

Sampler

Maryland Soybean Board Newsletter - Winter 2007

Two new varieties poised for release

State program, Schillinger may advance new beans

A new low linolenic soybean variety could emerge this coming spring from Dr. Bill Kenworthy's University of Maryland breeding program.

Kenworthy says that he is considering the public release of a variety known at this stage of development as MdWN 79. The mid-to-late-group 4 variety, he said, which has progressed into national testing, has performed well in the effort by Kenworthy and other researchers to "build a better bean."

The "best case values," Kenworthy reported, have been factors of "about 50 percent oleic and 3 percent linolenic," with the key being the low linolenic acid content which translates into reduced trans fats in the soy oil.

"The individual oil component values fluctuate somewhat based on planting dates, air temperature, and other environmental conditions," Kenworthy said, adding that the 2006 crop could provide

a wider range of locations from which to analyze seed.

The timing of the release of the variety, Kenworthy indicated, will depend to a large degree on the data from the 2006 harvest.

Successful selection for these breeding goals has major health implications in the use of the oil and should increase soybeans oil's competitive position with other vegetable oils.

Kenworthy reported at the conclusion of the 2005 growing season that the program had achieved some success in developing lines with lower saturated fats and lower linolenic acid, but that efforts to identify higher yielding lines continue to receive the highest priority. Also, he reported, "we are working to incorporate higher oleic acid in the breeding lines under development (and) to combine the modified oil traits with the low phytic acid mutant to produce a soybean hav-

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Soybean breeder Dr. William Kenworthy explains results of his research last August at the Maryland Soybean Board research tour.

Soybean checkoff research continues

Nine research projects have won funding support from the Maryland Soybean Board for the 2005-'06 fiscal year. The checkoff grants total \$72,433.

The fiscal year for the federally mandated national checkoff program runs from Oct. 1 to the following Sept. 30.

- \$3,000 to Dr. Robert Kratochvil, University of Maryland Extension oil and grain crop specialist, to continue his in-the-field evaluations of the performance of "edible" and "specialty trait" soybeans and to compare that performance under both organic and conventional management systems. Kratochvil contends that "the production of edible or tofu type

soybeans definitely has a future in this region" and could offer niche market opportunities for Maryland producers.

Kratochvil also was awarded a second grant of \$5,750 to explore the possibility that early maturing soybeans might be able to avoid withering infections of Asian soybean rust.

- \$8,750 to University of Maryland soybean breeder Dr. William Kenworthy to conduct the annual soybean variety tests. He will also continue, with carry-over funding from both the Maryland Soybean Board and the United Soybean Board, the search for the elusive "better bean" — a variety offering higher protein and oleic acid content, and lower

saturated fats as well as lower linolenic and phytic acid levels while still maintaining acceptable yields. This is not genetic modification — this is extended and tedious cross-breeding encompassing several years of research. Are you discouraged? Dr. Kenworthy was asked. "Of course not," he replied. "I am a plant breeder."

- \$10,000 to Bill Rhodes and Schillinger Seed Inc. to support its pioneering work, as a commercial company, to combine high protein and low linolenic acid levels in high-yielding soybean varieties. Rhodes told the soybean board that "our first launch of a high-pro-

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Biodiesel: On the road and at home

December and early January's unseasonably warm weather had few folks worrying about their heating systems, but as winter arrives in earnest, the National Biodiesel Board (NBB) is encouraging people to think about Bioheat.

Bioheat is a blend of five percent biodiesel and generic heating oil. The National Biodiesel Board and National Oilheat Research Alliance (NORA) recently trademarked the "Bioheat" term.

"Bioheat fuel is the beginning of a new era for Oilheat," said Paul Nazzaro, NBB director of petroleum outreach.

The Northeast and Mid-Atlantic states are the primary — if not exclusive — home heating oil market in the United States. The Maryland Soybean Board and other boards in the region have supported the development of Bioheat through research projects and market development work aimed at increasing the number of suppliers offering Bioheat. Partners in this effort have included NBB and NORA, which administers the oilheat checkoff, the Delaware, Northeast Region and Pennsylvania soybean boards and the Biodiesel Association of Canada, among others.

BBC Program Continues

The Maryland Soybean Board has again teamed up with its Mid-Atlantic counterparts to successfully respond to a United Soybean Board (USB) initiative designed to promote biodiesel use.

USB's Biodiesel and Biobased Communications program is returning \$32,500 in federal soybean checkoff funds to the region for FY07.

The funding will be used to support the continued use of biodiesel blends in the annual Maryland School Bus Con-

tractors' Association school bus safety competition. (See photo, below, from 2006.) It will also support a biodiesel booth at the 2007 Atlantic Region Energy Expo, the nation's largest gathering of home heating oil distributors. Also planned is an exhibit at the Maryland Watermen's Association's East Coast Expo, among other activities.

ULSD Transition

NBB and the Petroleum Markers Association of America (PMAA) issued a joint "winter weather advisory" last fall in response to fuel quality testing results and concern about cold flow properties of the new Ultra-Low Sulfur Diesel (ULSD) fuel being phased into on-road markets during late 2006.

The rapid growth of the biodiesel industry — production tripled between 2005 and 2006 from 75 million to an estimated 200-250 million gallons — prompted NBB to engage the National Renewable Energy Laboratory to conduct the fuel quality study.

NBB's advice to biodiesel customers:

- Work with a reputable supplier who will stand behind the product;
- Report out-of-spec biodiesel;
- When possible, buy fuel from BQ-9000 producers or marketers. BQ-9000 is a voluntary quality assurance accreditation program.

As the transition to ULSD continued through the fall, concerns also continued regarding ULSD's lubricity, conductivity and cold flow characteristics. Even as the fuel was being phased in, tight supplies made it difficult to do evaluation.

A key concern in the biodiesel community was that biodiesel would be blamed for cold-flow performance defi-

ciencies brought in with ULSD. And a scarcity of additives and kerosene which meets the 15 parts-per-million EPA limit for ULSD was a complicating factor.

More information about these issues is available at www.biodiesel.org and www.pmaa.org.

OEM Support Continues to Grow

In November, Case IH approved B20 for most equipment and uses biodiesel blends at its factory. According to Case IH, customers can use B20 in most Case IH engines (except common rail) and B5 in all Case IH engines.

"As long as engine maintenance procedures are followed, and in-spec blends of biodiesel are purchased from a reputable supplier, biodiesel blends from B5 through B20 can be used in any Case IH engine in operation today," said Randy Baker, president of Case IH North America.

Back in October, representatives of DaimlerChrysler announced that the new 2007 Dodge Ram Heavy Duty Diesel Pickups coming off the line in Fenton, Mo., will have a B5 factory fill. In addition, for commercial, government and military fleets with these Ram trucks, the company has approved the use of B20.

Economic Impact Study

NBB released a study that shows biodiesel plants are a boon to the U.S. economy. According to the analysis by John M. Urbanchuk of LECG, funded by the United Soybean Board, the aggregate economic benefits of biodiesel include:

- America's biodiesel industry will add \$24 billion to the U.S. economy between 2005 and 2015, assuming growth

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Drivers in the annual School Bus Safety Competition sponsored by the Maryland School Bus Contractors' Association burned biodiesel blends in their buses. From left, Melody Miller, Steve Nelson, Talley Ober, Bandy Seisler, Lauraley Blalock, David Edwards, Katherine Friedel were the winning drivers in their individual categories. At far right is Susanne Zilberfarb, representing the Maryland Soybean Board. The 2006 competition was the second year that the checkoff board promoted biodiesel at the competition.



Thank A Chicken: Animals 'hog up' soy meal

If you haven't heard or read it by now, it's not for our lack of trying. **Animal agriculture in the United States consumes 94 percent of the domestic soybean meal.** That means soybean farmers have good reason to thank every chicken, hog or head of cattle they may be able to find within reach.

Through an initiative funded by the United Soybean Board, the Maryland Soybean Board and other checkoff boards in our region have run a successful campaign dubbed "Thank A Chicken" for the past two years. USB's support has totalled about \$175,000 to date for this campaign, which leveraged advertising on the Shore each summer to take advantage of beach traffic, while still communicating with farmers and rural neighbors.

A survey completed in September 2006 showed that the message was getting through. Support for animal agriculture and, in particular, the poultry industry on Delmarva, grew by almost 10 percentage points.

As of press time, USB's funding program for the current fiscal year was still awaiting USDA approval. However, the Maryland Soybean Board and other regional boards had already set aside funds to allow this important work to continue. In November, about 20 people from across our region met in Lancaster, Pa., to undergo Operation Main Street training. (Lancaster County, by the way, is the nation's 19th largest pork producing county.)

The program, developed by the National Pork Board thanks to the pork checkoff program, trains pork producers to be able to go out and speak on behalf of their industry at the local level through hands-on training in taking interviews and public speaking.

As a result of this workshop, about 20 people from New York down to Virginia stand ready to go out and speak about the progress the pork industry has made in providing leaner meat and addressing environmental concerns. If you belong to a club and need a speaker, please log on to www.porkboard.org and enter "speaker" in the search function. The National Pork Board will find the speaker closest to your event.

Support for the poultry industry remains an important emphasis of the Animal Agriculture program.

The www.thankachicken.com website, developed two years ago and



About 20 people, hailing from New York down to Virginia, attended Operation Main Street training in November 2006. The training program, developed through the pork checkoff, helps producers support their industry on a grassroots level. The Mid-Atlantic training session was a goal of the region's Animal Ag Initiative supported by soybean checkoff dollars. Maryland Soybean Board Director Bill Susen attended the training, as did Susanne Zilberfarb and Debra Spurrier, MSB communications contractors, and Karen Wolcott, Maryland Dairy Princess Coordinator.

continually updated, provides information to build rural support for poultry farms and farmers.

Even more information is now available from www.animalag.org, which was just launched by the United Soybean Board. The site contains astounding facts about the domestic animal agricul-

ture industry and its contributions to rural quality of life, the environment and the economy. Did you know that the total economic impact of animal agriculture in the United States is more than \$396 billion? Giving a speech? Need statistics for a letter to the editor? Bookmark these sites for later!

USDA: Soy exports grow again

The U.S. recorded another billion bushels of soy exports during the 2006 marketing year.

The U.S. Department of Agriculture reported that soybean exports reached more than 937 million bushels and soybean meal exports totaled more than 295 million bushels soybean bushel equivalents. In total, more than 1.2 billion bushels of soy were exported during the 2006 marketing year with an approximate value of over \$8 billion.

"Soybeans are the highest-valued U.S. agricultural commodity export and contributes a great deal to the balance of trade," says Neal Bredehoeft, chairman of the U.S. Soybean Export Council and a soybean farmer from Alma, Mo. "On average, 43 percent of U.S. soybean production is exported each year."

The top five export destinations for

U.S. soybeans in 2006 were 1) China; 2) Mexico; 3) Japan; 4) Taiwan; and 5) Indonesia.

Continuing as the leading importer is China, which alone accounted for more than 38 percent of total U.S. soybean exports. Soybean meal export numbers recorded a 5 percent increase over last year with Mexico maintaining its No. 1 position as the largest importer of U.S. soybean meal. Rounding out the top five export markets for U.S. soybean meal are Canada, the Philippines, Japan and the Dominican Republic.

"Soy exports are expected to be even higher this coming marketing year as the soybean export year is off to its fastest start in history," Bredehoeft said, "and soybean meal exports should continue to grow as biodiesel drives more soybean crush."

Research Results

Reports from the '05 season

Does your future include foliar fungicides? Foliar-applied fungicides for general soybean production were virtually unheard of before 2003. Seed producers, on the other hand, were able to occasionally improve seed quality in years when late season diseases developed or delayed harvests were imposed on producers by the weather. The picture rapidly changed between 2003 and 2005. The threat of Asian soybean rust opened the door for registration of new products and yield responses to applications of a new class of fungicides, strobilurins, were being noted. Dr. Arv Grybauskas, University of Maryland Extension plant pathologist, looked at a variety of new and experimental fungicides to determine how they performed under Maryland conditions.

These results of the season-long study indicated that the newer fungicides may play an increasing role in general soybean production in Maryland, perhaps even in the absence of soybean rust pressure. Further studies are needed, Grybauskas added, to help define under what conditions returns can be generated with these new products.

New role for cover crop? The overall objective of the project, under the direction of University of Maryland soil scientist Dr. Ray Weil, was to investigate practical approaches for establishing several types of brassica cover crops in soybean-based cropping systems.

Weil looked at aerial seeding of radish and rape in corn as well as soybeans with side-by-side comparisons with brassica crops drilled in open ground.

This was an extension of his earlier studies which showed that brassica cover crops can provide "highways" through dry and compacted soils for soybean roots and, as a side benefit, help suppress cyst nematode populations.

Edible beans compatible with Maryland conditions: With funding from the Maryland Soybean Board, research studies under the direction of University of Maryland agronomist Dr. Robert Kratochvil, evaluated 33 food and specialty trait soybean varieties during 2005. The complete report including agronomic performance for the varieties tested can be found at <http://www.mdcrops.umd.edu>.

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Research continues...

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tein, high yielding variety will be in 2006. We hope to grow the first 3,000 acres in 2006 and quickly multiply the number of acres to 40,000 for 2007." Also Rhodes said, varieties with the addition of the low linolenic trait to the high protein varieties will be evaluated in 2006 and "we believe that two to three of these varieties will be adapted to Maryland and released in 2007."

- \$6,000 to soil scientist Dr. Ray Weil and a graduate student Yvonne Lawley to continue their work with forest radish as a cover crop. A research project which began some years ago exploring the use of deep-rooted brassica cover crops as a way to offset the impact of soil compaction, has evolved through several interesting stages to the present in which the forage radish is being evaluated as a possible control for herbicide resistant weeds. Lawley reported that forage radish has been able to control weeds in two ways, first by rapidly producing biomass in the fall and secondly during decomposition over the winter when perhaps something of a chemical nature occurs, suggesting a possible use of the cover crop in IPM or organic programs.

- \$11,000 to Dr. Arv Grybauskas, University of Maryland plant pathologist, to evaluate the effectiveness of several fungicides in controlling soybean rust and other diseases. While fungicides had been a relatively small player the farmer's arsenal against crop concerns, Dr. Grybauskas told the soybean board, "the threat of soybean rust prompted the registration of numerous fungicides that have never been tested for efficacy and performance."

- \$6,000 to a team of researchers and educators at the University of Maryland Eastern Shore to explore "biological control," that is, so-called "friendly" bacteria and viruses, to spur the growth and productivity of soybean plants and, secondly, to train UMES students "on the use of biological control and molecular biology approaches" to soybean production.

- \$11,433 to Maryland Extension entomologist Dr. Galen Dively and Dr. Jerry Brust, recently appointed regional IPM specialist stationed at the Lower Eastern Shore Research Center at Salisbury, to address an emerging concern that stink bugs may be causing economic losses in Maryland soybean crops.

There's an emerging concern that stink bugs may be causing economic losses in Maryland soybean crops. Checkoff research will determine if the timing of the damage impacts yield or seed quality.

"Because many soybean fields in 2005 reached the full green stage when stink bug numbers peaked in September," Dively said, "the prevailing question is whether their feeding injury — they feed on plant sap, not the vegetation — at that late stage has any impact on yield or seed quality."

- \$10,500 to Dr. Ron Ritter, University of Maryland Extension weed control specialist for three \$3,500 projects. Their focus will be to examine tank-mix comparisons with new glyphosate formulations for use in Roundup Ready soybeans; to evaluate the proper timing of applications of glyphosate on RR beans; and to explore various management techniques for control of glyphosate-resistant weeds in full season no-till beans.

Ritter reports that as early as the summer of 2002, every county in the three states on Delmarva had reported glyphosate escapes in horseweed, also known as marehail. And Ritter adds, "While horseweed is the primary weed showing resistance, there have been reports of failures with glyphosate in common lambsquarters, pigweed and velvetleaf."

Soyfoods survey under way

The Maryland Soybean Board is partnering with the Chesapeake Fields Institute to help support a soyfoods marketing survey. The institute, headquartered in Chestertown, Md., intends to employ Market Solutions LLC, a leading food industry and agribusiness consulting firm, headed by Mark Newman, noted ag economist and market consultant who maintains a home in St. Michaels.

Chesapeake Fields currently markets several soy products including snack foods called Soy Gems and Soy Saucers but needs to enlarge its range of offerings.

To that end, the study by Newman and Market Solutions will examine the types of soy products that have been successful among the more than 2,000 new soy products which have been introduced to the market over the past 10 years and thus might point the way to helping Chesapeake Fields expand its inventory.

The study also will consider specific market and product issues which have been successful to date and will develop a short list of priority products and how to market and promote them.

John Hall, Kent County (Md.) ag agent and president of Chesapeake Fields Institute, said the organization has enlisted a team of three dozen growers of edible, food-grade beans who support current production.

"But we need to come up with a family of products," Hall said, not only to increase customer interest and support but also to reduce per-unit marketing and distribution costs. At its last meeting of 2006, the Soybean Board awarded Hall and Chesapeake Fields a checkoff grant of \$10,000 to largely underwrite the study.

MSB supports Grain Marketing Workshops

With the support of the Maryland Soybean Board and other organizations and sponsors, the Maryland Grain Marketing Workshops resumed in January.

Maryland Cooperative Extension, which presents the workshops, was awarded \$4,000 in soybean checkoff revenue to help fund the seven sessions slated through January and into February.

The workshops, developed at the University of Minnesota, are designed to help farmers develop and practice crop marketing skills.

The initial offering attracted 211 participants. Post-harvest training sessions were held last summer and pre-harvest sessions were then planned for this winter.

Soy checkoff supports LEAD Maryland

Maryland soybean farmers, through their commodity checkoff program, have been consistent supporters of the LEAD Maryland program.

The LEAD program received \$2,500 in checkoff support for 2006, bringing to \$23,000 the support which it has been awarded since 1999.

LEAD is based at the University of Maryland's Wye Research Center. Its mission is to offer men and women interested in agriculture the opportunity and training for future leadership in the state. As of June 2006, it had an "alumni" base of 90 men and women and has just recently enrolled Class 5 for the two-year course.

Maryland Young Farmers benefit from MSB

The Maryland Young Farmers organization will hold its annual membership retreat March 2-4, 2007, at the Turf Valley Country Club in Ellicott City. Among the sponsors is the Maryland Soybean Board.

The mission of the YF is to "allow young farmers from across Maryland to join together to help preserve the future of the agricultural industry."

Need a speaker? Call (410) 742-9500.

Results ...

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Nearly all the entries in the year's test came from regionally located food and specialty trait soybean variety development programs, including Schillinger Seeds in Maryland and Montague Farms in Virginia. Other entries in the test came from Ohio State, Blue River Hybrids in Seward, Neb., and the Virginia State University program.

As in past years, Dr. Kratochvil reported, the results of the 2005 tests indicated that there are food and specialty trait soybeans that can produce as well as the traditional grain-type varieties. "Food and specialty trait soybeans production in Maryland has progressed past the days when 'Vinton 81' was the leading variety," he said. "Today, there are a number of options available for farmers who want to enter this market."

Variety Test results published: In the Maryland soybean variety tests in 2005, Dr. Bill Kenworthy, University of Maryland soybean breeder, evaluated Roundup Ready and standard varieties in separate tests. A total of 78 Roundup Ready varieties were grown in four full-season and two double-cropped tests at four locations across the state. The 42 standard varieties were evaluated in a total of three full-season and one double-cropped test at three locations. The tests included plantings in no-till and conventionally tilled soil. Complete data for all entries in the 2005 soybean variety tests are summarized in Agronomy Facts No. 32.

Also, a test containing 31 entries of cyst nematode-resistant varieties and breeding lines was grown in Wicomico County in two fields in soil infested with a mixture of races 1, 3, and 5 of the soybean cyst nematode. Complete data for all entries are summarized in Agronomy Facts No. 43. Agronomy Facts No. 32 and 43 can be viewed and printed along with other yields from the University of Maryland's cropping system webpage: <http://www.nrsl.umd.edu/extension/crops/>.

Waiting for rust allows preparations: If and when Asian soybean rust arrives in Maryland, farmers should be ready for it, at least as ready as they can be.

The fungus, on a steady northward path, arrived in Virginia and on Virginia's Eastern Shore in 2006, too close for comfort but too late in the season to cause any alarm.

Maryland researcher Dr. Robert Kratochvil, while continually warning farmers not to "let their guard down," noted that, in view of the two-year delay, thus far, in the arrival of the fungus in the state, "we will be much more prepared to manage it."

Meet your soybean checkoff board

The Maryland Soybean Board welcomed three new directors this year, following the retirement of three long-time board members. Here is some additional biographical information about these new directors, who represent all Maryland soybean farmers in their work on the board and who, as you will read, bring diverse experience and viewpoints to that task.

Hans Schmidt, one of three new members of the Maryland Soybean Board, shares with his brother Alan the distinction of being the third generation on the Schmidt family farm near Sudlersville, in Queen Anne's County.

Schmidt was encouraged to join the board by Steve Moore, a neighbor and a friend of long standing. Moore is a former chairman of the Soybean Board and now serves as one of two Maryland directors on the United Soybean Board.

The Schmidt farm, of about 1,500 acres, produces the usual rotation of soybeans, corn, wheat and barley, plus snap beans and tomatoes and grapes for wine. Some of the grapes are sold to another neighbor, Don Tilmon, of Tilmon's Island Winery, which, like the Moore farm is "just a stone's throw away."

Schmidt, 43, and his wife, Jenifer, have two children, Zachary, 9, and Katrina, 7.

Jamie Nelson is the fourth generation on the family farm in Westover, Somerset County. At 24 years of age, Jamie is also the youngest member on the 10-member farmer board.

The Nelson farm, started by his great grandfather Weldon Nelson, covers 2,000 acres, owned and rented. In addition to corn, soybeans and small grain. Jamie runs a 50-head Black Angus feeder calf operation.

He is married. He and his wife, Kelly, have a two-year-old daughter, Tawney.

Jamie succeeds Gary King of Princess Anne on the state checkoff board. King had served his allowed three, three-year terms.



Jamie Nelson

Sidney Richardson farms 2,300 acres near Willards, Md., in corn and soybeans.

With his son, Lee, the father-son team also operates, all told, a 10-house poultry complex for Perdue Farms Inc. When full, the houses hold a total of a quarter-million birds.

Richardson and his wife, Kay, the parents also of another son and a daughter, live in the house occupied by Richardson's father, Harry, when he purchased the property years ago to launch a strawberry plant business.

Asked by friend and former Soybean Board member and president Geno Lowe of nearby Hebron, to succeed him on the board, Richardson gladly accepted the nomination.

"I have been in beans all of my life," he said, "and I welcome the opportunity to do what I can to help soybean farmers and the industry."

Your checkoff board

Roger Schmick, Chairman
Preston

Bryan McDonald, Vice Chairman
Chestertown

Bill Malkus, Secretary/Treasurer
Cambridge

Dave Burrier
Union Bridge

Raymond Harrison, III
Trappe

Michael Harrison
Woodbine

Jamie Nelson
Westover

Sidney Richardson
Willards

Hans Schmidt
Sudlersville

William "Bill" Susen
Kennedyville

Ex-officio

Jim Lewis, Extension, Caroline

Mark Powell, Md. Dept of Ag

Bruce Roberts, Perdue Farms

Sandra L. Davis,
Executive Director



The Board of Directors of the Maryland Soybean Board at their December 2006 board meeting.

A growing concern: Weeds show more herbicide resistance

With colleagues across the country, Dr. Ron Ritter, University of Maryland weed control specialist, faces the challenge posed by the expanding ability of weeds to shake off herbicide applications designed to kill them. And it's a challenge that isn't going to go away.

"The glyphosate resistance issue is growing," Dr. Ritter reports. "They have identified a pigweed in the South that has become resistant. In the Midwest, they've identified common ragweed and tall waterhemp (a pigweed) that show resistance. The marestail issue was a local one, and is now pretty much across most regions of the U.S. And locally, we have some common lambsquarters that are showing increased tolerance."

Ritter said that, as he travels the state, "I sure am seeing a lot of soybean fields with pigweed towering above the canopy. Not sure what that's all about. But if they have identified glyphosate-resistant pigweed in the South and the Midwest, it certainly stands to reason that we're next."

Ritter said that he and his research team collected the seed of common lambsquarters last summer and grew some out in the greenhouse. "I then took them outside and sprayed them with different rates of glyphosate," he said. "At normal rates, we only weakened the plant, but didn't kill it. We had to go to higher rates to actually kill the plants. We're harvesting more seed this fall for future work in the greenhouse."

New varieties are poised for release...

Continued from Page 1
ing both traits."

The research continued into 2006 with financial support from both the United Soybean Board and the Maryland Soybean Board.

Meanwhile, breeders at Schillinger Seed, near Queenstown, Md., have been on the hunt for a food grade soybean variety with elevated levels of protein.

Maintaining an acceptable yield while meeting that goal has been one of the challenges.

The seed company, working with soybean checkoff support, has met that challenge with its new variety, 446F HP, the product of about five years of genetic development. Yields of 446, according to Schillinger's Bill Rhodes, have been "very comparable" to those of the standard varieties.

This crop year, 446 was in production on about 2,000 acres and did "very well," particularly west of the Bay, said John Schillinger.

In 2005, Schillinger Seed reported to the Maryland Soybean Board that 446F.HP "is very unique in that it has maintained a level of protein at 47 percent but has yielded within 2-3 percent of our yield type varieties. 446F.46 has outyielded our 444F.HPC by 7 percent."

The Schillinger Seed facility near Queenstown is the same Maryland farm on which the first Roundup Ready soybeans were grown in 1991.

Financial Report

The farmer directors of the Maryland Soybean Board administer the soybean checkoff program in Maryland. Half of the checkoff assessments are sent to the United Soybean Board for national and international research, marketing and education. The half that stays in Maryland works for you through soybean production research, marketing of biodiesel and other new uses of soybeans, support for animal agriculture markets, and education on issues such as soybean rust. The MSB's Executive Director is Sandra L. Davis.

MARYLAND SOYBEAN BOARD

Fiscal Year 2006 - Oct. 1, 2005 through Sept. 30, 2006

Total FY06 Assessments	\$413,993
50% to United Soybean Board	<u>\$206,996</u>

Maryland Soybean Board	\$206,997
Interest & FY05 Project Funding Carryover	\$210,233
Miscellaneous	<u>\$16,792</u>
Total Revenues FY06	\$434,022

DISBURSEMENTS

Administration, Collection, Compliance & Board	
Operating Costs	\$39,140
Special Projects	\$38,029
Producer Communication	\$42,503
Promotion	\$63,045
In-State Research	<u>\$73,418</u>
Total Disbursements FY06	\$256,135

Ongoing Project Funding FY07	\$177,887
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Maryland Soybean Board

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Under the soybean checkoff program, authorized by Congress in 1991, farmers contribute 50 cents of every \$100 they receive for their soybean crop at the first point of sale. The checkoff revenues are escrowed into a kitty for use in supporting research, education and market development projects.

Biodiesel ...

Continued from Page 2

reaches 650 million gallons of annual production by 2015.

- Additional tax revenues from biodiesel production will more than pay for the federal tax incentives provided to the industry, keeping \$13.6 billion in America that would otherwise be spent on foreign oil.

The study also found that if 498 of the 650 million gallons of estimated biodiesel demand in 2015 is produced from soybean oil, farmer-level soybean prices will increase nearly 10 percent.

Using the USDA's 2006 Long-Term Baseline forecast for soybean prices as a starting point, soybean farmers can expect increased biodiesel demand to increase average soybean prices \$.58 per bushel by 2015.

**To find biodiesel in your area, visit
www.mdsoy.org
www.biodiesel.org**

Effect of grass buffers on pests appears benign

University of Maryland entomologist Dr. Galen Dively, in 2005, evaluated grass buffers adjacent to soybean fields for their biological control benefits as well as their role as sources of crop pests. He reported that portions of fields next to grass buffers had more thrips and other insects but there was no evidence that these buffers contribute to pest outbreaks in crops.

Dively also looked at perennial wildflowers, which are often planted with grass buffers, with an eye toward their ability to provide food for natural crop enemies. Results indicate that partridge pea may be an excellent insectary plant, he said.

Bottom line, so far, he said, "results indicate that buffers or cool-season grasses maintain more diverse insect communities than warm-season grasses. Furthermore, soybean fields on a per area basis may support more biodiversity of natural enemies than adjacent grass buffers."

Aphids' late arrival fails to impact crops — yet

In a 2005 assessment of the overwintering potential and economic impact of the soybean aphid in Maryland, University of Maryland Extension entomologist Dr. Galen Dively found that scattered infestations of soybean aphid had occurred late in the season and had not had any major economic impact of Maryland soybean production.

Furthermore, he reported, "there is no evidence of successful overwintering of this new pest and clearly natural enemies have kept aphid populations below economic levels."

To educate soybean growers about the biology and how to scout for this new pest, a web-based video presentation was developed by entomologists in Virginia and Maryland. Additionally, a color-plate pocket field guide on insect pests of small grains, corn, and soybeans was published, including images and information for identification of the soybean aphid. These guides were distributed to each county and made available to soybean growers at no cost.

Address Service Requested

Maryland Soybean Board
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NEWS FOR THE SOYBEAN INDUSTRY FROM YOUR SOYBEAN CHECKOFF BOARD



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