

CHECKPOINT

NEWSLETTER FOR PENNSYLVANIA SOYBEAN PRODUCERS

LEBANON COUNTY FARMER WINS TOP HONORS IN 2013 SOYBEAN YIELD CONTEST

Lebanon County farmer Jeff Bomgardner was the state's top producer in the annual Pennsylvania Soybean Yield Contest with a yield of 97.38 bushels per acre. The secret to his success? "There's a lot you have to look for and do right," he says. "You have to be on top of everything from planting through harvest to make it work, and you have to have rain."

Darren Grumbine, also of Lebanon County, placed second in the contest with 91.04 bu./acre, followed by Lancaster County soybean grower Merle Stoltsfus with a 90.04 bu./acre yield.

According to contest coordinator and Penn State Senior Extension Agent Del Voight, 17 of the 31 participating growers exceeded 80 bu./acre. The mean yield of the contest entrants in 2013 was 76.82 bushels per acre, down from the 2012 average of 80.71 bushels per acre.

In addition to the statewide title, Bomgardner was the Southeast Region winner, planting Syngenta 36B6 in 7.5" rows following corn. The crop was drilled no-till on May 10, 2013 at a seed rate of 140,000. The final stand, populated at 119,877, was harvested October 11, 2013 at 14% moisture. Bomgardner used a liquid inoculation, Quilt fungicide, Hero insecticide and Touchdown plus Authority First herbicide.

"You have to be on top of everything from planting through harvest to make it work..."

THE 2013 YIELD CONTEST REGIONAL WINNERS WERE:

- **Northern Region: Richard Snyder, Lycoming County, 73.34 bu./acre**
- **Southeast Region: Jeff Bomgardner, Lebanon County, 97.38 bu./acre**
- **Central Region: Carl Gates, Centre County, 56.11 bu./acre**
- **Western Region: Mike Reskovic, Fayette County, 71.39 bu./acre**

As the top state winner, Jeff Bomgardner and his wife, Fawn, received a trip to the 2014 Commodity Classic, the annual joint convention of the American Soybean Association, National Corn Growers Association, National Association of Wheat Growers, and the National Grain Sorghum Producers, held February 26- March 1, 2014, in San Antonio, Texas.

The Commodity Classic is America's largest farmer-led, farmer-focused con-

vention and trade show. With more than 7,300 attendees, the 2014 Commodity Classic convention and trade show shattered previous attendance records for the landmark event.

This was Bomgardner's first time attending the convention, and he found there was plenty to take in, from the general session with U.S. Secretary of Agriculture Tom Vilsak, to a host of educational sessions featuring industry experts, a trade show, and an evening of entertainment on Saturday. "It was awesome," he says.

Production information from all entrants in the 2013 Soybean Yield Contest can be found online at www.pasoybean.org in the "Research" section.



Jeff and Fawn Bomgardner at the 2014 Commodity Classic.

KUDZU BUG: AN APPROACHING PEST

For the past four or five years, farmers and homeowners in Pennsylvania and the rest of the Mid-Atlantic region have gotten to know the brown marmorated stink bug.

This pest species was accidentally introduced around Allentown in the 1990s, and has since spread to much of the country.

As bad luck would have it, the region is about to get to know another invasive stink bug species. The new beast is known as bean platasipid (*Megacopta cribraria*), but is commonly referred to as kudzu bug for its tendency to feed upon kudzu, an exotic invasive weed common in the southern U.S.

When kudzu bug feeds upon kudzu, it can be considered a beneficial species, but in the southeastern U.S., kudzu bug has become a serious pest of soybeans. This stink bug species is much smaller than brown marmorated stink bug and an obviously different shape, but like the brown marmorated stink bug, it also can overwinter in homes and other buildings.



Kudzu bugs on soybeans. Photo from bugwood.org, by J. Greene, Clemson Univ.

This stink bug species was discovered in Georgia in 2009 and has since spread throughout the southeast and is heading north. Most recently it has been discovered in Sussex County, Delaware and four counties in Maryland (Anne Arundel, Calvert, Charles, and Prince George's counties).

"We fear it will be discovered in Pennsylvania soon and are asking farmers

to keep an watchful eye and let us know if you find something that looks like it," says John Tooker, PSU Entomology Specialist. "We need to document its presence and let Pennsylvania Department of Agriculture confirm its identity."

For more information on the kudzu bug, see www.kudzubug.org. ✓



- William Beam, Chairman, Elverson, PA
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- Andy Fabin, Indiana, PA
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INDIANA COUNTY FARMER APPOINTED TO PENNSYLVANIA SOYBEAN BOARD

Indiana County soybean producer Andy Fabin is the newest member of the Pennsylvania Soybean Board. He replaces former Penn State educator John Yocum, who retired from the Board after more than 20 years of service.

Fabin, a graduate of Penn State University with a degree in Agribusiness Management, is part of the multi-generational, family-owned and operated Fabin Brothers Farms in Indiana, Pa.

In addition to serving as a member of the Pennsylvania Soybean Board, Fabin is also active in several organizations and committees, including the Pennsylvania Cattlemen's Association, Beef Quality Assurance, Pennsylvania Beef Council, Indiana County Farm Bureau, and Pennsylvania Farm Bureau's Young Farmer and Rancher committee. ✓



Andy Fabin

YOUR CHECKOFF AT WORK

Research projects designed to provide reliable crop production data to soybean growers, to support Pennsylvania's animal agriculture industry, and to increase markets for soybeans have been awarded checkoff grants totaling \$171,296 by the Pennsylvania Soybean Board.

✓ \$3,650 to Penn State to determine the profitability of using cover crops in soybean cropping systems. The objective is to determine the long-term benefits and cost effectiveness of consistently using cover crops in a primarily corn and soybean rotation. Crop yields will be tracked each year and compared with fields with a cover crop to those without to do a cost/benefit analysis.

✓ \$36,852 to Penn State for a sentinel plot program in Pennsylvania soybean fields. The program will be run in collaboration with Penn State Extension to provide soybean growers with statewide assessment of insects and diseases active in soybean fields. Twenty soybean fields will be scouted weekly for insect pest and disease population.

✓ \$49,794 to Penn State for continuation of the Pa. On-Farm Soybean Research Network. (See article at the right.)

✓ \$7,000 to Penn State to manage the annual soybean variety trials at Penn State's research farms in Lancaster and Centre Counties. Commercial varieties and experimental cultivars will be evaluated. The continuing search for higher yielding varieties, quality traits, the onset of new diseases and insects, and the new focus on value-added traits in the future is essential to soybean producers. The potential of alternative soybean lines, including high oleic beans, Liberty Link and non-GMO varieties, will also be tested.

✓ \$9,800 to Penn State for the Northern PA Soybean Dairy Feeding and Soybean Production Focus communication group. Research will be conducted into overcoming yield constraints in Northern Pennsylvania soils. Field production information and educational outreach will be extended to growers.

✓ \$6,641 to the Pennsylvania Center for Beef Excellence (CBE). Through partnerships with Penn State University and T.A. Seeds, Inc., the planting and harvest methods for soybeans that can be grown in the moderate temperatures and soils of northeast Pennsylvania will be documented. Researchers will monitor the soybean production systems of two 20 acre tracts located in Pike and Lackawanna counties. CBE will facilitate on-farm field day events at both locations to promote the results.

✓ \$26,759 to Penn State to explore the varietal difference in soybean fatty acid and amino acid composition to enhance the feeding value of Pennsylvania soybeans to lactating dairy cows. The research will address the effect of soybean fatty acid profile on milk fatty acid composition in dairy cows, and will explore the opportunity to use varietal differences in soybean amino acid profile to increase the feeding value of soybean meal for animal production.

✓ \$30,800 to the University of Pennsylvania's New Bolton School of Veterinary Medicine for research to optimize controlled disease exposure in loose housed swine in anticipation of the next animal welfare challenge. ✓



ON-FARM NETWORK TAKES SOYBEAN RESEARCH INTO THE FIELDS

Now in its sixth year, the On-Farm Network, a program funded by checkoff dollars by the Pennsylvania Soybean Board, focuses on collecting information that can increase growers' profits from soybean production.

The network works by conducting research in real-world conditions, on test plots planted by volunteer farmer/collaborators throughout Pennsylvania on their own farms with their own equipment. It takes soybean research studies out of the lab and small test plots into the fields of Pennsylvania soybean growers to see which management practices have an appreciable impact on production.

Producers can benefit from this real-world research by making crop management decision developed on a solid foundation of research.

In 2014, the On-Farm Soybean Network will focus on seed treatments, biostimulants, fungicides and insecticides. These results will be shared at grower meetings, online at www.pasoybean.org and at soybean workshops conducted throughout the state in December 2014.

QUESTIONS?

If you are interesting in volunteering to be a farmer/collaborator with the On-Farm Network, or would like more information about the program, contact Del Voight at the Lebanon County Extension Office, or via email at dsv1@psu.edu.

For complete information on all the studies from the On-Farm Network, go the Pennsylvania Soybean Board website at www.pasoybean.org. ✓



PALMER AMARANTH: A NEW THREAT TO PA AGRICULTURE

Indiana farmers have been facing the Palmer amaranth problem since 2011. According to Purdue University Extension weed scientist Bill Johnson, "Palmer amaranth is potentially the most aggressive agronomic weed Indiana producers have ever dealt with and must be managed with an aggressive control program. Seed bank populations will increase quickly in fields where Palmer amaranth is not correctly identified or managed, leading to several years of expensive control programs."

Pennsylvania farmers are now facing the same threat. Last year, Palmer amaranth was discovered in five counties in Pennsylvania. Populations were found in Lancaster, Berks, Franklin, Cumberland and Bedford counties in soybeans, non-crop areas, or field edges.

Bill Curran, Pennsylvania State University Professor of Weed Science, says the weed grows quickly and creates seeds rapidly, making it hard for farmers to control. Native to the Southwest, the weed not only grows fast (up to two inches a day in the summer heat), it can be resistant to Glyphosate and ALS-inhibitors and tolerates both tillage and no-tillage practices. And, it spreads rapidly through equipment, grain, cotton seed used in dairy rations, hay and manure.

The best method of control, Purdue's Bill Johnson suggests, is a multistage approach of crop rotation, thorough tillage, full rates of pre-emergence residual and post-emergence herbicides, hand weeding and monitoring ditches and field borders, and cleaning equipment before moving from infested to non-infested fields.

IS IT PALMER AMARANTH OR WATERHEMP?

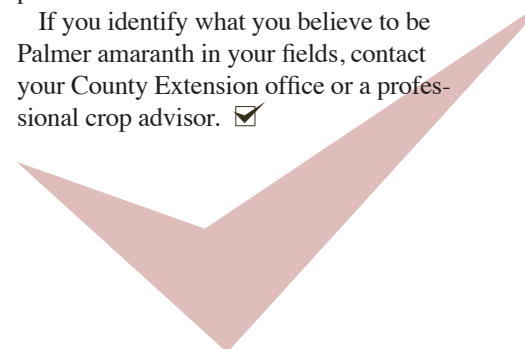
CHARACTERISTIC	PALMER AMARANTH	WATERHEMP
<i>Young leaves</i>		
Notched	Yes	Yes
Shape	Rounded	Lanceolate
<i>Older leaves</i>		
Petiole	Longer than blade	Shorter than blade
Markings	"V" variegation	None
Pubescence	No	No
Inflorescence	Feet	Inches

PALMER AMARANTH MANAGEMENT

Pennsylvania State University Weed Science Professor Bill Curran notes that identifying Palmer amaranth can be tricky because it closely resembles three other pigweed species. To detect the weed, Curran suggests scouting corn and soybean fields 7 to 14 days after herbicide application, especially POST. "Pay close attention to any weeds that are not controlled, especially pigweeds that just don't look 'normal'," he says.

Palmer amaranth plants look similar to other pigweeds, especially as seedlings. Its leaves, stems, and petioles are hairless and the petioles are usually longer than the leaf blade. Sometimes, Palmer amaranth leaves will also have a "V" mark or dark red/purple patch (watermark) on the leaf blade. Seed heads are often one to two feet in length. The female flower bracts are sharp and can be painful to handle (the males are not), and only the females produce seed.

If you identify what you believe to be Palmer amaranth in your fields, contact your County Extension office or a professional crop advisor. ✓



WHAT TO DO IF YOU HAVE PALMER AMARANTH

These recommendations were provided to growers at meetings this winter by Bill Curran and other Penn State weed specialists.

- **Consider establishing a new hay crop.**
 - Alfalfa or alfalfa-grass should be very competitive crops against Palmer amaranth.
 - A herbicide may be necessary the year of establishment, but frequent mowing will suppress this annual weed and help prevent seed production.
 - After 3 to 4 years in perennial hay, this weed will be reduced and easier to manage in summer annual crops like corn or soybean.
- **Consider planting corn**
 - Many herbicides are labeled for Palmer amaranth control in corn, and growing corn for a few consecutive years might be the best option for growers who don't want to invest in expensive soybean herbicide programs.
- **Consider planting Liberty Link soybean**
- **Start clean**
 - Tillage or effective burndown
 - 2,4-D, dicamba, Sharpen, etc. + glyphosate, paraquat (Gramoxone), glufosinate (Liberty)
- **Effective PRE-herbicides are essential**
 - Sulfentrazone (Authority) or flumioxazin (Valor)-based herbicides
- **Timely, early POST-herbicide applications**
 - 3-inches tall or less
 - Glyphosate or glufosinate + a chloroacetamide (Dual II Magnum, Warrant, Outlook, Zidua)
 - Reflex/Flexstar (1 pt.), or Cobra, other PPO
 - Liberty (29 fl. oz) – LL soybean
- **Additional POST applications when needed**
- **Hand-weed remaining plants**

IS IT PALMER AMARANTH OR WATERHEMP?

Palmer amaranth



*Notched, broader, ovate
No waxy sheen*



*No pubescence; Petioles longer than leaf
May have watermark*



*Notched, broader, ovate
No waxy sheen*

Waterhemp



*Notched, narrow, lanceolate
Often with waxy sheen*



*No pubescence; Petioles longer than leaf
No watermark*



*Notched, narrow, lanceolate
Often with waxy sheen*

ADDITIONAL PALMER AMARANTH CHARACTERISTICS

Inflorescence In Feet



Leaf Petioles Very Long



Bracts Stiff and Sharp Also In Leaf Axils



*Photo Credits: A. Hager, Illinois University
B. Johnson, Purdue University*

2014 PENNSYLVANIA SOYBEAN YIELD CONTEST

New rules! The top producer in each region wins a trip to the Commodity Classic

If you know what it takes to produce great soybean yields, you could be a winner in the 2014 Pennsylvania Soybean Yield Contest. Contest rules have been changed this year to encourage more producers to enter. The state is divided into five regions according to soybean maturity dates. Instead of just one state champion, the top producer in each region will win a trip to the Commodity Classic.

The Pennsylvania Soybean Yield Contest is designed to focus farmer attention on agronomic and management skills that will increase soybean yields and profitability. The contest is sponsored by the Pennsylvania Soybean Board in association with Penn State University Extension. ✓

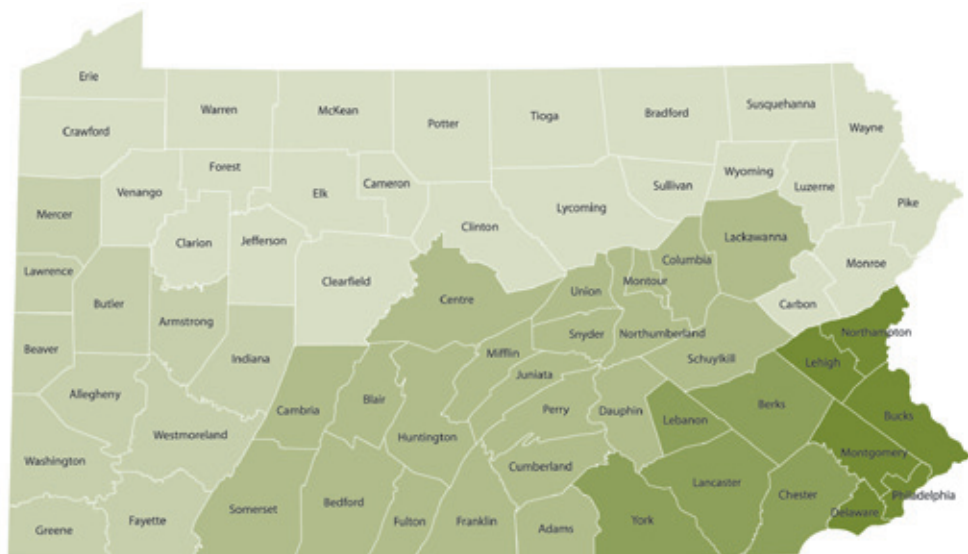
ELIGIBILITY: Any bona-fide farmer who farms in Pennsylvania and grows 5 acres or more of soybeans within the state is eligible.

PRODUCTION: Participants must use non-irrigated soybeans, but are not restricted as to variety, fertilization, spacing or other cultural practices.

PRIZES! In addition to bragging rights, the state champion will receive a trip for two to the 2015 Commodity Classic in Phoenix, Arizona. (Up to \$2,500.)

The top yield winner in each region will receive a trip for one person to the 2015 Commodity Classic. (Up to \$1,500.)

OTHER AWARDS: 90 Bushel Club plaques will be awarded.



■ Northern Region ■ West Region ■ Central Region ■ South Central Region ■ Southeastern Region

SIGN UP TODAY!

For details on the contest and an application form, go to www.pasoybean.org. To be eligible for the contest, you must register by September 1, 2014.



2014 USB SUMMER MEETING

The Keystone State will welcome the Directors of the United Soybean Board to Hershey for their annual summer meeting. The 70 soybean farmer/leaders from throughout the United States who serve as USB Directors will convene in Hershey from July 15-19, 2014 for a strategic planning meeting focusing on issues of importance to the nation's soybean growers. If you'd like to attend any of the meeting sessions to see the USB in action, please contact Jennifer Reed-Harry at 717-651-5822.