

2017 Pennsylvania Soybean Contest Report



**Supported and directed by the
PA Soybean Board**

Prepared by: Andrew Frankenfield – Extension Educator
Penn State Extension

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Cassie Yost	Educator, Penn State Extension Franklin County

Rank of Contest Entries

South Central

Rank	Name	Yield	County	Brand	Cultivar
1	Charles Farms	107.17	Lancaster	Pioneer	31T77
2	Zach Alger	101.5	Lebanon	Asgrow	28X7
3	Darren Grumbine	94.05	Lebanon	Asgrow	38X6
4	Richard Kreider	93.7	Lebanon	Pioneer	27T03
5	Matthew Beiler	93.07	Lancaster	Pioneer	37T51
6	Robert Buser	92.29	York	Pioneer	31T77
7	James E. Hershey	90.07	Lancaster	Pioneer	31T77
8	Ken Zimmerman	88.22	Lancaster	Hubner	31-16 X
9	Glenn Krall	87.34	Lebanon	Pioneer	36T86
10	Greg Musser	87.07	Lancaster	Pioneer	93M11
11	Kristen Grumbine	85.14	Lebanon	Pioneer	36T36
12	Jeffery Bomgardener	84.71	Lebanon	Stine	36LE32
13	Ethan Buser	84.29	York	Pioneer	36T86
14	Linda Krall	83.37	Lebanon	Pioneer	36T86
15	Sam Conley	80.86	Lancaster	Hubner	
16	Merle Stoltzfus	80.08	Lancaster	Hubner	38-27
17	Herman Manbeck	79.26	Berks	Pioneer	35T58
18	Doug Scipioni	79.04	Lebanon	Pioneer	36T86
19	John Groff	76.71	Lancaster	Hubner	32-13
20	A. Dale Herr, Jr.	76.17	Lancaster	Pioneer	33T19
21	Elvin Reiff	73.87	Lancaster	Hubner	32-13
22	Maple Lawn Farms	72.4	York	Channel	4206
23	Patricia Buser	66.86	York	Pioneer	31T77



Rank of Contest Entries

Central

Rank	Name	Yield	County	Brand	Cultivar
1	Jay Arentz	92.24	Adams	TA Seeds	2849
2	Lesher Poultry Farm	79.37	Franklin	Pioneer	36T86
3	Walter Ocker	76.15	Franklin	Hubner	37-14
4	Lyle Ocker	73.36	Franklin	Hubner	38-13
5	Robert Reed	57.93	Northumberland	Pioneer	92Y91

West

1	Mike Reskovic	71	Fayette	DF Seeds	DF2.6
2	Thomas M. Hoovler	68.29	Mercer	Asgrow	3034
3	Telesz Farms	57.11	Lawrence	Hi Soy	33A44

Northern

1	Scott Snyder	62.37	Lycoming	Pioneer	36T86
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Southeast

1	John Frederick	83.55	Bucks	Hi-Soy	39A22
2	Tim Stewart	79.4	Bucks	Asgrow	3832
3	Nathan Crooke	71.7	Bucks	Channel	1808

Grain Quality			
Name	Protein %	Oil %	Protein + Oil %
Greg Musser	34.9	20.8	55.7
Nathan Crooke	34.9	20.3	55.2
Linda Krall	36.2	18.6	54.8
Robert Reed	36.8	17.9	54.7
Richard Kreider	35.2	19.3	54.5
John Groff	35.1	19.3	54.4
Charles Farms	33.5	20.6	54.1
Scott Snyder	35.8	18.3	54.1
A. Dale Herr, Jr.	35.8	18.3	54.1
Glenn Krall	35.2	18.8	54.0
Mike Reskovac	36.1	17.8	53.9
Elvin Reiff	34.5	19.3	53.8
Matthew Beiler	35.1	18.6	53.7
Jeffery Bombgardener	34.2	19.5	53.7
Robert Buser	33.6	20.0	53.6
Patricia Buser	34.0	19.6	53.6
Doug Scipioni	34.6	18.8	53.4
James Hershey	33.9	19.5	53.4
John Frederick	34.5	18.9	53.4
Thomas Hoover	36.7	16.6	53.3
Tim Stewart	34.9	18.3	53.2
Jay Arentz	35.0	18.2	53.2
Kristen Grumbine	34.1	19.1	53.2
Walter Ocker	35.1	18.0	53.1
Leshar Poultry Farm	34.4	18.7	53.1
Ethan Buser	32.9	20.0	52.9
Darren Grumbine	33.3	19.7	52.9
Zach Alger	34.3	18.6	52.9
Ken Zimmerman	35.2	17.6	52.8
Herman Manbeck	32.3	20.1	52.4
Sam Conley	33.5	18.6	52.1
Lyle Ocker	33.9	18.2	52.1
Merle Stoltzfus	33.4	18.5	51.9



Yield Comparisons

Yield Comparisons	Ave Bu/A
Mean Yield	80.85
No-till (n=25, 71% of entries)	83.37
Min-till (n=8, 23% of entries)	76.17
Conventional (n=2, 6% of entries)	68.08
Drill (n=13, 37% of entries)	82.49
Corn planter (n=22, 63% of entries)	79.88
Planted May 10 or earlier (n=23, 70% of entries)	82.14
Planted May 11 to 20 (n=8, 24% of entries)	79.24
Planted May 21 to 30 (n=0, 0% of entries)	--
Planted after May 30 (n=2, 6% of entries)	64.76
Rows 10" or less (n=9, 26% of entries)	79.76
Rows 11" to 20" (n=17, 49% of entries)	83.06
Rows 30" (n=9, 26% of entries)	77.77
No Foliar Fungicide or Insecticide Applied (n=11, 31% of entries)	76.45
Foliar Fungicide Applied (n=4, 11% of entries)	78.65
Foliar Insecticide Applied (n=3, 9% of entries)	87.65
Combination of Foliar Fungicide and Insecticide (n=17, 49% of entries)	83.01



Production Information

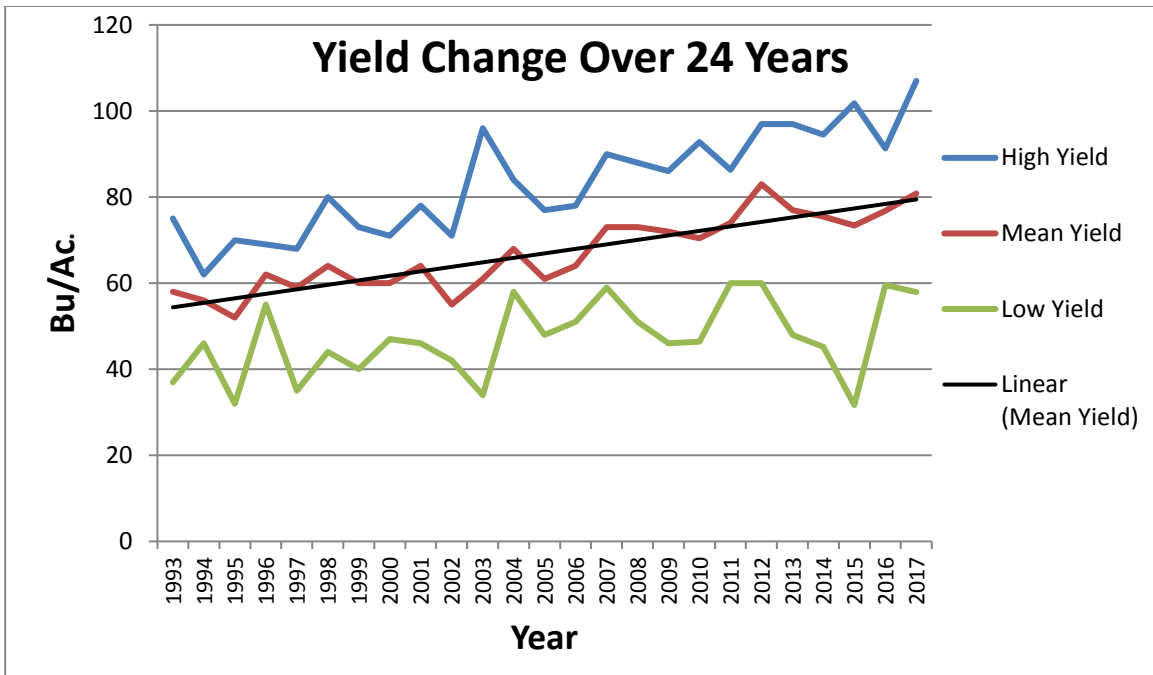
Seed Treatment (n=30, 91% of entries)	80.31 bu/a
No Seed Treatment (n=3, 9% of entries)	83.25 bu/a
Rhizobia Inoculation (n=25, 89% of entries)	81.45 bu/a
Dry Inoculation (n=10, 42% of entries)	76.28 bu/a
Liquid Inoculation (n=14, 58% of entries)	85.78 bu/a
No Inoculation (n=3, 11% of entries)	76.43 bu/a
Calibrate Seed Equipment	47%
Soil Test (within past 3 years)	97%
pH	6.75
Foliar Fertilizer (n=11, 34% of entries)	80.46 bu/a
No Foliar Fertilizer (n=21, 66% of entries)	81.57 bu/a
Herbicide	100% utilized a herbicide 97% utilized Glyphosate 66% used more than one mode of action 9% utilized Engenia 3% utilized Liberty
Yield Limiting Factors	Lodging, White mold, Lack of Sunshine
Average Seeds Per Pound	2,711
Average Seed Drop	163,813
Average Plants at Harvest	121,616 35% loss from planting
Average Pod Count	56
Average Harvest Loss	1.03 bu/a
Average Harvest Date	10/5/2017
Cover crop	76% followed soybeans with a small grain crop



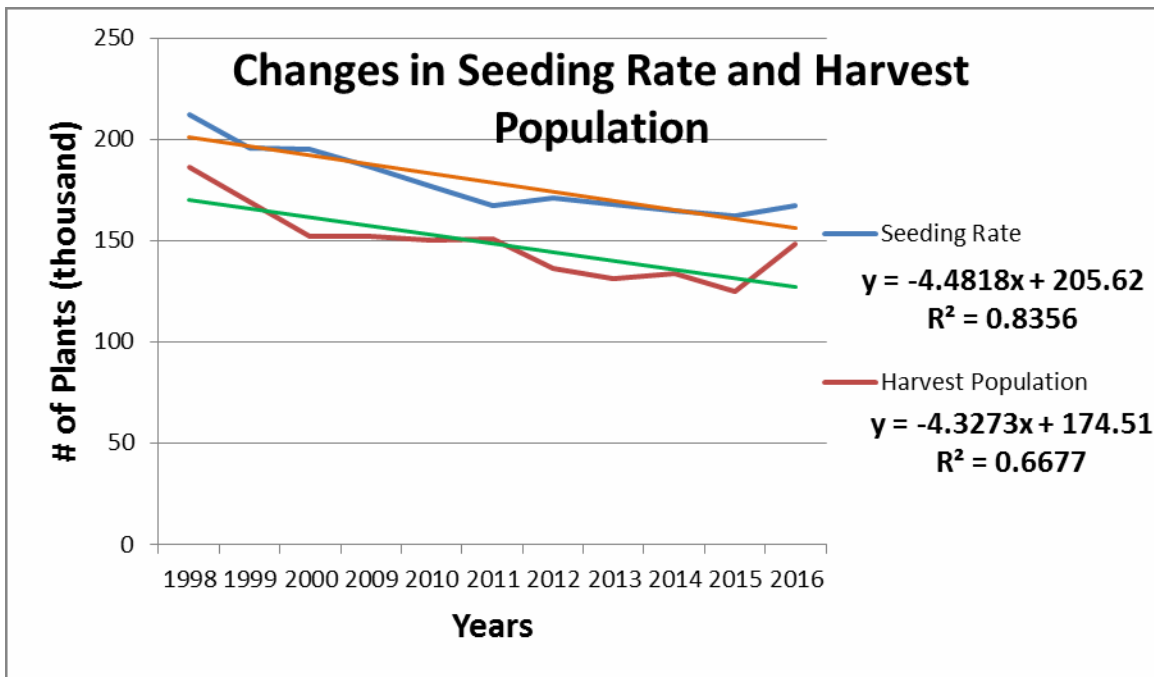
Soybean Management Practices - Regional Award Winners

Region	South Central	Central	West	Northern	Southeast
Winner	Charles Farms	Jay Arentz	Mike Reskovac	Scott Snyder	John Frederick
County	Lancaster	Adams	Fayette	Lycoming	Bucks
Previous Crop	Corn	Corn	Corn	Corn	Small Grain
Row Width	7.5"	30"	15"	30"	30"
Tillage Type	No-till	No-till	No-till	Min-till	Min-till
Variety	Pioneer 31T77	TA Seeds 2849	DF Seeds 2.6	Pioneer P36T86	Hi Soy 39A22
Seeding Date	4/20/2017	4/20/2017	5/19/2017	5/4/2017	5/1/2017
Seeding Rate	192,000	110,000	160,000	153,000	138,000
Final Stand	167,040	70,470	Not Reported	112,230	108,750
Seed Treatment	Pioneer Premium	Trius Elite	None	Pioneer Premium	Fungicide Only
Inoculation	Liquid	Liquid	Dry	Dry	Pre
Fungicide	Priaxor	None	None	Approach	Priaxor
Insecticide	Yes	Yes	None	Yes	None
Herbicide	Gly Star K-Plus, FirstRate	Gramoxone, Prowl, Envive, Sharpen	Liberty, Zidua, Round Up	Round Up, Sinister	Round Up
Date of Harvest	9/26/2017	9/25/2017	9/28/2017	10/31/2017	10/27/2017
Yield	107.17	92.24	71.00	62.37	83.55
Moisture	13.33	12.30	12.60	16.85	13.78
Ave Pod Count	59	102	71	39	52
Harvest Loss	0.4 bu/a	1.35 bu/a	0.81 bu/a	0.86 bu/a	0.6 bu/a
pH	6.2	6.0	6.9	6.9	6.8
P205	Optimum	Optimum	Not Reported	Optimum	Optimum
K20	Optimum	Optimum	Not Reported	Optimum	Optimum
Foliar Fertilizer	Yes	Yes	None	None	Yes
Cover Crop	Yes	Yes (Barley)	Yes (Rye/Clover)	No	No (Rye)



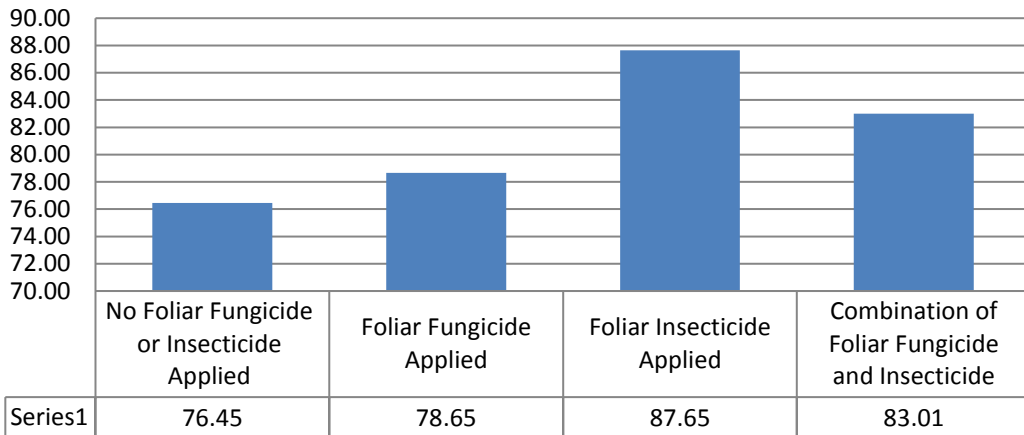


Conclusion: Over a 24 year period, there was an average of slightly over one bushel increase per year.

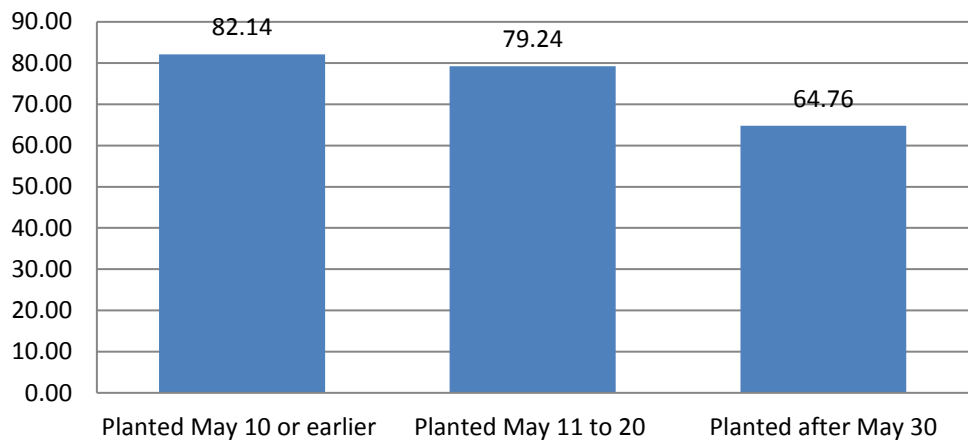


Conclusion: Over a 19 year period, there has been a decrease in seeding rate by approximately 4,500 plants and a decrease in the harvest population by approximately 4,000 plants per year.

2017 Observations in Pest Management



2017 Planting Date Trends



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Photos by Del Voight, Penn State Extension; United Soybean Board



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