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The Grain Store

2011-12 FUNDING REPORT

Maryland Grain Producers Utilization Board



Making an Impact

MESSAGE FROM MARION WILSON, PRESIDENT
MARYLAND GRAIN PRODUCERS UTILIZATION BOARD

With each new generation, our nation grows further away from its agricultural roots. We are seeing people unfamiliar with farming making decisions as to how we operate and jeopardizing our future. This year, the Maryland Grain Producers Utilization Board has made a commitment of significant funding to initiate a 13-week television series on Maryland agriculture and support a variety of educational programs, in addition to our market development and research initiatives.

It is essential to educate the public on the important role that agriculture plays in our society and its positive contributions in environmental stewardship. We have dedicated funding to projects targeting a variety of audiences - MPT viewers, elementary through high school students, sports fans, consumers, fair-goers, bloggers - as well as education for farmers to help support their efforts in interacting with these groups.

The research projects funded through the Checkoff Program are particularly valuable for our state's farmers as the large companies focus their research on their products and large markets, while our research compares products and evaluates their effectiveness in our growing conditions in the Chesapeake Bay watershed. Our research is specifically targeted to Maryland farmers and the issues they face everyday to produce their crops.

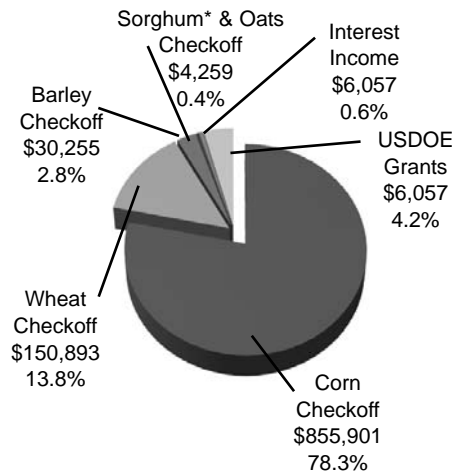
Significant results have been achieved to help farmers combat noxious weeds, control diseases such as wheat Spindle Mosaic Virus, and minimize crop damage from pests, such as deer, stink bugs and corn borers. Specifically developed for Maryland, the fall nitrate test is an excellent example of research conducted on the effectiveness of inputs for our local conditions so farmers can target applications and minimize their impact on the environment. The annual state corn hybrid test provides information on the success of new and existing varieties grown in our area, information that otherwise would not be available to our growers.

Exports are critical to the well-being of American agriculture. We work through our national partners to develop new markets in countries

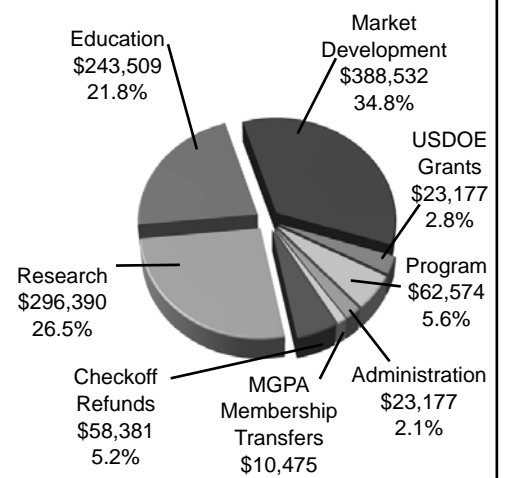
gaining a middle class interested in higher quality food products, advancing trade agreements, and educating buyers of the quality of U.S. grain. Supporting the development of new uses for our grain also improves our markets. We provide assistance in expanding the number of fuel stations offering E85 in the Mid-Atlantic to promote and support domestic jobs, energy independence, and cleaner air.

Take a few minutes to review this report and see where your checkoff dollars are invested. Feel free to contact me or any of our board members listed on page 19 with any questions. We welcome your thoughts and ideas for further expanding our outreach in market development, education and research. Together we can make a positive impact on the future of Maryland agriculture.

MGPUB INCOME



MGPUB EXPENSES



* Sorghum funds are forwarded directly to the United Sorghum Checkoff Program
Toal, Griffith + Ayers, LLC of Annapolis, audited MGPUB for FY 2011 and determined the accounts to be in order. A copy of the report is available by calling 410-956-5771.

Many citizens have neither had an opportunity to experience what happens on a farm nor meet the hard-working, conscientious professionals raising their food, fiber, fuel and energy. In addition, few citizens are aware of today's farming practices and advances in science and technology that protect the Chesapeake Bay. The Maryland Grain Producers Utilization Board initiated development of a new television series on Maryland agriculture and have dedicated funding to create opportunities for citizens to learn more about the dynamic, technologically-advanced, and caring community that is farming today. We invite you to join us in sponsoring or participating in efforts to put a face on Maryland agriculture.

MARYLAND PUBLIC TELEVISION AGRICULTURE SERIES

MARYLAND DEPARTMENT
OF AGRICULTURE

TO HELP INCREASE PUBLIC understanding of agriculture, Maryland Public Television (MPT), in partnership with the Maryland Department of Agriculture and its stakeholders, will produce a new series that will put a face on agriculture, educate viewers and tell the stories of the industry that built this nation and continues to feed the world.

MPT will produce 13 half-hour shows to highlight the many challenges facing today's farmers and help bridge the widening "understanding gap" between farmers and the Maryland consumer. The series will take viewers from the mountains of Western Maryland, to the rolling hills of the Piedmont, to the broad, flat fields of the Eastern Shore, to explain the complex story of growing food and fiber in Maryland. All commodities and all sectors will be included.

Each week, a host will present the audience with a series of short, magazine-style segments about Maryland farmers, farms and agribusiness. Episodes will be produced on location at farms and agribusinesses throughout the state. The series will not only be broadcast repeatedly on MPT, it will also be available for viewing on several websites, including MPT, MDA and YouTube, and distributed through libraries, schools and community groups.

2011 funding: \$100,000; 2012 grant: up to \$150,000 to match other funding

HERE WE GROW!

PORT DISCOVERY
CHILDREN'S MUSEUM
www.portdiscovery.org

BALTIMORE CITY'S PORT Discovery Museum will soon be home to a large, new farm exhibit to educate its visitors.

The "Here We Grow" exhibit is being designed to include messages to promote understanding of new technology and modern farming techniques. The exhibit will help children and their caregivers understand the connection between farms and the products they enjoy, appreciate the importance of agriculture in their everyday lives, and familiarize them with concepts of agricultural conservation and sustainability. The Farm will help children better understand a part of their world about which few of them have direct knowledge, and begin to find out "why farming matters." A significant component of the farm will be the "harvest field," a hands-on activity where children will be able to "pick" corn and other grains or vegetables and then learn about the many different ways these products are used. Elsewhere, electronic media will show modern farms at work.

Through hands-on, minds-on activities that require sensory oriented exploration, children will learn how their lives are connected to the lives and livelihood of people, plants, and animals found on a farm.

2011 funding: \$15,000; 2012 grant: \$15,000

SOUNDBOOK PRODUCTION

MARYLAND DEPARTMENT
OF AGRICULTURE

MARYLAND DEPARTMENT of Agriculture's Marketing Services promotes grain production through "Soundbooks", which are photos running at the same time as a taped interview with each farmer. Produced by Harford County agricultural photographer Edwin Remsberg, the Soundbooks showcased grain farmers on the Maryland's Best website, www.marylandsbest.net, and through social media targeting journalists and consumers. The website has reached more than 150,000 people, 25 percent of whom visit the website regularly to learn about farmers and find sources of Maryland agricultural products. The Soundbooks have been "Tweeted" to Maryland's Best 750 followers on Twitter, including food bloggers and media. Farmers profiled include: Chip Bowling, Charles County, Chip Councill, Talbot County, Allen Davis, Kent County, Steve Ernst, Washington County, and Drew Stabler, Montgomery County.
2011 funding: \$5,000; 2012 grant: \$5,000

Want to be featured in a Soundbook and share your farm story? Contact Mark Powell at the Maryland Department of Agriculture and help share the compelling story of our industry.

NEW EDUCATION FUNDING

CENTER FOR FOOD INTEGRITY
Sponsorship to feature grain farmers in the www.FarmersFeedUS.com campaign.
2011 grant: \$30,000

FREDERICK COUNTY EXTENSION
The Food Smart Team will conduct grains nutrition for youth.
2012 grant: \$5,000

MARYLAND SOYBEAN BOARD
This volunteers' conference will help establish a Mid-Atlantic CommonGround program.
2012 grant: \$4,900

UNIVERSITY OF MARYLAND EXTENSION
The InGRAIning project promotes healthy lifestyle practices in 4-H programming.
2012 grant: \$7,150

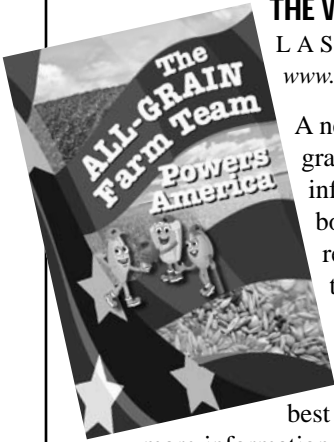
For details, visit www.MarylandGrain.com



THE WHOLE GRAINS STORY OF CORN, WHEAT AND BARLEY

LASER LETTERS, INC.

www.allgrainfarmteam.com



A new educational booklet, "The All Grain Farm Team Powers America," teaches Maryland fourth and fifth graders about the world of agriculture and the importance that grains have in their lives. The engaging and informational, 12-page booklet is a collaboration of Agri-Media Services, Inc. and Laser Letters, Inc. The booklet's sports/baseball theme features main characters Willie Maize, Rex Barley and Red Wheat, representing the grains, corn, barley and wheat. Using colorful graphics, puzzles, games, and a snack recipe, the booklet illustrates the importance of grains for nutrition, animal feed, use in industry, and as a homegrown, renewable and clean fuel source. A new website - allgrainfarmteam.com - features an introductory flash animation video, sample lesson plans, a classroom poster, and an online form for ordering the booklets.

Maryland students are also invited to participate in a 500-word essay contest. A \$500 cash prize for the best essay will be awarded at 2012 Commodity Classic. For rules and guidelines for the essay contest or for more information on the program, go to www.allgrainfarmteam.com. 2011 funding: \$69,250

WHEAT SAFARI TOUR

WHEAT FOODS COUNCIL

www.wheatfoods.org

FOR THE WHEAT FOODS website redesign, the project goal was to increase traffic to the site and presence as a source of reliable, fact-based information about agriculture, milling, baking and nutrition. With 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 Council emphasizes that it is "the place to go when you want to know." In order to do this effectively, the website has been redesigned to keep the site interesting, expanded to include broader based information and focuses on current "hot topics." Last year, there were over eight million "hits" and over three million page views which is a very good presence, but with the new website design, a significant increase is expected. Visit the revised website at www.wheatfoods.org.

In 2012, a 3-day "Wheat Safari Tour" to teach about agriculture, milling, baking and nutrition will be offered to traditional media, nutrition spokespersons, food editors, bloggers, and food and culinary professionals who already have followers and media outlets. Tour guests will experience a wheat harvest, an elevator, mill and bakery first-hand. Information on gluten-free diets, whole and enriched grains, and "My Plate" dietary guidelines will also be provided.

2011 funding: \$16,000; 2012 grant: \$16,000

AGSPLORATION - "THE SCIENCE OF MARYLAND AGRICULTURE"

UNIVERSITY OF MARYLAND
EXTENSION

UNIVERSITY OF MARYLAND Extension's AGsploration: The Science of Maryland Agriculture Program is a statewide program that bolsters students' Science, Technology, Engineering and Mathematics (STEM) abilities through learning experiences that explore agricultural science.

In 2011, a new program entitled the *AGsploration Summer Career Institutes* was added. The *AGsploration Summer Career Institutes* were intensive programs that targeted science and agriculture through a multi-disciplined approach including classwork, field trips, and networking and discourse with agricultural professionals. The hands-on classwork helped participants be active in fun agri-science based experiential learning activities. The concepts that were highlighted in the classroom lessons were then reinforced through the real world applications that the participants saw and experienced on their field trips and tours while learning about potential career fields. The institutes were held at three locations throughout the state for 80 middle school aged youth. Pre/Post test scores indicate that the participants have gained a significant amount of knowledge in the topics covered and also a new attitude towards Maryland agriculture and their lives.

2011 funding: \$4,300; 2012 grant: \$5,000

NATIONAL AG DAY

AG COUNCIL OF AMERICA

www.agday.org

THE NATIONAL AG DAY program provides an annual spotlight for the agriculture industry to help consumers understand how food, fiber and fuel products are produced, and to celebrate accomplishments in providing safe, abundant and affordable products. Ag Day recognizes the essential role of agriculture in maintaining a strong economy and promotes the many career opportunities in agriculture.

All 2011 tactics centered around the theme: American Agriculture: Abundant, Affordable, Amazing. Approximately 100 students from youth leadership organizations made visits to Capitol Hill. The Ag Day poster (sponsored by John Deere & Successful Farming) and other supporting materials were developed. The Ag Day Essay Contest was conducted with entrants from all over the country, with one winner selected from the video and written essays.

The Ag Council hosted coffee with the U.S. Deputy Secretary of Agriculture, Kathleen Merrigan, with over 200 people in attendance, and the Ag Day Dinner with the support of their sponsors for 160 people on the USDA Whitten Patio. Agri-Pulse also hosted a pre-reception and concert to help kick off Ag Day in DC. 2011 funding: \$500; 2012 grant: \$500

**UNIVERSITY OF MARYLAND
EXTENSION AGRONOMY NEWSLETTER
UNIVERSITY OF MARYLAND
/PLANT SCIENCE**
Dr. Robert Kratochvil

UNIVERSITY OF MARYLAND Extension has undergone a restructuring that created six impact teams (IT) each of which address an organization objective. One of those impact teams focuses on Agriculture and Natural Resources Profitability (ANRP).

One of the objectives established by the ANRP is to write and distribute a statewide newsletter that focuses on issues related to agronomic crop production. This newsletter was started in 2010 with Mr. Sudeep Mathew, Dorchester County Ag Educator serving as Coordinator, and Dr. Bob Kratochvil, Agronomic Crops Extension Specialist, serving as Editor. Twelve issues were written and distributed during the 2010 growing season.

It was recognized by UME educators across the state during 2010 that a sizable proportion of the clientele this newsletter was hoping to reach does not have high speed internet connection supporting a quick download of the electronic version. In order to rectify this, hard copies of the newsletter were mailed to the pre-established mailing lists located in the county offices. However, it was also recognized that budget cuts had reduced or eliminated funds for this purpose in many of the counties causing a financial hardship for those offices to be able to continue this service in the future. In 2011, a request for funding support for the newsletter was submitted to the Maryland Grain Producers Utilization Board and the Maryland Soybean Board. Both organizations provided that funding.

During 2011, 11 editions of the newsletter were published with the first appearing April 15 and the last on October 5. Newsletter articles featured were written by both in state and out of state Extension Specialists and covered a variety of crop production topics. A popular feature in each newsletter was the regional crop reports provided by the county Ag Educators. These reports gave

a glimpse of crop progress in each region along with the impact the variable weather across Maryland was having on crop performance. Each newsletter also highlighted upcoming educational events across the state. All 23 issues of the newsletter can be viewed via the web at mdcrops.umd.edu.

2011 funding: \$5,000; 2012 grant: \$5,000

MARYLAND ENVIROTHON

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

THE ENVIROTHON, through encouraging further research into the effects of nonpoint source pollution, helps students become aware of the problems that exist and encourages them to help find ways to get involved. The 2011 Maryland Envirothon was held at St. Mary's College located in Historic St. Mary's City for 928 students. Eighteen student teams experienced first-hand the impacts of quality outdoor learning. The teams were given training time with natural resource professionals from each of the five areas of study: aquatics, soils, forestry, wildlife, and the fifth issue of "Fresh and Salt Water Estuaries". Each learning experience intensified while students interacted with various professionals, working in environmental and agricultural fields that provided insight about potential career choices.

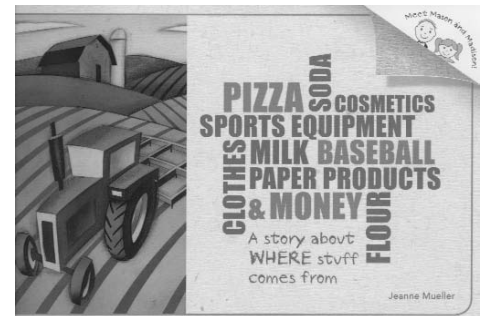
Teams were tested on their knowledge, and layers of awareness grew as each student built critical-thinking skills from one another. At the conclusion of the testing, an awards program recognized the high scoring teams in each of the five resource stations with scholarships presented to the teams with the top three overall scores. In addition, the first place team; St. Mary's High School, with a cumulative score of 433.50 out of 600 points, represented Maryland at the Canon Envirothon, which was held in New Brunswick, Canada from Sunday, July 24th until Saturday, July 29th.

2011 funding: \$9,000; 2012 grant: \$9,000

PIZZA, BASEBALL AND MONEY

MARYLAND AGRICULTURAL EDUCATION FOUNDATION
www.maefonline.com

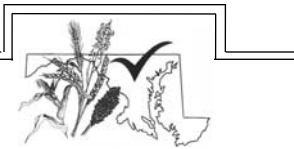
SUPPORT WAS PROVIDED for the illustration and printing of a children's book. "Pizza, Baseball and Money" is a story about where stuff comes from. The book chronicles the adventures of Madison, who is doing a research project for school on agriculture and "driving her brother crazy" as she relates everything he eats, wears, and participates in to the world of agriculture. In a surprise ending, Madison's brother Mason is able to use all of the information he gained from his sister to his advantage.



Students reading or listening to this story will gain a new appreciation for the many ways in which agriculture in general, and corn, wheat, and soybeans in particular, are part of their daily lives. While there are children's books available on particular commodities, there are few that have been written to encompass the variety of ways (food, clothes, sports) that agriculture impacts us daily. This newly released book accomplishes this in that it is an engaging, educational story to which students will relate.

For 2012, the Maryland Agricultural Education Foundation was funded to provide matching grants for the mobile science labs for ten new schools and to develop and install an Outdoor Learning Landscape at the MAEF headquarters at Swan Harbor.

2011 funding: \$11,286; 2012 grant: \$7,500



LEAD MARYLAND PROGRAM

LEAD MARYLAND
FOUNDATION, INC.
www.leadmaryland.org

THE LEAD MARYLAND Foundation (LEAD) works to increase the numbers and capacity of leaders serving the agriculture, natural resources, and rural community sectors. As a 501(c)(3) nonprofit public charity, LEAD relies on grants and donations to support educational programming offered to selected LEAD Fellows. Participants refine their leadership skills, develop greater self awareness, increase their understanding of the public policy process, and expand their networks and perspectives of the world outside of, as well as relating to, production agriculture. Fellows learn through lectures, tours, discussions, presentations, trainings, assessments, and group projects.



In 2011, LEAD Fellows completed a series of four multi-day seminars held at locations throughout Maryland, plus completed a four-day seminar held in Washington, DC. LEAD fellowship curriculum focuses on providing public issues education, skills building, leadership development, and personal growth. Through program participation, Fellows become more equipped to solve problems, identify resources, educate the nonfarm public, and to influence public policy important to Maryland's farmers.

2012 curriculum includes a case study of Maryland's grain industry in May, class study tour to Chile, and the Symposium on the Image of Agriculture, a new Class VII project scheduled for December 12, 2012. *2011 funding: \$55,000; 2012 grant: \$45,000*

Applications for the next LEAD class are due October 1, 2012, for participation in Class VIII, meeting in 2013-2014.

FARM STEWARDSHIP CERTIFICATION AND ASSESSMENT PROGRAM

MARYLAND ASSOCIATION
OF SOIL CONSERVATION
DISTRICTS

THE FARM STEWARDSHIP Certification and Assessment Program (FSCAP) certifies farmers that are in compliance with nutrient management regulations and implementing best management practices. The process provides meaningful information to farmers and enhances environmental protection efforts by giving recognition for natural resource conservation activities already in place and demonstrating opportunities to expand beyond the existing levels of nutrient and sediment reduction and carbon sequestration. It creates a process with standards developed by the agricultural and environmental communities working together so that both communities will acknowledge and respect the FSCAP certification.

To date, 23 farmers are certified in Baltimore, Carroll, Frederick, Garrett, Kent, Queen Anne's, Prince George's, and Washington counties. For 2012, the program will be expanded to Southern Maryland and Dana York joined the staff to work with Eastern Shore farmers. *2011 funding: \$30,000; 2012 grant: \$30,000*

CALL FOR PROPOSALS:

*2012 funding requests from the Maryland Grain Checkoff Program should be sent to the MGPUB office and postmarked by **December 1, 2012**:*

MARYLAND GRAIN PRODUCERS
UTILIZATION BOARD
53 Slama Road
Edgewater, MD 21037

Call 410-956-5771 for information
or visit www.MarylandGrain.com

FFA PROGRAM INCENTIVES

MD FFA FOUNDATION
www.mdffaafoundation.org

FFA FOUNDATION'S GOALS are to provide the Maryland FFA Association with the financial resources needed for a comprehensive program of educational opportunities, activities and incentives aimed at developing productive citizens and future leaders.

In 2011, MGPUB was designated a 5-Star Partner by the Foundation for their sponsorship of: four FFA career development events (CDE), an FFA proficiency award, 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 grant also provided State FFA Convention facilities support, helping to provide a valuable educational and leadership experience for 381 Maryland FFA members at a reasonable student cost. Five convention attendees received leadership grant scholarships based on chapter achievements and financial need. Four scholarships provided funding for the State FFA Convention, and one for the National FFA Convention.

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 our Nation's best. *2011 funding: \$10,000; 2012 grant: \$10,000*



CLOSE ENCOUNTERS WITH AGRICULTURE

UNIVERSITY OF MARYLAND
EXTENSION - MONTGOMERY
COUNTY

CLOSE ENCOUNTERS with Agriculture promotes and increases the understanding of agriculture. It demonstrates the inter-relationships of production agriculture, nutrition and the environment.

Approximately 3,000 fourth grade students, parents and teachers participated in six hands-on learning stations consisting of grain and grain products, dairy, beef, swine and goats, horticulture and horses to teach production agriculture concepts. The environmental segment emphasizes the positive relationship farmers and farming practices have of the environment. The nutrition segment emphasizes the relationship of agricultural products to nutrition, diet and health, and focuses on uses and benefits of grain products. Activities are given to teachers to follow the Montgomery Extension Office Farm Park visit.

A total of 2,366 fourth-grade students, and 370 teachers and chaperones participated in the program in October 2011. Students scored an average of 34% correct on the pre-test. After participating in the program, students test scores rose to 74.8% correct on the post-test in 2011. Overall teacher evaluation scores averaged 4.72 with 5.00 being the highest score.

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.
2011 funding: \$4,000; 2012 grant: \$4,000

KIDS GROWING WITH GRAINS

FREDERICK COUNTY
EXTENSION ADVISORY
COUNCIL
www.umd.edu

TWELVE PUBLIC ELEMENTARY schools and two private schools had a "field trip of a lifetime" as they participated in this popular program that began over a decade ago. During the spring and fall programs, 2,072 youth and their teachers experienced the opportunity to learn about whole grains in Maryland. 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. Each made a grain jar with five grains grown on the farm. At the corn station, students learned the many uses of corn, everything from grits to gasoline, and made tortillas using masa. The nutrition station explained the health benefits of eating 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 to produce for their needs. Teachers report this is the favorite part of the field trip! Each student received a recipe booklet to prepare whole grain foods at home.

In the classroom, students participated in two activities, Grain Nutrition and Grain Production. Each student learned the function of each ingredient while developing team building skills making a whole grain product. The students completed an ag literacy reading program entitled "Seed, Soil, & Sun" and identified different characteristics of seeds.

2011 funding: \$4,000; 2012 grant: \$4,000

TRI-COUNTY SCHOOL GRAINS EDUCATION PROGRAM

FREDERICK COUNTY
EXTENSION ADVISORY
COUNCIL
www.umd.edu

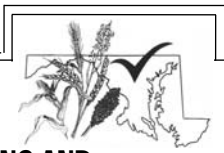
THIS INNOVATIVE PROJECT has expanded to reach high school students in three Maryland school systems - Carroll, Frederick and Howard. The project is a continuation of a 2010 grant, which focused on middle schools. That project was so well received the local school system elected to implement the project in high schools. The project uses a "train the trainer model" to access Family and Consumer Science teachers in 31 high schools. Teachers participated in comprehensive training on whole grains to: 1) learn about the health benefits of whole grain foods to the diet and recommendations for serving sizes based on the new USDA Choose My Plate; 2) sample and evaluate a variety of newly created or reformulated grain based food products available in the marketplace; 3) learn how to read food labels on grain food products to determine nutritional value; 4) become familiar with the "Whole Grain Stamp" voluntary labeling system developed by the Whole Grains Council; and 5) receive teaching resources for the classroom to assist in classroom instruction on nutrition. Teachers have received training and resources including a PowerPoint presentation, USDA Choose My Plate poster and handouts, food label cards for new grain products, student activities and games, and a recipe booklet. These resources aid the teacher in providing grains instruction in their classroom.

2011 funding: \$10,000

CATTLEMAN'S SKILLATHON

MARYLAND CATTLEMEN'S ASSOCIATION

THE 8TH ANNUAL YOUTH SKILL-A-THON CONTEST was held on March 5, 2011 in conjunction with the 24th 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 2011, 159 youth from 14 Maryland counties participated in the Skill-A-Thon contest. The overall competitiveness of the Maryland team sent to the National Contest has increased as a result of the way the Maryland event has been structured and run. In fact, in 2010 the Maryland team placed 4th overall in the National contest and they were Top Team in Quality Assurance, Third Place Team in Identification, and had the contest's Fifth High Individual overall. This was an impressive accomplishment at the National level with Maryland youth competing against teams from 26 states across the U.S. *2011 funding: \$500; 2012 grant: \$500*



Investment in market development ranges from partnering with national organizations for trade to new product development. Through sponsorship of NASCAR, for example, a nationwide audience has seen the racing industry experience in one million miles of use, cleaner burning engines, less engine break-downs, and safer course conditions.

GRAIN PROMOTION AND SUPPORT

MARYLAND GRAIN PRODUCERS ASSOCIATION
www.marylandgrain.com

THE MARYLAND GRAIN Producers Association provides services to the Maryland Grain Producers Utilization Board including representation at meetings to review agriculture issues, managing the scholarship program, hosting the Maryland Commodity Classic, disseminating information through newsletters, media, exhibits, organization website marylandgrain.com, social media, and speakers bureau, conducting social media training, expanding education efforts on grain and agriculture practices, and promoting new grain markets.
2011 funding: \$140,000; 2012 grant: \$140,000

FLEX FUEL AWARENESS CAMPAIGN

CLEAN FUELS FOUNDATION
www.cleanfuelsdc.org

THE GOAL OF THE FLEX FUEL Awareness Campaign is to increase the sales of ethanol by reaching the nine million drivers of flex fuel vehicles (FFVs) and motivating them to use ethanol. A six-state multi-year demonstration program, which includes Maryland, is currently conducting various trial strategies to educate FFV owners on the benefits of using ethanol. For example, hang tags are distributed to flexible fuel vehicle owners, advertising is sent to owners using state databases which show the vehicles that are E85 compatible, ethanol retailers and auto dealerships are targeted to distribute information.
2012 grant: \$19,250

ETHANOL RACING CAR

BUNNY BURKETT
www.bunnyburkett.com

NOTABLE STRIDES have been made with the use of ethanol on the East Coast through the efforts of many, including "Bunny & The Boys Funny Cars" fueled by ethanol. Across the U.S., the number of E85 fueling stations is growing at an accelerated rate and U.S. automakers are manufacturing a larger number of FFVs.

Along with using the ethanol-fueled race cars as attention getters at fair displays, Bunny & Crew hands out literature on ethanol and the many uses of grain. The bright green and yellow Maryland grain bags can be seen in the hands of fairgoers throughout the fairgrounds.

Over 100 days per year are spent on East Coast highways with the ethanol logo prominently displayed on the trailer as the crew travels to televised racing events. Questions about ethanol are answered with facts to help kill the myths about ethanol. Audiences are constantly reminded how ethanol helps reduce America's dependence on foreign oil, and is also environmentally-friendly. Byproducts are also discussed and it is mentioned that new avenues for marketing grain are being created every day. The end result is to help increase grain's value at the farm gate.

2011 funding \$10,500; 2012 grant: \$10,500

E85 MARKETING AND INFRASTRUCTURE DEVELOPMENT

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

IN 2011, 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. Approximately 500,000 gallons of E85 were sold at MGPUB supported stations last year. SESI completed these activities: implemented the U.S. Department of Energy grant to MGPUB supporting E85 development; installed three new E85 stations; installed a replacement dispenser and graphics at the West Street Citgo Station in Annapolis; completed the "Are You Flexible" bus and radio advertising campaign; participated in the FlexFuel Awareness campaign; communicated with Maryland's governor's office, Maryland Energy Administration, Maryland Motor Vehicle Administration and Maryland Department of Agriculture to address key economic barriers for the expansion of E85 in Maryland, primarily splash blending E85 and distribution of FlexFuel announcements; spoke at public outreach events, including Maryland Forward and DC Auto Show; and provided support to station managers, including the promotion of USDA funding for E85 retail stations. In 2012, SESI will oversee the installation of four new retail stations and continue to address technical and economic barriers to E85 sales in Maryland.
2011 funding: \$37,030; 2012 grant: \$30,860



CORN POLICY AND PROMOTION

NATIONAL CORN GROWERS ASSOCIATION

www.ncga.com

WORKING CLOSELY with Maryland grower leaders and the Maryland Grain Producers Utilization Board, the National Corn Growers Association made significant strides in promoting opportunities for corn farmers and protecting those farmers' ability to provide feed, food, fuel and fiber to a growing world. NCGA took the lead in forming a comprehensive, cooperative group that opened up a sorely needed dialogue between the farmers who grow food and the consumers who purchase it.

The U.S. Farmers and Ranchers Alliance has come together to provide answers from farmers, ranchers and other ag producers in the food debate. Over 60 commodity groups participate in the alliance, representing the first time so many ag groups have come together to battle the misinformation confronting consumers' questions about food.

To secure increased public support for ethanol,



NCGA began a partnership with NASCAR when the sport switched to an E-15 blend. This sponsorship has brought with it millions of dollars of media exposure and incredibly positive exposure for ethanol to NASCAR's 80 million fans across the country.

NCGA worked closely with other ag groups, including Maryland growers, to file a lawsuit in federal court in January challenging the legality of the Chesapeake Bay Total Maximum Daily Load (TMDL), including the scientific validity of the computer modeling. Water quality and environmental regulations were two of NCGA's top priorities.

Project work to enhance the image of agriculture includes the Corn Farmers Coalition, where national policy makers are the focus of educational campaigns, and CommonGround, a new educational program to create opportunities for the primary household food buyers to speak with farmers who grow their food.

2011 funding: \$172,050; 2012 grant: \$207,000

EXPORT MARKET DEVELOPMENT AND PROMOTION

U.S. GRAINS COUNCIL

<http://www.grains.org>

THE FIGURES tell the story: exports of agricultural products generate over 25 percent of U.S. farm receipts and last year returned a surplus of more than \$42 billion to the nation's balance of payments. When trade works, the world wins - and U.S. farmers cash the check! As a member of the U.S. Grains Council, which works to open and expand markets around the world for U.S. corn, sorghum, and barley, Maryland grain producers are building a highway to the world for Maryland farmers and agribusinesses. A rising tide lifts all ships. It makes no difference whether an individual farmer's crops ever leave the country. Prices are set at the margins - and in today's world, the marginal customer is likelier every passing day to be in Shanghai or Jakarta or Mexico City.

Another 600 million households, mostly in developing countries, will join the global middle class by 2030. That's the biggest growth market in the world. With 1.3 billion people and the world's fastest growing major economy, China is already the top export customer for U.S. farmers. And with the widening and deepening of the Panama Canal, China and the entire Pacific Rim are about to get a lot closer for exporters in the eastern U.S.

The U.S. Grains Council is a trusted partner in bridging the gap between nations and making America the world's most reliable supplier of grains. 2012 priorities to promote exports of the grains industry include changing policy dynamics as global demand increases with the rising world population and emergence of a new global middle class. USGC provides a market presence for policy and strategic information at ten offices worldwide forming a global network to build markets.

2011 funding: \$50,000; 2012 grant: \$55,000

WHEAT POLICY DEVELOPMENT

NATIONAL ASSOCIATION OF WHEAT GROWERS

www.wheatworld.org

AS A GROWER-GOVERNED and grower-funded organization, the National Association of Wheat Growers (NAWG) works on a wide range of public policy issues. NAWG has spent significant time in 2011 working with key Members of Congress and Administrative officials to address the federal government's dire budget situation and how it will affect the 2012 Farm Bill. Another top priority has been passage of H.R. 872, which clarifies Congressional intent with regards to new and duplicative pesticide permitting requirements. NAWG also has worked extensively to achieve the completion of three long-pending free trade agreements with Colombia, Panama and South Korea; to demonstrate the need for agricultural research investments even in a time of severe budget cuts; and to work against a variety of environmental regulatory proposals that do not account appropriately for the reality of today's farms.

The Wheat Industry Biotech Council (WIBC) is a coalition of organizations working to prepare the way for commercial introduction of biotechnology traits in wheat. WIBC members include the National Association of Wheat Growers Foundation, North American Millers' Association, U.S. Wheat Associates, American Bakers Association and multiple private trait-developer companies. Key activities for the coalition in 2011 have included: 1) following industry discussions about biotechnology regulations and coexistence; 2) beginning the process of developing a coordinated communications and outreach strategy with a communications partner; 3) being a part of the Wheat Summit, which brought together a wide cross-section of wheat industry participants to talk about biotechnology and other issues of mutual concern; and 4) continuing to encourage outreach to the farmer community by grower spokespeople.

2011 funding: \$7,000; 2012 grant: \$9,000



WHEAT EXPORT MARKETS

U.S. WHEAT ASSOCIATES
www.uswheat.org

FUNDED BY AMERICA'S wheat growers, U.S. Wheat Associates (USW) is the export market development organization that supplies information and training to wheat buyers and wheat food manufacturers in more than 100 countries. USW is the only organization promoting the use of Maryland's soft red winter (SRW) wheat in overseas markets. Through trade service, technical assistance, education and consumer promotion activities, USW utilized its funding to help maintain SRW export sales in marketing year 2010/11 (May-June) at more than 2.9 million metric tons, or about 108 million bushels, even in the face of abundant supplies and near record export prices.

For example, as part of its Overseas Varietal Analysis (OVA) program, international millers and bakers test new SRW varieties. Results are used by state wheat commissions to develop recommended variety lists for farmers and set quality targets for U.S. wheat breeders, leading to increased demand for SRW. USW has targeted Latin American cookie, cracker and bread markets to expand SRW sales. In 2010/11, Peru's SRW purchases increased 16%, up to over 3.5 million bushels; sales to Colombia are up 22% compared to the year before; sales to Costa Rica, primarily imported to serve increased cookie and cracker demand, are up 26%. Technical assistance to China's milling group and the Sino-American Baking School are building a preference for SRW and soft white in cakes, cookies/crackers and steamed breads.

Since 2008/09, China has purchased more than 16 million bushels of SRW, a large portion loaded from Atlantic ports. Egypt nearly doubled SRW imports in 2010/11. When the January 2010 earthquake destroyed Haiti's only flour mill, USW ramped up its trade servicing efforts to Dominican Republic millers that are now supplying Haiti. As a result, U.S. sales to the Dominican Republic for 2010/11 were 31% above the year before,

including an 11% increase for SRW to 4.1 million bushels. To achieve such results, USW relies heavily on wheat class performance data in its annual Crop Quality Report. USW uses funding from MG PUB, as well as goods and services, to gather and test SRW samples needed to complete this critical report.

2011 funding: \$28,300; 2012 grant: \$34,600

BARLEY SUPPORT AND MARKET EXPANSION

NATIONAL BARLEY GROWERS ASSOCIATION
www.nationalbarley.com

THE NATIONAL BARLEY Growers Association (NBGA) continued to monitor and influence implementation of 2008 Farm Bill programs while considering priorities for the 2012 Farm Bill in the face of severe federal budget reductions. Crop insurance reform was an ongoing NBGA priority and the most critical component of future farm policy. NBGA successfully worked with RMA to adjust the crop insurance correlation factor used to derive a feed barley price guarantee from .85 to .919 as applied to the CBOT corn futures price. In addition, the new 508(h) process was used for the submission of concepts for alternative insurance products and pricing mechanisms for barley. NBGA supported federal research funding requests established by the National Barley Improvement Committee (NBIC) including increased funding for National Institute of Food and Agriculture (NIFA) and for USDA Agricultural Research Service (ARS) in recognition of the changing dynamics and diminishing support for Congressional earmarks. NBGA supported free trade agreements with South Korea, Panama and Columbia, recognizing their importance in expanding markets for U.S. barley and malt exports. Other federal priorities involved work on several proposed EPA regulations including new CDL requirements for farm trucks; additional permitting requirements for pesticide applications over water; and more stringent standards being proposed for coarse particulate matter or dust.

2011 funding: \$1,518; 2012 grant: \$1,616

MEET YOUR NATIONAL REPRESENTATIVES

Maryland grain farmers are fortunate to have representation on the national level to have input into policy and market development decisions to address the specific needs of farming in Maryland. Your representatives have brought attention to the critical issues dealing with water and soil quality and they have garnered support across the nation for Chesapeake Bay issues. These representatives welcome your comments and input.



NATIONAL CORN GROWERS ASSOCIATION

Chip Bowling
Charles County
Corn Board

U.S. GRAINS COUNCIL

Chip Councell
Talbot County
Director



U.S. WHEAT ASSOCIATES

Jason Scott
Wicomico County
Director

WHEAT FOODS COUNCIL

Jennifer Schmidt
Queen Anne's County
Director



NATIONAL BARLEY IMPROVEMENT COMMITTEE

Bobby Hutchison
Talbot County
Director

Providing farmers with the most up-to-date information on the latest technologies and farm practices based on local growing conditions assists growers in making the best management decisions for crop efficiency and protection of land and water resources.

NITROGEN STABILIZER PRODUCTS FOR CORN AND WHEAT

ROBERT KRATOCHVIL
University of Maryland/Plant Science

SINCE 2008, THE EFFECT that nitrogen stabilizer products (volatilization and nitrification inhibitors) used with sidedress UAN has on corn performance has been evaluated. A natural extension of this work was to evaluate if the stabilizer products influence a succeeding wheat crop.

Following 2010 corn harvest, soil samples were collected (2' depth) to assess residual soil N from all corn treatments at two locations (Poplar Hill and Beltsville). At both sites, 2-4 ppm soil-nitrate was found in the surface foot and 1-3 ppm was found in the second foot. These amounts are very low even for the lighter textured soils at the sites. Neither the stabilizer products nor the rates of fertilizer N applied to the corn had a significant effect on the amount of residual N present in the fall. This outcome was not surprising because both locations received 2-3 times their average precipitation during August and September 2010. With these amounts of precipitation, any residual N that resulted from the stabilizers was likely leached below the surface 2 feet. Wheat was planted into all plots without an application of fall N. All plots were supplied spring N in split applications of UAN at rates of 40 lb N/A (greenup) and 60 lb N/A (jointing). Both locations had poor wheat yield; 48.5 bu/A Poplar Hill and 42 bu/A at Beltsville. There were no significant wheat yield differences among the N stabilizer products across the two sites indicating they had no effect on the succeeding wheat crop.

2011 funding: \$7,500

TIMING FOR WHEAT SPRING NITROGEN

ROBERT KRATOCHVIL
University of Maryland/Plant Science

UNIVERSITY OF MARYLAND Extension recommends that spring N applications be split; the first at "greenup" followed by an application at jointing.

What is "greenup" for a crop 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 Growing Degree Units (GDUs) (Base 32° F) required for three tillers, the number/plant considered sufficient for optimum yield for a good wheat stand.

During the first year of this multi-year study, two varieties were planted at Wye on October 13 and 25 with and without 30 lb fall N. September 2010 rainfall was 7.5 inches, an amount that leached the residual soil N below the root zone the wheat would establish during fall and early winter. Thus, there was a yield response of 4 and 8 bu/A, respectively, for the two plant dates.

The four "greenup" N target dates for application of 40 lb/A were: 1) accumulation of 1200 GDU's (actual dates were February 8 [early wheat] and March 14 [late wheat]); 2) February 1-15 (actual February 8); 3) March 1 (actual March 3); and 4) March 10-20 (actual March 14). The colder than average winter resulted in 1200 GDU's to be reached one and two months later than average for the October 13 and 25 plant dates, respectively. Wheat yield was best when the first spring N application occurred on or before March 3 for both plant dates. For the early wheat, the February 8 application (accumulation of 1200 GDU's) was best. For the late wheat, the March 3 application was best and proved better than waiting for accumulation of 1200 GDUs on March 14.

These first year results indicate that defining "greenup" based on accumulation of GDUs rather than using the date of March 1 for first application of spring N for wheat will be better for crop performance.

2011 funding: \$7,500; 2012 grant: \$7,500

OYSTER RESTORATION

CHESAPEAKE BAY
FOUNDATION

www.cbf.org

BUILDING OYSTER BEDS in the Chesapeake Bay and planting them with millions of seed oysters produced at the Chesapeake Bay Foundation's Maryland Oyster Restoration Center was the focus of this project. The oyster population of the Bay has been estimated to be as low as one percent of its historic size, depriving the Bay system a keystone species in the Bay's ecosystem. Oysters filter the Bay's waters and remove huge quantities of planktonic algae, microscopic plants that are overabundant in the Bay due to excessive nitrogen. Replacing this natural filter is part of the solution to this problem. Funding contributed to the project goal of producing and planting ten million seed oysters and 240 concrete reef balls set with oysters on sanctuary reef sites in Maryland tidal waters.

2011 funding: \$10,000

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

ROBERT KRATOCHVIL
University of Maryland/Plant Science

THIS MULTI-YEAR STUDY investigates the limits of response of modern corn hybrids to various inputs, and assesses agronomic approaches to manage corn production as populations and yields increase. Study 1 looks at corn planted no-till and reduced tillage at five nitrogen rates. Study 2 is a continuation of the comparison of dry and liquid nitrogen sources and additives. Study 3 evaluates several starter fertilizers at different methods of application. Study 4 is a continuation of the poultry manure project evaluating four tillage methods after broiler manure application and before corn planting.

2011 funding: \$5,000; 2012 grant: \$5,000



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

RON MULFORD
Mulford Agronomics

FOUR DETAILED STUDIES are included in this project. Data is under review from 2011.

Study 1 focuses on nitrogen (N) sources available to growers. No-till and minimum tillage wheat followed no-till and conventional corn and soybeans. Emphasis is placed on comparing 17 treatments of N sources and blends of N sources for N efficiency.

In Study 2, the previously funded MGPIB no-till and minimum till wheat study is revised to look at areas of management to improve production efficiency and wheat quality. Some of the same treatments that produced excellent yields and quality in 2009 are being compared to new management systems in 2011. No-till and minimum tillage wheat will be grown after no-till corn and no-till single crop soybeans. Each tillage system will evaluate seven crop management treatments. Low rate fertilizer technology will be compared to standard fertilizer programs. Fertilizer treatments with and without a Fall starter will be included.

Study 3 compares three production systems using six wheat varieties. The systems are: a) single application of 80 lbs./acre of N with no further treatments; b) a higher level of nitrogen with a traditional fungicide program; and c) a management program that consistently produced yields and quality above average in the Coker Seed Breeding program.

Study 4 evaluates wheat planted after one pass with a turbo till implement following corn where different tillage systems were compared following a broadcast application of 2 tons/acre of broiler manure.

2011 funding: \$4,000; 2012 grant: \$4,000

CROPPING SYSTEMS EFFECTS ON SOIL PHOSPHOROUS

ROBERT KRATOCHVIL
University of Maryland/Plant Science

THE OBJECTIVE of this project was to summarize the data that has been collected from a long-term study comparing changes in soil phosphorus (P) concentration attained using forage based cropping systems compared with the changes in soil P attained with a typical grain based cropping system.

In 2001, baseline soil P concentrations were determined for five distinctly different P treatment levels that had been established using poultry or dairy manure applications during the mid-90's. The baseline measurements determined that the range of soil P concentration was between optimum (50-100 ppm) and extremely high (350-450 ppm). Soil P has been measured every two years since the onset of the study. This data summary has revealed:

- ✓ Exceptionally high soil P sites will likely require 20-40 years, or more, of crop production with no manure or fertilizer P use before they will return to optimum soil P concentrations.
- ✓ In general, a forage cropping system will reduce the soil P concentration at a faster rate than a grain cropping system.
- ✓ The inclusion of alfalfa in the forage rotation will increase the rate of soil P reduction.
- ✓ All crop species evaluated in this study (corn, wheat, soybean, rye silage, corn silage, and alfalfa) exhibited luxury consumption of P (10-15% higher concentrations) when the soil P levels were exceptionally high.

2011 funding: \$5,000

ESTABLISHING SMALL GRAINS WITH VERTICAL TILLAGE

ROBERT KRATOCHVIL
University of Maryland/Plant Science

WHEAT AND BARLEY for grain production are annually planted on ~250,000 acres in Maryland. Traditionally, these crops have been planted with a no-till drill which when properly set up can place the seed into the soil at a depth considered optimum for good establishment.

During the past couple years, a number of farmers have opted to broadcast the seed followed by incorporation using vertical tillage. Farmers who use this technique state they can plant the small grain faster and with less expense compared to using the no-till drill. Since vertical tillage does not disturb the soil as aggressively as a chisel plow or disk, it also does not place some of the seed so deeply in the soil to impact stand establishment. However, what it may do is place a considerable amount of the seed at a depth that is too shallow for good stand establishment, particularly when planting into heavy corn residue.

The objective of this project is to compare wheat and barley planted with vertical tillage with their performance when planted with a grain drill. The study commenced during fall 2011 with establishment of plots at three sites, two with corn stalks and one with soybean residue. Stand assessments during late fall confirmed good stands at the three sites. The first year of this research will conclude with the grain harvest from these plots during 2012.

2011 funding: \$5,000; 2012 grant: \$7,500

www.mdcrops.umd.edu

The cropping Systems Research and Extension website at the University of Maryland offers growers an extensive resource with local research categorized in the following areas:

Corn | Soybeans | Small Grains | Nutrient Management

In addition, catch up on the latest news through issues of:

Mid-Atlantic Agronomists Newsletter | UM Extension Agronomy News

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

CARL GRIFFEY

Virginia Polytechnical Institute

THE BARLEY BREEDING program develops and improves yield potential and end use quality of new barley lines derived from crosses made between superior hulled breeding lines and cultivars, such as Thoroughbred, with outstanding hulless lines. Significant progress has been made in the development of winter barley lines with potential for use in multiple end-use markets.

'Atlantic' winter barley (tested as VA06B-19) was officially released in spring of 2011. Atlantic winter barley provides producers and end users with a widely adapted, early maturing winter cultivar having superior grain quality and high resistance to powdery mildew, based on its performance in state and uniform winter barley yield nurseries. Last season (2010-2011), approximately 71 advance barley lines were evaluated in replicated yield tests at locations in Kentucky, Maryland, Virginia, North Carolina, and Delaware. Subsequently, yield potential of 75 hulled and 75 hulless sister lines derived from crosses between Thoroughbred and other advance hulless barley lines were evaluated in an observation yield test. Potential for barley-based ethanol production continues to provide opportunity for a new market for winter barley in eastern U.S. It also can provide valuable feed ingredients for domestic animals and eventually for enriched food products for human consumption.

State Variety Trials: In 2010-11, the hulless state test contained 23 entries (3 released cultivars and 20 experimental lines) planted at six locations in Virginia. The highest yielding entry was the white seeded experimental line VA07H-31 with an average of 95 bu/ac. The highest yielding released cultivar was Eve which had an average of 87 bu/ac. The released cultivar Dan had the highest test weight average of 59.4 lb/bu. Three year average (2009, 2010 and 2011) grain yield for

Doyce hulless barley in Virginia was 66 bu/ac with test weight of 53.5 lb/bu. Grain yield of Eve was 69 bu/ac and Dan averaged 67 bu/ac. In addition, Dan had the highest average test weight of 58.7 lb/bu. Meanwhile, elite hulless experimental line VA07H-31 had the highest three-year average grain yield of 78 bu/ac.

Subsequently, in 2010-11 the hulled state test contained 28 entries (4 released cultivars and 24 experimental lines) planted at six locations. The highest yielding entry was the experimental line VA08B-85 with an average of 116 bu/ac. Thoroughbred was the highest yielding released cultivar with an average of 108 bu/ac. The entry with highest test weight was VA09B-34 with an average test weight of 48.3 lb/bu. Three-year average (2009-2011) grain yield of Thoroughbred hulled barley was 97 bu/ac with average test weight of 45.2 lb/bu compared to the mean yield of 93 bu/ac and test weight of 45.9 lb/bu for the mean of all cultivars tested. The three-year average grain yield of Atlantic (93 bu/ac) was 4 bu/ac less than Thoroughbred, 2 bu/ac higher than Callao (91 bu/ac), similar to test average (93 bu/ac) and significantly higher than Price (85 bu/ac). Hulled experimental line VA06B-48 had the highest three-year average grain yield of 98 bu/ac. Though three-year average grain yields of Atlantic were 4 bu/ac lower than Thoroughbred, average test weight of Atlantic (46.0 lb/bu) was 0.8 lb/bu higher than Thoroughbred. Atlantic also possesses better resistance to leaf rust and powdery mildew.

Diseases: In the spring of 2011, the most prevalent diseases in Virginia state barley trials were leaf rust, powdery mildew and net blotch. Severity was rated on a scale from 0-9 with 0 being no symptoms present and 9 being near total leaf coverage.

In the hulless barley state test over-locations, leaf rust rated an average of 5, powdery mildew rated an average of 4 and net blotch rated an average of 3. In the hulled barley state test, leaf rust rated an average of 4 and net blotch rated an average of 3. Severity of powdery mildew in the hulled barley was low to moderate. *2011 funding: \$10,000; 2012 grant: \$5,000*

ENHANCING MARYLAND GROWN SOFT WHEAT CONSUMPTION

LIANGLI YU

University of Maryland/Nutrition and Food Science

THIS RESEARCH was to promote the production and consumption of value-added Maryland-grown soft wheat varieties for disease prevention and health promotion. The results of this project has demonstrated antioxidant capacities, as well as anti-cancer potential of Maryland grown soft wheat and differences in health properties among these varieties grown in different locations in Maryland. This research generated several research publications and enhanced the educations at both graduate and undergraduate levels.

2011 funding: \$18,000

NORTH AMERICAN BARLEY WORKERS RESEARCH WORKSHOP/WINTER BARLEY BREEDING PROGRAM

OREGON STATE UNIVERSITY

FEATURED AT THE 20TH North American Barley Workers Research Workshop, the Winter Barley Breeding Program included topics of barley foods and beverages, and provided information useful to a range of participants. The workshop featured presentations on the latest in barley research, tours of Oregon State University field plots, pilot malthouse/brewery, and pilot bakery, and samplings of barley-based foods and beverages.

2011 funding: \$500



Talk to the professionals behind the research at the Commodity Classic on July 26, 2012. See details on page 20.



NITROGEN FERTILIZER RATE AND CORN HYBRID PERFORMANCE

ROBERT KRATOCHVIL
University of Maryland/Plant Science

DO STACKED TRAIT HYBRIDS provide improved utilization efficiency for nitrogen?

There was no evidence attained in this study that Triple Stack and SmartStax hybrids provide improved nitrogen utilization. The results from this research did indicate that hybrids with Bt trait for European corn borer resistance and herbicide (Roundup and/or Liberty-Link) tolerance were able to utilize nitrogen more efficiently when grown on a soil type that is more prone to drought stress (i.e. sandy loam soil).

IS IT ECONOMICAL to apply enough nitrogen to reach the agronomic optimum nitrogen rate (AONR)?

The AONR for the two soil types used in this study was 197 lb N/acre (sandy loam soil) and 209 lb N/acre (silt loam soil). It was not economical for either soil type to apply the AONR.

IS THE 1 LB N/BU YIELD GOAL "rule of thumb" for estimating corn N rate a sound, economical practice?

The yield goals for the two soil types in this study were 125 bu/acre (sandy loam) and 160 bu/acre (silt loam). For both soil types the 1 lb N/bu yield goal estimate attained economical yield, however, for both soil types, this "rule of thumb" method slightly underestimated both the agronomic and economic potential.

DID THIS RESEARCH INDICATE that a modification to the "rule of thumb" 1 lb N/bu yield goal method is needed?

YES. It was observed that for the sandy loam soil used in this study, 98% of the agronomic maximum yield was attained when the N rate was estimated using 1.2 lb N/bu yield goal. And, for the silt loam soil, 98% of the agronomic maximum yield was reached using 1.1 lb N/bu yield goal.

2011 funding: \$7,500

CEREAL COVER CROPS SEEDING RATES

ROBERT KRATOCHVIL
University of Maryland/Plant Science

MARYLAND'S COVER CROP Program is viewed as the most successful water quality improvement program in the Chesapeake Bay region. Program recommended seeding rates for cereals are volume based: rye and wheat (2 bu/acre) and barley (2½ bu/acre). However, there is no field-tested data that indicate if these volume rates should be the standard for each species, and no information as to what is considered an adequate stand.

One year of research indicates that the seeding rates for cereal cover crops can be less than the volume rates described by the regulations.

✓ This research indicates that seeding rates for the cover crop program should be defined as seeds/ft² rather than as volume rates because seeds/ft² accounts for seed size differences among and within species.

✓ When compared to their volume rates, 30 seeds/ft² (rye), 20 seeds/ft² (wheat), and 24 seeds/ft² (barley) consumed comparable amounts of nitrogen.

✓ Previous research funded by MGPIB has shown that for best performance planting of cover crops should include a tillage practice that incorporates the seed into the soil, i.e. planting with a grain drill or broadcasting seed followed by incorporation with a disk or vertical tillage implement.

2011 funding: \$7,500

NITROGEN AND PHOSPHOROUS FERTILIZATION ON A LONG-TERM NO-TILL CORN, SOYBEAN, WHEAT ROTATION

MARK REITER
Virginia Polytechnical Institute/Crop & Soil Environmental Sciences

NO-TILLED wheat, corn, and soybean rotations are commonplace in the Mid-Atlantic region and have evolved into continuous conservation tillage systems. Continuous no-tillage is a best management practice for soil and nutrient conservation but comes with its own problems, such as nutrient stratification. Similarly, poultry litter (PL) amended with alum is a best management strategy to mitigate phosphorus (P) issues in runoff, but crop P availability is unknown over long periods of time.

A study on a Delmarva Bojac sandy loam was initiated to test long-term soil nutrient reactions. Results over time verify that PL significantly increases soil test concentrations and is a valuable fertilizer source. However, it is not clear how long it will take to reduce high soil P in Delmarva soils or when alum bound P will be available for crop uptake. More research needs to be conducted using Delmarva cropping rotations and soils to fully understand nutrient management in long-term conservation tillage systems.

Photo: wheat and corn for a long-term corn-wheat-soybean-fallow-corn no-tillage rotation on a Bojac sandy loam soil on the Delmarva Peninsula receiving various inorganic and organic fertilizer treatments. 2011 funding: \$4,000



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 Maryland field corn 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 the trials conducted in 2011, gray leaf spot developed at all three locations. At the Wye and Beltsville, the ear leaf disease severity was 4.5 and 4.2% about 5 to 5.5 weeks after tassel; whereas at Keedysville it reached 5.5% by 6 weeks after tassel. Accordingly, the yield response from the best fungicide treatment increased as the disease pressure went up across sites and only at the highest pressure at Keedysville was the response significant. Here, Headline SC at 6 fl oz/A produced on average 12 bu/A more than the untreated control.

Progress has been made toward the goal of getting a more universally useful measure of disease impact on yield. This metric will help us devise better thresholds for determining when fungicide is likely to produce an economic return. Further analyses are being conducted at this time.

2011 funding: \$11,250; 2012 grant: \$11,250

FALLING NUMBER RESEARCH ON WHEAT

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

THIS PROJECT evaluates the level of resistance or susceptibility to field pre-harvest sprouting, measured by the Falling Number test,

among varieties of soft red winter wheat currently grown in Maryland. This test is used by grain buyers to determine the baking quality of the grain. This information is valuable for Maryland producers to aid in the planting choice of varieties of soft red winter wheat available to Maryland wheat growers.

Alpha-amylase is an enzyme found in sprout-damaged wheat. If germination occurs before harvest there is a dramatic increase of this enzyme. The Falling Number test is the time in seconds for a plunger to fall through a hot slurry of ground wheat. The greater the amount of alpha-amylase in the wheat, the thinner the gelatinized starch paste and the faster the plunger will fall through the slurry. A high Falling Number or the longer it takes the plunger to fall, indicates the wheat is sound and satisfactory for most baking processes. Wheat grain with a score below 250 is discounted by many grain buyers. Snyder's of Hanover requires a minimum of 275 for pretzel manufacturing.

The Falling Number test is currently being conducted with samples of soft red winter wheat from the 2011 Maryland state variety test harvested at Quantico. In 2011, conditions for harvest were relatively dry and thus there were no locations that were exposed to field sprouting at harvest time. Samples were taken at the normal "early" harvest time and again 40 days after that normal "late" harvest so they would be exposed to weathering and sprouting. Falling Number tests are being conducted on all samples at the USDA-ARS, Soft Wheat Quality Laboratory in Wooster (OH). Results will be available in early 2012.

Detailed results were reported in 2010 with the combined 2009 and 2010 data for Falling Number and alpha-amylase. After exposure to weathering some cultivars still had relatively high Falling Number values (good quality and most resistant to pre-harvest sprouting), including Coker 9553 and McCormick. Those with low Falling Number values after weathering were: Pioneer 25R62, Chesapeake, SS520, and USG3592. These were among the least resistant to pre-harvest sprouting.

2011 funding: \$4,000 2012 grant: \$4,000

DOE HARVEST INCENTIVE PROGRAM

KURT FUCHS

Maryland Farm Bureau

IN AN EFFORT to reduce crop damage due to deer and improve yields while simultaneously helping support the less fortunate in their communities, the 2011 Doe Harvest Challenge (DHC) was conducted to reduce the overpopulation of white-tailed deer. Beginning on opening day of bow season on the Mid-Shore and in Southern Maryland, 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 valued at \$500. FHFH received a donation to offset the processing cost. The program was split into five, three-week cycles with drawings taking place at the end of each cycle. Hunters were able to enter as many times as they donated a doe and winners of previous cycles remained eligible for participation in future drawings. Grand prize winners receiving prizes drawn in each region. A total of \$7,000 in prizes was awarded.

2011 funding: \$60,000; 2012 grant: \$60,000 2012 will see the addition of a third region, North Central, to include Carroll and Frederick Counties, plus the addition of Wicomico to the Mid-Shore region.

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

JOHN TOOKER

Pennsylvania State University

VIABLE ALTERNATIVE TACTICS for managing slugs in no-till corn, soybean, and small grain acreage is the goal of this two-year project. Research will be conducted to understand the influence of various cover crops and types of mechanical control on slug populations and damage to grain crops. Also to be explored is the potential of common natural enemy species (e.g., ground beetles, harvestmen, spiders, etc.) to kill slugs, and potentially contribute to slug population control.

2011 funding: \$13,700; 2012 grant: 12,892



EFFECT OF FUNGICIDE AND INSECTICIDE APPLICATIONS ON YIELD, APHID AND BENEFICIAL ORGANISMS IN WHEAT

CERRUTI HOOKS
University of Maryland/Entomology

IN 2011, FIELD STUDIES were conducted at the University of Maryland CMREC, Beltsville and Upper Marlboro Research Facility with the objective to: 1) determine whether the applications of systemic fungicides (Tilt® and Headline®) or a broad spectrum insecticide impact insect pests of wheat and their associated natural enemies, 2) determine if the addition of Tilt®, Headline®, or Warrior® insecticide provide a yield benefit to wheat, and 3) determine the economic feasibility of using Tilt®, Headline®, or Warrior®.

Main insect pests encountered at the study sites were cereal aphids and the cereal leaf beetle (CLB). Natural enemies kept aphid populations from reaching threshold densities in all treatments. Injury to flag leaves caused by CLB feeding was greatest in no spray (check) treatment plots. Wheat diseases confirmed at the study sites included tan spot and yellow leaf spot. Symptoms of leaf spots on flag leaves were lowest in fungicide treated plots and highest in Warrior® treatment.

The use of Headline®, Warrior®, or Tilt® did not result in a yield increase compared to the check treatment plots at either site. It is believed that to see a yield increase from using these products would require much higher disease and/or insect pressure. Another objective was to determine whether the applications of systemic fungicides or a broad spectrum insecticide impact predators of aphids. Samples from the 2011 field study are still being counted. However, it was apparent from the 2009 study that predators were noticeably reduced after Warrior® was applied. In addition, the fungicides did not appear to have any impact on predator populations. This suggests that if broad spectrum insecticides are applied early in the season, they could potentially interfere with natural enemies' ability to suppress aphid populations.

2011 funding: \$7,500

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 and thus no early treatments had an effect on yield. Only a fungicide applied at heading 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 the potential of flag and heading fungicide applications to increase vomitoxin in wheat when scab develops later in the season. Several products produced elevated vomitoxin levels but statistically only one unregistered product had levels significantly higher than the control. Only the recommended triazoles and one new but not yet registered triazole combination reduced vomitoxin levels significantly and only when applied at flowering or shortly after.

2011 funding: \$9,800; 2012 grant: \$12,000

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

CERRUTI HOOKS
University of Maryland/Entomology

COVER CROPS may provide long-term advantages to crop lands such as improving soil health through enhancement of beneficial soil organisms. In 2011, a field study was conducted at the Beltsville Research Facility. Objectives included determining the effects of cover crops on: 1) soil organisms involved in nutrient cycling, 2) crop nitrogen content, 3) soil insect pests, 4) rate of egg parasitization and predation for the brown marmorated stink bug (BMSB) eggs, and 5) corn productivity and grain yield. Treatments included corn planted into rye, crimson clover, rye + crimson clover mix, or no-cover crop (check).

Cover crop biomass was greatest in the rye + crimson clover mix. Findings from year one show the Nematode enrichment index was significantly greater in rye and rye + crimson clover mix than the check. This indicates that these plots were more nutrient rich than the check. Soil mite populations were also greater in corn after cover crops than check plots in 2011, suggesting a healthier soil environment. Corn plants in the rye plots had higher nitrogen (N) readings compared to plants in crimson clover plots at 45 and 60 days after planting and the pooled cover crop treatments had higher N readings than the check treatment. The amount of soil NH⁴-N and NO³-N was significantly greater in the pooled cover crop compared to the check treatment by late season. Wire worm and slug populations were low in all plots and a high percentage of BMSB eggs were attacked by natural enemies, with the highest due to parasitization in plots containing rye. Mortality caused by parasitic wasps was 72.5 and 69.7% in rye + crimson clover and rye treatment plots respectively. Highest percentage of mortality caused by predators occurred in the check and crimson clover treatment plots. Corn yield was highest in the rye plot but did not differ among treatments.

2011 funding: \$11,855; 2012 grant: 15,000

BROWN MARMORATED STINK BUG AND LEAFFOOTED BUG IN CORN FIELDS AND IMPACT ON GRAIN YIELD AND QUALITY

CERRUTI HOOKS

University of Maryland/Entomology

OBJECTIVES OF THIS STUDY included establishing economic injury levels for the brown marmorated stink bug (BMSB) and leaf footed bug (LFB) to developing corn ears and describing the spatial distribution of the BMSB within corn fields, and developing more efficient scouting and treatment programs for field corn. The interest in examining the LFB occurred because a preliminary experiment using sweet corn as the test plant demonstrated that the LFB cause similar damage to corn ears as the BMSB. However, LFB populations were too low in 2011 to evaluate their impact on field corn. If populations return in 2012, their impact will be evaluated. Field trials were conducted to evaluate injury inflicted to corn by various BMSB densities. This data is currently being analyzed.

Another objective was to determine how farmscape features surrounding a corn field impact BMSB population in corn fields. Indigenous and BMSB counts were pooled. Surveys were conducted in corn plantings neighboring other crops, roadways, buildings, and woodlots. Data showed that fields neighboring buildings had higher levels than fields bordering roadways, other crops and woodlots. Corn fields bordering woodlots and crops had similar levels and fields bordering roadways contained the lowest populations.

The highest number of stink bugs per corn plant was found at the field periphery. Similar numbers were found at 5, 10, 15, and 20 feet within the fields' interior. Their numbers started to decline at 40 feet within the fields' interior. Although fields neighboring buildings had the highest number of stink bugs per plant, they were not found beyond 15 feet from the fields' edge and were not found beyond 40 feet in the interior of corn field bordering roadways. This indicates that scouting within the first 20 feet will provide an adequate assessment of stink bug density.

2011 funding: \$18,000

EXAMINING IMPACT OF COVER CROPS AND OTHER PLANTS ON BEHAVIOR AND HATCHING BEHAVIOR OF ROOT-KNOT NEMATODES

CERRUTI HOOKS

University of Maryland/Entomology

INITIAL DATA indicate that crimson clover may enhance root-knot nematodes (RKN) by serving as a host but rye appears to be suppressive. Also evaluated was nematode behavior and development to determine how stable peptides are in their systems and whether they can be exploited for their control. Three peptides were tested by monitoring their digestion in RKN extracts. It was found that two peptides were nearly twice as stable in the soybean cyst nematodes compared to RKN. This information suggests that peptides can be used to design analogs disrupted to nematode development. The laboratory and field activities described are continuing in other research by Cerruti Hooks.

2011 funding: \$7,000

MANAGEMENT/CONTROL OF SLUGS IN PROBLEM FIELDS OF NO-TILL AND MINIMUM TILLAGE CORN

RON MULFORD

Mulford Agronomics

THE PROJECT GOAL is to evaluate various management methods of slug control during the early growth stages of no-till corn so that the young corn plant can emerge from the soil and develop beyond damage from slugs. Testing in central Maryland showed that there is more of a problem in soils during extended cool, moist periods. Reduced tillage on heavier soils with good cover, such as chickweed or a cereal cover crop, seem to show more of a problem. Those using some type of animal manure, left on the soil surface, may have more of a problem than those not using manure. Slugs are less of a problem when the soil surface is dry with clear, warm days. Drying winds from the Northwest and Southwest at moderate velocity seems to keep the populations down. Testing will be expanded for 2012.

2011 funding: \$5,000; 2012 grant: \$12,011

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

GALEN DIVELY

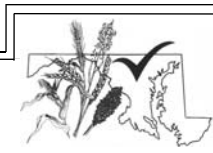
University of Maryland/Entomology

MARYLAND CORN HYBRID performance tests are conducted each year to provide unbiased estimates of yield and other agronomic characters of hybrid seed corn sold in the state. The seed corn industry continues to introduce new Bt hybrids with combinations of genes that vary widely in insect control efficacy. Working in collaboration with Dr. Kratochvil, this project evaluated the insect damage in hybrids with single and multiple gene combinations.

The Agrisure Viptera trait expressing Vip3A + Cry1Ab proteins consistently provided the highest level of ear protection, followed by Genuity SmartStax and Genuity VT Pro hybrids, which both express Cry1A.105 + Cry2Ab proteins. All single gene hybrids had higher levels of ear damage, with Herculex hybrids showing slightly more kernel injury. Yields of the non-Bt hybrids pooled over all farms were significantly lower by 10 to 20 bushels/acre. SmartStax hybrids yielded significantly lower than VT Pro hybrids and single gene events. European corn borer damage varied among non-Bt hybrids and farm locations, but was well below historical injury levels reported before adoption of Bt corn.

This study demonstrated that ear protection was significantly improved in hybrids expressing multiple Bt proteins but there was little or no yield gain resulting from this protection. Some hybrids with single Bt genes actually yielded better than the stacked hybrids, despite the fact that they had more kernel injury. Non-Bt hybrids consistently yielded lower, but this was not entirely due to kernel losses and plant stress from stalk injury. This information is used in extension outreach activities to inform growers and crop advisors about the insect resistance benefits of different Bt stacked events.

2011 funding: \$5,020; 2012 grant: \$5,020



GENETIC IMPROVEMENT AND TESTING OF SMALL GRAINS FOR MARYLAND

JOSÉ COSTA

University of Maryland/Plant Science

SEED OF CHESAPEAKE, a Maryland-bred soft red winter wheat variety with high test weight and powdery mildew resistance, is widely available to growers and it is still performing well. A new hulled barley line (MD02B27-08-16HD) is being increased for release in 2012 (200 pounds of breeder seed were planted in the fall of 2011) in Queenstown at the Wye Research and Education Center (WREC). MD02B27-08-16HD is a hulled bearded barley line, with high grain yield, high test weight, is resistant to leaf rust and powdery mildew, and is five days earlier than Thoroughbred. Additionally, a new hulless barley line (MD02B27-08-10HS) is also being increased for potential release in 2012 at WREC. MD02B27-08-10HS is a bearded, hulless barley line, with similar grain yield but higher test weight than Doyce and with better powdery mildew resistance. Both barley lines are being tested in regional trials in 2011/2012.

A new soft red winter wheat line (MD00W16-07-12) is being increased at WREC for potential release in 2012. MD00W16-07-12 is an early growing winter wheat line with excellent biomass productivity early in the growing season and with excellent potential as an improved cover crop. Furthermore, 20 new promising soft red winter wheat lines are being tested across Maryland, Virginia, Kentucky and North Carolina.

A backcross program, aided with DNA markers, is being used to produce scab-resistant varieties. Several resistant lines (over 400) are being tested in 2011/2012 in a misted and artificially scab-inoculated nursery in Salisbury at the Lower Eastern Shore Research and Education Center. Additionally, these lines are being tested for grain yield potential and quality at WREC and at the Central Maryland Research and Education Center in Clarksville. One soft red winter wheat line (MD03W61-09-7) with high grain yield, good baking quality and containing

the Fhb1 scab resistance gene, has been selected from this program and is being evaluated for potential release in 2013.

This grant also supported yield testing of current varieties and new lines of winter wheat and winter barley, including private and public experimental lines and varieties available for planting in Maryland. This information and updates were timely posted in July 2011 with detailed information on the websites located at www.mdcrops.umd.edu.

2011 funding: \$26,000; 2012 grant: \$29,000

STATE CORN TEST: BENCHMARK HYBRIDS

ROBERT KRATOCHVIL
University of Maryland/Plant Science

BEGINNING IN 2001 and every year since, 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 2011, nine benchmark hybrids were included in the three maturity group tests conducted at five Maryland locations. Of those nine hybrids, four represented Pioneer, three represented Dekalb, and two represented Augusta Seed brands. The 103 hybrids tested ranged the spectrum of genetic technology currently available; from conventional (non-GM) to SMART STAX.

Corn performance during 2011 was impacted significantly by the summer drought that varied in severity across the state. Average yield was 139 bu/acre; very similar to the 137 bu/acre attained in 2010 but nearly a 30% reduction from the near record yield attained in 2009.

The complete 2011 report (Agronomy Facts No. 54) as well as reports from previous years can be reviewed by visiting www.mdcrops.umd.edu.

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

NEW RESEARCH FUNDING

PENNSYLVANIA STATE UNIVERSITY

The role of insecticidal seed treatments will be assessed in herbivore-predator interactions.

2012 grant: \$8,640

UNIVERSITY OF MARYLAND EXTENSION, WESTERN REGION
Various options for using grain to improve goat carcass quality and value will be evaluated.

2012 grant: \$8,985

UNIVERSITY OF MARYLAND/ ENVIRONMENTAL SCIENCE AND TECHNOLOGY

Sulfur deficiency in corn production will be detected and corrected to improve overall nutrient use efficiency and corn yields.

2012 grant: \$29,000

UNIVERSITY OF MARYLAND/ PLANT SCIENCE

This study compares corn production based on various nitrogen rates.

2012 grant: \$15,000

UNIVERSITY OF MARYLAND/ PLANT SCIENCE

The benefits of interseeding commodity wheat into forage radish will be assessed.

2012 grant: \$5,000

UNIVERSITY OF MARYLAND/ PLANT SCIENCE

A comparison will be evaluated of corn produced with various Best Management Practices and corn yield.

2012 grant: \$10,000

OYSTER RECOVERY PARTNERSHIP

This project increases the population of oysters to increase water filtration in the Chesapeake Bay.

2012 grant: \$15,000

UNIVERSITY OF MARYLAND/ ENVIRONMENTAL SCIENCE AND TECHNOLOGY

Management techniques will be evaluated to improve the efficiency of Nitrogen use in Maryland.

2012 grant: \$25,000

For details, visit www.MarylandGrain.com

STABLER FAMILY JOINS MARYLAND AGRICULTURE HALL OF FAME

Bob and Drew Stabler of Montgomery County are the latest inductees into the Maryland Agriculture Hall of Fame. The Stabler brothers began farming with their father in 1958, building their grain and cattle farm into a 4,000 acre operation. The Stablers have consistently embraced new technology and best management practices. They were among the early adopters of no-tillage technology in the 1970s; installed critical areas and waterways when needed; and have constructed fertilizer and pesticide loading and containment structures as well as animal waste systems. Both have been active in leadership roles of many organizations for agriculture. Drew is a founding member of MGPA and has served as Treasurer since 1982.

DOUG TREGONING RECIPIENT OF MGPA MILLER AWARD

The Maryland Grain Producers Association (MGPA) awarded its prestigious Dr. James R. Miller award to Doug Tregoning of Montgomery County. Established in 1988, this award recognizes a professional, non-grower for his or her contributing to the grain industry. Doug was an Extension Agent for the University of Maryland Extension from 1980 to his retirement in 2011. His educational programs focused on grain marketing, farm management, agronomic crops and public outreach education. Doug was instrumental in developing the County Grain Marketing Club. A brainstorm of Doug's, the popular fourth grade field trips, "Close Encounter with Agriculture", educated tens of thousands of students, as well as the cable program he created, "Rural Montgomery County", which brought agricultural issues to homes in Maryland. Doug leaves a legacy of programs and achievements that will provide benefits for years to come.

MGPUB AWARDS \$16,000 IN SCHOLARSHIPS



MGPUB President Marion Wilson with scholarship recipients Carissa Doody, Abbey Linthicum and Tracey Forsythe.

The Maryland Grain Producers Utilization Board (MGPUB) awarded \$4,000 scholarships to Carissa Doody, Tracey Forsythe, Abbey Linthicum, and Wes Miller for the 2011-2012 academic year to support their interest in pursuing careers in agriculture.

"It is critical that we invest in the education of youth to ensure qualified professionals as our industry advances," states Marion Wilson, President of MGPUB. "These exceptional students will be an asset to our industry."

Carissa Doody is pursuing a career as a large-animal veterinary practitioner or to conduct research for the dairy industry.

Carissa is a graduate of Linganore High and is attending Virginia Tech.

Abbey Linthicum is a graduate of Damascus High, and comes from a multi-grain farm that was established in 1828. Abbey, an agricultural education major at Montgomery College, wants to share her knowledge and passion for agriculture as a high school teacher and FFA advisor.

Tracey Forsythe is in her second year at Delaware Valley College. A graduate of Williamsport High, Tracey would like work for a business in the agriculture field, and hopes to return to her roots and own a dairy heifer and calf operation.

A graduate of Rising Sun High, Wes Miller is an animal science major attending Penn State. Wes plans to return to the family dairy and grain farm as the sixth generation to operate the farm. He wants to improve efficiencies and profitability, through value-added production.

Applications for 2012-13 scholarships are due June 1st. For details, visit www.marylandgrain.com.

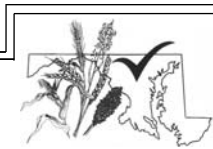


MARYLAND STATE CORN YIELD RESULTS

Despite the challenging weather conditions that plagued farmers in 2011, entrants in the National Corn Growers Association annual National Corn Yield Contest continued to far surpass the national average corn yield. The 18 winners in six production categories had verified yields averaging more than 213.107 bushels per acre, compared to the projected average of 146.7 bushels. Maryland's John Rigdon of Jarrettsville received third place nationally in the No-Till/Strip Till Non-Irrigated category.

"While this contest provides individual growers a chance for good-natured competition with their peers, it also advances farming as a whole," said Dean Taylor, chair of the Production and Stewardship Action Team. "The techniques and practices contest winners develop provide the basis for widely used advances that benefit the industry."

	PRODUCER	HYBRID	YIELD
Irrigated	Mica Farms, Church Hill	Pioneer 33N58	299.3601
	Marion Wilson, Centreville	DEKALB DKC62-97	245.7992
	Labrador Acres, Church Hill	Pioneer P1184AM1	240.2908
Non-Irrigated	Winona Farm, Queenstown	Seed Consultants SCS 11HQ38	206.9197
	Jarod Smith, Monkton	Mid-Atlantic Seeds MA8088VT3	201.4378
	Gregory Dell, Westminster	Channel 212-45STX	198.7038
No-Till/Strip Till Irrigated	Michael Bostic, Church Hill	Pioneer P1184AM1	293.7607
	Sage Baker, Vienna	Pioneer 33D49	265.8543
	Tuckahoe Farms, Denton	Channel 214-14VT3P	256.3100
No-Till/Strip Till Non-Irrigated	John Rigdon, Jarrettsville	Pioneer P1395XR	285.4936
	Indian Spring Farm, Darlington	Mid-Atlantic Seeds MA8143VT3P	213.2006
	Gary King, Princess Anne	Pioneer P1184HR	191.9537



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

MGPA - THE GRAIN FARMER'S ORGANIZATION

If you raise grain, the Maryland Grain Producers Association is YOUR organization. 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 on the form below, and you get the additional benefits of:

- ◆ **COMPLIMENTARY TICKET TO MARYLAND COMMODITY CLASSIC**
- ◆ **EXCELLENCE IN AG COLLEGE SCHOLARSHIPS**
- ◆ **NASCAR Exclusives**
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- ◆ **X-PLAN Discount on Ford, Lincoln, Mercury, Mazda and Volvo**

Details will be provided upon receipt of membership form.

MGPA MEMBERSHIP FEE TRANSFER FORM

MGPA represents grain farmers in legislative and policy issues, conducts educational activities, and provides farmers pertinent information from the MG P U B state checkoff board and affiliated national associations for corn, wheat, barley and international trade.

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 P U B. 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 P U B, 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 _____



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Mark your Calendar!

**Thursday,
July 26, 2012**



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

Join us for the premier event of the year for all grain producers. The Commodity Classic provides the opportunity to learn about products and methods to increase farm profitability, and network with industry leaders and top producers. Featured speakers this year are Al Pell, Farm Director for AgDay Television and U.S. Farm Report, and Dave Hula, the National Corn Yield Contest winner.

FOR INFORMATION, CONTACT:

Maryland Grain Producers Association
53 Slama Road, Edgewater, MD 21037
Tel: 410-956-5771
Fax: 410-956-0161
Email: lynnehoot@aol.com

The Maryland Grain Producers Association, Maryland Grain Producers Utilization Board, Maryland Soybean Board and Mid-Atlantic Soybean Association would like to recognize and thank the generous sponsors of the 2011 *Commodity Classic*:

- | | |
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