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2022 Soybean Insect Losses in the United States

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Abstract

Estimated insect management costs and losses due to insects and other invertebrates in soybean during the 2022 growing season were collected and compiled from 18 states to provide a record of insect pressure and management practices for the year. These annual estimates provide a historical record of pest pressure and insect management and have been compiled in some states since 2004. Participating states represented 52% of soybean acreage grown in the United States, with near 100% participation in southern states. Overall, the stink bug complex was the costliest insect pest in soybean followed by corn earworm and soybean looper. Total insect management costs were $16.78 per acre, with estimated crop losses to insects at $15.36 per acre, making the 2022 total costs plus losses $32.13 per acre. An average of 0.9 foliar insecticide applications were made over all soybeans. State estimates varied widely, with insect management costs in four states averaging less than $8/ac, while averaging more than $50/ac in two states. Similarly, the estimated yield losses from insects ranged from less than $2/ac in four states to more than $50/ac in three states.

Key Words: soybean, yield loss, pest management

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Introduction

Numerous insects cause injury to soybeans every year, often reducing yield and quality. To obtain an estimate of the impact of these insects at a state and national scale, the opinions of entomologists from each state regarding pest pressure and management strategy adoption are collected annually. Soybean insect loss estimates have been compiled annually since 2004 in Mississippi (Musser and Catchot 2008), with 17 other states beginning to make estimates between 2008 and 2022. These estimates are "best guesses" by university personnel, primarily entomologists, who have been involved in state-wide monitoring of soybean throughout the year. While the costs and losses estimated for an insect pest in any given year are somewhat subjective, these losses provide a historical record of pest pressure and management practices and an estimate of the economic impact of the various soybean pests. Over time, the changes in estimated losses and insecticide applications provide a record of shifts in insect pests and management practices. However, readers should be careful about making comparisons between individual states as these differences are a function of the people making the estimates in addition to actual differences in soybean insect management.

Materials and Methods

Statewide estimates were made based on informal communication of an author from each state with university faculty, Extension personnel, private crop consultants and/or industry professionals who were actively engaged in soybean production in that state (see appendices for submitted data from each state). Acreage, yield, and price data were drawn from Agricultural Statistics Service publications (USDA NASS) before final estimates were published, so values in the tables may differ from final NASS values. The estimates were placed in a spreadsheet to make the various calculations. Actual formulas used in the spreadsheet were published by Musser and Catchot (2008). Additional columns were added for the 2013 losses, and these are defined in Musser et al. (2014).

Results and Discussion

Harvested acreage in the reporting states was 44.8 million acres (1 acre= 0.405 hectare), which represents 52% of the 86.3 million acres of soybean harvested in the United States during 2022 (USDA NASS). Nearly all southern soybean-producing states participated, while participation in the midwestern and northern states was less than 50%. As a result, the overall averages of insect costs and losses in this report are likely greater than the true national averages because insect management costs and losses in the southern states are typically greater than in the northern states (Table 1). Average combined management costs and yield losses attributed to insects were estimated at $32.13/ac for 2022, but this varied widely among states, ranging from less than $10/ac in Iowa and Wisconsin to greater than $100/ac in Arkansas, Mississippi, and Virginia. Average yield losses from insects were estimated at 2.03% (1.13 bu/ac or 76 kg/ha), but this also varied from 0.0% in Michigan and Wisconsin to 11.8% in Virginia. The adoption levels of insect management strategies also varied at the regional level (Table 1).

As in most preceding years, the seed-feeding complex of stink bugs (Hemiptera: Pentatomidae) was the costliest insect pest of soybean overall during 2022 in terms of lost yield (0.7%) and management costs ($2.37/ac), comprising 32% of all combined insect costs + losses. This complex was considered the most economically damaging pest in 10 of the 18 reporting states. Across the nation, the primary species in the complex during 2022 were brown (*Euschistus* spp.) and green (*Chinavia hilaris*) stink bugs. However brown, green, southern green (*Nezara viridula*), redbanded (*Piezodorus guildinii*), and brown marmorated (*Halyomorpha halys*) stink bugs were each the primary stink bug species in at least one state.

Table 1. Soybean insect management practices by region, 2022.

Region	Soybean Acres[1] (x1000)	% soybean acres[1]		Average Number of Foliar Applications	Insect Impacts ($/acre)	
		Scouted	Insecticide Seed Treatment		Management Costs	Yield Losses
North Central[2]	32,170	21	72	0.48	9.34	3.28
Southeast[3]	3,398	30	33	1.78	24.44	47.68
Mid-South[4]	8,540	76	78	2.21	42.58	45.97
Southwest[5]	664	20	49	0.20	10.73	5.80
Average (weighted by acres)		32	70	0.90	16.78	15.36

[1] 1 acre = 0.405 ha
[2] Illinois, Iowa, Kentucky, Michigan, Ohio, and Wisconsin
[3] Alabama, Delaware, Georgia, North Carolina, South Carolina, and Virginia
[4] Arkansas, Louisiana, Mississippi, and Tennessee
[5] Texas and Oklahoma

Corn earworm, *Helicoverpa zea*, and soybean looper, *Chrysodeixis includens*, (both Lepidoptera: Noctuidae) were the second and third most damaging pests during 2022 which is consistent with previous years. Corn earworm was considered the costliest insect pest in Arkansas and North Carolina, and over all states was responsible for 24% of insect costs + losses. Soybean looper was not the costliest pest in any state but was responsible for 12.9% of insect costs + losses overall.

No other insect accounted for 10% of insect costs + losses. Other invertebrates responsible for at least 1.5% of overall insect control costs + yield losses were bean leaf beetle, *Ceratoma trifurcata* (Coleoptera: Chrysomelidae) (4.9%); slugs, (Gastropoda: Pulmonata) (4.6%); threecornered alfalfa hopper, *Spissistilus festinus* (Hemiptera: Membracidae) (2.4%); green cloverworm, *Hypena scabra* (Lepidoptera: Erebidae) (2.0%); kudzu bug, *Megacopta cribraria* (Hemiptera: Plataspidae) (1.7%); and velvetbean caterpillar, *Anticarsia gemmatalis* (Lepidoptera: Noctuidae) (1.5%).

Automatic insecticide applications, foliar insecticide applications made that were not in response to any particular insect pressure, cost growers $1.67/ac, which ranked behind only stink bugs and soybean looper in insecticide cost per acre. These applications comprised 35% of all foliar insecticide applications and were typically an inexpensive insecticide added to the spray mix of a planned fungicide or herbicide application. They were less expensive than applications made to target a specific pest (because there was no additional application cost and the insecticide was typically an inexpensive generic material), but because they were applied so widely over many states, they were a substantial overall cost of insect management in soybean production.

State Highlights

Alabama. Overall 2022 insect costs + losses were similar to 2020 and 2021 (Musser et al. 2021, 2022) at $46.06/ac. The stink bug complex, primarily southern green stink bug, was again the primary pest, accounting for 50% of insecticide applications and 77% of insect costs + losses. Kudzu bug was the second most costly insect, being a pest on about twice as many acres in 2022 as in 2021.

Arkansas. As has been true in previous years, corn earworm and stink bugs were the primary pests during 2022, combined accounting for 66% of all insect costs + losses. Continuing the trend observed in 2021 (Musser et al. 2022), the number of insecticide applications and yield losses both increased slightly, resulting in overall costs + losses increasing from $79.52/ac to $112.33/ac.

Delaware. After rising sharply each year from 2019 to 2021 (Musser et al. 2020, 2021, 2022), costs + losses for stink bugs and slugs stayed at 2021 levels during 2022. Costs + losses for other insects were also similar to 2021, resulting in similar total costs + losses of $58.91/ac in 2021 and $62.84/ac in 2022.

Georgia. As in 2020 and 2021, stink bugs, soybean looper, and velvetbean caterpillar were the primary pests during 2022 (Musser et al. 2021, 2022). As was true in neighboring Alabama, costs + losses associated with kudzu bug doubled in 2022 compared to 2021. However, total costs + losses to all insects decreased slightly from $35.10/ac in 2021 to $31.10/ac in 2022.

Illinois. Insecticide seed treatments and automatic insecticide applications continued to be the largest insect-related expenses in 2022, together accounting for 64% of all insect-related costs + losses. Spider mites, bean leaf beetle, and slugs were the primary pests during 2022, while seedcorn maggot, which was the costliest pest during 2021 (Musser et al. 2022) caused no losses during 2022.

Iowa. This was the first year Iowa contributed insect loss estimates. Overall costs + losses associated with insects were only $5.95/ac. Foliar applications were made on 18% of acreage, with 81% of the foliar applications being automatic applications. The costliest insect pests were Japanese beetles and spider mites.

Kentucky. Overall yield loss to insects decreased from 4.9% in 2021 to 2.3% in 2022, primarily a result of greatly reduced losses associated with stink bugs, but costs + losses attributed to slugs rose from $1.00/ac in 2021 to $10.23/ac in 2022, making it the costliest invertebrate in 2022. Stink bugs and bean leaf beetles were the second and third costliest pests during 2022.

Louisiana. Consistent with previous years, stink bugs and soybean looper were the primary pests, together responsible for 83% of the total costs + losses. The number of foliar applications targeting stink bugs increased from 1.13 during 2021 to 1.90 during 2022, leading to an increase in the overall number of foliar applications from 2.64 during 2021 to 3.06 during 2022. Overall costs + losses of $76.35/ac were similar to 2021 and 2020 ($73.06 and $76.37/ac, respectively) (Musser et al. 2021, 2022).

Michigan. No yield losses from insects were reported in Michigan during 2022. Insecticide seed treatments were the primary insect management cost incurred, being used on 75% of acreage and costing growers $6.00/ac over all soybean acreage, which represented 80% of all insect-related management costs.

Mississippi. As in previous years, the main three pests were stink bug, corn earworm and soybean looper. Costs + losses associated with stink bug rose slightly, while corn earworm costs + losses rose sharply. Somewhat offsetting these increases were decreases in costs and/or losses for armyworms, saltmarsh caterpillar, velvetbean caterpillar and soybean looper. Overall, the number of foliar insecticide applications remained steady at 2.5 and costs + losses increased from $93.87/ac during 2021 (Musser et al. 2022) to $112.38/ac during 2022.

North Carolina. The number of foliar applications increased sharply from 1.4 during 2021 to 2.0 during 2022 but was still lower than the 2.3 applications made during 2020 (Musser et al. 2021, 2022). While the higher number of foliar insecticide applications increased costs, yield losses did not increase, resulting in a small increase in total costs + losses from $60.66/ac during 2021 to $68.27/ac during 2022. Corn earworm remained the primary pest, accounting for 58% of insect costs + losses, followed by stink bugs.

Ohio. Total costs + losses decreased from $38.81/ac during 2021 to $24.16/ac during 2022 which is comparable to 2020 ($21.24/ac) (Musser et al. 2021, 2022). Armyworms, Japanese beetles, and slugs were the pests during 2021 that were largely absent in 2022. Stink bugs returned to being the primary insect pest, accounting for 43% of all costs + losses.

Oklahoma. Stink bugs remained the primary pest, and costs + losses for this pest was similar to 2020 and 2021 (Musser et al.

2021, 2022). Grasshoppers emerged during 2021 as a substantial pest and was the second costliest pest during 2022, responsible for 27% of all insect-related costs + losses. Overall costs + losses were only $11.64/a in a low yield environment that averaged 16 bu/ac during 2022.

South Carolina. Stink bugs and soybean looper remained the costliest pests, together accounting for 58% of all costs + losses. Overall costs + losses were similar during 2021 ($78.26/ac) (Musser et al. 2022) and 2022 ($72.56/ac).

Tennessee. Stink bugs continued to be the primary pest with minimal change from 2021, but cost + losses for armyworms decreased from an unusually high value of $6.98/ac in 2021 to a more typical value of $0.58/ac in 2022. Costs + losses for all other pests were similar to 2021, so total insect costs + losses dropped from $40.22/ac in 2021 (Musser et al. 2021) to $34.60/ac in 2022.

Texas. Consistent with previous years, stink bug was the primary pest. However, in contrast to previous years, stink bug was the only insect pest to cause yield losses in 2022, with stink bugs responsible for 99.5% of all costs + losses.

Virginia. Similar to 2021, the top three insect pests were stink bug, threecornered alfalfa hopper, and corn earworm (Musser et al. 2021). Together, these three pests comprised 77% of all insect costs + losses. The number of foliar insecticide applications and the % yield loss dropped slightly, but the increase in soybean value caused the costs + losses to increase from $98.62/ac in 2021 to$115.69/ac in 2022.

Wisconsin. Following substantial yield losses from Japanese beetle, seed corn maggot and spider mites in 2021 (Musser et al. 2021), there were no yield losses attributed to insects during 2022 (Musser et al. 2022). Insect management costs of $5.15/ac were mostly for seed treatments and insect scouting.

Complete data for each state and all states combined are in the appendices following this report.

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USDA NASS. United States Department of Agriculture National Agricultural Statistics Service, Data and Statistics, https://quickstats.nass.usda.gov/

List of Appendices

Appendix 1: Overall soybean insect losses from 18 reporting states, 2022.

Pest	Acres Infested	% Acres Infested	Acres above ET	% Acres above ET	Acres Treated	% Acres Treated	# of apps/acres treated	Cost of 1 Insecticide	% loss per acre infested	# of apps per total soy acres	cost/acre	Overall % reduction	bushel lost per pest	Loss + Cost	Loss + Cost/acre	% Total Loss + Cost
Armyworm complex	6,653,142	14.9%	629,228	1.4%	661,050	1.5%	0.81	$10.14	0.15	0.012	$0.12	0.02%	551,889	$12,960,844	$0.29	1.2%
Banded Cucumber Beetle	4,168,840	9.3%	23,100	0.1%	2,310	0.0%	1.00	$9.50	0.00	0.000	$0.00	0.00%	10,238	$161,662	$0.00	0.0%
Bean Leaf Beetle	23,421,657	52.3%	1,820,996	4.1%	2,005,432	4.5%	0.95	$11.78	0.18	0.043	$0.50	0.10%	2,382,271	$55,001,478	$1.23	4.9%
Blister Beetle	2,209,619	4.9%	163,800	0.4%	183,675	0.4%	0.92	$11.97	0.04	0.004	$0.04	0.00%	52,748	$2,732,790	$0.06	0.2%
Corn Earworm	8,393,489	18.7%	3,692,570	8.2%	3,630,940	8.1%	1.09	$16.03	3.21	0.088	$1.42	0.60%	14,945,572	$267,458,912	$5.97	24.0%
Cutworms	1,575,060	3.5%	129,110	0.3%	213,300	0.5%	1.00	$11.62	0.03	0.005	$0.06	0.00%	22,093	$2,780,260	$0.06	0.2%
Dectes Stem Borer	10,247,111	22.9%	80,500	0.2%	72,390	0.2%	0.87	$9.94	0.10	0.001	$0.01	0.02%	571,667	$8,425,014	$0.19	0.8%
Garden Webworms	476,830	1.1%	15,850	0.0%	19,020	0.0%	0.00	$12.00	0.05	0.000	$0.00	0.00%	14,226	$194,152	$0.00	0.0%
Grape Colaspis	6,113,861	13.7%	0	0.0%	0	0.0%	0.00	$0.00	0.01	0.000	$0.00	0.00%	38,391	$523,938	$0.01	0.0%
Grasshopper	26,573,076	59.4%	486,394	1.1%	269,912	0.6%	1.00	$10.85	0.03	0.006	$0.07	0.02%	440,145	$8,934,954	$0.20	0.8%
Green Cloverworm	28,885,528	64.5%	1,079,106	2.4%	1,094,652	2.4%	0.91	$9.99	0.06	0.022	$0.22	0.04%	890,381	$22,146,989	$0.49	2.0%
Japanese Beetle	22,407,975	50.0%	409,412	0.9%	1,095,815	2.4%	0.99	$11.35	0.02	0.024	$0.27	0.01%	251,903	$15,708,954	$0.35	1.4%
Kudzu Bug	4,980,050	11.1%	1,156,400	2.6%	796,140	1.8%	1.06	$8.80	0.31	0.019	$0.17	0.03%	850,698	$19,019,728	$0.42	1.7%
Lesser Cornstalk Borer	631,620	1.4%	4,050	0.0%	0	0.0%	0.00	$0.00	0.05	0.000	$0.00	0.00%	17,617	$240,422	$0.01	0.0%
Mexican Bean Beetle	105,236	0.2%	36	0.0%	0	0.0%	0.00	$0.00	0.76	0.000	$0.00	0.00%	44,568	$608,237	$0.01	0.1%
Potato Leafhopper	7,905,669	17.7%	0	0.0%	3,170	0.0%	1.00	$12.00	0.00	0.000	$0.00	0.00%	640	$46,772	$0.00	0.0%
Saltmarsh Caterpillar	5,917,449	13.2%	485,990	1.1%	264,500	0.6%	1.00	$13.97	0.08	0.006	$0.08	0.01%	268,461	$7,359,589	$0.16	0.7%
Seedcorn Maggot	2,150,300	4.8%	59,210	0.1%	20,190	0.0%	1.00	$11.64	0.15	0.000	$0.01	0.01%	184,255	$2,749,682	$0.06	0.2%
Slugs	3,535,088	7.9%	479,548	1.1%	1,073,740	2.4%	1.00	$20.98	1.05	0.024	$0.50	0.08%	2,065,645	$50,719,525	$1.13	4.6%
Soybean Aphid	2,822,500	6.3%	5,208	0.0%	1,168	0.0%	1.00	$10.00	0.00	0.000	$0.00	0.00%	423	$17,456	$0.00	0.0%
Soybean Gall Midge	5,050	0.0%	1,010	0.0%	0	0.0%	0.00	$0.00	0.50	0.000	$0.00	0.00%	1,399	$19,090	$0.00	0.0%
Soybean Looper	10,941,176	24.4%	3,862,255	8.6%	3,864,142	8.6%	1.15	$17.43	0.80	0.099	$1.73	0.20%	4,871,966	$144,115,464	$3.22	12.9%
Spider Mites	4,491,908	10.0%	843,105	1.9%	382,800	0.9%	1.11	$9.75	0.32	0.010	$0.09	0.03%	787,062	$14,895,187	$0.33	1.3%
Spotted Cucumber Beetle	20,603,740	46.0%	23,100	0.1%	0	0.0%	0.00	$0.00	0.01	0.000	$0.00	0.00%	119,697	$1,633,546	$0.04	0.1%
Stink Bugs (see box below)	26,658,765	59.5%	6,966,296	15.6%	7,322,377	16.4%	1.26	$11.48	1.24	0.206	$2.37	0.74%	18,350,281	$356,517,731	$7.96	32.0%
Thistle Caterpillar	1,733,100	3.9%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	12,687,521	28.3%	683,650	1.5%	271,975	0.6%	0.79	$9.73	0.26	0.005	$0.05	0.07%	1,794,612	$26,583,406	$0.59	2.4%
Thrips	15,151,690	33.8%	9,450	0.0%	3,187	0.0%	1.00	$8.73	0.00	0.000	$0.00	0.00%	19,943	$299,995	$0.01	0.0%
Velvetbean Caterpillar	4,723,696	10.6%	930,225	2.1%	883,013	2.0%	0.71	$8.38	0.31	0.014	$0.12	0.03%	823,684	$16,528,989	$0.37	1.5%
Other	1,094,541	2.4%	0	0.0%	5	0.0%	1.00	$40.00	0.00	0.000	$0.00	0.00%	2,341	$32,147	$0.00	0.0%
Automatic (no insects)	0	0.0%	0	0.0%	13,979,660	31.2%	1.00	$5.35	0.00	0.312	$1.67	0.00%	0	$74,735,630	$1.67	6.7%
										0.901	**$9.51**	**2.03%**	**50,374,819**	**$1,113,152,542**	**$24.86**	**100.0%**

SUMMARY DATA

Data Input

State	Combined
Year	2022
Total Acres	44,771,690
Yield/acre	54.27
Price/Bushel	$13.65
% Acres Scouted	32
Scouting Fee/scouted acre	$6.90
% Acres Insect Seed Trt.	70
Seed Trt Cost/treated ac	$7.28

Yield & Management Results

Total Bushels Harvested	2,429,905,770
Total Bushels Lost to Insects	50,374,819
Percent Yield Loss	2.03%
Yield w/o Insects	55.40
Ave. # Spray Applications	0.901
Seed Treated Acres	31,192,690
Scouted Acres	14,284,233

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$425,667,619	$9.51
Seed Treatment Costs	$227,012,894	$5.07
Scouting costs	$98,545,009	$2.20
Total Costs	$751,225,522	$16.78
Yield Lost to insects	$687,484,924	$15.36
Total Losses + Costs	$1,438,710,446	$32.13

Stink Bug Composition

Species	% of SB
Brown	38.6
Brown Marmorated	11.9
Green	34.9
Redbanded	7.5
Redshouldered	0.7
Southern Green	6.3
Total	100.0

Appendix 2. Alabama soybean insect losses, 2022.

Pest	Acres Infested	% Acres Infested	Acres above ET	% Acres above ET	Acres Treated	% Acres Treated	# of apps/acres treated	Cost of 1 Insecticide	% loss per acre infested	# of apps per total soy acres	cost/acre	Overall % reduction	bushel lost per pest	Loss + Cost	Loss + Cost/acre	% Total Loss + Cost
Armyworm complex	3,550	1.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Banded Cucumber Beetle	17,750	5.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	88,750	25.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Blister Beetle	3,550	1.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Corn Earworm	7,100	2.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Cutworms	7,100	2.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Dectes Stem Borer	10,650	3.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Garden Webworms	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grape Colaspis	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	337,250	95.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Green Cloverworm	337,250	95.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Japanese Beetle	7,100	2.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Kudzu Bug	213,000	60.0%	71,000	20.0%	53,250	15.0%	1.00	$8.50	0.50	0.150	$1.28	0.30%	49,908	$1,201,239	$3.38	8.5%
Lesser Cornstalk Borer	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Mexican Bean Beetle	36	0.0%	36	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Potato Leafhopper	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Seedcorn Maggot	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Slugs	17,750	5.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Aphid	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Gall Midge	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	106,500	30.0%	35,500	10.0%	53,250	15.0%	1.00	$10.50	0.25	0.150	$1.58	0.08%	12,477	$746,278	$2.10	5.3%
Spider Mites	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Spotted Cucumber Beetle	88,750	25.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	355,000	100.0%	230,750	65.0%	248,500	70.0%	1.00	$8.50	3.50	0.700	$5.95	3.50%	582,255	$10,846,076	$30.55	77.1%
Thistle Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	355,000	100.0%	28,400	8.0%	3,550	1.0%	1.00	$8.50	0.01	0.010	$0.09	0.01%	1,664	$55,129	$0.16	0.4%
Thrips	355,000	100.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Velvetbean Caterpillar	124,250	35.0%	53,250	15.0%	71,000	20.0%	1.00	$10.50	0.25	0.200	$2.10	0.09%	14,556	$963,846	$2.72	6.9%
Other	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Automatic (no insects)	0	0.0%	0	0.0%	71,000	20.0%	1.00	$3.50	0.00	0.200	$0.70	0.00%	0	$248,500	$0.70	1.8%
									TOTAL	**1.410**	**$11.69**	**3.97%**	**660,860**	**$14,061,068**	**$39.61**	**100.0%**

SUMMARY DATA

Data Input

State	AL
Year	2022
Total Acres	355,000
Yield/acre	45
Price/Bushel	$15.00
% Acres Scouted	55
Scouting Fee/scouted acre	$6.00
% Acres Insect Seed Trt.	35
Seed Trt Cost/treated ac	$9.00

Yield & Management Results

Total Bushels Harvested	15,975,000
Total Bushels Lost to Insects	660,860
Percent Yield Loss	3.97%
Yield w/o Insects	46.86
Ave. # Spray Applications	1.410
Seed Treated Acres	124,250
Scouted Acres	195,250

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$4,148,175	$11.69
Seed Treatment Costs	$1,118,250	$3.15
Scouting costs	$1,171,500	$3.30
Total Costs	$6,437,925	$18.14
Yield Lost to insects	$9,912,893	$27.92
Total Losses + Costs	$16,350,818	$46.06

Stink Bug Composition

Species	% of SB
Brown	20
Brown Marmorated	5
Green	5
Redbanded	5
Redshouldered	0
Southern Green	65
Total (make it 100%)	100

Appendix 3. Arkansas soybean insect losses, 2022.

Pest	Acres Infested	% Acres Infested	Acres above ET	% Acres above ET	Acres Treated	% Acres Treated	# of apps/acres treated	Cost of 1 Insecticide	% loss per acre infested	# of apps per total soy acres	cost/acre	Overall % reduction	bushel lost per pest	Loss + Cost	Loss + Cost/acre	% Total Loss + Cost
Armyworm complex	1,902,000	60.0%	63,400	2.0%	79,250	2.5%	1.00	$14.00	0.20	0.025	$0.35	0.12%	217,576	$4,209,954	$1.33	1.3%
Banded Cucumber Beetle	63,400	2.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	3,170,000	100.0%	443,800	14.0%	634,000	20.0%	1.00	$14.00	0.10	0.200	$2.80	0.10%	181,313	$11,459,712	$3.62	3.7%
Blister Beetle	951,000	30.0%	95,100	3.0%	158,500	5.0%	1.00	$12.50	0.10	0.050	$0.63	0.03%	54,394	$2,756,364	$0.87	0.9%
Corn Earworm	3,074,900	97.0%	1,109,500	35.0%	1,426,500	45.0%	1.10	$18.00	3.50	0.495	$8.91	3.40%	6,155,581	$115,961,724	$36.58	37.0%
Cutworms	253,600	8.0%	126,800	4.0%	190,200	6.0%	1.00	$12.00	0.02	0.060	$0.72	0.00%	2,901	$2,323,739	$0.73	0.7%
Dectes Stem Borer	1,902,000	60.0%	0	0.0%	31,700	1.0%	1.00	$12.00	0.01	0.010	$0.12	0.01%	10,879	$535,423	$0.17	0.2%
Garden Webworms	95,100	3.0%	15,850	0.5%	19,020	0.6%	0.00	$12.00	0.10	0.000	$0.00	0.00%	5,439	$77,511	$0.02	0.0%
Grape Colaspis	3,170,000	100.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	3,170,000	100.0%	95,100	3.0%	110,950	3.5%	1.00	$14.00	0.05	0.035	$0.49	0.05%	90,657	$2,845,156	$0.90	0.9%
Green Cloverworm	3,170,000	100.0%	3,170	0.1%	158,500	5.0%	1.00	$12.00	0.01	0.050	$0.60	0.01%	18,131	$2,160,371	$0.68	0.7%
Japanese Beetle	221,900	7.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Kudzu Bug	665,700	21.0%	0	0.0%	22,190	0.7%	1.00	$12.00	0.00	0.007	$0.08	0.00%	0	$266,280	$0.08	0.1%
Lesser Cornstalk Borer	15,850	0.5%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Mexican Bean Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Potato Leafhopper	3,170,000	100.0%	0	0.0%	3,170	0.1%	1.00	$12.00	0.00	0.001	$0.01	0.00%	0	$38,040	$0.01	0.0%
Saltmarsh Caterpillar	2,536,000	80.0%	22,190	0.7%	31,700	1.0%	1.00	$14.00	0.10	0.010	$0.14	0.08%	145,051	$2,510,770	$0.79	0.8%
Seedcorn Maggot	190,200	6.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Slugs	475,500	15.0%	31,700	1.0%	15,850	0.5%	1.00	$32.00	0.10	0.005	$0.16	0.02%	27,197	$894,757	$0.28	0.3%
Soybean Aphid	158,500	5.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Gall Midge	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	2,694,500	85.0%	1,109,500	35.0%	1,426,500	45.0%	1.20	$21.00	1.00	0.540	$11.34	0.85%	1,541,162	$57,909,352	$18.27	18.5%
Spider Mites	475,500	15.0%	3,170	0.1%	15,850	0.5%	1.00	$14.00	0.01	0.005	$0.07	0.00%	2,720	$260,656	$0.08	0.1%
Spotted Cucumber Beetle	3,170,000	100.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	3,170,000	100.0%	1,299,700	41.0%	1,521,600	48.0%	1.10	$14.00	2.60	0.528	$7.39	2.60%	4,714,141	$90,609,153	$28.58	28.9%
Thistle Caterpillar	31,700	1.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	3,170,000	100.0%	31,700	1.0%	63,400	2.0%	1.00	$12.00	0.02	0.020	$0.24	0.02%	36,263	$1,277,542	$0.40	0.4%
Thrips	3,170,000	100.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Velvetbean Caterpillar	1,743,500	55.0%	47,550	1.5%	63,400	2.0%	1.00	$12.00	0.10	0.020	$0.24	0.06%	99,722	$2,181,842	$0.69	0.7%
Other	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Automatic (no insects)	0	0.0%	0	0.0%	919,300	29.0%	1.00	$16.00	0.00	0.290	$4.64	0.00%	0	$14,708,800	$4.64	4.7%
									TOTAL	**2.351**	**$38.93**	**7.34%**	**13,303,125**	**$312,987,146**	**$98.73**	**100.0%**

SUMMARY DATA

Data Input

State	AR
Year	2022
Total Acres	3,170,000
Yield/acre	53
Price/Bushel	$14.25
% Acres Scouted	80
Scouting Fee/scouted acre	$9.00
% Acres Insect Seed Trt.	80
Seed Trt Cost/treated ac	$8.00

Yield & Management Results

Total Bushels Harvested	168,010,000
Total Bushels Lost to Insects	13,303,125
Percent Yield Loss	7.34%
Yield w/o Insects	57.20
Ave. # Spray Applications	2.351
Seed Treated Acres	2,536,000
Scouted Acres	2,536,000

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$123,417,610	$38.93
Seed Treatment Costs	$20,288,000	$6.40
Scouting costs	$22,824,000	$7.20
Total Costs	$166,529,610	$52.53
Yield Lost to insects	$189,569,536	$59.80
Total Losses + Costs	$356,099,146	$112.33

Stink Bug Composition

Species	% of SB
Brown	35
Brown Marmorated	5
Green	45
Redbanded	8
Redshouldered	2
Southern Green	5
Total (make it 100%)	100

Appendix 4. Delaware soybean insect losses, 2022.

Pest	Acres Infested	% Acres Infested	Acres above ET	% Acres above ET	Acres Treated	% Acres Treated	# of apps/acres treated	Cost of 1 Insecticide	% loss per acre infested	# of apps per total soy acres	cost/acre	Overall % reduction	bushel lost per pest	Loss + Cost	Loss + Cost/acre	% Total Loss + Cost
Armyworm complex	3,792	2.4%	2,528	1.6%	3,950	2.5%	1.00	$10.00	0.01	0.025	$0.25	0.00%	17	$39,757	$0.25	0.5%
Banded Cucumber Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	112,970	71.5%	6,636	4.2%	8,532	5.4%	1.00	$10.00	0.60	0.054	$0.54	0.43%	31,162	$544,960	$3.45	6.2%
Blister Beetle	63,200	40.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Corn Earworm	65,096	41.2%	30,020	19.0%	28,440	18.0%	1.05	$15.00	2.50	0.189	$2.84	1.03%	74,818	$1,551,495	$9.82	17.7%
Cutworms	3,160	2.0%	0	0.0%	0	0.0%	0.00	$0.00	0.05	0.000	$0.00	0.00%	73	$1,071	$0.01	0.0%
Dectes Stem Borer	94,800	60.0%	7,900	5.0%	790	0.5%	1.00	$12.00	1.60	0.005	$0.06	0.96%	69,733	$1,038,046	$6.57	11.8%
Garden Webworms	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grape Colaspis	7,900	5.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	152,786	96.7%	6,794	4.3%	2,212	1.4%	1.00	$10.00	0.10	0.014	$0.14	0.10%	7,024	$125,727	$0.80	1.4%
Green Cloverworm	144,728	91.6%	6,636	4.2%	26,702	16.9%	1.00	$10.00	0.10	0.169	$1.69	0.09%	6,654	$365,162	$2.31	4.2%
Japanese Beetle	126,400	80.0%	2,212	1.4%	790	0.5%	0.00	$9.00	0.10	0.000	$0.00	0.08%	5,811	$85,714	$0.54	1.0%
Kudzu Bug	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Lesser Cornstalk Borer	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Mexican Bean Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Potato Leafhopper	71,100	45.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	23,700	15.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Seedcorn maggot	31,600	20.0%	0	0.0%	790	0.5%	1.00	$52.00	1.00	0.005	$0.26	0.20%	14,528	$255,365	$1.62	2.9%
Slugs	72,680	46.0%	48,190	30.5%	8,690	5.5%	1.00	$35.00	3.75	0.055	$1.93	1.73%	125,302	$2,152,354	$13.62	24.5%
Soybean Aphid	15,800	10.0%	158	0.1%	158	0.1%	1.00	$10.00	0.01	0.001	$0.01	0.00%	73	$2,651	$0.02	0.0%
Soybean Gall Midge	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	63,200	40.0%	9,480	6.0%	3,792	2.4%	1.00	$15.25	0.20	0.024	$0.37	0.08%	5,811	$143,542	$0.91	1.6%
Spider Mites	90,060	57.0%	18,960	12.0%	11,850	7.5%	1.00	$10.50	0.10	0.075	$0.79	0.06%	4,140	$185,496	$1.17	2.1%
Spotted Cucumber Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	150,732	95.4%	11,850	7.5%	26,860	17.0%	1.00	$11.00	1.80	0.170	$1.87	1.72%	124,735	$2,135,307	$13.51	24.3%
Thistle Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	15,800	10.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Thrips	158,000	100.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Velvetbean Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Other	41	0.0%	0	0.0%	5	0.0%	1.00	$40.00	0.00	0.000	$0.00	0.00%	0	$204	$0.00	0.0%
Automatic (no insects)	0	0.0%	0	0.0%	82,160	52.0%	1.00	$1.75	0.00	0.520	$0.91	0.00%	0	$143,780	$0.91	1.6%
									TOTAL	**1.306**	**$11.64**	**6.47%**	**469,882**	**$8,770,631**	**$55.51**	**100.0%**

SUMMARY DATA

Data Input

State	DE
Year	2022
Total Acres	158,000
Yield/acre	43
Price/Bushel	$14.75
% Acres Scouted	60
Scouting Fee/scouted acre	$9.50
% Acres Insect Seed Trt.	25
Seed Trt Cost/treated ac	$6.50

Yield & Management Results

Total Bushels Harvested	6,794,000
Total Bushels Lost to Insects	469,882
Percent Yield Loss	6.47%
Yield w/o Insects	45.97
Ave. # Spray Applications	1.306
Seed Treated Acres	39,500
Scouted Acres	94,800

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$1,839,877	$11.64
Seed Treatment Costs	$256,750	$1.63
Scouting costs	$900,600	$5.70
Total Costs	$2,997,227	$18.97
Yield Lost to insects	$6,930,754	$43.87
Total Losses + Costs	$9,927,981	$62.84

Stink Bug Composition

Species	% of SB
Brown	36
Brown Marmorated	15
Green	48
Redbanded	0
Redshouldered	1
Southern Green	0
Total (make it 100%)	100

Appendix 5. Georgia soybean insect losses, 2022.

Pest	Acres Infested	% Acres Infested	Acres above ET	% Acres above ET	Acres Treated	% Acres Treated	# of apps/acres treated	Cost of 1 Insecticide	% loss per acre infested	# of apps per total soy acres	cost/acre	Overall % reduction	bushel lost per pest	Loss + Cost	Loss + Cost/acre	% Total Loss + Cost
Armyworm complex	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Banded Cucumber Beetle	48,000	30.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Blister Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Corn Earworm	4,800	3.0%	1,600	1.0%	1,600	1.0%	1.00	$8.00	2.00	0.010	$0.08	0.06%	4,067	$65,665	$0.41	1.5%
Cutworms	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Dectes Stem Borer	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Garden Webworms	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grape Colaspis	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	12,800	8.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Green Cloverworm	19,200	12.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Japanese Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Kudzu Bug	104,000	65.0%	24,000	15.0%	19,200	12.0%	1.00	$8.00	1.00	0.120	$0.96	0.65%	44,054	$726,304	$4.54	17.1%
Lesser Cornstalk Borer	4,800	3.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Mexican Bean Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Potato Leafhopper	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Seedcorn Maggot	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Slugs	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Aphid	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Gall Midge	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	48,000	30.0%	16,000	10.0%	14,400	9.0%	1.10	$15.00	2.00	0.099	$1.49	0.60%	40,665	$766,250	$4.79	18.1%
Spider Mites	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Spotted Cucumber Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	128,000	80.0%	64,000	40.0%	56,000	35.0%	1.00	$8.00	2.00	0.350	$2.80	1.60%	108,441	$1,857,732	$11.61	43.8%
Thistle Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	8,000	5.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Thrips	80,000	50.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Velvetbean Caterpillar	96,000	60.0%	8,000	5.0%	80,000	50.0%	1.00	$7.00	0.50	0.500	$3.50	0.30%	20,333	$824,325	$5.15	19.4%
Other	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Automatic (no insects)	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
									TOTAL	**1.079**	**$8.83**	**3.21%**	**217,560**	**$4,240,276**	**$26.50**	**100.0%**

SUMMARY DATA

Data Input

State	GA
Year	2022
Total Acres	160,000
Yield/acre	41
Price/Bushel	$13.00
% Acres Scouted	50
Scouting Fee/scouted acre	$6.00
% Acres Insect Seed Trt.	20
Seed Trt Cost/treated ac	$8.00

Yield & Management Results

Total Bushels Harvested	6,560,000
Total Bushels Lost to Insects	217,560
Percent Yield Loss	3.21%
Yield w/o Insects	42.36
Ave. # Spray Applications	1.079
Seed Treated Acres	32,000
Scouted Acres	80,000

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$1,412,000	$8.83
Seed Treatment Costs	$256,000	$1.60
Scouting costs	$480,000	$3.00
Total Costs	$2,148,000	$13.43
Yield Lost to insects	$2,828,276	$17.68
Total Losses + Costs	$4,976,276	$31.10

Stink Bug Composition

Species	% of SB
Brown	5
Brown Marmorated	1
Green	2
Redbanded	6
Redshouldered	1
Southern Green	85
Total (make it 100%)	100

Appendix 6. Illinois soybean insect losses, 2022.

Pest	Acres Infested	% Acres Infested	Acres above ET	% Acres above ET	Acres Treated	% Acres Treated	apps/acres treated	Cost of Insecticide	per acre infested	per total soy acres	cost/acre	Overall % reduction	bushel lost per pest	Loss + Cost	Loss + Cost/acre	Loss + Cost
Armyworm complex	1,515,000	15.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Banded Cucumber Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	505,000	5.0%	101,000	1.0%	0	0.0%	0.00	$0.00	0.05	0.000	$0.00	0.00%	14,689	$203,443	$0.02	1.1%
Blister Beetle	101,000	1.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Corn Earworm	101,000	1.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Cutworms	202,000	2.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Dectes Stem Borer	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Garden Webworms	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grape Colaspis	5,050	0.1%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	7,575,000	75.0%	0	0.0%	0	0.0%	0.00	$0.00	0.01	0.000	$0.00	0.01%	44,067	$610,329	$0.06	3.2%
Green Cloverworm	8,585,000	85.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Japanese Beetle	8,080,000	80.0%	151,500	1.5%	252,500	2.5%	1.00	$10.00	0.05	0.025	$0.25	0.04%	235,024	$5,780,088	$0.57	30.3%
Kudzu Bug	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Lesser Cornstalk Borer	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Mexican Bean Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Potato Leafhopper	505,000	5.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Seedcorn Maggot	505,000	5.0%	1,010	0.0%	0	0.0%	0.00	$0.00	0.50	0.000	$0.00	0.03%	146,890	$2,034,430	$0.20	10.7%
Slugs	505,000	5.0%	0	0.0%	0	0.0%	0.00	$0.00	0.25	0.000	$0.00	0.01%	73,445	$1,017,215	$0.10	5.3%
Soybean Aphid	606,000	6.0%	5,050	0.1%	1,010	0.0%	1.00	$10.00	0.00	0.000	$0.00	0.00%	353	$14,983	$0.00	0.1%
Soybean Gall Midge	5,050	0.1%	1,010	0.0%	0	0.0%	0.00	$0.00	0.50	0.000	$0.00	0.00%	1,469	$20,344	$0.00	0.1%
Soybean Looper	252,500	2.5%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Spider Mites	757,500	7.5%	505,000	5.0%	101,000	1.0%	1.00	$10.00	0.50	0.010	$0.10	0.04%	220,335	$4,061,645	$0.40	21.3%
Spotted Cucumber Beetle	1,010,000	10.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	2,525,000	25.0%	101,000	1.0%	0	0.0%	0.00	$0.00	0.01	0.000	$0.00	0.00%	14,689	$203,443	$0.02	1.1%
Thistle Caterpillar	505,000	5.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Thrips	505,000	5.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Velvetbean Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Other	1,010,000	10.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Automatic (no insects)	0	0.0%	0	0.0%	1,464,500	14.5%	1.00	$3.50	0.00	0.145	$0.51	0.00%	0	$5,125,750	$0.51	26.9%
									TOTAL	**0.180**	**$0.86**	**0.13%**	**750,962**	**$19,071,669**	**$1.89**	**100.0%**

SUMMARY DATA

Data Input	
State	IA
Year	2022
Total Acres	10,100,000
Yield/acre	58.1
Price/Bushel	$13.85
% Acres Scouted	15
Scouting Fee/scouted acre	$5.05
% Acres Insect Seed Trt.	88
Seed Trt Cost/treated ac	$3.75

Yield & Management Results	
Total Bushels Harvested	586,810,000
Total Bushels Lost to Insects	750,962
Percent Yield Loss	0.13%
Yield w/o Insects	58.17
Ave. # Spray Applications	0.180
Seed Treated Acres	8,888,000
Scouted Acres	1,515,000

Economic Results	Total	Per Acre
Foliar Insecticides Costs	$8,670,850	$0.86
Seed Treatment Costs	$33,330,000	$3.30
Scouting costs	$7,650,750	$0.76
Total Costs	$49,651,600	$4.92
Yield Lost to insects	$10,400,819	$1.03
Total Losses + Costs	$60,052,419	$5.95

Stink Bug Composition	% of SB
Species	
Brown	75
Brown Marmorated	10
Green	15
Redbanded	0
Redshouldered	0
Southern Green	0
Total (make it 100%)	100

Appendix 7. Iowa soybean insect losses. 2022.

Pest	Acres Infested	% Acres Infested	Acres above ET	% Acres above ET	Acres Treated	% Acres Treated	# of apps/acres treated	Cost of 1 Insecticide	% loss per acre infested	# of apps per total soy acres	cost/acre	Overall % reduction	bushel lost per pest	Loss + Cost	Loss + Cost/acre	% Total Loss + Cost
Armyworm complex	1,080,000	10.0%	0	0.0%	54,000	0.5%	1.00	$7.00	0.00	0.005	$0.04	0.00%	0	$378,000	$0.04	0.7%
Banded Cucumber Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	9,720,000	90.0%	54,000	0.5%	216,000	2.0%	1.00	$7.00	0.05	0.020	$0.14	0.05%	311,636	$5,874,911	$0.54	10.7%
Blister Beetle	540,000	5.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Corn Earworm	108,000	1.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Cutworms	216,000	2.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Dectes Stem Borer	3,024,000	28.0%	0	0.0%	0	0.0%	0.00	$0.00	0.03	0.000	$0.00	0.01%	58,172	$814,410	$0.08	1.5%
Garden Webworms	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grape Colaspis	108,000	1.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	9,720,000	90.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Green Cloverworm	9,180,000	85.0%	0	0.0%	21,600	0.2%	1.00	$7.00	0.00	0.002	$0.01	0.00%	0	$151,200	$0.01	0.3%
Japanese Beetle	8,640,000	80.0%	54,000	0.5%	324,000	3.0%	1.00	$7.00	0.00	0.030	$0.21	0.00%	0	$2,268,000	$0.21	4.1%
Kudzu Bug	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Lesser Cornstalk Borer	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Mexican Bean Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Potato Leafhopper	1,620,000	15.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	1,620,000	15.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Seedcorn Maggot	864,000	8.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Slugs	540,000	5.0%	0	0.0%	10,800	0.1%	1.00	$65.00	1.00	0.001	$0.07	0.05%	346,263	$5,549,678	$0.51	10.1%
Soybean Aphid	216,000	2.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Gall Midge	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	540,000	5.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Spider Mites	1,620,000	15.0%	216,000	2.0%	216,000	2.0%	1.20	$9.00	0.50	0.024	$0.22	0.08%	519,394	$9,604,318	$0.89	17.4%
Spotted Cucumber Beetle	8,100,000	75.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	7,020,000	65.0%	324,000	3.0%	432,000	4.0%	1.00	$7.50	0.02	0.040	$0.30	0.01%	90,028	$4,500,396	$0.42	8.2%
Thistle Caterpillar	1,080,000	10.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	540,000	5.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Thrips	1,080,000	10.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Velvetbean Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Other	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Automatic (no insects)	0	0.0%	0	0.0%	6,480,000	60.0%	1.00	$4.00	0.00	0.600	$2.40	0.00%	0	$25,920,000	$2.40	47.1%
									TOTAL	**0.722**	**$3.38**	**0.19%**	**1,325,494**	**$55,060,913**	**$5.10**	**100.0%**

SUMMARY DATA

Data Input

State	IL
Year	2022
Total Acres	10,800,000
Yield/acre	64
Price/Bushel	$14.00
% Acres Scouted	15
Scouting Fee/scouted acre	$7.00
% Acres Insect Seed Trt.	55
Seed Trt Cost/treated ac	$8.00

Yield & Management Results

Total Bushels Harvested	691,200,000
Total Bushels Lost to Insects	1,325,494
Percent Yield Loss	0.19%
Yield w/o Insects	64.12
Ave. # Spray Applications	0.722
Seed Treated Acres	5,940,000
Scouted Acres	1,620,000

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$36,504,000	$3.38
Seed Treatment Costs	$47,520,000	$4.40
Scouting costs	$11,340,000	$1.05
Total Costs	$95,364,000	$8.83
Yield Lost to insects	$18,556,913	$1.72
Total Losses + Costs	$113,920,913	$10.55

Stink Bug Composition

Species	% of SB
Brown	40
Brown Marmorated	10
Green	49
Redbanded	0
Redshouldered	1
Southern Green	0
Total (make it 100%)	100

Appendix 8. Kentucky soybean insect losses, 2022.

Pest	Infested	Infested	ET	above ET	Treated	Treated	treated	Insecticide	infested	acres	cost/acre	reduction	per pest	Loss + Cost	Cost/acre	Cost
Armyworm complex	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Banded Cucumber Beetle	388,000	20.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	1,940,000	100.0%	582,000	30.0%	194,000	10.0%	0.50	$8.50	0.60	0.050	$0.43	0.60%	607,342	$9,023,612	$4.65	16.9%
Blister Beetle	97,000	5.0%	58,200	3.0%	19,400	1.0%	0.20	$8.50	0.00	0.002	$0.02	0.00%	0	$32,980	$0.02	0.1%
Corn Earworm	58,200	3.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Cutworms	58,200	3.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Dectes Stem Borer	970,000	50.0%	38,800	2.0%	19,400	1.0%	0.50	$8.50	0.30	0.005	$0.04	0.15%	151,835	$2,132,228	$1.10	4.0%
Garden Webworms	97,000	5.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grape Colaspis	194,000	10.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	388,000	20.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Green Cloverworm	970,000	50.0%	194,000	10.0%	116,400	6.0%	1.00	$8.50	0.20	0.060	$0.51	0.10%	101,224	$2,355,919	$1.21	4.4%
Japanese Beetle	776,000	40.0%	97,000	5.0%	19,400	1.0%	0.30	$9.00	0.01	0.003	$0.03	0.00%	4,049	$107,041	$0.06	0.2%
Kudzu Bug	58,200	3.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Lesser Cornstalk Borer	388,000	20.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Mexican Bean Beetle	38,800	2.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Potato Leafhopper	19,400	1.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Seedcorn Maggot	97,000	5.0%	58,200	3.0%	19,400	1.0%	1.00	$10.00	0.50	0.010	$0.10	0.03%	25,306	$535,630	$0.28	1.0%
Slugs	155,200	8.0%	38,800	2.0%	970,000	50.0%	1.00	$20.00	0.40	0.500	$10.00	0.03%	32,392	$19,837,286	$10.23	37.1%
Soybean Aphid	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Gall Midge	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	1,164,000	60.0%	97,000	5.0%	38,800	2.0%	0.50	$8.50	0.10	0.010	$0.09	0.06%	60,734	$984,811	$0.51	1.8%
Spider Mites	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Spotted Cucumber Beetle	1,843,000	95.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	1,940,000	100.0%	116,400	6.0%	194,000	10.0%	0.50	$8.50	1.00	0.050	$0.43	1.00%	1,012,236	$14,489,687	$7.47	27.1%
Thistle Caterpillar	116,400	6.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	1,843,000	95.0%	194,000	10.0%	19,400	1.0%	0.50	$8.50	0.30	0.005	$0.04	0.29%	288,487	$3,977,028	$2.05	7.4%
Thrips	1,843,000	95.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Velvetbean Caterpillar	19,400	1.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Other	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Automatic (no insects)	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
									TOTAL	**0.695**	**$11.67**	**2.26%**	**2,283,605**	**$53,476,221**	**$27.57**	**100.0%**

SUMMARY DATA

Data Input

State	KY
Year	2022
Total Acres	1,940,000
Yield/acre	51
Price/Bushel	$13.50
% Acres Scouted	55
Scouting Fee/scouted acre	$8.00
% Acres Insect Seed Trt.	90
Seed Trt Cost/treated ac	$8.50

Yield & Management Results

Total Bushels Harvested	98,940,000
Total Bushels Lost to Insects	2,283,605
Percent Yield Loss	2.26%
Yield w/o Insects	52.18
Ave. # Spray Applications	0.695
Seed Treated Acres	1,746,000
Scouted Acres	1,067,000

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$22,647,560	$11.67
Seed Treatment Costs	$14,841,000	$7.65
Scouting costs	$8,536,000	$4.40
Total Costs	$46,024,560	$23.72
Yield Lost to insects	$30,828,661	$15.89
Total Losses + Costs	$76,853,221	$39.62

Stink Bug Composition

Species	% of SB
Brown	27
Brown Marmorated	29
Green	42
Redbanded	0
Redshouldered	1
Southern Green	1
Total (make it 100%)	100

Appendix 9. Louisiana soybean insect losses, 2022.

Pest	Acres Infested	% Acres Infested	Acres above ET	% Acres above ET	Acres Treated	% Acres Treated	# of apps/acres treated	Cost of 1 Insecticide	% loss per acre infested	# of apps per total soy acres	cost/acre	Overall % reduction	bushel lost per pest	Loss + Cost	Loss + Cost/acre	% Total Loss + Cost
Armyworm complex	504,000	40.0%	252,000	20.0%	252,000	20.0%	0.50	$7.20	0.15	0.100	$0.72	0.06%	36,813	$1,415,589	$1.12	1.8%
Banded Cucumber Beetle	1,260,000	100.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	12,600	1.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Blister Beetle	6,300	0.5%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Corn Earworm	504,000	40.0%	315,000	25.0%	315,000	25.0%	0.50	$16.80	0.40	0.125	$2.10	0.16%	98,168	$4,001,704	$3.18	5.2%
Cutworms	12,600	1.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Dectes Stem Borer	630,000	50.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Garden Webworms	3,780	0.3%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grape Colaspis	1,260,000	100.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	441,000	35.0%	12,600	1.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Green Cloverworm	441,000	35.0%	189,000	15.0%	189,000	15.0%	0.50	$7.20	0.20	0.075	$0.54	0.07%	42,949	$1,273,520	$1.01	1.7%
Japanese Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Kudzu Bug	126,000	10.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Lesser Cornstalk Borer	1,260	0.1%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Mexican Bean Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Potato Leafhopper	630,000	50.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	126,000	10.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Seedcorn Maggot	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Slugs	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Aphid	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Gall Midge	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	1,134,000	90.0%	756,000	60.0%	693,000	55.0%	1.00	$16.80	1.10	0.550	$9.24	0.99%	607,416	$20,030,816	$15.90	26.0%
Spider Mites	1,260	0.1%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Spotted Cucumber Beetle	1,260,000	100.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	1,260,000	100.0%	1,134,000	90.0%	1,197,000	95.0%	2.00	$12.00	1.75	1.900	$22.80	1.75%	1,073,715	$43,556,008	$34.57	56.6%
Thistle Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	1,260,000	100.0%	189,000	15.0%	63,000	5.0%	0.25	$7.20	0.10	0.013	$0.09	0.10%	61,355	$960,715	$0.76	1.2%
Thrips	1,260,000	100.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Velvetbean Caterpillar	882,000	70.0%	567,000	45.0%	504,000	40.0%	0.50	$7.20	0.50	0.200	$1.44	0.35%	214,743	$4,780,002	$3.79	6.2%
Other	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Automatic (no insects)	0	0.0%	0	0.0%	126,000	10.0%	1.00	$7.20	0.00	0.100	$0.72	0.00%	0	$907,200	$0.72	1.2%
									TOTAL	**3.063**	**$37.65**	**3.48%**	**2,135,160**	**$76,925,553**	**$61.05**	**100.0%**

SUMMARY DATA

Data Input

State	LA
Year	2022
Total Acres	1,260,000
Yield/acre	47
Price/Bushel	$13.81
% Acres Scouted	85
Scouting Fee/scouted acre	$9.00
% Acres Insect Seed Trt.	90
Seed Trt Cost/treated ac	$8.50

Yield & Management Results

Total Bushels Harvested	59,220,000
Total Bushels Lost to Insects	2,135,160
Percent Yield Loss	3.48%
Yield w/o Insects	48.69
Ave. # Spray Applications	3.063
Seed Treated Acres	1,134,000
Scouted Acres	1,071,000

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$47,439,000	$37.65
Seed Treatment Costs	$9,639,000	$7.65
Scouting costs	$9,639,000	$7.65
Total Costs	$66,717,000	$52.95
Yield Lost to insects	$29,486,553	$23.40
Total Losses + Costs	$96,203,553	$76.35

Stink Bug Composition

Species	% of SB
Brown	15
Brown Marmorated	0
Green	10
Redbanded	60
Redshouldered	0
Southern Green	15
Total (make it 100%)	100

Appendix 10. Michigan soybean insect losses, 2022.

Pest	Acres Infested	% Acres Infested	Acres above ET	% Acres above ET	Acres Treated	% Acres Treated	# of apps/acres treated	Cost of 1 Insecticide	% loss per acre infested	# of apps per total soy acres	cost/acre	Overall % reduction	bushel lost per pest	Loss + Cost	Loss + Cost/acre	% Total Loss + Cost
Armyworm complex	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Banded Cucumber Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	1,672,500	75.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Blister Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Corn Earworm	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Cutworms	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Dectes Stem Borer	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Garden Webworms	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grape Colaspis	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	557,500	25.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Green Cloverworm	446,000	20.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Japanese Beetle	1,115,000	50.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Kudzu Bug	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Lesser Cornstalk Borer	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Mexican Bean Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Potato Leafhopper	1,115,000	50.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	2,230	0.1%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Seedcorn Maggot	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Slugs	44,600	2.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Aphid	735,900	33.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Gall Midge	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	446,000	20.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Spider Mites	111,500	5.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Spotted Cucumber Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	1,672,500	75.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Thistle Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Thrips	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Velvetbean Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Other	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Automatic (no insects)	0	0.0%	0	0.0%	223,000	10.0%	1.00	$9.00	0.00	0.100	$0.90	0.00%	0	$2,007,000	$0.90	100.0%
									TOTAL	**0.100**	**$0.90**	**0.00%**	**0**	**$2,007,000**	**$0.90**	**100.0%**

SUMMARY DATA

Data Input

State	MI
Year	2022
Total Acres	2,230,000
Yield/acre	46
Price/Bushel	$5.00
% Acres Scouted	17
Scouting Fee/scouted acre	$3.70
% Acres Insect Seed Trt.	75
Seed Trt Cost/treated ac	$8.00

Yield & Management Results

Total Bushels Harvested	102,580,000
Total Bushels Lost to Insects	0
Percent Yield Loss	0.00%
Yield w/o Insects	46.00
Ave. # Spray Applications	0.100
Seed Treated Acres	1,672,500
Scouted Acres	379,100

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$2,007,000	$0.90
Seed Treatment Costs	$13,380,000	$6.00
Scouting costs	$1,402,670	$0.63
Total Costs	$16,789,670	$7.53
Yield Lost to insects	$0	$0.00
Total Losses + Costs	$16,789,670	$7.53

Stink Bug Composition

Species	% of SB
Brown	65
Brown Marmorated	15
Green	20
Redbanded	0
Redshouldered	0
Southern Green	0
Total (make it 100%)	100

Appendix 11. Mississippi soybean insect losses, 2022.

Pest	Acres Infested	% Acres Infested	Acres above ET	% Acres above ET	Acres Treated	% Acres Treated	apps/acres treated	Cost of 1 Insecticide	per acre infested	per total soy acres	cost/acre	Overall % reduction	bushel lost per pest	Loss + Cost	Loss + Cost/acre	Loss + Cost
Armyworm complex	462,000	20.0%	231,000	10.0%	231,000	10.0%	1.00	$12.50	0.20	0.100	$1.25	0.04%	56,063	$3,690,878	$1.60	1.6%
Banded Cucumber Beetle	1,848,000	80.0%	23,100	1.0%	2,310	0.1%	1.00	$9.50	0.01	0.001	$0.01	0.01%	11,213	$182,621	$0.08	0.1%
Bean Leaf Beetle	1,848,000	80.0%	115,500	5.0%	115,500	5.0%	1.00	$11.50	0.20	0.050	$0.58	0.16%	224,251	$4,541,761	$1.97	2.0%
Blister Beetle	11,550	0.5%	0	0.0%	0	0.0%	0.00	$0.00	0.01	0.000	$0.00	0.00%	70	$1,004	$0.00	0.0%
Corn Earworm	1,617,000	70.0%	924,000	40.0%	462,000	20.0%	1.50	$20.00	3.75	0.300	$6.00	2.63%	3,679,111	$66,581,662	$28.82	29.0%
Cutworms	346,500	15.0%	2,310	0.1%	23,100	1.0%	1.00	$8.50	0.10	0.010	$0.09	0.02%	21,023	$497,617	$0.22	0.2%
Dectes Stem Borer	1,386,000	60.0%	0	0.0%	0	0.0%	0.00	$0.00	0.10	0.000	$0.00	0.06%	84,094	$1,205,067	$0.52	0.5%
Garden Webworms	161,700	7.0%	0	0.0%	0	0.0%	0.00	$0.00	0.10	0.000	$0.00	0.01%	9,811	$140,591	$0.06	0.1%
Grape Colaspis	693,000	30.0%	0	0.0%	0	0.0%	0.00	$0.00	0.10	0.000	$0.00	0.03%	42,047	$602,533	$0.26	0.3%
Grasshopper	1,386,000	60.0%	231,000	10.0%	57,750	2.5%	1.00	$8.50	0.10	0.025	$0.21	0.06%	84,094	$1,695,942	$0.73	0.7%
Green Cloverworm	1,848,000	80.0%	462,000	20.0%	346,500	15.0%	1.00	$12.50	0.25	0.150	$1.88	0.20%	280,313	$8,348,139	$3.61	3.6%
Japanese Beetle	46,200	2.0%	0	0.0%	0	0.0%	0.00	$0.00	0.01	0.000	$0.00	0.00%	280	$4,017	$0.00	0.0%
Kudzu Bug	1,386,000	60.0%	577,500	25.0%	231,000	10.0%	1.20	$9.00	0.01	0.120	$1.08	0.01%	8,409	$2,615,307	$1.13	1.1%
Lesser Cornstalk Borer	2,310	0.1%	0	0.0%	0	0.0%	0.00	$0.00	5.00	0.000	$0.00	0.01%	7,008	$100,422	$0.04	0.0%
Mexican Bean Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Potato Leafhopper	115,500	5.0%	0	0.0%	0	0.0%	0.00	$0.00	0.01	0.000	$0.00	0.00%	701	$10,042	$0.00	0.0%
Saltmarsh Caterpillar	924,000	40.0%	462,000	20.0%	231,000	10.0%	1.00	$14.00	0.25	0.100	$1.40	0.10%	140,157	$5,242,444	$2.27	2.3%
Seedcorn Maggot	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Slugs	277,200	12.0%	23,100	1.0%	0	0.0%	0.00	$0.00	1.00	0.000	$0.00	0.12%	168,188	$2,410,133	$1.04	1.0%
Soybean Aphid	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Gall Midge	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	1,848,000	80.0%	1,155,000	50.0%	924,000	40.0%	1.30	$16.50	1.50	0.520	$8.58	1.20%	1,681,879	$43,921,131	$19.01	19.1%
Spider Mites	46,200	2.0%	0	0.0%	0	0.0%	0.00	$0.00	0.10	0.000	$0.00	0.00%	2,803	$40,169	$0.02	0.0%
Spotted Cucumber Beetle	1,848,000	80.0%	23,100	1.0%	0	0.0%	0.00	$0.00	0.10	0.000	$0.00	0.08%	112,125	$1,606,755	$0.70	0.7%
Stink Bugs (see box below)	2,194,500	95.0%	1,386,000	60.0%	1,155,000	50.0%	1.50	$13.00	3.00	0.750	$9.75	2.85%	3,994,464	$79,763,162	$34.53	34.7%
Thistle Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	2,194,500	95.0%	46,200	2.0%	23,100	1.0%	1.00	$8.50	0.01	0.010	$0.09	0.01%	13,315	$387,152	$0.17	0.2%
Thrips	2,194,500	95.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Velvetbean Caterpillar	1,155,000	50.0%	115,500	5.0%	46,200	2.0%	1.00	$12.00	0.25	0.020	$0.24	0.13%	175,196	$3,064,955	$1.33	1.3%
Other	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Automatic (no insects)	0	0.0%	0	0.0%	693,000	30.0%	1.00	$4.50	0.00	0.300	$1.35	0.00%	0	$3,118,500	$1.35	1.4%
									TOTAL	**2.456**	**$32.49**	**7.70%**	**10,796,614**	**$229,772,004**	**$99.47**	**100.0%**

SUMMARY DATA

Data Input

State	MS
Year	2022
Total Acres	2,310,000
Yield/acre	56
Price/Bushel	$14.33
% Acres Scouted	94
Scouting Fee/scouted acre	$6.50
% Acres Insect Seed Trt.	80
Seed Trt Cost/treated ac	$8.50

Yield & Management Results

Total Bushels Harvested	129,360,000
Total Bushels Lost to Insects	10,796,614
Percent Yield Loss	7.70%
Yield w/o Insects	60.67
Ave. # Spray Applications	2.456
Seed Treated Acres	1,848,000
Scouted Acres	2,171,400

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$75,056,520	$32.49
Seed Treatment Costs	$15,708,000	$6.80
Scouting costs	$14,114,100	$6.11
Total Costs	$104,878,620	$45.40
Yield Lost to insects	$154,715,484	$66.98
Total Losses + Costs	$259,594,104	$112.38

Stink Bug Composition

Species	% of SB
Brown	18
Brown Marmorated	1
Green	20
Redbanded	40
Redshouldered	1
Southern Green	20
Total (make it 100%)	100

Appendix 12. North Carolina soybean insect losses, 2022.

Pest	Acres Infested	% Acres Infested	Acres above ET	% Acres above ET	Acres Treated	% Acres Treated	# of apps/acres treated	Cost of 1 Insecticide	% loss per acre infested	# of apps per total soy acres	cost/acre	Overall % reduction	bushel lost per pest	Loss + Cost	Loss + Cost/acre	% Total Loss + Cost
Armyworm complex	456,300	27.0%	33,800	2.0%	33,800	2.0%	1.00	$12.00	0.60	0.020	$0.24	0.16%	112,206	$2,032,589	$1.20	1.9%
Banded Cucumber Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	980,200	58.0%	287,300	17.0%	270,400	16.0%	1.00	$8.00	0.60	0.160	$1.28	0.35%	241,035	$5,658,213	$3.35	5.3%
Blister Beetle	185,900	11.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Corn Earworm	1,571,700	93.0%	980,200	58.0%	1,115,400	66.0%	1.10	$12.00	5.00	0.726	$8.71	4.65%	3,220,731	$61,423,886	$36.35	57.6%
Cutworms	16,900	1.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Dectes Stem Borer	169,000	10.0%	33,800	2.0%	16,900	1.0%	1.00	$8.00	0.10	0.010	$0.08	0.01%	6,926	$235,631	$0.14	0.2%
Garden Webworms	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grape Colaspis	253,500	15.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	456,300	27.0%	33,800	2.0%	50,700	3.0%	1.00	$8.00	0.10	0.030	$0.24	0.03%	18,701	$676,765	$0.40	0.6%
Green Cloverworm	743,600	44.0%	33,800	2.0%	50,700	3.0%	1.00	$8.00	0.10	0.030	$0.24	0.04%	30,476	$847,498	$0.50	0.8%
Japanese Beetle	338,000	20.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Kudzu Bug	354,900	21.0%	101,400	6.0%	169,000	10.0%	1.00	$8.00	0.10	0.100	$0.80	0.02%	14,545	$1,562,906	$0.92	1.5%
Lesser Cornstalk Borer	16,900	1.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Mexican Bean Beetle	16,900	1.0%	0	0.0%	0	0.0%	0.00	$0.00	0.50	0.000	$0.00	0.01%	3,463	$50,216	$0.03	0.0%
Potato Leafhopper	287,300	17.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	169,000	10.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Seedcorn Maggot	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Slugs	84,500	5.0%	67,600	4.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Aphid	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.10	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Gall Midge	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	1,183,000	70.0%	354,900	21.0%	456,300	27.0%	1.10	$12.00	0.50	0.297	$3.56	0.35%	242,421	$9,538,259	$5.64	8.9%
Spider Mites	152,100	9.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Spotted Cucumber Beetle	625,300	37.0%	0	0.0%	0	0.0%	0.00	$8.00	0.05	0.000	$0.00	0.02%	12,814	$185,798	$0.11	0.2%
Stink Bugs (see box below)	1,318,200	78.0%	354,900	21.0%	591,500	35.0%	1.00	$8.00	2.00	0.350	$2.80	1.56%	1,080,503	$20,399,300	$12.07	19.1%
Thistle Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	557,700	33.0%	16,900	1.0%	0	0.0%	0.00	$0.00	0.10	0.000	$0.00	0.03%	22,857	$331,424	$0.20	0.3%
Thrips	1,690,000	100.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Velvetbean Caterpillar	169,000	10.0%	16,900	1.0%	16,900	1.0%	1.00	$8.00	0.50	0.010	$0.08	0.05%	34,632	$637,357	$0.38	0.6%
Other	84,500	5.0%	0	0.0%	0	0.0%	0.00	$0.00	0.05	0.000	$0.00	0.00%	1,732	$25,108	$0.01	0.0%
Automatic (no insects)	0	0.0%	0	0.0%	388,700	23.0%	1.00	$8.00	0.00	0.230	$1.84	0.00%	0	$3,109,600	$1.84	2.9%
									TOTAL	**1.963**	**$19.88**	**7.28%**	**5,043,042**	**$106,714,550**	**$63.14**	**100.0%**

SUMMARY DATA

Data Input

State	NC
Year	2022
Total Acres	1,690,000
Yield/acre	38
Price/Bushel	$14.50
% Acres Scouted	25
Scouting Fee/scouted acre	$6.50
% Acres Insect Seed Trt.	35
Seed Trt Cost/treated ac	$10.00

Yield & Management Results

Total Bushels Harvested	64,220,000
Total Bushels Lost to Insects	5,043,042
Percent Yield Loss	7.28%
Yield w/o Insects	40.98
Ave. # Spray Applications	1.963
Seed Treated Acres	591,500
Scouted Acres	422,500

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$33,590,440	$19.88
Seed Treatment Costs	$5,915,000	$3.50
Scouting costs	$2,746,250	$1.63
Total Costs	$42,251,690	$25.00
Yield Lost to insects	$73,124,110	$43.27
Total Losses + Costs	$115,375,800	$68.27

Stink Bug Composition

Species	% of SB
Brown	53
Brown Marmorated	4
Green	35
Redbanded	0
Redshouldered	0
Southern Green	8
Total (make it 100%)	100

Appendix 13. Ohio soybean insect losses, 2022.

Pest	Acres Infested	% Acres Infested	Acres above ET	% Acres above ET	Acres Treated	% Acres Treated	# of apps/acres treated	Cost of 1 Insecticide	% loss per acre infested	# of apps per total soy acres	cost/acre	Overall % reduction	bushel lost per pest	Loss + Cost	Loss + Cost/acre	% Total Loss + Cost
Armyworm complex	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Banded Cucumber Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	742,500	15.0%	49,500	1.0%	495,000	10.0%	1.00	$15.00	1.00	0.100	$1.50	0.15%	372,002	$12,688,821	$2.56	16.3%
Blister Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Corn Earworm	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Cutworms	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Dectes Stem Borer	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Garden Webworms	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grape Colaspis	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	148,500	3.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Green Cloverworm	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Japanese Beetle	742,500	15.0%	99,000	2.0%	495,000	10.0%	1.00	$15.00	0.00	0.100	$1.50	0.00%	0	$7,425,000	$1.50	9.5%
Kudzu Bug	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Lesser Cornstalk Borer	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Mexican Bean Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Potato Leafhopper	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Seedcorn Maggot	247,500	5.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Slugs	495,000	10.0%	148,500	3.0%	49,500	1.0%	1.00	$25.00	3.00	0.010	$0.25	0.30%	744,003	$11,765,143	$2.38	15.1%
Soybean Aphid	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Gall Midge	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Spider Mites	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Spotted Cucumber Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	1,237,500	25.0%	495,000	10.0%	495,000	10.0%	1.00	$15.00	3.00	0.100	$1.50	0.75%	1,860,008	$33,744,107	$6.82	43.3%
Thistle Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Thrips	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Velvetbean Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Other	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Automatic (no insects)	0	0.0%	0	0.0%	2,475,000	50.0%	1.00	$5.00	0.00	0.500	$2.50	0.00%	0	$12,375,000	$2.50	15.9%
									TOTAL	**0.810**	**$7.25**	**1.20%**	**2,976,012**	**$77,998,072**	**$15.76**	**100.0%**

SUMMARY DATA

Data Input

State	OH
Year	2022
Total Acres	4,950,000
Yield/acre	49.5
Price/Bushel	$14.15
% Acres Scouted	20
Scouting Fee/scouted acre	$10.00
% Acres Insect Seed Trt.	80
Seed Trt Cost/treated ac	$8.00

Yield & Management Results

Total Bushels Harvested	245,025,000
Total Bushels Lost to Insects	2,976,012
Percent Yield Loss	1.20%
Yield w/o Insects	50.10
Ave. # Spray Applications	0.810
Seed Treated Acres	3,960,000
Scouted Acres	990,000

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$35,887,500	$7.25
Seed Treatment Costs	$31,680,000	$6.40
Scouting costs	$9,900,000	$2.00
Total Costs	$77,467,500	$15.65
Yield Lost to insects	$42,110,572	$8.51
Total Losses + Costs	$119,578,072	$24.16

Stink Bug Composition

Species	% of SB
Brown	20
Brown Marmorated	55
Green	25
Redbanded	0
Redshouldered	0
Southern Green	0
Total (make it 100%)	100

Appendix 14. Oklahoma soybean insect losses, 2022.

Pest	Acres Infested	% Acres Infested	Acres above ET	% Acres above ET	Acres Treated	% Acres Treated	# of apps/acres treated	Cost of 1 Insecticide	% loss per acre infested	# of apps per total soy acres	cost/acre	Overall % reduction	bushel lost per pest	Loss + Cost	Loss + Cost/acre	% Total Loss + Cost
Armyworm complex	21,000	4.0%	10,500	2.0%	5,250	1.0%	1.00	$9.10	1.00	0.010	$0.09	0.04%	3,423	$95,703	$0.18	3.2%
Banded Cucumber Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Blister Beetle	15,750	3.0%	10,500	2.0%	5,775	1.1%	1.00	$9.10	0.00	0.011	$0.10	0.00%	0	$52,553	$0.10	1.8%
Corn Earworm	21,000	4.0%	10,500	2.0%	5,250	1.0%	1.00	$9.10	4.00	0.010	$0.09	0.16%	13,694	$239,488	$0.46	8.1%
Cutworms	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Dectes Stem Borer	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Garden Webworms	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grape Colaspis	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	120,750	23.0%	63,000	12.0%	26,250	5.0%	1.00	$9.10	2.00	0.050	$0.46	0.46%	39,370	$790,049	$1.50	26.7%
Green Cloverworm	15,750	3.0%	10,500	2.0%	5,250	1.0%	1.00	$9.10	6.00	0.010	$0.09	0.18%	15,405	$263,452	$0.50	8.9%
Japanese Beetle	2,625	0.5%	2,100	0.4%	525	0.1%	1.00	$9.10	0.40	0.001	$0.01	0.00%	171	$7,174	$0.01	0.2%
Kudzu Bug	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Lesser Cornstalk Borer	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Mexican Bean Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Potato Leafhopper	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Seedcorn Maggot	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Slugs	158	0.0%	158	0.0%	0	0.0%	0.00	$0.00	0.50	0.000	$0.00	0.00%	13	$180	$0.00	0.0%
Soybean Aphid	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Gall Midge	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	16,275	3.1%	2,625	0.5%	2,100	0.4%	1.00	$9.10	4.00	0.004	$0.04	0.12%	10,613	$167,687	$0.32	5.7%
Spider Mites	1,050	0.2%	525	0.1%	525	0.1%	1.00	$9.10	2.00	0.001	$0.01	0.00%	342	$9,570	$0.02	0.3%
Spotted Cucumber Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	110,250	21.0%	43,050	8.2%	28,875	5.5%	1.00	$9.10	4.00	0.055	$0.50	0.84%	71,892	$1,269,254	$2.42	43.0%
Thistle Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	4,200	0.8%	4,200	0.8%	525	0.1%	1.00	$9.10	2.00	0.001	$0.01	0.02%	1,369	$23,949	$0.05	0.8%
Thrips	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Velvetbean Caterpillar	4,725	0.9%	525	0.1%	263	0.1%	1.00	$9.10	3.00	0.001	$0.00	0.03%	2,311	$34,740	$0.07	1.2%
Other	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Automatic (no insects)	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
									TOTAL	**0.154**	**$1.40**	**1.85%**	**158,604**	**$2,953,799**	**$5.63**	**100.0%**

SUMMARY DATA

Data Input

State	OK
Year	2022
Total Acres	525,000
Yield/acre	16
Price/Bushel	$14.00
% Acres Scouted	19
Scouting Fee/scouted acre	$4.00
% Acres Insect Seed Trt.	35
Seed Trt Cost/treated ac	$15.00

Yield & Management Results

Total Bushels Harvested	8,400,000
Total Bushels Lost to Insects	158,604
Percent Yield Loss	1.85%
Yield w/o Insects	16.30
Ave. # Spray Applications	0.154
Seed Treated Acres	183,750
Scouted Acres	99,750

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$733,346	$1.40
Seed Treatment Costs	$2,756,250	$5.25
Scouting costs	$399,000	$0.76
Total Costs	$3,888,596	$7.41
Yield Lost to insects	$2,220,453	$4.23
Total Losses + Costs	$6,109,049	$11.64

Stink Bug Composition

Species	% of SB
Brown	65
Brown Marmorated	0
Green	10
Redbanded	0
Redshouldered	0
Southern Green	25
Total (make it 100%)	100

Appendix 15. South Carolina soybean insect losses, 2022.

Pest	Acres Infested	% Acres Infested	Acres above ET	% Acres above ET	Acres Treated	% Acres Treated	# of apps/acres treated	Cost of 1 Insecticide	% loss per acre infested	# of apps per total soy acres	cost/acre	Overall % reduction	bushel lost per pest	Loss + Cost	Loss + Cost/acre	% Total Loss + Cost
Armyworm complex	405,000	100.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Banded Cucumber Beetle	405,000	100.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	101,250	25.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Blister Beetle	40,500	10.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Corn Earworm	405,000	100.0%	101,250	25.0%	60,750	15.0%	1.00	$15.00	1.00	0.150	$2.25	1.00%	159,925	$3,374,100	$8.33	13.0%
Cutworms	405,000	100.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Dectes Stem Borer	405,000	100.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Garden Webworms	101,250	25.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grape Colaspis	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	405,000	100.0%	40,500	10.0%	20,250	5.0%	1.00	$10.00	0.25	0.050	$0.50	0.25%	39,981	$818,212	$2.02	3.2%
Green Cloverworm	405,000	100.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Japanese Beetle	101,250	25.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Kudzu Bug	405,000	100.0%	202,500	50.0%	121,500	30.0%	1.00	$10.00	0.75	0.300	$3.00	0.75%	119,944	$3,062,137	$7.56	11.8%
Lesser Cornstalk Borer	202,500	50.0%	4,050	1.0%	0	0.0%	0.00	$0.00	0.10	0.000	$0.00	0.05%	7,996	$123,142	$0.30	0.5%
Mexican Bean Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Potato Leafhopper	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	303,750	75.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Seedcorn Maggot	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Slugs	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Aphid	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Gall Midge	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	405,000	100.0%	243,000	60.0%	202,500	50.0%	1.00	$15.00	1.25	0.500	$7.50	1.25%	199,907	$6,116,062	$15.10	23.6%
Spider Mites	405,000	100.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Spotted Cucumber Beetle	405,000	100.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	405,000	100.0%	384,750	95.0%	324,000	80.0%	1.25	$10.00	2.00	1.000	$10.00	2.00%	319,851	$8,975,699	$22.16	34.6%
Thistle Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	405,000	100.0%	20,250	5.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Thrips	405,000	100.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Velvetbean Caterpillar	405,000	100.0%	121,500	30.0%	101,250	25.0%	1.00	$10.00	1.00	0.250	$2.50	1.00%	159,925	$3,475,350	$8.58	13.4%
Other	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Automatic (no insects)	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
									TOTAL	**2.250**	**$25.75**	**6.30%**	**1,007,529**	**$25,944,702**	**$64.06**	**100.0%**

SUMMARY DATA

Data Input

State	SC
Year	2022
Total Acres	405,000
Yield/acre	37
Price/Bushel	$15.40
% Acres Scouted	25
Scouting Fee/scouted acre	$8.00
% Acres Insect Seed Trt.	50
Seed Trt Cost/treated ac	$13.00

Yield & Management Results

Total Bushels Harvested	14,985,000
Total Bushels Lost to Insects	1,007,529
Percent Yield Loss	6.30%
Yield w/o Insects	39.49
Ave. # Spray Applications	2.250
Seed Treated Acres	202,500
Scouted Acres	101,250

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$10,428,750	$25.75
Seed Treatment Costs	$2,632,500	$6.50
Scouting costs	$810,000	$2.00
Total Costs	$13,871,250	$34.25
Yield Lost to insects	$15,515,952	$38.31
Total Losses + Costs	$29,387,202	$72.56

Stink Bug Composition

Species	% of SB
Brown	13
Brown Marmorated	1
Green	5
Redbanded	10
Redshouldered	1
Southern Green	70
Total (make it 100%)	100

Appendix 16. Tennessee soybean insect losses, 2022.

Pest	Infested	Infested	ET	above ET	Treated	Treated	treated	Insecticide	infested	acres	cost/acre	reduction	per pest	Loss + Cost	Cost/acre	Cost
Armyworm complex	90,000	5.0%	36,000	2.0%	1,800	0.1%	1.20	$11.50	1.70	0.001	$0.01	0.09%	72,483	$1,039,598	$0.58	2.2%
Banded Cucumber Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	1,800,000	100.0%	180,000	10.0%	72,000	4.0%	1.00	$8.25	0.30	0.040	$0.33	0.30%	255,821	$4,175,499	$2.32	8.8%
Blister Beetle	54,000	3.0%	0	0.0%	0	0.0%	1.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Corn Earworm	540,000	30.0%	126,000	7.0%	90,000	5.0%	1.00	$12.00	0.90	0.050	$0.60	0.27%	230,239	$4,303,349	$2.39	9.1%
Cutworms	54,000	3.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Dectes Stem Borer	1,620,000	90.0%	0	0.0%	3,600	0.2%	1.00	$8.25	0.20	0.002	$0.02	0.18%	153,493	$2,178,600	$1.21	4.6%
Garden Webworms	18,000	1.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grape Colaspis	360,000	20.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	900,000	50.0%	3,600	0.2%	1,800	0.1%	1.00	$8.25	0.02	0.001	$0.01	0.01%	8,527	$134,233	$0.07	0.3%
Green Cloverworm	1,620,000	90.0%	180,000	10.0%	180,000	10.0%	1.00	$8.25	0.40	0.100	$0.83	0.36%	306,986	$5,782,799	$3.21	12.2%
Japanese Beetle	1,440,000	80.0%	3,600	0.2%	3,600	0.2%	1.00	$8.25	0.02	0.002	$0.02	0.02%	13,644	$220,713	$0.12	0.5%
Kudzu Bug	1,620,000	90.0%	180,000	10.0%	180,000	10.0%	1.00	$8.25	0.60	0.100	$0.83	0.54%	460,478	$7,931,699	$4.41	16.7%
Lesser Cornstalk Borer	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Mexican Bean Beetle	18,000	1.0%	0	0.0%	0	0.0%	0.00	$7.50	4.00	0.000	$0.00	0.04%	34,110	$477,533	$0.27	1.0%
Potato Leafhopper	36,000	2.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	180,000	10.0%	1,800	0.1%	1,800	0.1%	1.00	$10.00	0.00	0.001	$0.01	0.00%	0	$18,000	$0.01	0.0%
Seedcorn Maggot	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Slugs	720,000	40.0%	90,000	5.0%	0	0.0%	0.00	$0.00	0.40	0.000	$0.00	0.16%	136,438	$1,910,133	$1.06	4.0%
Soybean Aphid	9,000	0.5%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Gall Midge	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	720,000	40.0%	36,000	2.0%	18,000	1.0%	1.00	$13.00	0.05	0.010	$0.13	0.02%	17,055	$472,767	$0.26	1.0%
Spider Mites	450,000	25.0%	90,000	5.0%	36,000	2.0%	1.00	$11.00	0.40	0.020	$0.22	0.10%	85,274	$1,589,833	$0.88	3.3%
Spotted Cucumber Beetle	1,800,000	100.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	1,800,000	100.0%	810,000	45.0%	720,000	40.0%	1.00	$7.75	0.60	0.400	$3.10	0.60%	511,643	$12,742,999	$7.08	26.8%
Thistle Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	1,800,000	100.0%	90,000	5.0%	36,000	2.0%	1.00	$7.75	0.20	0.020	$0.16	0.20%	170,548	$2,666,666	$1.48	5.6%
Thrips	1,800,000	100.0%	0	0.0%	1,800	0.1%	1.00	$7.75	0.02	0.001	$0.01	0.02%	17,055	$252,717	$0.14	0.5%
Velvetbean Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Other	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Automatic (no insects)	0	0.0%	0	0.0%	540,000	30.0%	1.00	$3.00	0.00	0.300	$0.90	0.00%	0	$1,620,000	$0.90	3.4%
									TOTAL	**1.048**	**$7.16**	**2.90%**	**2,473,793**	**$47,517,138**	**$26.40**	**100.0%**

SUMMARY DATA

Data Input

State	TN
Year	2022
Total Acres	1,800,000
Yield/acre	46
Price/Bushel	$14.00
% Acres Scouted	40
Scouting Fee/scouted acre	$7.50
% Acres Insect Seed Trt.	65
Seed Trt Cost/treated ac	$8.00

Yield & Management Results

Total Bushels Harvested	82,800,000
Total Bushels Lost to Insects	2,473,793
Percent Yield Loss	2.90%
Yield w/o Insects	47.37
Ave. # Spray Applications	1.048
Seed Treated Acres	1,170,000
Scouted Acres	720,000

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$12,884,040	$7.16
Seed Treatment Costs	$9,360,000	$5.20
Scouting costs	$5,400,000	$3.00
Total Costs	$27,644,040	$15.36
Yield Lost to insects	$34,633,098	$19.24
Total Losses + Costs	$62,277,138	$34.60

Stink Bug Composition

Species	% of SB
Brown	15
Brown Marmorated	20
Green	65
Redbanded	0
Redshouldered	0
Southern Green	0
Total (make it 100%)	100

Appendix 17. Texas soybean insect losses, 2022.

Pest	Acres Infested	% Acres Infested	Acres above ET	% Acres above ET	Acres Treated	% Acres Treated	# of apps/acres treated	Cost of 1 Insecticide	% loss per acre infested	# of apps per total soy acres	cost/acre	Overall % reduction	bushel lost per pest	Loss + Cost	Loss + Cost/acre	% Total Loss + Cost
Armyworm complex	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Banded Cucumber Beetle	138,690	100.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	1,387	1.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Blister Beetle	13,869	10.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Corn Earworm	693	0.5%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Cutworms	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Dectes Stem Borer	4,161	3.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Garden Webworms	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grape Colaspis	62,411	45.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	138,690	100.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Green Cloverworm	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Japanese Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Kudzu Bug	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Lesser Cornstalk Borer	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Mexican Bean Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Potato Leafhopper	13,869	10.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	13,869	10.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Seedcorn Maggot	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Slugs	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Aphid	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Gall Midge	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	5,201	3.8%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Spider Mites	27,738	20.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Spotted Cucumber Beetle	138,690	100.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	97,083	70.0%	53,396	38.5%	48,542	35.0%	1.10	$21.00	4.00	0.385	$8.09	2.80%	131,841	$3,033,005	$21.87	99.5%
Thistle Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	124,821	90.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Thrips	138,690	100.0%	0	0.0%	1,387	1.0%	1.00	$10.00	0.00	0.010	$0.10	0.00%	0	$13,869	$0.10	0.5%
Velvetbean Caterpillar	124,821	90.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Other	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Automatic (no insects)	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
									TOTAL	**0.395**	**$8.19**	**2.80%**	**131,841**	**$3,046,874**	**$21.97**	**100.0%**

SUMMARY DATA

Data Input

State	TX
Year	2022
Total Acres	138,690
Yield/acre	33
Price/Bushel	$14.50
% Acres Scouted	25
Scouting Fee/scouted acre	$10.00
% Acres Insect Seed Trt.	100
Seed Trt Cost/treated ac	$11.00

Yield & Management Results

Total Bushels Harvested	4,576,770
Total Bushels Lost to Insects	131,841
Percent Yield Loss	2.80%
Yield w/o Insects	33.95
Ave. # Spray Applications	0.395
Seed Treated Acres	138,690
Scouted Acres	34,673

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$1,135,178	$8.19
Seed Treatment Costs	$1,525,590	$11.00
Scouting costs	$346,725	$2.50
Total Costs	$3,007,493	$21.69
Yield Lost to insects	$1,911,696	$13.78
Total Losses + Costs	$4,919,189	$35.47

Stink Bug Composition

Species	% of SB
Brown	45
Brown Marmorated	0
Green	5
Redbanded	40
Redshouldered	5
Southern Green	5
Total (make it 100%)	100

Appendix 18. Virginia soybean insect losses, 2022.

Pest	Acres Infested	% Acres Infested	Acres above ET	% Acres above ET	Acres Treated	% Acres Treated	# of apps/acres treated	Cost of 1 Insecticide	% loss per acre infested	# of apps per total soy acres	cost/acre	Overall % reduction	bushel lost per pest	Loss + Cost	Loss + Cost/acre	% Total Loss + Cost
Armyworm complex	189,000	30.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Banded Cucumber Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	189,000	30.0%	1,260	0.2%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Blister Beetle	126,000	20.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Corn Earworm	315,000	50.0%	94,500	15.0%	126,000	20.0%	1.00	$17.00	3.00	0.200	$3.40	1.50%	482,143	$9,494,679	$15.07	13.6%
Cutworms	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Dectes Stem Borer	31,500	5.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Garden Webworms	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grape Colaspis	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	126,000	20.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Green Cloverworm	315,000	50.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Japanese Beetle	126,000	20.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Kudzu Bug	47,250	7.5%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Lesser Cornstalk Borer	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Mexican Bean Beetle	31,500	5.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Potato Leafhopper	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	18,900	3.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Seedcorn Maggot	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Slugs	126,000	20.0%	31,500	5.0%	18,900	3.0%	1.00	$20.00	5.00	0.030	$0.60	1.00%	321,429	$5,279,786	$8.38	7.5%
Soybean Aphid	6,300	1.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Gall Midge	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	315,000	50.0%	47,250	7.5%	31,500	5.0%	1.00	$18.00	2.00	0.050	$0.90	1.00%	321,429	$5,468,786	$8.68	7.8%
Spider Mites	31,500	5.0%	9,450	1.5%	1,575	0.3%	1.00	$20.00	1.00	0.003	$0.05	0.05%	16,071	$276,589	$0.44	0.4%
Spotted Cucumber Beetle	315,000	50.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	630,000	100.0%	157,500	25.0%	283,500	45.0%	1.00	$12.00	5.00	0.450	$5.40	5.00%	1,607,143	$27,910,929	$44.30	39.9%
Thistle Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	409,500	65.0%	63,000	10.0%	63,000	10.0%	1.00	$12.00	5.00	0.100	$1.20	3.25%	1,044,643	$16,686,804	$26.49	23.8%
Thrips	472,500	75.0%	9,450	1.5%	0	0.0%	1.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Velvetbean Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Other	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Automatic (no insects)	0	0.0%	0	0.0%	409,500	65.0%	1.00	$12.00	0.00	0.650	$7.80	0.00%	0	$4,914,000	$7.80	7.0%
									TOTAL	**1.483**	**$19.35**	**11.80%**	**3,792,857**	**$70,031,571**	**$111.16**	**100.0%**

SUMMARY DATA

Data Input

State	VA
Year	2022
Total Acres	630,000
Yield/acre	45
Price/Bushel	$15.25
% Acres Scouted	18
Scouting Fee/scouted acre	$12.00
% Acres Insect Seed Trt.	20
Seed Trt Cost/treated ac	$12.00

Yield & Management Results

Total Bushels Harvested	28,350,000
Total Bushels Lost to Insects	3,792,857
Percent Yield Loss	11.80%
Yield w/o Insects	51.02
Ave. # Spray Applications	1.483
Seed Treated Acres	126,000
Scouted Acres	111,510

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$12,190,500	$19.35
Seed Treatment Costs	$1,512,000	$2.40
Scouting costs	$1,338,120	$2.12
Total Costs	$15,040,620	$23.87
Yield Lost to insects	$57,841,071	$91.81
Total Losses + Costs	$72,881,691	$115.69

Stink Bug Composition

Species	% of SB
Brown	40
Brown Marmorated	10
Green	30
Redbanded	1
Redshouldered	1
Southern Green	18
Total (make it 100%)	100

Appendix 19. Wisconsin soybean insect losses, 2022.

Pest	Acres Infested	% Acres Infested	Acres above ET	% Acres above ET	Acres Treated	% Acres Treated	# of apps/acres treated	Cost of 1 Insecticide	% loss per acre infested	# of apps per total soy acres	cost/acre	Overall % reduction	bushel lost per pest	Loss + Cost	Loss + Cost/acre	% Total Loss + Cost
Armyworm complex	21,500	1.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Banded Cucumber Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	537,500	25.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Blister Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Corn Earworm	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Cutworms	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Dectes Stem Borer	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Garden Webworms	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grape Colaspis	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	537,500	25.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Green Cloverworm	645,000	30.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Japanese Beetle	645,000	30.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Kudzu Bug	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Lesser Cornstalk Borer	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Mexican Bean Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Potato Leafhopper	322,500	15.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Seedcorn Maggot	215,000	10.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Slugs	21,500	1.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Aphid	1,075,000	50.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Gall Midge	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Spider Mites	322,500	15.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Spotted Cucumber Beetle	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	645,000	30.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Thistle Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Thrips	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Velvetbean Caterpillar	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Other	0	0.0%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Automatic (no insects)	0	0.0%	0	0.0%	107,500	5.0%	1.00	$5.00	0.00	0.050	$0.25	0.00%	0	$537,500	$0.25	100.0%
									TOTAL	**0.050**	**$0.25**	**0.00%**	**0**	**$537,500**	**$0.25**	**100.0%**

SUMMARY DATA

Data Input

State	WI
Year	2022
Total Acres	2,150,000
Yield/acre	54
Price/Bushel	$13.90
% Acres Scouted	50
Scouting Fee/scouted acre	$5.00
% Acres Insect Seed Trt.	40
Seed Trt Cost/treated ac	$6.00

Yield & Management Results

Total Bushels Harvested	116,100,000
Total Bushels Lost to Insects	0
Percent Yield Loss	0.00%
Yield w/o Insects	54.00
Ave. # Spray Applications	0.050
Seed Treated Acres	860,000
Scouted Acres	1,075,000

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$537,500	$0.25
Seed Treatment Costs	$5,160,000	$2.40
Scouting costs	$5,375,000	$2.50
Total Costs	$11,072,500	$5.15
Yield Lost to insects	$0	$0.00
Total Losses + Costs	$11,072,500	$5.15

Stink Bug Composition

Species	% of SB
Brown	80
Brown Marmorated	5
Green	15
Redbanded	0
Redshouldered	0
Southern Green	0
Total (make it 100%)	100