

CHECKPOINT

NEWSLETTER FOR PENNSYLVANIA SOYBEAN PRODUCERS

“The winner
receives a plaque
and a trip to the
Commodity Classic...”

SOYBEAN YIELD CONTEST RECOGNIZES TOP GROWERS

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. In addition to bragging rights, the state’s top grower receives a trip for two to the Commodity Classic.

Last year, five Pennsylvania growers topped the 90-bushel an acre mark in the Yield Contest. Herman Manbeck of Womelsdorf, Berks County, was the state’s top producer, with a yield of 97.06 bushels per acre.

The contest recognizes not only the state-wide grand champion, but also the top growers in each of four regions of Pennsylvania. The state is divided into four regions based on maturity maps to make the competition more equitable for all growers: Northern Tier, Central Tier, West Tier, and Southeast Tier.

The top state winner receives a plaque and a trip for two 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, in San Antonio, Texas. Additionally, growers who reach the 90-bushel mark will also receive recognition.

Contest rules and reporting forms are available for growers who have signed up for the contest. Call the Pennsylvania Soybean Board at (717) 651-5922 or go to www.pasoybean.org to download the form.



FAQ'S REFERENDUM

In 2014, the U.S. Department of Agriculture will offer soybean producers the opportunity to request a referendum on the Soybean Promotion and Research Order (Order), as authorized under the Soybean Promotion, Research, and Consumer Information Act (Act).

The act requires the Secretary of Agriculture to conduct a Request for Referendum every five years after the initial referendum, which was conducted in 1994. The last Request for Referendum was conducted in 2009. At that time, less than 0.5 percent of all U.S. soybean farmers signed an RFR form requesting a referendum.

Are all soybean farmers required to pay a soy-checkoff assessment?

The Soybean Checkoff Act & Order requires all farmers marketing soybeans to fund their checkoff by paying a mandatory assessment of 0.5 percent of their net market earnings from their soybeans. Farmers marketing organic soybeans may be eligible for an exemption.

What options do farmers have if they no longer want to pay the assessment?

The Soybean Checkoff Act & Order provide Soybean farmers the opportunity to request a referendum (RFR), including an automatic RFR process every five years. If the USDA determines that at least 10 percent of U.S. soybean farmers have requested a referendum, then a referendum will be held within one year from that determination. No more than one-fifth of the farmers who support having a referendum can be from one state.

What is the United Soybean Board's (USB) role in the RFR process?

USB is responsible for communicating a notification of the request for referendum process to eligible soybean farmers. USB implements a USDA-approved communications plan to reach soybean farmers with information about the RFR process. The plan typically consists of paid advertising and media outreach. USB is not allowed to influence farmer participation or non-participation in the RFR process.

Who is eligible to participate in the RFR?

To be eligible to participate, farmers must certify they or the entity they are authorized to represent paid an assessment at some time between Jan. 1, 2012 and Dec. 31, 2013. Documentation for that assessment, such as sales receipts showing that checkoff funds were collected, will be required in order to participate.

How can farmers participate?

Eligible farmers who want to indicate their support for a referendum will be required to complete and sign form LS-51-1, which indicates they have paid a soy checkoff assessment between Jan. 1, 2012 and Dec. 31, 2013 and they do want to request a referendum. Farmers can participate in person, by fax or by mail-in request at their county USDA Farm Service Agency (FSA) office.

At the time form LS-51-1 is completed, a farmer must also provide documentation as proof that the farmer, corporation or other entity has paid assessments on soybeans at least once between Jan. 1, 2012 and Dec. 31, 2013. This documentation could be a sales receipt.

FSA is then responsible for determining a farmer's eligibility to participate. If FSA cannot determine the farmer's eligibility based on the documentation provided, or if the farmer fails to submit documentation with the form via fax or mail, then FSA will notify the ineligible person in writing.

Farmers may obtain a copy of Form LS-51-1 at the county FSA office where the farmer owns or rents land. The form may be obtained in person, by mail, by fax or on the Internet during the specific referendum period.



ESTIMATING SOYBEAN YIELDS: A SIMPLIFIED APPROACH

Courtesy of Dr. Shaun N. Casteel, Purdue Extension Soybean Specialist

“Pod number, seeds per pod, and seed size are the driving forces of soybean yield,” says Dr. Shaun Casteel, a Purdue University soybean specialist and assistant agronomy professor. “The combination of these factors allows soybean to adapt to growing conditions over long periods (weeks and even months) and still yield well. These same factors can make it difficult to estimate soybean yields prior to harvest.”

Using these three factors, Dr. Casteel has simplified the process of estimating soybean yields so growers can scout multiple areas quickly while maintaining representative estimates.

THE SIMPLIFIED FORMULA

The system for estimating soybean yield is based on 1/10,000th acre and the following formula:

Pods x Seeds per pod ÷ Seed size factor = Bushels per acre

WHEN SHOULD I TAKE YIELD ESTIMATES?

“Any yield estimate improves as you get closer to harvest,” says Dr. Shaun Casteel. “The confidence level increases because the plants have responded to more of the growing season (pod retention, seeds per pod, and seed size). Soybean yield estimates can begin as soybeans enter into R5 (first seed). At this point, a fair portion of the pods have developed and seeds are filling throughout the whole plant. Flowering will continue at a limited rate and will soon cease.

“Pod development (retention and number of seeds per pod) will lag behind the pattern of the flowering. The yield potential at this point depends on the remaining 4 to 6 weeks of the growing season. Yield estimates will improve as the plants continue developing over the following 15 days or so and enter R6 (full seed), which lasts another approximately 20 days. Pod retention and seeds per pod will become clearer, and the potential for large, average, or small seeds will be more discernible.

“Individual plant production will vary and we must take a representative sample without being extraneous. Every field will have variations based on soils, pests, fertility, and other factors. “

STEP 1 PODS

Count the number of pods in 1/10,000th of acre. Most soybean acres are planted in 30-, 15-, or 7.5-in rows, so just remember 21. You will count the number of pods in 1 row for 30” width, 2 rows for 15” width, or 4 rows for 7.5” width to equal 1/10,000th acre (*Figure 1*). Each one of these counts will be 21 inches in length.

This simplified system can be adapted to other row widths as well. If you have a different row width, divide 627.26 by your row width (inches) to calculate the linear length (inches) of 1 row to equal 1/10,000th acre. For example, an 18” row width would require 34.8 inches of 1 row to equal 1/10,000th acre ($627.26 \div 18 = 34.8$).

This simplified system is more reliable when you have 8 or more plants in the sampled area, which translates to 80,000 plants per acre. If plant stands are less than 8, you should count additional areas to decrease the variability of the overall yield estimate for the field. If you want to have an idea of final plant stand, multiply the number of plants sampled by 10,000. However, you do not need plant population to estimate yield with this approach.

You will count the total number of pods in the 1/10,000th acre. You will need to use discretion to which pods you will include in the count.

A good rule of thumb is to count the pods that are greater than 1”, with the knowledge that some of the smaller pods may or may not make it.

STEP 2 SEEDS PER POD

The starting point is an average of 2.5 seeds per pod, since there can be a range of 1-, 2-, 3-, and 4-seeded pods. This value is conservative since we do not know exactly how the rest of the season will finish. The soybean plants may arrest seed development on several 3-seeded pods or some pods are aborted completely.

You can quickly increase or decrease the yield estimate by changing this one value. You can more confidently adjust this value because you are more likely to remember the frequency of 2- or 4-seeded pods within a few hundred pods.

STEP 3 SEED SIZE FACTOR

The starting point is seed size factor 18, which equals a fairly representative seed size of 3,000 seeds per pound. If you expect larger seeds (maybe from late season rains) you will use a smaller seed size factor such as 15 (2,500 seeds per pound).

Similarly if seed fill will be limited (i.e., small seeds) due to lack of water or other late season stresses, you should use a larger seed size factor like 21 (3,500 seeds per pound).

See Figure 2

EXAMPLES:

- Good soybean growth, good pod retention, and adequate late season moisture.
 $400 \text{ pods} \times 2.5 \text{ seeds per pod} \div 18 = 55.5 \text{ bu/acre}$

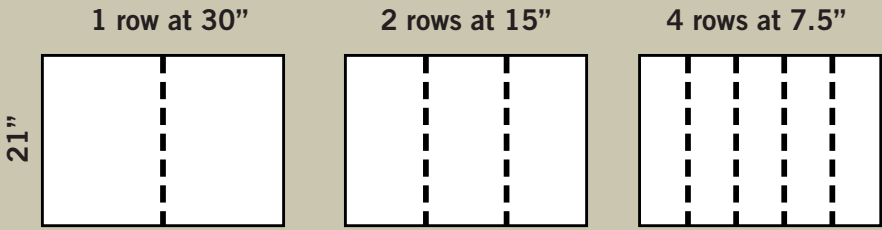
- Good early soybean growth, fair pod retention, BUT little late season moisture.
 $300 \text{ pods} \times 2.5 \text{ seeds per pod} \div 21 = 35.7 \text{ bu/acre}$

- Fair soybean growth, limited pod retention, BUT good late season moisture.
 $250 \text{ pods} \times 2.5 \text{ seeds per pod} \div 15 = 41.7 \text{ bu/acre}$

Figure 2
SEED SIZE FACTORS

Seeds Per Pound	Seed Size Factor
2500 (large seed)	15
2666	16
2833	17
3000 (normal seed)	18
3166	19
3333	20
3500 (small seed)	21

Figure 1
NUMBER OF ROWS TO COUNT TO EQUAL 1/10,000TH OF AN ACRE



BIRTH OF A BIOTECH TRAIT

You may have seen reports in the media about a law the Connecticut legislature recently passed that requires GMO labeling on food, if four other states pass the same requirement. Similar proposals are pending in several other states.

The United Soybean Board (USB) continues to stay on top of this fast-moving issue. The USB has had discussions with the Biotechnology Industry Organization (BIO), which represents the industry to government organizations, as well as with the Grocery Manufacturers Association (GMA). These are two of the most visible and influential industry-based groups weighing in on this topic.

In addition, fostering biotech acceptance is a core strategy of the Freedom to Operate Action Team. USB is a key sponsor of U.S. Farmer's and Rancher's Alliance (USFRA), which has a strong focus on biotech and other consumer-acceptance issues. USFRA hosted part two of its panel-discussion series, The Food Dialogues, in Chicago on June 19. It focused on transparency, specifically the type of information consumers want when making food-purchasing decisions. As usual, the discussion was streamed live online, and can be accessed at FoodDialogues.com. USFRA has held 13 public and digital dialogue events since its launch in 2011, reaching thousands of influencers and consumers nationwide.

The USB is deeply engaged in supporting consumer understanding and acceptance of biotechnology as this issue gets more and more public attention.

Fostering biotech acceptance is a core strategy of the USB's Freedom to Operate Action Team.

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B100 TO FUEL PULLING TRACTORS

A partnership between U.S. soybean farmers and the National Tractor Pullers Association (NTPA) reached another milestone as the NTPA began allowing the use of 100 percent biodiesel in all diesel pulling classes for the 2013 season.

This is the seventh season the soy checkoff has partnered with the NTPA to promote the use of biodiesel to pulling fans, including many farmers, truck drivers and other diesel users. A study funded by the state soy checkoff board in Minnesota and conducted by United Pullers of Minnesota found using biodiesel in pulling competition can provide a 4 percent increase in torque and horsepower. Performance results like these are an added bonus to the environmental and economic benefits of using biodiesel.

Also returning to the track this season will be the "Powered by Biodiesel," Light Pro Stock class, in which all competitors are required to use biodiesel blends.



"B100 performs well, and is dependable even in the most excruciating tests," says Gregg Randall, NTPA office general manager. "Pullers will definitely want to take advantage of the fuel this pulling season."

A new rule allows the use of 100 percent biodiesel in all National Tractor Puller's Association (NTPA) diesel pulling classes. Photo courtesy of NTPA.



The Pennsylvania Soybean Board administers the national soybean checkoff program, approved by Congress in 1990. Under its terms, farmers "check off" 50 cents on every \$100 at the first point of sale of their beans. Half goes to the state, with the remainder to the United Soybean Board. The money is used to fund or support soybean research, market development and education.

The Pennsylvania Soybean Board promotes the growth and development of Pennsylvania's soybean industry. The board membership is composed of soybean producers from across the state.

- William Beam, Chairman, Elverson, PA
- Michael Gerhart, Vice Chairman, Ephrata, PA
- Steve Hykes, Secretary/Treasurer, Greencastle, PA
- Daryl Alger, Lebanon, PA
- Brian Kreider, Lebanon, PA
- Jim Musser, Mount Joy, PA
- John Yocum, Catawissa, PA
- Del Voight, Ex-Officio Member, Lebanon County Senior Extension Educator

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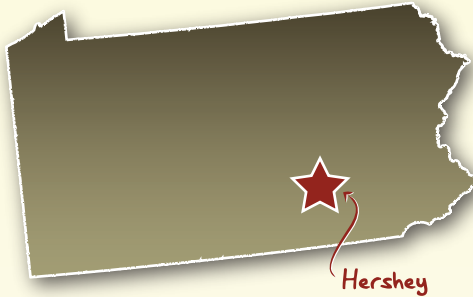


Steve Hykes, Secretary/Treasurer, Greencastle, PA

NEW PSB OFFICERS ELECTED

At the August 2013 meeting of the Pennsylvania Soybean Board (PSB), new officers were elected for Fiscal Year 2014, which begins October 1, 2013.

William Beam, Elverson, PA, will assume the duties as Chairman of the Pennsylvania Soybean Board. He also serves as a Director on the United Soybean Board. Michael Gerhart, Ephrata, PA, will serve as PSB vice chair, and Steve Hykes, Greencastle, PA, will serve as secretary/treasurer of the seven-member Pennsylvania board.



Hershey

PENNSYLVANIA TO HOST 2014 USB SUMMER MEETING

The Keystone State will welcome the Directors of the United Soybean Board to Hershey, PA for their annual summer meeting. The 69 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.

SAVE THE DATE! WINTER SOYBEAN CONGRESS

Be sure to mark your calendar for the Winter Soybean Congress, sponsored by the Pennsylvania Soybean Board. All soybean growers are invited to this free, informational session. Lunch is provided.

- Learn the latest research findings in soybean production
- Farmer-to-farmer panel discussion

When: February 6, 2014
9 a.m. – 1 p.m.

Where: Grantville Holiday Inn
Hershey Exit 80, I-81
Grantville, PA 17028

Register by calling the Pennsylvania Soybean Board at 717-651-5922 or via email at jrharry@pasoybean.org

