



CHECKPOINT

NEWS FOR PENNSYLVANIA SOYBEAN GROWERS www.pasoybean.org

Winner of Pa. Soybean Yield Contest Shares Secrets to Success

By any measure, 2020 wasn't a great year for soybeans in Pennsylvania. Hot weather and spotty rainfall impacted yields throughout the state, but nonetheless, Bob Shearer and his son, Mike, recorded the top yield in the 2020 Pa. Soybean Yield Contest. At 100.69 bushels per acre, it was the second consecutive year their Twin Lane Farm in Mount Joy, Lancaster County, won the statewide title in the contest sponsored by the Pennsylvania Soybean Board.

So, what is their secret to success?

"We're not doing anything anybody else can't do," says Bob. "We don't have any special ground or anything like that. The biggest thing is to plant early. If you can get the bean to go from the vegetative state to the reproduction state before the longest day, that is the key."

Bob doesn't have a specific target date for planting. Instead, he relies on growing degree days. "I look at the future weather," he explains. I want to see X number of growing degree days for the next couple of days in a row to get them going. When I am planting early, I don't plant very deep, especially if the ground has good moisture. Probably 3/4 of an inch deep. And don't plant too thick," he continues. "Then when they branch out, they will stand better. We plant early beans at 150,000. If you plant them too thick, and they start to lodge, you lose yield. The yield maps show that distinctly. We are fortunate to have two planters. I start planting beans the same day I start planting corn. If I had one planter, I would plant my beans before I would plant my corn. I wouldn't have done that 10 years ago."

Even before planting, soil preparation is another factor that the Shearers take into consideration. "After the first of the year, as soon as it's dry enough, I like to take a vertical tillage tool through my soybean ground," says Bob. "My corn is 100 percent no-till, but for soybeans, I like to take something through. That helps to disturb the slug eggs. The other reason I like to do it early, maybe two months before we plant, is so there's good seed-to-soil contact when you're planting. If you wait to do it right before you plant, you get fodder mixed with the soil, and sometimes, you don't get good seed-to-soil contact because the seed gets mixed in with that residue. That's why we try to do it as early as we can."

Bob reports that he's also a firm believer in using fungicide and insecticide. "We have seen from yield maps that there's a 9-10 bushel advantage with insecticide and fungicide. Foliar feed is something new we did this year. That might have been a plus because of the stress of the hot and dry weather we had. We are going to try it again next year. We're going to have more beans next year, and we're going to have more of a chance to experiment."

Trying new things is something that Twin Lane Farm does on a regular basis. "I'm always experimenting a little bit," says Bob. "I enjoy seeing what might work and what might not work. I'll never go gung-ho on something until I know if it works. It's expensive if you don't see a return on it."

As the state's top winner, Twin Lane Farm will receive an educational trip to the Commodity Classic, the annual convention and trade show of the soybean, corn, wheat and sorghum industry. The convention attracts thousands of farmers and exhibitors throughout the country to learn from industry experts about the latest information and technology. Unfortunately, because of the COVID-19 restrictions, the 2021 show will be virtual. The Shearers, and the regional winners of the Pa. Soybean Yield Contest, will have the opportunity to attend the 2022 Commodity Classic, which is scheduled to be held in New Orleans in March, 2022.

The contest, which was introduced by the Pennsylvania Soybean Board in 1992 and is administered by Penn State Extension, is not just a friendly competition. It's also a way for some of the top producers in the state to share best practices with other growers.

Bob said he's entered the contest a number of times in the 20+ years it's been held. "I enjoy the competition among growers," he admits. I am a true believer that you can learn from somebody that's doing a good job. That's how I feel I've gotten to where I'm at, by learning from other people. When the results of the contest come out, I look at who the top producers are and what practices they're doing. There's always something I can learn."



Mike and Bob Shearer, Twin Lane Farm, Mount Joy, Pa., won of the Pennsylvania Soybean Yield Contest for the second consecutive year.

Photo by Jeff Graybill, Penn State

Congratulations to the 2020 Pa. Soybean Contest Winners

The Pennsylvania Soybean Contest is sponsored by the Pennsylvania Soybean Board. It is designed to focus farmer attention on agronomic and management skills that will increase soybean profitability. The state is divided into five regions.

Overall State & South Central Region

Twin Lane Farm (Mike & Bob Shearer)
Lancaster County, 100.69 bu/acre

Central Region

Jim & Ward Chapin
Columbia County, 90.05 bu/acre

Northern Region

Justin Jones
Bradford County, 45.15 bu/acre

Southeastern Region

Brad Kiefer
Northampton County, 94.07 bu/acre

Western Region

Henry Sniezek
Lawrence County, 68.45 bu/acre



THE PENNSYLVANIA SOYBEAN CONTEST

If you know what it takes to produce great soybeans, you could be a winner in the Pennsylvania Soybean Contest.

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

PRODUCTION: For the state-wide and regional yield contest winners, 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 receives an educational trip for two (the winner and one other individual* with a direct financial interest in their farming operation) to the Commodity Classic. (Up to \$2,500.) The top yield winner in each region receives an educational trip for the winner to the Commodity Classic. (Up to \$1,500.) Special awards are presented for irrigated bean yield and for oil/protein quality.

HOW TO ENTER: If you would like to enter the 2021 Pennsylvania Soybean Contest, you must register by September 1, 2021. Online registration is available at pasoybean.org. Harvest report forms must be postmarked by November 15, 2021. You may also request a registration form from your local Penn State Extension Educator, or by contacting:

Penn State Extension-Lebanon County
PA Soybean Contest c/o Del Voight
2120 Cornwall Road, Suite 1
Lebanon, PA 17042-9777
717-270-4391

Penn State Extension-Montgomery County
PA Soybean Contest c/o Andrew Frankenfield
1015 Bridge Road, Suite H
Collegeville, Pennsylvania 19426-1179
610-489-431

* Subject to approval by the Pa. Soybean Board. All decisions of the Board are final. Awards are non-transferable.

RESULTS OF 2020 PA SOYBEAN CONTEST

SOYBEAN MANAGEMENT PRACTICES OF REGIONAL WINNERS

Region	South Central	Central	Western	Northern	Southeast
Winner	Twin Lane Farm	Jim/Ward Chapin	Henry Sniezek	Justin Jones	Brad Kiefer
County	Lancaster	Columbia	Lawrence	Bradford	Northampton
Previous Crop	Corn	Corn	Corn	Corn	Corn
Row Width	15"	7.5"	30"	15"	15"
Tillage Type	Min-Till	No-Till	Conventional	No-Till	Conventional
Variety	Pioneer P32T26E	Pioneer 31A95BX	Seed Consultants SC7320E	Asgrow 30X8	Asgrow 36X6
Seeding Date	5/4/2020	4/22/2020	5/21/2020	5/5/2020	5/5/2020
Seeding Rate	151,000	165,000	160,000	200,000	180,000
Final Stand	139,200	139,896	139,896	160,080	140,000
Seed Treatment	Pioneer Premium	Pioneer Premium	None	Acceleron + Gaucho	☑Cruiser Max
Inoculation	Pre	Liquid	Liquid	Dry & Liquid	Pre
Fungicide	Approach Prima	Approach	Affiance	none	None
Insecticides	Province II	Hero	Mustang Maxx	none	None
Pre-Herbicide	Credit Extra, Prowl H2O, 2,4-D, Cloak75DF	Metribuzin, Aim, Zidua	None	Roundup PowerMax MTZ	None
Post-Herbicide	Credit Extra Curio	Extreme	Roundup Enlist	Roundup Dual	Roundup PowerMax
Date of Harvest	10/1/2020	10/6/2020	x	10/15/2020	10/8/2020
Yield	100.69	90.05	87.58	45.15	94.07
Moisture %	14.03	14.1	12	19.1	11.5
Ave Pod Count	53	66	42	77	36
Harvest Loss	0.41 bu/a	0.38 bu/a	0.26 bu/a	1.38 bu/a	1.38 bu/a
pH	6.6	x	6.9	☑6.1	7.4
P	Optimum	x	Optimum	Optimum	Optimum
K	High	x	Optimum	☑Optimum	High
Biostimulant	x	x	No	No	No
Foliar Fertilizer	Yes FOLI-POP-K	Yes	Yes	No	Yes
Cover Crop	Wheat	Wheat, rye, hairy vetch, clover	Rye	Rye	Rye

YIELD COMPARISONS

	Ave. Bu/A
Mean Yield	80.6
No-till (n=17, 65% of entries)	82.5
Min-till (n=5, 19% of entries)	81.5
Conventional till (n=4, 15% of entries)	71.3
Drill (n=12, 46% of entries)	79.7
Corn planter (n=14, 54% of entries)	81.4
Planted April 1 to 10 (n=1, 5% of entries)	58.5
Planted April 21 to 30 (n=3, 16% of entries)	93.1
Planted May 1 to 10 (n=6, 32% of entries)	90.2
Planted May 11 to 20 (n=8, 42% of entries)	81.4
Planted May 21 to 30 (n=1, 5% of entries)	68.5
Rows 10" or less (n=7, 27% of entries)	79.3
Rows 11" to 20" (n=15, 58% of entries)	82.2
Rows 30" (n=3, 12% of entries)	75.2
No Foliar Fungicide or Insecticide Applied (n=9, 36% of entries)	78.9
Foliar Insecticide Applied (n=2, 8% of entries)	75.8
Combination of Foliar Fungicide & Insecticide (n=14, 56% of entries)	85.3

PRODUCTION INFORMATION

Seed Treatment (n=21, 91% of entries)	80.5 bu/a
No Seed Treatment (n=2, 9% of entries)	73.3 bu/a
Rhizobia Inoculation (n=24, 96% of entries)	79.8 bu/a
No Rhizobia Inoculation (n=1, 4% of entries)	89.7 bu/a
Dry Inoculation (n=2, 9% of entries)	72.3 bu/a
Liquid Inoculation (n=3, 13% of entries)	74.2 bu/a
Pre-Inoculation (n=18, 78% of entries)	83.5 bu/a
Calibrate Seed Equipment	
Yes (75%)	81.6 bu/a
No (25%)	74.2 bu/a
pH 6.0-6.3 (33%)	76.3 bu/a
pH 6.4-7.4 (67%)	84.7 bu/a
Low P (4%)	63.9 bu/a
Med P (26%)	66.8 bu/a
High P (70%)	89.0 bu/a
Low K (9%)	68.4 bu/a
Med K (23%)	73.1 bu/a
High K (68%)	86.9 bu/a
No Foliar Fertilizer (43%)	74.3 bu/a
Foliar Fertilizer (57%)	82.8 bu/a
Nitrogen (21%)	85.7 bu/a
No Nitrogen (79%)	77.7 bu/a
Herbicide	100% utilized Glyphosate 85% used a pre-emergent herbicide 73% of those used a residual product pre 100% used a post-emergent herbicide 50% used a multiple MOA post 15% utilized Engenia, XtendiMax or Enlist
Yield Limiting Factors	Cool, late spring, dry mid-summer, slow dry down
Average Seeds Per Pound	2,805
Average Seed Drop	162,923
Average Plants at Harvest	121,059 35% loss from planting
Average Pod Count	58
Average Harvest Loss	0.65 bu/a
Average Harvest Date	10/9/2020
Cover Crop	88% planted a cover crop or small grain crop 62% planted wheat, 38% planted rye

GRAIN QUALITY

Name	Protein %	Oil %	Protein + Oil %
Ethan Buser	36.1	18.9	55
Patricia Buser	35.9	18.8	54.7
Noah Detwiler	35.5	19.1	54.6
Robert Buser	35.4	18.9	54.3
Aaron Stepnoski	35.2	18.8	54
Nathan Crooke	36.2	17.8	54
Herman Manbeck	34	19.8	53.8
Eric Charles	33.6	19.9	53.5
Brad Kiefer	34.6	18.9	53.5
Dale Herr, Jr.	33.4	19.9	53.3
Henry Sniezek	34.5	18.6	53.1
Twin Lane Farm	32.9	20.2	53.1
Derrick Weaver	34.2	18.7	52.9

Name	Protein %	Oil %	Protein + Oil %
Merle Stoltzfus	33.8	19.1	52.9
Jordan Smucker	33.8	19	52.8
Richard Kreider	33.1	19.7	52.8
Elvin Reiff	33.6	19.2	52.8
Jay Arentz	31.9	20.7	52.6
Rodney Arentz	34.4	18.2	52.6
Robert Reed	34.3	18.3	52.6
Justin Jones	34.9	17.2	52.1
Darren Grumbine	31.6	20.4	52
Jim/Ward Chapin	31.9	20	51.9
James Hershey	33.4	18.5	51.9
Leslie Bowman	31.5	20.3	51.8
Thomas M. Hoovler	33.5	18.2	51.7

Average Protein 34% Average Oil 19.1% Average Protein + Oil 53.1%

The Pennsylvania Soybean Contest is sponsored by the Pennsylvania Soybean Board. Our thanks to all the farmers who entered the contest, to the harvest supervisors for validating the entries and to Penn State Senior Extension Educators Delbert G. Voight, Jr. and Andrew Frankenfield for administering the contest and assembling the results.

