crop damage due to deer so improves yields for farmers, while at the same time, it helps support the less fortunate as food is provided through the FHFH. The program will be statewide in 2013.
2012 funding: \$60,000; 2013 grant: \$60,000

SEEDING RATES FOR CEREAL COVER CROPS

ROBERT KRATOCHVIL

University of Maryland/Plant Science

The University of Maryland Extension recommends that farmers planting cereals for commodity production use a seeds/ft² approach which allows compensation for seed lot size variation. The Maryland Cover Crop Program mandates volume rates (2 bu./acre for rye and wheat; 2.5 bu./acre for barley) when any of these species are planted as a cover crop. A two-year study compared cover crop performance of these three species when planted at volume and three seeds/ft² treatments.

The results of that research are the basis for the following cover crop seeding rate recommendations for the cereal species:

- 1) Rye should be planted at a minimum of 30-35 viable (adjustment made for seed lot germination) seeds/ft², i.e. a rye seed lot with 85% germination requires 35-41 seeds/ft².
- 2) Wheat should be planted at a minimum of 20-25 viable seeds/ft², i.e. a wheat seed lot with 90% germination requires 22-28 seeds/ft².
- 3) Barley should be planted at 24-30 viable seeds/ft², i.e. a barley seed lot with 90% germination requires 27-33 seeds/ft².
- 4) These recommendations require the use of a tillage practice that incorporates the seed into the soil, i.e. planted with a grain drill or broadcasting seed followed by light incorporation with either a vertical tillage implement or a disk.

2012 funding: \$7,500

SWEET SORGHUM GRAIN AND BIOMASS FOR ETHANOL VARIETY SCREENING TRIAL ON DELMARVA

SAMUEL GELETA

Salisbury University

Sweet sorghum has the potential to become an important feedstock for the production of clean burning fuel ethanol in the United States. It concentrates sucrose like sugar cane, and is drought tolerant requiring less than half of the water needed for corn. It is a versatile crop as the cane from sweet sorghum is used as a feedstock for ethanol production, while its edible seeds can be used for animal feed or ethanol production.

Field trials of 12 varieties of sweet sorghum were conducted in Wicomico County Maryland during 2009, 2010 and 2011. The results indicate that sweet sorghum can be successfully grown in the Mid-Atlantic. Several varieties (Dale, Della, Keller, KN Morris, M81 E, Theis and Topper) can be recommended for farmers and ethanol producers interested in this new crop.

2011 funding: \$9,434

USING GRAIN TO IMPROVE GOAT CARCASS QUALITY AND VALUE

SUSAN SCHOENIAN

University of Maryland Extension

Thirty buck kids were used in a study to compare the carcass quality and value of pen-fed versus pasture-fed meat goats. The pen-fed goats were limit-fed a whole barley-based diet once per day. They also had ad libitum access to grass hay. The pasture-fed goats grazed with the goats in the Western Maryland Pasture-Based Meat Goat Performance Test. Data and samples were collected every two weeks. After a 12-day adjustment period and 84-day feeding period, the goats were harvested to collect carcass data.

The pasture-fed goats had a higher average daily gain (0.183 vs. 0.149 lbs./day), whereas the pen-fed goats had lower worm burdens, as evidenced by lower average fecal egg counts (565 vs. 1163 epg), lower average FAMACHA[®] scores (1.6 vs. 1.8), and fewer anthelmintic treatments. There were no differences in the carcass data from the two groups.

The hypothesis was that grain feeding (limited) would improve goat carcass

quality and value, which would increase the demand for Maryland-grown grain. However, the results of this year's study differ from last year's in which the pen-fed goats grew faster and produced superior carcasses. The study will be repeated to correct biases and continue to test the hypothesis.

2012 funding: \$8,985; 2013 grant: \$9,500

GENETIC IMPROVEMENT AND TESTING OF SMALL GRAINS FOR MARYLAND

JOSÉ COSTA

University of Maryland/Plant Science

In the 2011-2012 growing season, over 3,500 yield trial plots of small grains were grown across five locations in Maryland (Poplar Hill, Salisbury, Wye, Clarksville, and Keedysville) as part of the small grains breeding and testing program. Additionally, over 15,000 head row selections were evaluated from segregating populations harvested at the Wye and Salisbury. New wheat advanced lines that combine two genes of resistance to Beyond Herbicide (Clearfield technology) were developed by crossing and selection under high herbicide applications. These advanced lines are being tested in the Maryland State Test in 2012-2013.

Two-gene varieties have enhanced crop safety and weed control. Additionally, new promising soft red winter wheat lines are being tested across Maryland, Virginia, Kentucky, and North Carolina. These include several with enhanced scab (*Fusarium* head blight) resistance developed through DNA marker technology.

Current varieties and new lines of winter wheat and winter barley, including private and public cultivars were tested across five locations under conventional tillage and no-till conditions. This test was also evaluated in a misted and artificially scab-inoculated nursery in Salisbury for *Fusarium* head blight resistance.

Testing information and updates are posted with detailed information at www.mdcrops.umd.edu.

2012 funding: \$5,000; 2013 grant \$5,750



ESTABLISHING SMALL GRAINS WITH VERTICAL TILLAGE

ROBERT KRATOCHVIL
University of Maryland/Plant Science

Wheat and barley for commodity production are annually planted on approximately 250,000 acres in Maryland. These crops have traditionally been planted using a grain drill that can place the seed into the soil at a depth of 1-2 inches, the depth considered optimum for good stand establishment. Recently, an increasing number of farmers have opted to plant their small grains by broadcasting the seed and incorporating it into the soil using a vertical tillage operation, which is considered faster and less expensive. Since vertical tillage does not disturb the soil as aggressively as a chisel plow or disk, it avoids placement of some of the seed so deeply in the soil that it cannot emerge. However, use of vertical tillage may leave some of the seed on the soil surface or place some of the seed too shallow to support good germination and seedling emergence, particularly if heavy amounts of crop residue are present.

This project compares the performance of wheat and barley that is broadcast followed by soil incorporation using vertical tillage with their performance when planted with a grain drill. Results for the 2011-2012 crop year include:

- 1) Acceptable barley and wheat stands were established using either a grain drill or broadcasting the seed followed by incorporation with a Turbo-Till;
- 2) In all cases, grain yield for barley and wheat was approximately 10% greater when the seed was planted with a grain drill;
- 3) When broadcasting and using vertical tillage to incorporate barley seed, this research indicated best yield occurred with a 120 lb./acre seeding rate and one pass with the implement; and
- 4) When broadcasting and using vertical tillage to incorporate wheat seed, this research indicated a 5% greater yield with a 120 lb./acre seeding rate and two passes with the implement.

This research is continuing during the 2012-2013 small grain season, so this summary should not be viewed as a final recommendation.

2012 funding: \$7,500

IMPROVEMENT AND DEVELOPMENT OF BARLEY FOR USE IN FUEL, FEED, AND FOOD

CARL GRIFFEY
Virginia Polytechnical Institute

The Virginia Tech barley breeding program is significantly diverse with breeding efforts focused on the development and improvement of yield potential of winter barley cultivars and a major focus on the incorporation of value added traits geared towards development of new markets. As a result, three hulled (Thoroughbred, Atlantic, and Price) and three hullless (Doyce, Dan, and Eve) winter barley cultivars were released from the program. Atlantic winter hulled barley tested as VA06B-19 was released in 2011. Elite hulled (VA08B-85) and hullless (VA07H-31WS) barley lines are being considered as potential releases. These elite barley lines have improved grain yield potential across a broad range of production conditions and have excellent seed qualities. These advanced lines are being evaluated in the uniform winter barley yield nurseries and the Virginia Tech State Barley Variety Trials. If results are favorable, these lines will be proposed for release in 2013.

This season (2011-2012), approximately 96 advance barley lines were evaluated in replicated yield tests at locations in Virginia, Maryland, North Carolina, Kentucky, and Delaware. Subsequently, yield potential of 25 hulled and 25 hullless sister lines each derived from the same four populations, along with parents and check cultivars, were evaluated in replicated yield test at Blacksburg and Warsaw to determine genetic yield potential of hullless versus hulled sister lines. Due to the rising cost of feed ingredients, animal producers are considering alternative options, therefore, barley specifically aimed at feed markets could provide a lower cost option for end users. Also, increased interest in winter malt barley by several potential local malt producers has led the program to initiate development of malt barley varieties adapted to the Mid-Atlantic and southeastern U.S. Through these efforts, the quality and value of winter barley has increased greatly over the past few years.

2012 funding: \$5,000

NEW 2013 RESEARCH FUNDING

U.S. GEOLOGICAL SURVEY

Monitoring field level groundwater quality in the Upper Chester Showcase
2013 grant: \$64,839

UNIVERSITY OF DELAWARE
RESEARCH EXTENSION SERVICE

Managing sub-surface drip irrigation for maximum profitability in corn
2013 grant: \$21,249

Determining the ideal irrigation strategy for high intensity corn production
2013 grant: \$25,075

UNIVERSITY OF MARYLAND/
ENTOMOLOGY

Using molecular methods to identify parasitoids and assess parasitism of the BMSB: deciphering the cause of unknown mortality
2013 grant: \$15,000

Assessing yield gains and potential non-target effects of corn seed treatments containing high doses of multiple pesticides
2013 grant: \$26,610

UNIVERSITY OF MARYLAND/
PLANT SCIENCE

Evaluating alternative management systems of low rate, high efficiency fertilizers for maximum economic yield and quality in no-till and minimum tillage wheat
2013 grant: \$5,000

Assessing fall soil Nitrate Test for small grain production
2013 grant: \$5,000

Evaluating low rate, high efficiency fertilizer technology and soil fertility production practices in dry land corn production
2013 grant: \$5,000

UNIVERSITY OF MARYLAND/
ENVIRONMENTAL SCIENCE AND
TECHNOLOGY

Assessing soil Phosphorous trends over time
2013 grant: \$12,985

Predicting subsurface Phosphorous loss by site and soil characteristics
2013 grant: \$20,690

Integrating soil sensing with Veris, yield mapping, and GreenSeeker technology
2013 grant: \$25,237

For details, visit www.MarylandGrain.com

GRAIN PROMOTION AND SUPPORT

MARYLAND GRAIN
PRODUCERS ASSOCIATION
www.marylandgrain.com

The Maryland Grain Producers Association (MGPA) hosted the annual Commodity Classic, the premier event for grain farmers to meet grant recipients, learn about action taken in Annapolis and Washington, and hear the latest on issues effecting their farm.

MGPA managed the college scholarship program, which encourages and supports youth to pursue careers in agriculture. Six scholarships were awarded in the amount of \$2,500 each.

Public relations activities advanced the understanding of the grain industry and the Maryland Grain Producers organizations by both the public and the agricultural community. MGPA exhibited at the Maryland State Fair, Commodity Classic, county fairs, university events, extension meetings, and urban festivals. Hands-on activities were utilized to engage visitors. A new environmental stewardship brochure was developed and produced.

A stronger Internet presence has been secured with the addition of an MGPA Facebook page to share positive and credible agriculture information and provide a resource for social media users to help broadcast news about the grain industry. The www.MarylandGrain.com website provides information on the state's grain industry and MGPA activities. The www.GoE85.org is an associated website established to provide links to industry sources for information on fuel, station locations, benefits and general information on ethanol.

MGPA continues to work with fellow stakeholders to maximize resources and messaging. Educational programming supported with participation of staff and board members included Port Discovery Children's Museum farm exhibit, the Mid-Atlantic Farmers Feed US Sweepstakes, NASCAR promotion, Corn Farmers Coalition capitol advertising campaign with associated ads at the minor league stadiums in Salisbury, Bowie and Frederick, plus the brain child of the board, the MPT "Maryland Farmer" series.
2012 funding: \$140,000; 2013 grant: \$146,200

FLEX FUEL AWARENESS CAMPAIGN

CLEAN FUELS
FOUNDATION
www.cleanfuelsdc.org

The Clean Fuels Foundation and the Clean Fuels Development Coalition recently completed an education and outreach campaign to increase the sale of ethanol by focusing on current and prospective owners of flexible fuel vehicles (FFVs). The primary thrust of the messaging was to make owners of the more than 250,000 flex fuel vehicles in Maryland aware of their ability to use high level ethanol blends like E85, and where they could find the fuel. This was achieved through a variety of outreach techniques including publications, briefings, press and media interviews, and production of an informational video.
2012 funding: \$19,250; 2013 grant: \$19,250

ETHANOL RACING CAR

BUNNY BURKETT
www.bunnyburkett.com

Ethanol promotions were conducted utilizing the Bunny Burkett Racing Team and their two Ethanol powered Dodge Avenger Funny Cars, along with their newly added Nostalgia '79 Corvette. In addition to traveling all over the East Coast competing in actual races, the team attended another 14 days of events to display the car and hand out literature at various agricultural functions, fairs and shows. The car was seen by literally thousands of people while participating in over 20 events in six states!

The Fair Displays provide the opportunity to talk with thousands of local drivers, making them aware of the future of Ethanol. Along with using the Ethanol fueled race cars as an attention getter, Bunny & Crew hand out literature on Ethanol and the many uses of grain. Another 100 plus days per year are spent on the East Coast highways with the Ethanol logo prominently displayed on the trailer as the team makes its way to televised racing events.
2012 funding \$10,500; 2013 grant: \$10,500

**E85 MARKETING AND INFRASTRUCTURE DEVELOPMENT**

SUSTAINABLE ENERGY
STRATEGIES, INC.
www.sesi-online.com

In 2012, Sustainable Energy Strategies, Inc. (SESI) supported the Maryland Grain Producers Utilization Board (MGPUB) and local farmers through the promotion and expansion of E85 throughout the region.

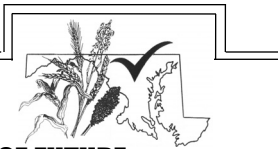
Last year, approximately one million E85 gallons were sold regionally, up from about 800,000 gallons previously, and 586,658 gallons were sold at MGPUB funded stations.

Due to SESI's efforts on behalf of MGPUB, the Maryland Comptroller's Office is expected to amend state fuel regulations to allow E85 splash blending at terminals and in blender pumps at retail stations.

Additionally, SESI secured funding from the National Corn Growers Association Ethanol Committee to continuing MGPUB's E85 Are You Flexible FFV awareness campaign which ran for six weeks at the beginning of the year. SESI helped MGPUB partner with the Greater Washington Regional Clean Cities Coalition to continuing E85 awareness and support activities regionally.

The grant was successfully awarded by the US Department of Energy's Clean Cities program. Through SESI's efforts, MGPUB now has a contract with Protec to install 4-7 ethanol refueling stations throughout Maryland and Northern Virginia.

Finally, SESI helped MGPUB supported stations respond to inquiries from the Maryland Department of Environment that could have closed their operations.
2012 funding: \$30,860; 2013 grant: \$27,312



LEAD MARYLAND PROGRAM

LEAD MARYLAND
FOUNDATION, INC.
www.leadmaryland.org

The LEAD Maryland Foundation works to increase the numbers and capacity of leaders serving agriculture. As a 501(c)(3) nonprofit, LEAD relies on grants and donations to support the educational programming offered to LEAD Fellows. Grant funding allows Fellows to learn through lectures, tours, discussions, presentations, trainings, assessments, and group projects.

In 2012, LEAD Fellows completed a series of four multi-day seminars held at locations throughout Maryland. The May 2012 seminar included a case study of Maryland's grain farming, utilization of grain, and topics related to grain marketing, innovative practices and technologies, grain industry organizations and resources. The LEAD Class planned and implemented a class practicum, providing a Symposium on the Image of Agriculture, held December 12, 2012. The Fellows prepared for a study tour to Chile, scheduled for January 2013. The LEAD curriculum focuses on providing public issues education, skills building, leadership development, and personal growth. Through program participation, Fellows become more equipped and confident to solve problems, identify resources, educate the public, and to influence public policy.
2012 funding: \$45,000; 2013 grant: \$40,000



FARM STEWARDSHIP CERTIFICATION AND ASSESSMENT PROGRAM

MARYLAND ASSOCIATION
OF SOIL CONSERVATION
DISTRICTS
www.mascd.net/FSCAP/default.html

The Maryland Association of Soil Conservation Districts administers the Farm Stewardship Certification and Assessment Program (FSCAP).

In 2012, FSCAP Agricultural Specialists and Soil Conservation District planners have conducted 31 reviews on 30 farms and certified 19 conservation stewards. This brings the total to date of 68 reviews conducted on 56 farms, with certification of 39 conservation stewards covering 13,465 acres.

These farms have met the certification standard of being in compliance with nutrient management plan requirements, having installed best management practices that have addressed all soil conservation and water quality resource concerns on all owned and leased land and all streams in active pastures have been fenced. Stewards are provided with an attractive double-sided farm sign with signpost that is installed by FSCAP, and a dedicated page on the FSCAP website at mascd.net/FSCAP/farm_list.html.

Being recognized for good conservation stewardship is a source of pride for the farmer and the ag community and it is also good for business.

2012 funding: \$30,000; 2013 grant: \$30,000

DEVELOPMENT OF FUTURE AGRICULTURE LEADERS

MD FFA FOUNDATION
www.mdffaoundation.org

The Maryland Grain Producers Utilization Board (MGPUB), working in partnership with the Maryland FFA Foundation, play a vital role in making the Maryland FFA Association a premier youth leadership program.

In 2012, MGPUB was designated a 5-Star Partner by the Maryland FFA Foundation for its sponsorship of: an FFA proficiency award, four FFA career development events (CDE), a motivational speaker at the State Convention, leadership development workshop presenters, and five individual leadership incentive grant scholarships. CDE sponsorship provides funds for the recognition of student achievement and helps reduce student costs in representing Maryland at the next level of competition.

The 2012 MGPUB FFA grant also provided State FFA Convention facilities support, helping to provide a valuable educational and leadership experience for 370 Maryland FFA members at a reasonable student cost. Five attendees received leadership grant scholarships based on chapter achievements and financial need. Three scholarships provided funding for the State FFA Convention, two for the National FFA Convention. Each scholarship recipient also received an Official FFA Jacket.

Members of the FFA Foundation Board believe the development of agricultural leaders is vital to the future of Maryland agriculture and congratulate MGPUB for their commitment to helping the Maryland FFA Program be one of the Nation's best.
2012 funding: \$10,000; 2013 grant: \$13,000



Six students received \$2,500 scholarships to pursue their college education and begin a career in agriculture.

Pictured are Marion Wilson, MGPUB President, Deedra Suchting, Baltimore County, Jessica Lambert, Frederick, front, Joshua Ernst, Washington, and Andrew Debnam, Kent. Not pictured, Tracey Forsythe, Washington, and Travis Moore, Harford.



CORN POLICY AND PROMOTION

NATIONAL CORN GROWERS ASSOCIATION
www.ncga.com

Grower leaders of the National Corn Growers Association (NCGA) addressed important issues facing the corn industry in a challenging 2012.

In Washington, both the Renewable Fuel Standard (RFS) and the Farm Bill came under threat. NCGA worked closely with the ethanol industry and other supporters across the ag sector to mount a successful defense of the RFS from attacks by opponents seeking to waive renewable fuel requirements. The new Fueling America campaign and other efforts will continue into next year as the RFS's opponents are not letting up. A similar challenge has been faced by the Farm Bill. Despite passage by the senate of a bill including many important NCGA-backed provisions, the bill stalled in the house. Growers have weighed in with the congressmen numerous times through grassroots activism efforts, but the partisan gridlock has not been broken. Finally, NCGA's two largest programs - Corn Farmers Coalition and the American Ethanol sponsorship of NASCAR - continued to move the needle on acceptance of ethanol and American farming. After two years of the American Ethanol partnership, NASCAR fans are twice as likely as the general public to have a positive view of ethanol and three times as likely to want ethanol in their own vehicle. Targeted at leaders in the nation's capital, the award-winning messages of the Corn Farmers Coalition advertising campaign left over 75% of viewers with a "Very Positive" or "Somewhat Positive" view of farmers and corn farming.

2012 funding: \$207,000; 2013 grant: \$218,400



NATIONAL CORN GROWERS ASSOCIATION

Chip Bowling
Charles County
Corn Board

EXPORT MARKET DEVELOPMENT AND PROMOTION

U.S. GRAINS COUNCIL
http://www.grains.org

A total of 95 percent of the world's population lives outside the United States. China and India are the world's two fastest growing major economies. The global middle class is the primary driver of new food demand. Competition for these markets is intense and growing. The United States, historically the leading exporter of coarse grains, is still the global leader by a wide margin, but Argentina, Brazil, the Ukraine, and others are rapidly boosting production for export and capturing market share.

In this dynamic and fast-changing global environment, the U.S. Grains Council plays a key role in opening, expanding, and defending export markets for U.S. feed grains. The challenge is great. The opportunities are even greater. Agricultural exports are one of America's enduring strengths in international trade and a key to maintaining a strong price floor and profitability for producers, and U.S. leadership is essential.

In the 2012-2013 market year, U.S. export performance will be challenged by the short crop and high prices resulting from the 2012 drought. The Grains Council is focused on intensive trade servicing to assist our traditional customers in sourcing U.S. corn, sorghum, and barley in a tight market and positioning U.S. feed grains for a strong rebound when yields return to trend. With its international "boots on the ground" presence in over 50 countries around the world, the Grains Council builds opportunities for Maryland grain producers - and builds better lives through better diets for people around the world.

2012 funding: \$55,000; 2013 grant: \$55,000



U.S. GRAINS COUNCIL

Chip Councill
Talbot County
Director

WHEAT EXPORT MARKETS

U.S. WHEAT ASSOCIATES
www.uswheat.org

U.S. Wheat Associates (USW) is the export market development organization funded by America's wheat growers that informs and trains wheat buyers, flour millers and wheat food processors in more than 100 countries. USW is the only organization that promotes Maryland's soft red winter (SRW) wheat in overseas markets. USW's mission is to develop, maintain and expand international markets to enhance the profitability of U.S. wheat producers and their customers. Through trade service, technical assistance, education and consumer promotion activities, USW helped increase SRW export sales in marketing year 2011-2012 (May-June) by more than 50 percent compared to 2010-2011. Sales exceeded 163 million bushels, even in the face of abundant world supplies. USW believes this increased demand supported historically higher farm gate wheat prices. The increased export sales represented more than \$550 million extra income to farmers and the U.S. wheat industry. Top SRW import markets in 2011-2012 included Mexico, Egypt, the European Union, Nigeria and Colombia. 2012 funding: \$34,600; 2013 grant: \$34,600



U.S. WHEAT ASSOCIATES

Jason Scott
Wicomico County
Director

WHEAT POLICY DEVELOPMENT

NATIONAL ASSOCIATION OF WHEAT GROWERS
www.wheatworld.org

In the past year, NAWG has worked on a number of critical issues. NAWG staff continues to spend time working with coalition partners to identify solutions to various Clean Water Act- and Clean Air Act-related issues being reviewed by the Environmental Protection Agency. This is ongoing work, encompassing meetings with other agriculture representatives to



share information and determine how best to educate decision makers about the issues facing agriculture and the unique nature of agricultural operations.

With the deadline passed to implement new pesticide permitting requirements, NAWG staff has continued to educate decision makers about the serious concerns raised by a 2009 Sixth Circuit Court decision that requires producers to obtain additional permitting for crop protection applications that could become point sources of pollution under the Clean Water Act.

NAWG has closely monitored ongoing discussions around the next Farm Bill. Staff is working with the policy makers and states to ensure that a strong farm safety net remains in place.

NAWG continued its work to ensure a smooth introduction of biotechnology into wheat. Staff has increased its capacity to provide a rapid response on evolving news stories to prepare states to respond to media and other inquiries. Examples include preparing talking points on various negative studies released on biotechnology and talking points and background information on biotech wheat field trials.

2012 funding: \$9,000; 2013 grant: \$8,000



U.S. WHEAT ASSOCIATES

*Eric Spates
Montgomery County
Director*

BARLEY SUPPORT AND MARKET EXPANSION

NATIONAL BARLEY GROWERS ASSOCIATION
www.nationalbarley.com

Serving as the only national commodity group representing U.S. barley producers, the NBGA continued its work on program and policy priorities of its several member states and affiliated industry partners. In FY11-12, the NBGA focused significant effort in developing reasonable and effective farm program legislation as part of congressional consideration of a new Farm Bill. The NBGA worked to stress the importance of maintaining a robust crop insurance program, recommending improvements to the safety net for barley. Thus far, the NBGA has achieved success with the barley-related farm program provisions provided in both House and Senate bills.

Trade issues captured a considerable amount of NBGA's attention as Congress and the Obama administration worked to ratify and initiate several trade agreements with positive implications for the U.S. barley industry.

Maintaining critical mass and program funding for national barley research projects were identified as a priority of the Association. Major changes to the federal research infrastructure and funding congressional funding processes proved to be a major threat to ongoing and critical

barley research projects around the country. The NBGA continues to collaborate with the National Barley Improvement Committee to increase the effectiveness of our joint efforts to sustain barley research capabilities.

Several regulatory threats were addressed by the NBGA throughout the past year. High priority issues included a proposed rule to child labor regulations, a proposal to approve a potentially damaging new GPS technology, the ongoing investigation into the misuse by commodity trader MF Global of private account funds, among others.

Finally, the NBGA worked diligently to increase its visibility amongst its peer organizations, within Congress and with industry partners. The NBGA hosted a successful congressional reception, provided testimony on the Farm Bill to Congress, reached out to new industry partners, and generally increased its activity within the national agriculture community.

2012 funding: \$1,616; 2013 grant: \$1,860



NATIONAL BARLEY IMPROVEMENT COMMITTEE

*Bobby Hutchison
Talbot County
Director*

WHEAT SAFARI TOUR

WHEAT FOODS COUNCIL
www.wheatfoods.org

This project was designed to have nutrition influencers see first-hand wheat's journey from the farm to fork. Information about agriculture, milling, baking and nutrition was included during the hands-on experience and materials were distributed to the participants to utilize and share once leaving the farm. The goal of the event was to educate key influencers about wheat's nutrition and healthfulness and to have them share this knowledge with their audiences. This program met and exceeded all objectives. Before, during and after the event, participants made heavy use of social media platforms to "talk up" the event and the information learned from it. This included Tweeting, posting event-inspired blogs, videos and recipes, and pinning numerous photos on the Wheat Safari interest page (pinterest.com/wheatfoods/wheat-safari). Participants continue to utilize the information they learned about wheat in a variety of ways even several months after the event. There are so many non-credible sources professing to provide nutrition information about grains, it is vital for the grain industry to have a voice at the forefront. The Wheat Safari Tour event has numerous people talking about wheat and wheat foods in a positive voice.

2012 funding: \$16,000; 2013 grant: \$16,000



WHEAT FOODS COUNCIL

*Jennifer Schmidt
Queen Anne's County
Director*

KIDS GROWING WITH GRAINS

FREDERICK COUNTY
EXTENSION ADVISORY
COUNCIL

www.umd.edu

Frederick County youth had a "field trip of a lifetime!" as 35 public elementary schools and three private schools participated in the popular program that began over a decade ago. During the spring and fall programs, 5,782 youth and their teachers experienced the opportunity to learn about whole grains in their communities. Bus transportation to the Western Maryland Research and Education Center was funded by the schools, which was a real treat in this time of soaring energy costs.

The students participated in four learning stations designed to teach them about grains. They begin with a tour of the farm viewing fields in production, valuing machinery and recognizing grains from field to table. At the corn station, students learned the many uses of corn, everything from grits to gasoline and corn syrup to crayons and made tortillas using masa. The nutrition station explained the health benefits of eating grains, especially whole grains. Students sampled steel cut oats and made buckwheat pancakes. At the animal station, students met cows, goats and sheep, and learned how much grain the animal is fed. Teachers report this is the favorite part of the field trip! Each student received a recipe booklet to take home to prepare whole grain foods at home.

In the classroom, students participated in two subject-focused activities, Grain Nutrition and Grain Production. Students learned the function of each ingredient while developing team building skills making a whole grain product, and tasting popcorn. The students completed an ag literacy reading program and identified different seeds which are utilized in feeding animals. Participants discussed how whole grains are used in livestock feeds and also for their pets at home.

2012 funding: \$4,000; 2013 grant: \$4,000

GRAINS NUTRITION FOR YOUTH

FREDERICK COUNTY
EXTENSION ADVISORY
COUNCIL

www.umd.edu

The FoodSmart Team has developed a fresh blending of nutrition education and agriculture literacy into one program "Grains Nutrition For Youth". Educators from three counties piloted resources, lessons, and activities compiled by the FoodSmart team in order to develop one concise educational kit for 4-H and extension educators statewide in Whole Grain Nutrition Education.

Educators in Frederick, Washington and Allegany Counties reached 6,383 youth and 169 adults through the pilot programs in 2012, showing an increase of 2,000+ participants, from the 2011 program year. Similar to the "Kids Growing with Grains" project, the students visited the Western Maryland Research and Education Center to participate in four learning stations designed to teach them about grains. Each student received a recipe booklet and additional resources like activity guides, and booklets produced by MGPUB and the Soybean Board. Back at school, students took part in two of the following subject-focused activities Grain Nutrition, Ag Literacy and Grain Production. Students completed ag experiments with whole grains and how the plants function.

The pilot program was evaluated and the curriculum finalized to develop the kits for statewide implementation in 2013.

2012 funding: \$5,000; 2013 grant: \$5,000

THE WHOLE GRAINS STORY OF CORN, WHEAT AND BARLEY

LASER LETTERS, INC.

www.allgrainfarmteam.com

Using baseball as the theme, "The All Grain Farm Team Powers America" booklet educates Maryland fourth and fifth graders about agriculture and how grain is important to everyone. A companion website, www.allgrainfarmteam.com provides viewers an opportunity to explore grain, and includes a classroom poster and sample lesson plans. The booklet will be reprinted in 2013.

2013 grant: \$25,000

CLOSE ENCOUNTERS WITH AGRICULTURE

UNIVERSITY OF MARYLAND
EXTENSION - MONTGOMERY
COUNTY

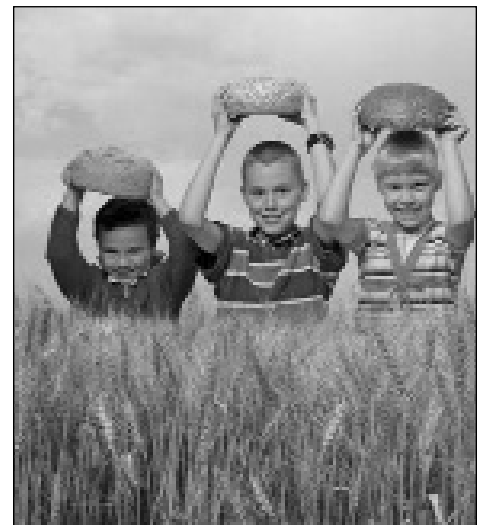
www.umd.edu

The Close Encounters with Agriculture program promotes and increases the understanding of agriculture. It also demonstrates the inter-relationships and positive aspects of production agriculture, nutrition and the environment. A total of 2,751 fourth-grade students, and 413 teachers and chaperones participated in the program in October 2012. Direct program costs averaged \$2.95 per student.

The program is evaluated through pre- and post-tests for the students, and by teacher evaluations. Students scored an average of 37% correct on the pre-test. After participating in the program, students test scores rose to 77.9% correct on the post-test in 2012. Overall teacher evaluation scores averaged 4.81 on a 5.00 scale. Teachers responded overwhelmingly (87%) that their children had a much better understanding of agriculture after participating in this program.

Close Encounters with Agriculture is a nationally recognized Extension program. The program has won awards from the American Farm Bureau, the National Association of County Agricultural Agents, the Joint Council of Extension Professionals, and Epsilon Sigma Phi the national Extension honorary fraternity.

2012 funding: \$4,000; 2013 grant: \$6,000





COMMONGROUND STATE CONFERENCE

MARYLAND SOYBEAN BOARD

www.findourcommonground.com

The CommonGround Mid-Atlantic program was launched with a conference that introduced the program to Delaware and Maryland volunteers. CommonGround is a nationwide group of farm women who start conversations between women who grow food and the people who buy it. Conversations are based on personal experience as farmers, backed by science and research. Activities were coordinated for the volunteers to share on-farm experiences and factual information with consumers at a DC Food Bloggers Brunch, DC 4Bitten Media event, Delaware Ag Week, Women in Ag Conference, Mother's Day, Ag Day and Food promotion day exhibits at Shorebirds Stadium, Delaware State Fair demonstration, Delmarva Chicken Festival exhibit, Maryland Commodity Classic speaker and exhibit, and Farm Stand/Markets displays. Volunteers were also individually active in social media and farm blogs, plus several participated in national program activities.

2012 funding: \$4,900; 2013 grant: \$13,900



CommonGround volunteers from left to right: Hannah Amoss, Linda Burrier, Jennie Schmidt, Mary Stewart, Jennifer Debnam, Cara Sylvester and Jennifer Cross.

CATTLEMAN'S SKILLATHON

MARYLAND CATTLEMEN'S ASSOCIATION

www.marylandcattle.org

The Statewide Youth Skill-A-Thon Contest has been held for nine consecutive years. The 9th annual event was held in March in conjunction with the 25th Annual Maryland Cattle Industry Convention and Trade Show in Hagerstown. The contest has continued to grow in both number of participants and in the degree of educational and knowledge challenge presented to the participants. In addition, through the direct financial support of MCA, a team of youth from Maryland has participated in the national contest in Louisville, Kentucky each year since 2004.

This year (2012), 149 youth from 14 counties across Maryland, traveled to Hagerstown to participate in the Skill-A-Thon contest. In addition, the overall competitiveness of the Maryland team sent to Kentucky each year has increased as a result of the way the Maryland event has been structured and run. In fact, in 2012 the Maryland team placed 5th overall in the national contest. They were the 3rd Place Team in Identification, the 4th Place Team in Quality Assurance and had the contest's Fourth High Individual overall among 380 individuals! This was an impressive accomplishment at the national level with Maryland youth competing against teams from 27 states across the United States. 2012 funding: \$500; 2013 grant: \$750

SOUNDBOOK PRODUCTION

MARYLAND DEPARTMENT OF AGRICULTURE

www.mda.maryland.gov

With the funds designated to this project, the Maryland Department of Agriculture (MDA) contracted with ag photographer Edwin Remsberg to prepare "soundbooks" on Bobby Hutchison, Jason Scott, Jim Weddle, Jennifer Debnam and Trey Hill. These short videos have been uploaded to YouTube and promoted on www.marylandsbest.net website, put on the Maryland's Best Facebook page, and used many times through Maryland's Best and MDA Twitter accounts.

Grain producers were featured in January and in August on the Maryland's Best website. In August, 6,090 unique visitors came to the site. In January, 1,572 unique visitors came to the website. The August figure is higher because Maryland's Best was advertising locally grown watermelons and other products in the Baltimore and Washington, D.C. media markets at that time.

There are now ten soundbooks of Maryland grain farmers. It is MDA's goal to continue to use these videos to tell agriculture's story to the public who come to MDA websites and follow Twitter and Facebook.

2012 funding: \$5,000; 2013 grant: \$6,800

Interested in sharing your farm story? Contact Mark Powell at mark.powell@maryland.gov and help tell the compelling story of Maryland agriculture.

NATIONAL AG DAY

AG COUNCIL OF AMERICA

www.agday.org

On March 8, the Agriculture Council of America (ACA) welcomed leaders from national agricultural associations, congressional members and representatives from student organizations to our nation's capitol in celebration of the 39th annual National Ag Day. The day began with coffee featuring guest speaker Krysta Harden, Chief of Staff for U.S. Secretary of Agriculture Tom Vilsack. As the day progressed, over 100 student delegates delivered the message of Ag Day to members of Congress and their staffs. A Mix-and-Mingle Luncheon followed at the U.S. Capitol Building, where Congressman Collin Peterson took to the podium to share his take on the importance of agriculture. Other speakers included Chad Budy, an Outstanding Young Farmer Honoree, and representing the student delegates, Matrica Myer. In the evening, U.S. Secretary of Agriculture, Tom Vilsack, addressed a sold out crowd at the National Celebration of Agriculture Dinner at the USDA Whitten Building Patio, and then mingled with guests. Highly acclaimed chef Mark Salter, Robert Morris Inn, prepared the meal. Well-known agricultural broadcaster Orion Samuelson served as the evening's emcee.

The National Ag Day celebration was well attended, with over 200 people at the coffee, 350 at the luncheon and 175 at dinner. 2012 funding: \$500; 2013 grant: \$500

**UNIVERSITY OF MARYLAND
EXTENSION AGRONOMY NEWSLETTER**
UNIVERSITY OF MARYLAND/
PLANT SCIENCE
www.mdcrops.umd.edu

University of Maryland Extension has undergone a restructuring that created six impact teams (IT) with each addressing an organization objective. One of those impact teams is Agriculture and Natural Resources Profitability. One goal established by this IT was to write and distribute a statewide newsletter focusing on agronomic crop production issues. Since its inception in 2010, Mr. Sudeep Mathew, Dorchester County Ag Educator has led the project by serving as Coordinating Editor, with Dr. Bob Kratochvil, Extension Specialist for Agronomic Crops, serving as Technical Editor. To date, 33 issues of Agronomy News have been published and distributed with the funding support provided during the past two years significantly enhancing this effort. All 33 issues encompassing the first three years of Agronomy News can be viewed by visiting the University of Maryland's Cropping Systems Extension and research website.
2012 funding: \$5,000; 2013 grant: \$6,000

SCIENCE LAB AND GARDENS
MARYLAND AGRICULTURAL
EDUCATION FOUNDATION
www.maefonline.com

The Maryland Agricultural Education Foundation, Inc. (MAEF) is a non-government, 501(c)3 nonprofit. The Foundation's mission is to promote the understanding and appreciation of the importance of agriculture in everyone's daily lives. This grant supported two valuable programs in 2012: Mobile Science Lab Outreach and MAEF Office Teaching Gardens. Matching grants were provided to ten schools across Maryland that have never had a mobile science lab visit. These matching grants paid for a portion of the registration fee that is associated with scheduling mobile science lab visits at a school.

Second, the funds provided a matching grant to support the development of educational theme gardens surrounding MAEF headquarters at Swan Harbor Farm in Havre de Grace. The garden themes include vegetables, herbs, pollinator garden, ornamental plants, seedling bed, and others.
2012 funding: \$7,500; 2013 grant: \$7,775

MARYLAND ENVIROTHON
MARYLAND ASSOCIATION OF
SOIL CONSERVATION DISTRICTS
www.mascd.net/envirothon

The Maryland Envirothon is an annual environmental educational competition designed for high school students. The Envirothon enhances local high school's science curriculum by providing hands-on, field based activities and instruction from natural resource professionals. Training is practical and scientific. During the school year, 1,148 students from 18 counties were trained and tested in five natural resource areas: aquatics, forestry, soils, wildlife and a current environmental issue, this year being "Nonpoint Source Pollution/Low Impact Development." Each student had the opportunity to be trained by biologists, foresters, soil scientists, and other natural resource professionals as they prepared for local, state and national competitions.


The Envirothon program is a partnership between the soil conservation districts, natural resource professionals and high school science teachers. Surveys conducted indicated that there is a great need for real-life, out-of-the classroom experiences. This partnership provides an approach to environmental education where no child is left inside to learn environmental awareness and land stewardship.

Students learn tree and soil classifications, wildlife species identification and oral presentation team-building skills. The winning team at the state event was from Harford Christian School in Harford County. These students receive the honor to represent Maryland at the North American Envirothon. They will return home with a new found knowledge of how to apply land stewardship practices to today's environmental concerns.

Even though state schools are mandated to teach environmental education, many cut related activities. The Envirothon continues to fill the void by offering students all training materials, related activities, and transportation free of charge. Without the continuous support of stakeholders, the program would not be as successful as it is today in investing in tomorrow's future environmental stewards.
2012 funding: \$9,000; 2013 grant: \$9,000

MARYLAND PUBLIC TELEVISION AGRICULTURE SERIES
MARYLAND DEPARTMENT OF AGRICULTURE
www.mda.maryland.gov

The goal of a new television series proposed by the Maryland Grain Producers Association is to provide the Maryland public with a better understanding of the farmers of Maryland and the agriculture that feeds, fuels and clothes them. An agreement has been established between the Maryland Department of Agriculture (MDA) and Maryland Public Television to produce the series, "The Maryland Farmer". MDA serves as co-producer. Input was sought from stakeholders and a concept developed for the ag program. Graphic development for the program has started. Filming and interviews are underway, with production to continue throughout the year. The series is set to launch in the fall of 2013, with a series of promotional events.
2012 funding: up to \$150,000 matching grant



*Coming this Fall!
"The Maryland Farmer"
on MPT*



AGSPLOURATION - "THE SCIENCE OF MARYLAND AGRICULTURE"

UNIVERSITY OF MARYLAND EXTENSION

www.umd.edu

AGsplouration: The Science of Maryland Agriculture is a statewide program that bolsters students' science, technology, engineering and mathematics (STEM) abilities through learning experiences that explore agricultural science.

Following three successful AGsplouration Summer Career Institutes held in 2011, two additional institutes were held in 2012. Program goals were reached through a combination of class work, farm visits, and networking. Hands-on class work allowed each participant to be active in fun agriscience-based experiential learning activities. Networking and discourse with agricultural professionals and farmers reinforced real-world applications, and on-farm experiences provided a link between classroom learning and potential career options. The institutes were held in Western Maryland and on the Eastern Shore with a total of 60 participants of middle school and high school age. Pre- and post-test scores indicated that participants gained a significant amount of knowledge in the topics covered and adopted an improved attitude towards Maryland agriculture as it related to their lives.

2012 funding: \$5,000; 2013 grant: \$5,000

INGRAINING 4-H HEALTHY LIFESTYLE PRACTICES

UNIVERSITY OF MARYLAND EXTENSION

www.umd.edu

The InGRAINing 4-H Healthy Lifestyles Program was designed to foster youth science literacy in the areas of agriculture, nutrition, health, and safety. Built around a central healthy living theme, the program's hands-on activities empowered youth to understand and advocate for Maryland agriculture, make more nutritious food choices, and correct home and occupational safety hazards. In addition, it generated youth interest in science careers by allowing

participants to engage in scientific investigations and interactions with professionals from local agriculture, health, and related fields.

During 2012, the program reached a total of 4,041 youth and adult participants in ten counties. Educational venues included 4-H clubs, day and overnight camps, school enrichment and after school lessons, and community programs including fairs and festivals.

Why was this program developed? University of Maryland Extension's 4-H mission is to provide a supportive setting that helps youth become competent, caring, and contributing adults through the learning of new knowledge and life skills. 4-H supports three National Mission Mandates: science, healthy living, and citizenship. This program supported national and University of Maryland Extension educational goals. The educators collaborated with teen and adult volunteers to reach youth across Maryland, thereby multiplying the number of residents who benefited from the program.

2012 funding: \$7,150

HERE WE GROW!

PORT DISCOVERY CHILDREN'S MUSEUM

www.portdiscovery.org

Port Discovery's new farm exhibit for children is on its way to becoming a reality. A unique exhibit will be created that teaches about agriculture on a local, regional, national, and global scale - with an emphasis on Maryland. Since meeting with stakeholders last May, Port Discovery has welcomed new agricultural supporters into the circle and, inspired by the energy and commitment of our partners, decided to pursue a prestigious grant from the Institute of Museum and Library Services (IMLS), who have been very encouraging in the application process. If awarded, every dollar contributed to the project will be matched up to \$150,000. This will expand the project budget and capacity to enrich this educational opportunity for Maryland's children exponentially with a much more extensive and permanent exhibit about agriculture.

2012 funding: \$15,000; 2013 grant: \$15,000

NEW 2013 EDUCATION FUNDING

UNIVERSITY OF MARYLAND - UPPER SHORE CLUSTER
National Farmedic Training - train the trainer program.

2013 grant: \$1,000

UNIVERSITY OF MARYLAND EXTENSION - CAROLINE/QUEEN ANNE'S COUNTIES
Tractor School: PTOs, rollovers, grain bins and more!

2013 grant: \$2,100

CARROLL COUNTY EXTENSION ADVISORY COUNCIL

Small grain production hands-on learning experiences to at-risk youth.

2013 grant: \$1,000

For details, visit www.MarylandGrain.com

**Grant proposals for
2014 funding are due
December 1, 2013.**

**For details, visit the
Checkoff Program page at
www.marylandgrain.com**

Protecting Farmers' Interests

MESSAGE FROM KEVIN ANDERSON, PRESIDENT
MARYLAND GRAIN PRODUCERS ASSOCIATION

Representing grain farmers in Annapolis is one of the major roles of the Maryland Grain Producers Association. The 2013 session had many challenging issues to promote and defend. Overall, Maryland grain farmers came out of the General Assembly better than expected.

Subtraction Modification - Enhanced Agricultural Management Equipment: MGPA joined MASCD to take the lead on this legislation. Starting on January 1, 2013, vertical tillage equipment, global positioning system devices and optical sensing equipment with variable rate nutrient application equipment are added to the list of conservation equipment eligible for an income tax subtraction modification.

Agricultural Commodity - Assessment - Collection: Introduced on behalf of MGPUB, this bill changes the Checkoff Program law to expand options for the collection of funds from grain buyers who do not pay checkoff assessments on time.

Maryland Pesticide Reporting and Information Workgroup: A workgroup is established for two years and includes representatives from the general assembly, state agencies, pesticide stakeholders, scientists, agriculture, and MGPA. Tasks include: identify any pesticide use data gaps, determine need for data reporting program, determine format to make data available for research, review scientific research and data regarding use of pesticides and potential harm, determine and make recommendations on protecting privacy, best methods to assemble data, study current federal process, conduct a cost-benefit analysis, economic impact, and impact of using organic pesticides on farms. An interim report is due Dec 31, 2013 and the final report July 1, 2014.

Maryland Agricultural Certainty Program: This bill will help the state accelerate achieving the goals of the Chesapeake Bay Watershed Implementation Plans. It is anticipated that giving a farmer "Certainty" will encourage implementation of best management practices to achieve the level of water quality necessary to meet the 2025 Bay goals in return for having ten years without new state or local water quality improvement laws or regulations. A farm operator who enters the Certainty program must be in compliance with his/her nutrient management plan, have a fully implemented soil conservation and water quality plan (SCWQP) for their

entire operation and meet the state and/or local TMDL. The test for the state/local TMDL status can be established using the Maryland Nutrient Trading Tool. A farmer must submit his nutrient management plans and SCWQP annually, have an inspection to determine certification and inspections by a verifier at least every three years. At the end of 10 years, the farmer must be in compliance with all laws and regulations that came into effect during his/her time of Certainty. A stakeholder oversight committee will meet to establish the regulations and evaluate the program.

Nutrient Management - Limiting Applicability: Introduced to allow the application of nutrients within the 100-year floodplain and where shallow aquifers exist, the bill enables fertilizer to be spread beyond 15 ft of: the Chesapeake Bay and its tributaries, surface water, a pond, a lake, a river, a stream, a public ditch, a tax ditch, and a public drainage system.

Forest Preservation Act of 2013: This Department of Natural Resources legislation defines No Net Loss of forestry as the state having 40% cover, to be achieved by 2020. It increases the acreage of property (from 10-500 to 3-1000 acres) that a person owns or leases to allow involvement in DNR's forestry programs. It prevents burning of woods, brush, grass, grain or stubble on certain land and increases fines. It addresses agricultural concerns about loss of agricultural land with language to

not incentivize the conversion of prime agricultural land with Natural Resource Conservation Service type I, II, or III soil classification to forestland, except for conservation best management practices meeting NRCS standards and specifications; however, this cannot be construed to prohibit an owner of agricultural land from voluntarily agreeing to place conservation best management practices on the property owner's agricultural land.

A grazing bill that took funds from the Cover Crop program to pay farmers to switch to intensive grazing systems was withdrawn when MDA agreed to fund grazing conversion with Maryland Agricultural Cost-Share funds. Other bills not passing include: prohibiting use of Lawn Care Pesticides at child care facilities and schools PreK-8; requiring a person who must have a nutrient management plan submit their soil test FIV results to MDA; banning use, sale or distribution of commercial feed or drinking water containing antibiotics intended for non-therapeutic use; requiring labeling of individual packages of meat with a list of antibiotics that were given to each animal from the day it was born until processing; repealing the Sustainable Growth and Agricultural Preservation Act of 2012; requiring labeling of foods containing GMO's; and compensating farmers for loss of land value due to the Septic bill or nutrient management regulations.



CONGRATULATIONS TO MARYLAND WINNERS

Despite the drought, growers achieved high yields in the 2012 National Corn Yield Contest, with a national average of 316 bushels per acre. This contest highlights how innovation, from both growers and technology providers, allows farmers to meet the growing demand for food, feed, fuel and fiber.

	PRODUCER	HYBRID	YIELD
Irrigated	Willin Farms LLC, Seaford	Channel 214-14 VT3P	276.1385
	Catherine Bostic, Church Hill	Pioneer 33N58	272.2706
	Michael Bostic, Church Hill	Pioneer P1319HR	269.4673
Non-Irrigated	John Rigdon, Jarrettsville	Pioneer P1395XR	274.5069
	My Lady's Manor, Monkton	Mid-Atlantic Seeds MA5121	266.3195
	Donald Lippy, Hampstead	Pioneer P1184	238.9307
No-Till/ Strip-Till Irrigated	Marion Wilson, Centreville	DEKALB DKC62-97	270.0479
	Mica Farms, Church Hill	Pioneer P1184AM-R	266.5123
	Marion Wilson, Centreville	DEKALB DKC63-87	263.5104
	Tuckahoe Farms, Denton	DEKALB DKC61-71	257.9680
No-Till/ Strip-Till Non-Irrigated	Harrison Rigdon, Jarrettsville	Pioneer P1395XR	268.9818
	Brad Rill, Hampstead	DEKALB DKC62-09	266.9565
	Gregory Dell, Westminster	Channel 212-09 STXRIB	266.0234



MGPA & MG PUB BOARD

MGPA & MG PUB Regional Members

(Regional members serve on both boards)

Kevin Anderson (Region 1) 410-651-0022
 Bobby Guy (1) 410-546-9191
 Robert Garrett (2) 410-822-8920
 Paul Spies (2) 410-829-2902
 Tom Gannon (3) 410-758-2370
 Marion Wilson (3) 410-758-1545
 Melvin Baile, Jr. (4) 410-848-3174
 Lawrence Meeks (4) 410-848-2867
 Syd Moreland (5) 301-884-3320
 Donnie Tennyson (5) 301-872-5612
 Steve Ernst (6) 301-842-3926
 James Weddle (6) 301-797-3423

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President - Tom Gannon
 Vice President - Paul Spies
 Treasurer - Allen Davis
 Secretary - Steve Ernst

MG PUB Non-Voting

Donald Maring - Ag Commission
 Charles Morris - Industry (Perdue)
 Bob Kratochvil - University of Maryland
 Mark Powell - MD Dept. of Agriculture

MG PUB Voting

Chip Bowling - NCGA Director
 Chip Councill - USGC Director
 Robert Hutchison - NBIC Director
 Jennifer Schmidt - WFC Director
 Jason Scott - USW Director
 Eric Spates - NAWG Director

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 Jeff Middleton
 Allen Spray

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Patrick McMillan - MDA
 Ronald Mulford - UMD (retired)

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Lynne Hoot - Executive Director
 Marguerite Guare - Admin. Assistant
 Laurie Adelhardt - Public Relations
 410-956-5771 (voice)
 410-956-0161 (fax)
 lynnehoot@aol.com (email)
 PR@marylandgrain.com (email)

www.marylandgrain.com

Maryland Grain Producers Association &
 Maryland Grain Producers Utilization Board
 53 Slama Road, Edgewater, MD 21037

IT ALL STARTS WITH YOU

The Maryland Grain Producers Association is a membership organization representing YOU, the farmer. You may be participating in the checkoff program now, however, that does not automatically enroll you as an association member. Join today and support your grain industry! Your checkoff dollars can be used to pay your dues as described below. You also have the additional benefits of:

- ◆ **COMPLIMENTARY TICKET TO MARYLAND COMMODITY CLASSIC**
- ◆ **National Corn Yield Contest**
- ◆ **Excellence in Ag College Scholarships**
- ◆ **NASCAR Exclusives**
- ◆ **DISCOUNTS with Ford, Worldwide Hotels, Dell, Enterprise, Office Depot, Cabela's, and more.**

MGPA MEMBERSHIP FEE TRANSFER FORM

We Are: the voice of grain producers in Annapolis - where numbers count!

We Are: members of a national grain network to make our mark in DC and around the world

We Are: You - the Maryland farmer

If you are a grain producer, membership is free!
Your checkoff assessment will pay your MGPA dues.
Just complete and return this form.

To transfer these funds, please complete this form and return it to MG PUB. If you have requested a refund during the last year, please include a grain sales receipt for at least \$125 (\$50 for one year membership) on which a refund has not been requested. *Questions?* Contact Lynne Hoot at 410-956-5771 or email lynnehoot@aol.com.

MARYLAND GRAIN PRODUCERS ASSOCIATION MEMBER FORM

Complete the following and return to MG PUB, 53 Slama Road, Edgewater, MD 21037.

Forms without checks can be faxed to 410-956-0161. Please print or type.

Name _____ Membership in (check one) Name

Company

Farm/Co. Name _____ Farmer Yes No

Spouse's Name _____ Email address _____

Home Phone (_____) _____ Business Phone (_____) _____

Address _____

City/State/Zip _____

Total Farm Acres _____ In Corn _____ Wheat _____ Barley _____ Oats _____ Milo _____

Referred by MGPA Member _____ (optional)

Membership: 3-year membership for \$125 New
 1-year membership for \$50 Renewal (Member #: _____)

GRAIN PRODUCERS: This is a partial refund form for grain checkoff to pay MGPA membership dues. I hereby certify that I am a bona fide grain producer and that I contribute a minimum of \$125 to the checkoff program in a 3-year period (a minimum of \$50 for a 1-year membership)

NON-PRODUCERS: Enclosed is a check for the membership fee checked above.

Signature _____ Date _____



Maryland Grain Producers Association
53 Slama Road
Edgewater, MD 21037-1423

Non-Profit Organization
 U.S. Postage
 PAID
 Annapolis, MD
 Permit #189

Mark your Calendar!

**Thursday,
 July 25, 2013**



**Queen Anne's
 4-H Park**

Many thanks to the generous sponsors who made the 2012 Classic possible.

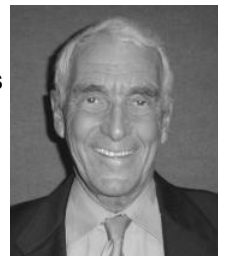
Ag Leader Technology	Maryland Farm Bureau
Augusta Seed Company	Mid-Atlantic Certified Crop Adviser Program
Binkley & Hurst, LP	MidAtlantic Farm Credit
CNB	Monsanto
Connor's Pest Protection	Mountaire Farms
Daisey Insurance, Inc.	Nagel Farm Service-Wye Mills Grain
Dekalb/Asgrow	Perdue AgriBusiness
Delmarva Farmer	Pioneer Hi-Bred Intl, Inc.
Farmsite Technologies	Rural Community Insurance Services
Great Heart Seed Co.	Schillinger Genetics, Inc.
Growmark FS	T.A. Seeds
Hoober, Inc.	Tri-Gas & Oil
Hostetter Grain, Inc.	UniSouth Genetics
J. David Mullinix & Sons	United Soybean Board
King Crop Insurance, Inc.	University of Maryland
MARBITCO	Willard Agri-Service
MD Crop Improvement Association	
Maryland Department of Agriculture	

The Maryland Grain Producers Association, Maryland Grain Producers Utilization Board, Maryland Soybean Board and Mid-Atlantic Soybean Association invite you to a day custom-made for Delmarva's farmers.

New this year! Instead of tours at the Wye, research findings will be presented in education sessions at the 4-H Park from 10:00 a.m. to noon, where farmers can earn CEU credits.

At 11:00 a.m., the Exhibit Hall opens with displays on the latest research, education and market development projects funded with your checkoff dollars. Gain insight into industry news during the afternoon program, and then enjoy our keynote speaker, guaranteed to be the talk of the summer.

Dr. Jay Lehr, keynote speaker for this year's Classic, will present his thought-provoking perceptions regarding the economy, optimism, and promoting agriculture to non-farmers, as well as a peek at what the U.S. farm industry will look like in the coming years. Lehr combines five decades of experience in agricultural economics, agronomy, environmental science and business administration with a contagious enthusiasm for the future of the American farm.



It is foolish to think as we have farmed continuously with increasing yields for a century that we are doing anything unsustainably. - Lehr