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2024 Soybean Insect Losses in the United States

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ABSTRACT

Estimated management costs and losses due to insects and other invertebrates in soybean during the 2024 growing season were collected and compiled from 19 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 63% 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 $15.52 per acre, with estimated crop losses to insects at $8.88 per acre, making the 2024 total costs plus losses $24.40 per acre. An average of 0.66 foliar insecticide applications were made over all soybeans. State estimates varied widely, with insect management costs in three states averaging less than $10/ac, while averaging more than $35/ac in three states. Similarly, the estimated yield losses from insects ranged from less than $2.50/ac in four states to more than $25/ac in four states. In general, the states with the highest management costs also had the highest insect losses, and low management costs were in states with low losses. Together these indicate that growers are generally responding to actual insect pressure.

Keywords: 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 most soybean-producing states within the United States beginning to make estimates between 2008 and 2024. 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 not only actual differences in soybean insect management, but also of the perceptions of the people making the estimates.

METHODS AND MATERIALS

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 numerous 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 54.3 million acres (1 acre= 0.405 hectare), which represents 63% of the 86 million acres of soybean harvested in the United States during 2024 (USDA NASS). Nearly all southern soybean-producing states participated, while participation in the midwestern and northern states was about 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 $24.40/ac for 2024, a decrease of about $2/ac from 2023 (Musser et al 2024), but this varied widely among states and regions. Estimates for combined costs + losses ranged from less than $10/ac in Iowa and Michigan in the northern region to greater than $60/ac in the southern region states of Arkansas, Louisiana, and South Carolina. Average yield losses from insects were estimated at 1.57% (0.84 bu/ac or 56 kg/ha), but this also varied from 0.05% in Iowa to 8.0% in North Carolina. The use of insecticide seed treatments was similar across all 3 regions, but crop scouting and the application of foliar insecticides was much more common in the southern region and declined in more northern regions (Table 1).

Insect management costs increased during 2024 even though the number of insecticide applications decreased slightly. Yield losses declined as measured in both % of yield and in value per acre compared to 2023 (Musser et al. 2024). The seed-feeding complex of stink bugs was once again the costliest insect pest

Table 1. Soybean insect management practices and economic impacts by region, 2024.

Region	Soybean Acres[1] (x1000)	Yield (bu/ac)	% soybean acres		Average Number of Foliar Applications	Insect Impacts ($/acre)	
			Scouted	Insecticide Seed Treatment		Management Costs	Yield Losses
North[2]	35,118	54.9	26	67	0.37	10.02	3.26
Central[3]	11,854	47.2	52	68	0.87	18.50	12.44
South[4]	7,364	52.9	81	76	1.65	37.69	27.81
Average (weighted by acres)			39	68	0.66	15.52	8.88

[1] 1 acre = 0.405 ha

[2] Delaware, Illinois, Iowa, Maryland, Michigan, North Dakota, and Ohio

[3] Kentucky, Missouri, North Carolina, Tennessee, and Virginia

[4] Alabama, Arkansas, Georgia, Louisiana, Mississippi, South Carolina, and Texas

Table 2. Individual species or species complexes causing at least 1.5% of insect costs + losses nationally during 2024.

Common Name	Scientific Name	Cost/Ac	Loss/Ac	% All Costs + Losses
Stink bugs	Multiple spp. Hemiptera: Pentatomidae	$1.62	$2.54	25.4%
Corn earworm	*Helicoverpa zea*, Lepidoptera: Noctuidae	$1.11	$2.07	19.4%
Soybean looper	*Chrysodeixis includens*, Lepidoptera: Noctuidae	$1.18	$0.87	12.5%
Grasshoppers	Multiple spp. Orthoptera: Caelifera	$0.12	$1.02	7.0%
Bean leaf beetle	*Ceratoma trifurcata,* Coleoptera: Chrysomelidae	$0.44	$0.94	5.7%
Slugs	Multiple spp. Gastropoda: Pulmonata	$0.31	$0.49	4.8%
Soybean aphid	*Aphis glycines*, Hemiptera: Aphididae	$0.45	$0.16	3.7%
Japanese beetle	*Popillia japonica*, Coleoptera: Scarabaeidae	$0.23	$0.10	2.0%
Threecornered alfalfa hopper	*Spissistilus festinus*, Hemiptera: Membracidae	$0.06	$0.25	1.9%
Green cloverworm	*Hypena scabra*, Lepidoptera: Erebidae	$0.10	$0.16	1.6%
Velvetbean caterpillar	*Anticarsia gemmatalis*, Lepidoptera: Erebidae	$0.15	$0.11	1.6%
Dectes stem borer	*Dectes texanus*, Coleoptera: Cerambycidae	$0.03	$0.23	1.6%
Kudzu bug	*Megacopta cribraria*, Hemiptera: Plataspidae	$0.10	$0.14	1.5%

of soybean during 2024 in terms of lost yield (0.45%) and management costs, comprising 25.4% of all combined insect costs + losses (Table 2). This complex was considered the most economically damaging pest in 9 (AL, AR, GA, LA, MS, SC, TN, TX, VA) of the 19 reporting states. Only two states, Michigan and North Dakota, reported no costs or losses from stink bugs. Overall, the most common species in the complex during 2024 was the green stink bug (*Chinavia hilaris*), and it was the primary species in nine states. However, southern green stink bug (*Nezara viridula*) was the primary species in the southeastern states of Alabama, Georgia, and South Carolina, brown stink bug (*Euschistus* spp.) was the primary species in Iowa and North Carolina, redbanded stink bug (*Piezodorus guildinii*) was the primary stink bug species in the most southern states of Louisiana and Texas, and brown marmorated stink bug (*Halyomorpha halys*) was primary in Ohio.

Corn earworm was the second most damaging pest during 2024, which was consistent with previous years. Corn earworm was considered the costliest insect pest only in North Carolina, and over all states was responsible for 19.4% of insect costs + losses. Soybean looper was not the costliest pest in any state but was responsible for 12.5% of insect costs + losses and the third costliest pest overall (Table 2).

An additional 10 species of invertebrates were responsible for at least 1.5% of overall insect control costs + yield losses (Table 2). Other than stink bugs and corn earworm, those that were the primary insect pest in at least one state were slugs (DE, MD, OH), Japanese beetle (IA), bean leaf beetle (IL, MO), threecornered alfalfa hopper (KY), seed corn maggot (MI), and grasshoppers (ND).

Automatic insecticide applications, foliar insecticide applications made that were not in response to any specific insect pressure, resulted in 0.21 insecticide applications and cost growers $1.19/ac. Nationally, this was the most common reason for making a foliar insecticide application, much more common than the largest insect pest target of stink bugs (0.135 insecticide applications). However, the expense of automatic applications was less than the cost of stink bug applications due to most automatic applications being added to a planned fungicide or herbicide application and thereby not having any application cost.

State Highlights

Alabama. Yields were down sharply, but insect pest pressure was similar to 2023 (Musser et al. 2024), with the stink bug complex being the primary pest, accounting for 60% of insect costs + losses. Other important pests were the kudzu bug, the velvetbean caterpillar, and the armyworm complex.

Arkansas. The stink bug complex, primarily green and brown stink bugs, was the primary pest during 2024, but corn earworm and soybean looper were also substantial pests. These 3 species combined accounted for 92% of all insect costs + losses.

Delaware/Maryland. Estimates were combined for these states as many of the people involved in soybean production work in both states. Overall insect pressure was similar to 2023 (Musser et al. 2024). Slugs, corn earworm, and stink bugs were jointly responsible for 79% of all insect costs + losses during 2024.

Georgia. Stink bug pressure was similar to 2023 (Musser et al. 2024), but reduced pressure from other insects resulted in stink bugs accounting for nearly ½ of all insect costs + losses during 2024. Other important pests were velvetbean caterpillar, soybean looper, and kudzu bug.

Illinois. Insecticide seed treatments and automatic insecticide applications continued to be the largest insect-related expenses in 2024, together accounting for 64% of all insect-related costs + losses. Bean leaf beetle, stink bugs, slugs, cutworms, and Japanese beetle were other important pests during 2024.

Iowa. Overall costs + losses associated with insects were similar to 2022 and 2023 at $5.22/ac (Musser et al 2023, 2024). Foliar applications were only made on 13% of soybean acreage, but 76% of the foliar applications were automatic applications. The costliest insect pest was Japanese beetle, which accounted for more than 50% of insect costs + losses.

Kentucky. Overall insect losses were down compared to 2023 (Musser et al. 2024). Threecornered alfalfa hopper, slugs, and bean leaf beetle were the primary pests during 2024. Slug damage was much higher than in 2023, while the other pests were less damaging than in 2023 (Musser et al. 2024).

Louisiana. The number of foliar insecticide applications made during 2024 rose sharply from 2023 to return to more typical historical levels (Musser et al. 2021, 2022, 2023, 2024). Stink bugs were the primary pest, with soybean looper, corn earworm, and velvetbean caterpillar also causing substantial losses.

Michigan. All yield losses were from seedcorn maggot and slugs during 2024, and these pests were at economically damaging levels on less than 1% of soybeans. Insecticide seed treatments and automatic foliar insecticide applications were the primary insect management costs incurred, accounting for 83% of all insect-related costs.

Mississippi. The main insect pests were stink bug and corn earworm followed by soybean looper. Management costs were similar to 2023 (Musser et al. 2024), marking the second consecutive year with an average of less than 1 foliar insecticide application made to soybean. Yield losses to insects were also down by 18%, suggesting the insect pressure was unusually light during 2024.

Missouri. Bean leaf beetle was the primary pest during 2024 followed closely by corn earworm, stink bugs, and cutworms.

North Carolina. The use of seed treatments remained low compared to most other states but rose from 18% of acreage in 2023 (Musser et al. 2024) to 31% in 2024. Otherwise, insect management and losses were comparable to 2023. Corn earworm remained the primary pest, followed by stink bugs.

North Dakota. 2024 is the first year for participation for North Dakota. Grasshoppers and soybean aphid were the two primary pests during 2024.

Ohio. After two years of falling insect costs + losses, Ohio costs + losses rose modestly to $17.31/ac in 2024. The largest “insect”-related costs were from automatic insecticide applications followed closely by slug costs + losses, which often involved replanting. Stink bugs and Japanese beetle were also significant pests during 2024.

South Carolina. Stink bugs, soybean looper and corn earworm remained the costliest pests in 2024. Overall costs + losses in 2024 ($65.09/ac) were similar to 2023 ($61.17/ac) (Musser et al. 2024).

Tennessee. Stink bugs, kudzu bug, bean leaf beetle, and green cloverworm continued to be the primary pests in 2024. Crop scouting became more common, rising from 45% in 2023 to 80% of acreage in 2024. Overall costs + losses during 2024 ($34.60/ac) were similar to 2023 ($32.06/ac) (Musser et 2024).

Texas. Stink bugs remained the primary pest in 2024. The only other pests to be considered economically damaging during 2024 were soybean looper, corn earworm, and green cloverworm, all at relatively low levels compared to stink bugs.

Virginia. The top insect pests remained the stink bugs, corn earworm, and soybean looper. Cost and loss estimates were both slightly lower during 2024 compared to 2023 (Musser et al. 2024)

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 19 reporting states, 2024.

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	3,451,556	6.4%	577,450	1.1%	577,300	1.1%	0.83	$12.19	0.14	0.009	$0.11	0.01%	250,882	$8,520,880	$0.16	1.0%
Banded Cucumber Beetle	3,803,700	7.0%	22,700	0.0%	11,350	0.0%	1.00	$10.00	0.00	0.000	$0.00	0.00%	9,161	$210,077	$0.00	0.0%
Bean Leaf Beetle	27,045,050	49.8%	2,224,500	4.1%	2,435,250	4.5%	0.93	$10.59	0.18	0.042	$0.44	0.09%	2,562,670	$51,026,847	$0.94	5.7%
Blister Beetle	1,666,430	3.1%	120,950	0.2%	105,250	0.2%	1.00	$10.82	0.02	0.002	$0.02	0.00%	17,426	$1,322,325	$0.02	0.1%
Corn Earworm	8,027,960	14.8%	3,375,610	6.2%	3,586,978	6.6%	1.05	$15.97	2.47	0.070	$1.11	0.37%	10,672,753	$172,926,988	$3.18	19.4%
Cutworms	2,417,400	4.4%	749,150	1.4%	742,250	1.4%	1.00	$11.86	0.24	0.014	$0.16	0.01%	312,884	$12,103,333	$0.22	1.4%
Dectes Stem Borer	14,018,444	25.8%	72,575	0.1%	136,190	0.3%	0.93	$11.26	0.16	0.002	$0.03	0.04%	1,197,406	$14,042,035	$0.26	1.6%
Garden Webworms	597,520	1.1%	3,050	0.0%	3,050	0.0%	1.00	$12.00	0.04	0.000	$0.00	0.00%	11,833	$161,341	$0.00	0.0%
Grape Colaspis	7,874,010	14.5%	10,120	0.0%	10,120	0.0%	0.20	$9.00	0.01	0.000	$0.00	0.00%	36,645	$404,523	$0.01	0.0%
Grasshopper	31,648,530	58.2%	1,020,420	1.9%	532,570	1.0%	1.00	$12.68	0.31	0.010	$0.12	0.18%	5,236,279	$61,952,869	$1.14	7.0%
Green Cloverworm	30,112,606	55.4%	818,270	1.5%	655,070	1.2%	0.75	$11.40	0.05	0.009	$0.10	0.03%	825,971	$14,340,892	$0.26	1.6%
Japanese Beetle	25,025,800	46.1%	667,370	1.2%	1,072,900	2.0%	1.00	$11.56	0.04	0.020	$0.23	0.02%	510,140	$17,782,324	$0.33	2.0%
Kudzu Bug	8,360,888	15.4%	658,680	1.2%	577,760	1.1%	1.00	$9.11	0.16	0.011	$0.10	0.03%	731,087	$12,970,254	$0.24	1.5%
Lesser Cornstalk Borer	123,940	0.2%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	12	$129	$0.00	0.0%
Mexican Bean Beetle	119,836	0.2%	674	0.0%	674	0.0%	1.00	$9.89	0.28	0.000	$0.00	0.00%	18,293	$199,505	$0.00	0.0%
Potato Leafhopper	7,482,820	13.8%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	977	$10,302	$0.00	0.0%
Saltmarsh Caterpillar	7,416,600	13.6%	187,750	0.3%	146,250	0.3%	1.00	$12.58	0.05	0.003	$0.03	0.01%	219,480	$4,153,602	$0.08	0.5%
Seedcorn Maggot	1,577,506	2.9%	12,814	0.0%	12,814	0.0%	1.00	$87.43	0.17	0.000	$0.02	0.01%	148,315	$2,683,815	$0.05	0.3%
Slugs	4,880,134	9.0%	703,876	1.3%	616,660	1.1%	1.07	$25.49	0.95	0.012	$0.31	0.09%	2,500,673	$43,109,136	$0.79	4.8%
Soybean Aphid	3,365,444	6.2%	1,523,250	2.8%	1,395,200	2.6%	1.00	$17.48	0.45	0.026	$0.45	0.03%	816,644	$32,994,852	$0.61	3.7%
Soybean Gall Midge	123,025	0.2%	59,000	0.1%	59,000	0.1%	1.00	$10.00	0.00	0.001	$0.01	0.00%	74	$590,780	$0.01	0.1%
Soybean Looper	9,299,142	17.1%	3,142,460	5.8%	3,248,920	6.0%	1.03	$19.05	0.90	0.062	$1.18	0.15%	4,479,460	$111,113,024	$2.04	12.5%
Spider Mites	2,685,828	4.9%	206,830	0.4%	178,665	0.3%	1.00	$12.21	0.13	0.003	$0.04	0.01%	194,769	$4,235,354	$0.08	0.5%
Spotted Cucumber Beetle	25,066,800	46.1%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	23,981	$252,801	$0.00	0.0%
Stink Bugs (see box below)	27,286,438	50.2%	5,923,518	10.9%	5,971,722	11.0%	1.22	$12.03	0.89	0.135	$1.62	0.45%	13,113,965	$226,203,626	$4.16	25.4%
Thistle Caterpillar	1,141,020	2.1%	0	0.0%	0	0.0%	0.00	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	18,053,200	33.2%	774,825	1.4%	455,655	0.8%	0.84	$9.12	0.13	0.007	$0.06	0.04%	1,297,731	$17,168,136	$0.32	1.9%
Thrips	19,476,300	35.8%	0	0.0%	28,000	0.1%	1.00	$8.76	0.00	0.001	$0.00	0.00%	0	$245,350	$0.00	0.0%
Velvetbean Caterpillar	5,762,280	10.6%	1,049,450	1.9%	952,250	1.8%	0.67	$12.54	0.19	0.012	$0.15	0.02%	579,372	$14,062,444	$0.26	1.6%
Other	1,442,400	2.7%	191	0.0%	16,200	0.0%	1.00	$9.50	0.02	0.000	$0.00	0.00%	11,768	$277,961	$0.01	0.0%
Automatic (no insects)	0	0.0%	0	0.0%	11,187,120	20.6%	1.01	$5.73	0.00	0.207	$1.19	0.00%	0	$64,579,287	$1.19	7.3%
										0.656	**$7.49**	**1.57%**	**45,780,639**	**$889,644,791**	**$16.37**	**100.0%**

SUMMARY DATA

Data Input

State	Combined
Year	2024
Total Acres	54,336,000
Yield/acre	52.97
Price/Bushel	$10.54
% Acres Scouted	39
Scouting Fee/scouted acre	$7.27
% Acres Insect Seed Trt.	68
Seed Trt Cost/treated ac	$7.58

Yield & Management Results

Total Bushels Harvested	2,878,070,620
Total Bushels Lost to Insects	45,780,639
Percent Yield Loss	1.57%
Yield w/o Insects	53.81
Ave. # Spray Applications	0.656
Seed Treated Acres	37,156,430
Scouted Acres	21,252,000

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$407,031,569	$7.49
Seed Treatment Costs	$281,668,183	$5.18
Scouting costs	$154,589,448	$2.85
Total Costs	$843,289,199	$15.52
Yield Lost to insects	$482,613,223	$8.88
Total Losses + Costs	$1,325,902,422	$24.40

Stink Bug Composition

Species	% of SB
Brown	33.0
Brown Marmorated	12.6
Green	41.6
Redbanded	3.9
Redshouldered	0.8
Southern Green	8.2
Total	100.0

Appendix 2. Alabama soybean insect losses, 2024.

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	53,250	15.0%	35,500	10.0%	35,500	10.0%	1	$9.00	0.03	0.100	$0.90	0.00%	421	$323,713	$0.91	5.5%
Banded Cucumber Beetle	106,500	30.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	106,500	30.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Corn Earworm	142,000	40.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Cutworms	3,550	1.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Dectes Stem Borer	7,100	2.0%	0	0.0%	0	0.0%	0	$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	$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	$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	$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	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Kudzu Bug	177,500	50.0%	106,500	30.0%	88,750	25.0%	1	$8.50	0.50	0.250	$2.13	0.25%	28,086	$1,035,233	$2.92	17.7%
Lesser Cornstalk Borer	0	0.0%	0	0.0%	0	0.0%	0	$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%	36	0.0%	1	$8.00	0.00	0.000	$0.00	0.00%	0	$284	$0.00	0.0%
Potato Leafhopper	0	0.0%	0	0.0%	0	0.0%	0	$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	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Slugs	7,100	2.0%	0	0.0%	0	0.0%	0	$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	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	42,600	12.0%	17,750	5.0%	17,750	5.0%	1	$10.50	0.00	0.050	$0.53	0.00%	13	$186,510	$0.53	3.2%
Spider Mites	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Spotted Cucumber Beetle	71,000	20.0%	0	0.0%	0	0.0%	0	$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%	106,500	30.0%	177,500	50.0%	1	$8.50	1.75	0.500	$4.25	1.75%	196,601	$3,474,759	$9.79	59.5%
Thistle Caterpillar	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	355,000	100.0%	8,875	2.5%	8,875	2.5%	1	$8.50	0.00	0.025	$0.21	0.00%	0	$75,438	$0.21	1.3%
Thrips	355,000	100.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Velvetbean Caterpillar	88,750	25.0%	53,250	15.0%	53,250	15.0%	1	$8.50	0.15	0.150	$1.28	0.04%	4,213	$494,754	$1.39	8.5%
Other	0	0.0%	0	0.0%	0	0.0%	0	$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	$3.50	0.00	0.200	$0.70	0.00%	0	$248,500	$0.70	4.3%
									TOTAL	1.275	$9.99	2.04%	229,334	$5,839,190	$16.45	100.0%

SUMMARY DATA

Data Input

State	AL
Year	2024
Total Acres	355,000
Yield/acre	31
Price/Bushel	$10.00
% 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	11,005,000
Total Bushels Lost to Insects	229,334
Percent Yield Loss	2.04%
Yield w/o Insects	31.65
Ave. # Spray Applications	1.275
Seed Treated Acres	124,250
Scouted Acres	195,250

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$3,545,847	$9.99
Seed Treatment Costs	$1,118,250	$3.15
Scouting costs	$1,171,500	$3.30
Total Costs	$5,835,597	$16.44
Yield Lost to insects	$2,293,343	$6.46
Total Losses + Costs	$8,128,940	$22.90

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, 2024.

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	305,000	10.0%	3,050	0.1%	3,050	0.1%	1	$14.00	0.10	0.001	$0.01	0.01%	17,826	$220,961	$0.07	0.1%
Banded Cucumber Beetle	30,500	1.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	3,050,000	100.0%	274,500	9.0%	396,500	13.0%	1	$14.00	0.10	0.130	$1.82	0.10%	178,261	$7,333,610	$2.40	3.8%
Blister Beetle	305,000	10.0%	45,750	1.5%	61,000	2.0%	1	$12.50	0.10	0.020	$0.25	0.01%	17,826	$940,761	$0.31	0.5%
Corn Earworm	1,830,000	60.0%	610,000	20.0%	915,000	30.0%	1	$18.00	3.10	0.300	$5.40	1.86%	3,315,654	$49,626,542	$16.27	25.9%
Cutworms	244,000	8.0%	76,250	2.5%	91,500	3.0%	1	$12.00	0.03	0.030	$0.36	0.00%	4,278	$1,140,783	$0.37	0.6%
Dectes Stem Borer	1,830,000	60.0%	30,500	1.0%	45,750	1.5%	1	$12.00	0.01	0.015	$0.18	0.01%	10,696	$855,957	$0.22	0.3%
Garden Webworms	61,000	2.0%	3,050	0.1%	3,050	0.1%	1	$12.00	0.10	0.001	$0.01	0.00%	3,565	$72,252	$0.02	0.0%
Grape Colaspis	3,050,000	100.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	3,050,000	100.0%	61,000	2.0%	76,250	2.5%	1	$14.00	0.05	0.025	$0.35	0.05%	89,130	$1,958,805	$0.64	1.0%
Green Cloverworm	3,050,000	100.0%	3,050	0.1%	6,100	0.2%	1	$12.00	0.01	0.002	$0.02	0.01%	17,826	$251,461	$0.08	0.1%
Japanese Beetle	61,000	2.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Kudzu Bug	305,000	10.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Lesser Cornstalk Borer	15,250	0.5%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Potato Leafhopper	3,050,000	100.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	1,525,000	50.0%	15,250	0.5%	30,500	1.0%	1	$14.00	0.10	0.010	$0.14	0.05%	89,130	$1,318,305	$0.43	0.7%
Seedcorn Maggot	91,500	3.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Slugs	152,500	5.0%	3,050	0.1%	0	0.0%	0	$0.00	0.10	0.000	$0.00	0.01%	8,913	$89,130	$0.03	0.0%
Soybean Aphid	30,500	1.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	2,135,000	70.0%	915,000	30.0%	1,220,000	40.0%	1.1	$21.00	1.50	0.440	$9.24	1.05%	1,871,740	$46,899,403	$15.38	24.5%
Spider Mites	305,000	10.0%	3,050	0.1%	6,100	0.2%	1	$14.00	0.01	0.002	$0.03	0.00%	1,783	$103,226	$0.03	0.1%
Spotted Cucumber Beetle	3,050,000	100.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	3,050,000	100.0%	1,525,000	50.0%	1,830,000	60.0%	1.2	$14.00	2.70	0.720	$10.08	2.70%	4,813,046	$78,874,465	$25.86	41.2%
Thistle Caterpillar	30,500	1.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	3,050,000	100.0%	30,500	1.0%	61,000	2.0%	1	$12.00	0.02	0.020	$0.24	0.02%	35,652	$1,088,522	$0.36	0.6%
Thrips	3,050,000	100.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Velvetbean Caterpillar	610,000	20.0%	24,400	0.8%	45,750	1.5%	1	$12.00	0.10	0.015	$0.18	0.02%	35,652	$905,522	$0.30	0.5%
Other	0	0.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
									TOTAL	1.731	$28.32	5.90%	10,510,980	$191,479,705	$62.78	100.0%

SUMMARY DATA

Data Input	
State	AR
Year	2024
Total Acres	3,050,000
Yield/acre	55
Price/Bushel	$10.00
% Acres Scouted	85
Scouting Fee/scouted acre	$9.00
% Acres Insect Seed Trt.	80
Seed Trt Cost/treated ac	$8.00

Yield & Management Results	
Total Bushels Harvested	167,750,000
Total Bushels Lost to Insects	10,510,980
Percent Yield Loss	5.90%
Yield w/o Insects	58.45
Ave. # Spray Applications	1.731
Seed Treated Acres	2,440,000
Scouted Acres	2,592,500

Economic Results	Total	Per Acre
Foliar Insecticides Costs	$86,369,900	$28.32
Seed Treatment Costs	$19,520,000	$6.40
Scouting costs	$23,332,500	$7.65
Total Costs	$129,222,400	$42.37
Yield Lost to insects	$105,109,805	$34.46
Total Losses + Costs	$234,332,205	$76.83

Stink Bug Composition	% of SB
Species	
Brown	35
Brown Marmorated	4
Green	50
Redbanded	3
Redshouldered	3
Southern Green	5
Total (make it 100%)	100

Appendix 4. Delaware and Maryland soybean insect losses

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	52,316	8.2%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	446,600	70.0%	0	0.0%	0	0.0%	0	$0.00	0.20	0.000	$0.00	0.14%	39,905	$392,669	$0.62	1.7%
Blister Beetle	63,800	10.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Corn Earworm	452,960	71.0%	114,840	18.0%	191,400	30.0%	1.01	$19.00	1.50	0.303	$5.76	1.07%	303,566	$6,660,057	$10.44	28.5%
Cutworms	12,760	2.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Dectes Stem Borer	279,444	43.8%	1,595	0.3%	0	0.0%	0	$0.00	1.25	0.000	$0.00	0.55%	156,059	$1,535,617	$2.41	6.6%
Garden Webworms	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grape Colaspis	12,760	2.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	510,400	80.0%	0	0.0%	0	0.0%	0	$0.00	0.01	0.000	$0.00	0.01%	2,280	$22,438	$0.04	0.1%
Green Cloverworm	307,516	48.2%	0	0.0%	0	0.0%	0	$0.00	0.01	0.000	$0.00	0.00%	1,374	$13,519	$0.02	0.1%
Japanese Beetle	586,960	92.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Kudzu Bug	128	0.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Mexican Bean Beetle	31,900	5.0%	638	0.1%	638	0.1%	1	$10.00	0.05	0.001	$0.01	0.00%	713	$13,392	$0.02	0.1%
Potato Leafhopper	210,540	33.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	95,700	15.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Seedcorn maggot	20,416	3.2%	1,914	0.3%	1,914	0.3%	1	$50.00	1.50	0.003	$0.15	0.05%	13,682	$230,329	$0.36	1.0%
Slugs	139,084	21.8%	52,316	8.2%	127,600	20.0%	1	$35.00	4.50	0.200	$7.00	0.98%	279,623	$7,217,489	$11.31	30.9%
Soybean Aphid	56,144	8.8%	0	0.0%	0	0.0%	0	$0.00	0.02	0.000	$0.00	0.00%	502	$4,996	$0.01	0.0%
Soybean Gall Midge	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	404,492	63.4%	0	0.0%	0	0.0%	0	$15.25	0.05	0.000	$0.00	0.03%	9,036	$88,912	$0.14	0.4%
Spider Mites	192,038	30.1%	38,280	6.0%	114,840	18.0%	1	$12.00	0.35	0.180	$2.16	0.11%	30,029	$1,673,564	$2.62	7.2%
Spotted Cucumber Beetle	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	542,938	85.1%	16,588	2.6%	37,642	5.9%	1	$13.00	1.75	0.059	$0.77	1.49%	424,494	$4,666,366	$7.31	20.0%
Thistle Caterpillar	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	63,800	10.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Thrips	638,000	100.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Other	0	0.0%	191	0.0%	0	0.0%	0	$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%	344,520	54.0%	1.25	$1.90	0.00	0.675	$1.28	0.00%	0	$818,235	$1.28	3.5%
									TOTAL	1.421	$17.13	4.42%	1,261,262	$23,337,522	$36.58	100.0%

SUMMARY DATA

Data Input	
State	DE/MD
Year	2024
Total Acres	638,000
Yield/acre	42.7
Price/Bushel	$9.84
% Acres Scouted	35
Scouting Fee/scouted acre	$9.40
% Acres Insect Seed Trt.	55
Seed Trt Cost/treated ac	$6.50

Yield & Management Results	
Total Bushels Harvested	27,242,600
Total Bushels Lost to Insects	1,261,262
Percent Yield Loss	4.42%
Yield w/o Insects	44.68
Ave. # Spray Applications	1.421
Seed Treated Acres	350,900
Scouted Acres	223,300

Economic Results	Total	Per Acre
Foliar Insecticides Costs	$10,926,707	$17.13
Seed Treatment Costs	$2,280,850	$3.58
Scouting costs	$2,099,020	$3.29
Total Costs	$15,306,577	$23.99
Yield Lost to insects	$12,410,815	$19.45
Total Losses + Costs	$27,717,392	$43.44

Stink Bug Composition	% of SB
Species	
Brown	33
Brown Marmorated	6
Green	60
Redbanded	0
Redshouldered	0
Southern Green	1
Total (make it 100%)	100

Appendix 5. Georgia soybean insect losses, 2024.

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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Banded Cucumber Beetle	32,400	20.0%	0	0.0%	0	0.0%	0	$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	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Corn Earworm	2,430	1.5%	0	0.0%	0	0.0%	0	$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	$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	$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	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	14,580	9.0%	2,430	1.5%	1,620	1.0%	1	$9.00	0.50	0.010	$0.09	0.05%	3,551	$50,088	$0.31	1.0%
Green Cloverworm	35,640	22.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Japanese Beetle	3,240	2.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Kudzu Bug	105,300	65.0%	14,580	9.0%	12,960	8.0%	1	$9.00	1.00	0.080	$0.72	0.65%	51,290	$629,540	$3.89	12.2%
Lesser Cornstalk Borer	1,620	1.0%	0	0.0%	0	0.0%	0	$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	$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	$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	$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	$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	$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	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	89,100	55.0%	32,400	20.0%	29,160	18.0%	1	$16.00	1.25	0.180	$2.88	0.69%	54,249	$1,009,050	$6.23	19.6%
Spider Mites	0	0.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	145,800	90.0%	113,400	70.0%	105,300	65.0%	1	$9.00	2.00	0.650	$5.85	1.80%	142,034	$2,368,038	$14.62	45.9%
Thistle Caterpillar	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	8,100	5.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Thrips	81,000	50.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Velvetbean Caterpillar	105,300	65.0%	8,100	5.0%	105,300	65.0%	1	$8.00	0.50	0.650	$5.20	0.33%	25,645	$1,098,850	$6.78	21.3%
Other	0	0.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
									TOTAL	**1.570**	**$14.74**	**3.51%**	**276,769**	**$5,155,567**	**$31.82**	**100.0%**

SUMMARY DATA

Data Input

State	GA
Year	2024
Total Acres	162,000
Yield/acre	47
Price/Bushel	$10.00
% Acres Scouted	65
Scouting Fee/scouted acre	$6.00
% Acres Insect Seed Trt.	20
Seed Trt Cost/treated ac	$8.00

Yield & Management Results

Total Bushels Harvested	7,814,000
Total Bushels Lost to Insects	276,769
Percent Yield Loss	3.51%
Yield w/o Insects	48.71
Ave. # Spray Applications	1.570
Seed Treated Acres	32,400
Scouted Acres	105,300

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$2,387,880	$14.74
Seed Treatment Costs	$259,200	$1.60
Scouting costs	$631,800	$3.90
Total Costs	$3,278,880	$20.24
Yield Lost to insects	$2,767,687	$17.08
Total Losses + Costs	$6,046,567	$37.32

Stink Bug Composition

Species	% of SB
Brown	7
Brown Marmorated	1
Green	1
Redbanded	3
Redshouldered	0
Southern Green	88
Total (make it 100%)	100

Appendix 6. Illinois soybean insect losses, 2024.

Pest	Acres Infested	% Acres Infested	Acres above ET	% Acres above ET	Acres Treated	% Acres Treated	# of apps/acres treated	Cost of1 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	432,000	4.0%	0	0.0%	32,400	0.3%	1	$12.00	0.00	0.003	$0.04	0.00%	0	$388,800	$0.04	0.7%
Banded Cucumber Beetle	0	0.0%	0	0.0%	0	0.0%	0	$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%	324,000	3.0%	1	$12.00	0.05	0.030	$0.36	0.05%	311,726	$7,067,603	$0.65	12.0%
Blister Beetle	324,000	3.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Corn Earworm	324,000	3.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Cutworms	540,000	5.0%	43,200	0.4%	32,400	0.3%	1	$12.00	1.00	0.003	$0.04	0.05%	346,382	$3,921,692	$0.36	6.7%
Dectes Stem Borer	2,700,000	25.0%	0	0.0%	54,000	0.5%	1	$12.00	0.03	0.005	$0.06	0.01%	51,954	$1,177,934	$0.11	2.0%
Garden Webworms	0	0.0%	0	0.0%	0	0.0%	0	$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	$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%	32,400	0.3%	1	$12.00	0.00	0.003	$0.04	0.00%	0	$388,800	$0.04	0.7%
Green Cloverworm	9,720,000	90.0%	0	0.0%	54,000	0.5%	1	$12.00	0.00	0.005	$0.06	0.00%	0	$648,000	$0.06	1.1%
Japanese Beetle	8,100,000	75.0%	10,800	0.1%	216,000	2.0%	1	$12.00	0.01	0.020	$0.24	0.01%	51,954	$3,121,934	$0.29	5.3%
Kudzu Bug	0	0.0%	0	0.0%	0	0.0%	0	$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	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Potato Leafhopper	1,080,000	10.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	2,160,000	20.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Seedcorn Maggot	540,000	5.0%	0	0.0%	0	0.0%	0	$0.00	0.05	0.000	$0.00	0.00%	17,318	$176,645	$0.02	0.3%
Slugs	540,000	5.0%	10,800	0.1%	10,800	0.1%	1	$65.00	1.00	0.001	$0.07	0.05%	346,382	$4,234,892	$0.39	7.2%
Soybean Aphid	216,000	2.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	324,000	3.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Spider Mites	540,000	5.0%	10,800	0.1%	32,400	0.3%	1	$14.00	0.50	0.003	$0.04	0.03%	173,181	$2,220,046	$0.21	3.8%
Spotted Cucumber Beetle	8,640,000	80.0%	0	0.0%	0	0.0%	0	$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%	108,000	1.0%	324,000	3.0%	1	$12.00	0.05	0.030	$0.36	0.03%	225,135	$6,184,380	$0.57	10.5%
Thistle Caterpillar	540,000	5.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	324,000	3.0%	0	0.0%	0	0.0%	0	$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	$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	$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	$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%	4,860,000	45.0%	1	$6.00	0.00	0.450	$2.70	0.00%	0	$29,160,000	$2.70	49.7%
									TOTAL	0.553	$4.00	0.22%	1,523,993	$58,690,726	$5.43	100.0%

SUMMARY DATA

Data Input

State	IL
Year	2024
Total Acres	10,800,000
Yield/acre	64
Price/Bushel	$10.20
% Acres Scouted	15
Scouting Fee/scouted acre	$7.00
% Acres Insect Seed Trt.	50
Seed Trt Cost/treated ac	$8.50

Yield & Management Results

Total Bushels Harvested	691,200,000
Total Bushels Lost to Insects	1,523,993
Percent Yield Loss	0.22%
Yield w/o Insects	64.14
Ave. # Spray Applications	0.553
Seed Treated Acres	5,400,000
Scouted Acres	1,620,000

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$43,146,000	$4.00
Seed Treatment Costs	$45,900,000	$4.25
Scouting costs	$11,340,000	$1.05
Total Costs	$100,386,000	$9.30
Yield Lost to insects	$15,544,726	$1.44
Total Losses + Costs	$115,930,726	$10.73

Stink Bug Composition

Species	% of SB
Brown	34
Brown Marmorated	10
Green	55
Redbanded	0
Redshouldered	1
Southern Green	0
Total (make it 100%)	100

Appendix 7. Iowa soybean insect losses, 2024.

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	502,500	5.0%	0	0.0%	0	0.0%	0	$0.00	0.000	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	$0.00	0.000	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	251,250	2.5%	100,500	1.0%	0	0.0%	0	$0.00	0.005	0.000	$0.00	0.00%	747	$8,333	$0.00	0.1%
Blister Beetle	50,250	0.5%	0	0.0%	0	0.0%	0	$0.00	0.000	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Corn Earworm	100,500	1.0%	0	0.0%	0	0.0%	0	$0.00	0.000	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Cutworms	100,500	1.0%	0	0.0%	0	0.0%	0	$0.00	0.000	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Dectes Stem Borer	100,500	1.0%	0	0.0%	0	0.0%	0	$0.00	0.000	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Garden Webworms	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.000	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grape Colaspis	100,500	1.0%	0	0.0%	0	0.0%	0	$0.00	0.000	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	6,532,500	65.0%	0	0.0%	0	0.0%	0	$0.00	0.010	0.000	$0.00	0.01%	38,883	$433,317	$0.04	4.3%
Green Cloverworm	7,035,000	70.0%	0	0.0%	0	0.0%	0	$0.00	0.000	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Japanese Beetle	7,537,500	75.0%	150,750	1.5%	301,500	3.0%	1	$10.00	0.050	0.030	$0.30	0.04%	224,207	$5,514,905	$0.55	54.8%
Kudzu Bug	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.000	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	$0.00	0.000	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	$0.00	0.000	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Potato Leafhopper	402,000	4.0%	0	0.0%	0	0.0%	0	$0.00	0.000	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.000	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Seedcorn Maggot	452,250	4.5%	0	0.0%	0	0.0%	0	$0.00	0.000	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Slugs	753,750	7.5%	0	0.0%	0	0.0%	0	$0.00	0.000	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Aphid	703,500	7.0%	10,050	0.1%	0	0.0%	0	$0.00	0.050	0.000	$0.00	0.00%	20,926	$233,325	$0.02	2.3%
Soybean Gall Midge	5,025	0.1%	0	0.0%	0	0.0%	0	$0.00	0.025	0.000	$0.00	0.00%	75	$833	$0.00	0.0%
Soybean Looper	201,000	2.0%	0	0.0%	0	0.0%	0	$0.00	0.000	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Spider Mites	603,000	6.0%	100,500	1.0%	5,025	0.1%	1	$10.00	0.025	0.001	$0.01	0.00%	8,968	$150,246	$0.01	1.5%
Spotted Cucumber Beetle	804,000	8.0%	0	0.0%	0	0.0%	0	$0.00	0.000	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	3,015,000	30.0%	100,500	1.0%	0	0.0%	0	$0.00	0.010	0.000	$0.00	0.00%	17,937	$199,992	$0.02	2.0%
Thistle Caterpillar	402,000	4.0%	0	0.0%	0	0.0%	0	$0.00	0.000	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	$0.00	0.000	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Thrips	502,500	5.0%	0	0.0%	0	0.0%	0	$0.00	0.000	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Velvetbean Caterpillar	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.000	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Other	1,005,000	10.0%	0	0.0%	0	0.0%	0	$0.00	0.000	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Automatic (no insects)	0	0.0%	0	0.0%	1,005,000	10.0%	1	$3.50	0.000	0.100	$0.35	0.00%	0	$3,517,500	$0.35	35.0%
									TOTAL	**0.131**	**$0.66**	**0.05%**	**311,722**	**$10,058,452**	**$1.00**	**100.0%**

SUMMARY DATA

Data Input

State	IA
Year	2024
Total Acres	10,050,000
Yield/acre	59.46
Price/Bushel	$11.15
% Acres Scouted	15
Scouting Fee/scouted acre	$6.10
% Acres Insect Seed Trt.	88
Seed Trt Cost/treated ac	$3.75

Yield & Management Results

Total Bushels Harvested	597,573,000
Total Bushels Lost to Insects	311,722
Percent Yield Loss	0.05%
Yield w/o Insects	59.49
Ave. # Spray Applications	0.131
Seed Treated Acres	8,844,000
Scouted Acres	1,507,500

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$6,582,750	$0.66
Seed Treatment Costs	$33,165,000	$3.30
Scouting costs	$9,195,750	$0.92
Total Costs	$48,943,500	$4.87
Yield Lost to insects	$3,475,702	$0.35
Total Losses + Costs	$52,419,202	$5.22

Stink Bug Composition

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

Appendix 8. Kentucky soybean insect losses, 2024.

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	20,240	1.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Banded Cucumber Beetle	404,800	20.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	1,922,800	95.0%	404,800	20.0%	303,600	15.0%	0.3	$9.00	0.50	0.045	$0.41	0.48%	473,450	$5,790,948	$2.86	17.5%
Blister Beetle	40,480	2.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Corn Earworm	202,400	10.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Cutworms	40,480	2.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Dectes Stem Borer	1,012,000	50.0%	40,480	2.0%	20,240	1.0%	0.5	$9.00	0.50	0.005	$0.05	0.25%	249,184	$2,707,516	$1.34	8.2%
Garden Webworms	161,920	8.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grape Colaspis	910,800	45.0%	10,120	0.5%	10,120	0.5%	0.2	$9.00	0.00	0.001	$0.01	0.00%	0	$18,216	$0.01	0.1%
Grasshopper	809,600	40.0%	20,240	1.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Green Cloverworm	1,315,600	65.0%	60,720	3.0%	60,720	3.0%	0.4	$9.00	0.30	0.012	$0.11	0.20%	194,364	$2,259,412	$1.12	6.8%
Japanese Beetle	910,800	45.0%	10,120	0.5%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Kudzu Bug	80,960	4.0%	0	0.0%	0	0.0%	0	$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	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Potato Leafhopper	40,480	2.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Seedcorn Maggot	20,240	1.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Slugs	404,800	20.0%	202,400	10.0%	202,400	10.0%	1.2	$20.00	1.00	0.120	$2.40	0.20%	199,347	$6,950,749	$3.43	21.0%
Soybean Aphid	0	0.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	1,214,400	60.0%	80,960	4.0%	80,960	4.0%	0.4	$9.00	0.50	0.016	$0.14	0.30%	299,021	$3,431,179	$1.70	10.3%
Spider Mites	20,240	1.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Spotted Cucumber Beetle	2,024,000	100.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	1,416,800	70.0%	40,480	2.0%	40,480	2.0%	0.6	$9.00	0.50	0.012	$0.11	0.35%	348,858	$3,881,602	$1.92	11.7%
Thistle Caterpillar	161,920	8.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	1,922,800	95.0%	303,600	15.0%	40,480	2.0%	0.5	$9.00	0.80	0.010	$0.09	0.76%	757,520	$8,136,125	$4.02	24.5%
Thrips	1,922,800	95.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Velvetbean Caterpillar	40,480	2.0%	0	0.0%	0	0.0%	0	$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	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
									TOTAL	**0.221**	**$3.31**	**2.53%**	**2,521,746**	**$33,175,747**	**$16.39**	**100.0%**

SUMMARY DATA

Data Input

State	KY
Year	2024
Total Acres	2,024,000
Yield/acre	48
Price/Bushel	$10.50
% Acres Scouted	65
Scouting Fee/scouted acre	$8.50
% Acres Insect Seed Trt.	87
Seed Trt Cost/treated ac	$9.30

Yield & Management Results

Total Bushels Harvested	97,152,000
Total Bushels Lost to Insects	2,521,746
Percent Yield Loss	2.53%
Yield w/o Insects	49.25
Ave. # Spray Applications	0.221
Seed Treated Acres	1,760,880
Scouted Acres	1,315,600

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$6,697,416	$3.31
Seed Treatment Costs	$16,376,184	$8.09
Scouting costs	$11,182,600	$5.53
Total Costs	$34,256,200	$16.93
Yield Lost to insects	$26,478,331	$13.08
Total Losses + Costs	$60,734,531	$30.01

Stink Bug Composition

Species	% of SB
Brown	17
Brown Marmorated	37
Green	45
Redbanded	0
Redshouldered	1
Southern Green	0
Total (make it 100%)	100

Appendix 9. Louisiana soybean insect losses, 2024.

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	530,000	50.0%	212,000	20.0%	190,800	18.0%	0.5	$13.68	0.10	0.090	$1.23	0.05%	28,505	$1,598,673	$1.51	2.2%
Banded Cucumber Beetle	1,060,000	100.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	265,000	25.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Blister Beetle	5,300	0.5%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Corn Earworm	636,000	60.0%	212,000	20.0%	212,000	20.0%	1	$19.84	0.40	0.200	$3.97	0.24%	136,824	$5,615,364	$5.30	7.9%
Cutworms	10,600	1.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Dectes Stem Borer	530,000	50.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Garden Webworms	10,600	1.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grape Colaspis	1,060,000	100.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	212,000	20.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Green Cloverworm	795,000	75.0%	318,000	30.0%	265,000	25.0%	0.5	$13.68	0.20	0.125	$1.71	0.15%	85,515	$2,693,403	$2.54	3.8%
Japanese Beetle	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Kudzu Bug	106,000	10.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Lesser Cornstalk Borer	10,600	1.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Potato Leafhopper	106,000	10.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	159,000	15.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Seedcorn Maggot	53,000	5.0%	0	0.0%	0	0.0%	0	$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	$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	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	901,000	85.0%	742,000	70.0%	742,000	70.0%	1	$19.84	1.10	0.700	$13.89	0.94%	533,042	$20,211,616	$19.07	28.3%
Spider Mites	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Spotted Cucumber Beetle	1,060,000	100.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	1,060,000	100.0%	901,000	85.0%	901,000	85.0%	2	$13.82	1.30	1.700	$23.49	1.30%	741,128	$32,537,263	$30.70	45.5%
Thistle Caterpillar	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	1,060,000	100.0%	106,000	10.0%	106,000	10.0%	0.5	$13.68	0.10	0.050	$0.68	0.10%	57,010	$1,312,242	$1.24	1.8%
Thrips	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Velvetbean Caterpillar	954,000	90.0%	795,000	75.0%	636,000	60.0%	0.5	$13.68	0.60	0.300	$4.10	0.54%	307,853	$7,521,129	$7.10	10.5%
Other	0	0.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
									TOTAL	3.165	$49.08	3.32%	1,889,877	$71,489,690	$67.44	100.0%

SUMMARY DATA

Data Input

State	LA
Year	2024
Total Acres	1,060,000
Yield/acre	52
Price/Bushel	$10.30
% Acres Scouted	80
Scouting Fee/scouted acre	$7.00
% Acres Insect Seed Trt.	90
Seed Trt Cost/treated ac	$5.80

Yield & Management Results

Total Bushels Harvested	55,120,000
Total Bushels Lost to Insects	1,889,877
Percent Yield Loss	3.32%
Yield w/o Insects	53.78
Ave. # Spray Applications	3.165
Seed Treated Acres	954,000
Scouted Acres	848,000

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$52,023,952	$49.08
Seed Treatment Costs	$5,533,200	$5.22
Scouting costs	$5,936,000	$5.60
Total Costs	$63,493,152	$59.90
Yield Lost to insects	$19,465,738	$18.36
Total Losses + Costs	$82,958,890	$78.26

Stink Bug Composition

Species	% of SB
Brown	20
Brown Marmorated	0
Green	10
Redbanded	55
Redshouldered	0
Southern Green	15
Total (make it 100%)	100

Appendix 10. Michigan soybean insect losses, 2024.

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	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	1,635,000	75.0%	0	0.0%	0	0.0%	0	$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	$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	$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	$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	$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	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	1,090,000	50.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Green Cloverworm	109,000	5.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Japanese Beetle	1,090,000	50.0%	0	0.0%	0	0.0%	0	$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	$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	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Potato Leafhopper	1,635,000	75.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Seedcorn Maggot	109,000	5.0%	10,900	0.5%	10,900	0.5%	1	$94.00	2.00	0.005	$0.47	0.10%	113,587	$2,188,869	$1.00	38.2%
Slugs	109,000	5.0%	4,360	0.2%	4,360	0.2%	1	$94.00	2.00	0.002	$0.19	0.10%	113,587	$1,574,109	$0.72	27.5%
Soybean Aphid	436,000	20.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	109,000	5.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Spider Mites	109,000	5.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	218,000	10.0%	0	0.0%	0	0.0%	0	$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	$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	$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	$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	$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	$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%	218,000	10.0%	1	$9.00	0.00	0.100	$0.90	0.00%	0	$1,962,000	$0.90	34.3%
									TOTAL	0.107	$1.56	0.20%	227,174	$5,724,977	$2.63	100.0%

SUMMARY DATA

Data Input

State	MI
Year	2024
Total Acres	2,180,000
Yield/acre	52
Price/Bushel	$10.25
% Acres Scouted	20
Scouting Fee/scouted acre	$3.85
% Acres Insect Seed Trt.	75
Seed Trt Cost/treated ac	$8.00

Yield & Management Results

Total Bushels Harvested	113,360,000
Total Bushels Lost to Insects	227,174
Percent Yield Loss	0.20%
Yield w/o Insects	52.10
Ave. # Spray Applications	0.107
Seed Treated Acres	1,635,000
Scouted Acres	436,000

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$3,396,440	$1.56
Seed Treatment Costs	$13,080,000	$6.00
Scouting costs	$1,678,600	$0.77
Total Costs	$18,155,040	$8.33
Yield Lost to insects	$2,328,537	$1.07
Total Losses + Costs	$20,483,577	$9.40

Stink Bug Composition

Species	% of SB
Brown	70
Brown Marmorated	15
Green	15
Redbanded	0
Redshouldered	0
Southern Green	0
Total (make it 100%)	100

Appendix 11. Mississippi soybean insect losses, 2024.

Pest	Acres Infested	% Acres Infested	Acres above ET	% Acres above ET	Acres Treated	% Acres Treated	# of apps/acres treated	Cost of1 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	272,400	12.0%	22,700	1.0%	11,350	0.5%	1	$13.00	0.25	0.005	$0.07	0.03%	41,288	$593,457	$0.26	0.6%
Banded Cucumber Beetle	1,702,500	75.0%	22,700	1.0%	11,350	0.5%	1	$10.00	0.01	0.005	$0.05	0.01%	10,322	$224,977	$0.10	0.2%
Bean Leaf Beetle	1,702,500	75.0%	22,700	1.0%	11,350	0.5%	1	$12.00	0.05	0.005	$0.06	0.04%	51,610	$698,584	$0.31	0.8%
Blister Beetle	11,350	0.5%	0	0.0%	0	0.0%	0	$0.00	0.01	0.000	$0.00	0.00%	69	$743	$0.00	0.0%
Corn Earworm	908,000	40.0%	454,000	20.0%	340,500	15.0%	1	$21.00	3.50	0.150	$3.15	1.40%	1,926,760	$27,959,513	$12.32	30.6%
Cutworms	340,500	15.0%	22,700	1.0%	11,350	0.5%	1	$9.00	0.10	0.005	$0.05	0.02%	20,644	$325,104	$0.14	0.4%
Dectes Stem Borer	1,135,000	50.0%	0	0.0%	0	0.0%	0	$0.00	0.10	0.000	$0.00	0.05%	68,813	$743,179	$0.33	0.8%
Garden Webworms	158,900	7.0%	0	0.0%	0	0.0%	0	$0.00	0.10	0.000	$0.00	0.01%	9,634	$104,045	$0.05	0.1%
Grape Colaspis	681,000	30.0%	0	0.0%	0	0.0%	0	$0.00	0.10	0.000	$0.00	0.03%	41,288	$445,907	$0.20	0.5%
Grasshopper	1,135,000	50.0%	79,450	3.5%	22,700	1.0%	1	$9.00	0.10	0.010	$0.09	0.05%	68,813	$947,479	$0.42	1.0%
Green Cloverworm	340,500	15.0%	113,500	5.0%	56,750	2.5%	1	$13.00	0.25	0.025	$0.33	0.04%	51,610	$1,296,134	$0.57	1.4%
Japanese Beetle	45,400	2.0%	0	0.0%	0	0.0%	0	$0.00	0.01	0.000	$0.00	0.00%	275	$2,973	$0.00	0.0%
Kudzu Bug	908,000	40.0%	22,700	1.0%	11,350	0.5%	1	$9.50	0.01	0.005	$0.05	0.00%	5,505	$167,279	$0.07	0.2%
Lesser Cornstalk Borer	2,270	0.1%	0	0.0%	0	0.0%	0	$0.00	0.01	0.000	$0.00	0.00%	14	$149	$0.00	0.0%
Mexican Bean Beetle	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Potato Leafhopper	181,600	8.0%	0	0.0%	0	0.0%	0	$0.00	0.01	0.000	$0.00	0.00%	1,101	$11,891	$0.01	0.0%
Saltmarsh Caterpillar	340,500	15.0%	113,500	5.0%	56,750	2.5%	1	$14.50	0.75	0.025	$0.36	0.11%	154,829	$2,496,028	$1.10	2.7%
Seedcorn Maggot	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Slugs	340,500	15.0%	56,750	2.5%	22,700	1.0%	1	$32.00	1.00	0.010	$0.32	0.15%	206,439	$2,956,937	$1.30	3.2%
Soybean Aphid	0	0.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	908,000	40.0%	567,500	25.0%	454,000	20.0%	1	$20.00	1.50	0.200	$4.00	0.60%	825,754	$17,998,148	$7.93	19.7%
Spider Mites	45,400	2.0%	0	0.0%	0	0.0%	0	$0.00	0.01	0.000	$0.00	0.00%	275	$2,973	$0.00	0.0%
Spotted Cucumber Beetle	1,702,500	75.0%	0	0.0%	0	0.0%	0	$0.00	0.01	0.000	$0.00	0.01%	10,322	$111,477	$0.05	0.1%
Stink Bugs (see box below)	1,589,000	70.0%	454,000	20.0%	227,000	10.0%	1	$13.50	2.50	0.100	$1.35	1.75%	2,408,451	$29,075,766	$12.81	31.8%
Thistle Caterpillar	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	1,702,500	75.0%	11,350	0.5%	0	0.0%	0	$0.00	0.01	0.000	$0.00	0.01%	10,322	$111,477	$0.05	0.1%
Thrips	1,702,500	75.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Velvetbean Caterpillar	340,500	15.0%	113,500	5.0%	56,750	2.5%	1	$13.00	0.25	0.025	$0.33	0.04%	51,610	$1,296,134	$0.57	1.4%
Other	0	0.0%	0	0.0%	0	0.0%	0	$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%	681,000	30.0%	1	$5.50	0.00	0.300	$1.65	0.00%	0	$3,745,500	$1.65	4.1%
									TOTAL	0.870	$11.84	4.33%	5,965,746	$91,306,854	$40.22	100.0%

SUMMARY DATA

Data Input

State	MS
Year	2024
Total Acres	2,270,000
Yield/acre	58
Price/Bushel	$10.80
% Acres Scouted	94
Scouting Fee/scouted acre	$6.50
% Acres Insect Seed Trt.	80
Seed Trt Cost/treated ac	$9.00

Yield & Management Results

Total Bushels Harvested	131,660,000
Total Bushels Lost to Insects	5,965,746
Percent Yield Loss	4.33%
Yield w/o Insects	60.63
Ave. # Spray Applications	0.870
Seed Treated Acres	1,816,000
Scouted Acres	2,133,800

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$26,876,800	$11.84
Seed Treatment Costs	$16,344,000	$7.20
Scouting costs	$13,869,700	$6.11
Total Costs	$57,090,500	$25.15
Yield Lost to insects	$64,430,054	$28.38
Total Losses + Costs	$121,520,554	$53.53

Stink Bug Composition

Species	% of SB
Brown	15
Brown Marmorated	2
Green	42
Redbanded	20
Redshouldered	1
Southern Green	20
Total (make it 100%)	100

Appendix 12. Missouri soybean insect losses, 2024.

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	295,000	5.0%	118,000	2.0%	118,000	2.0%	1	$11.50	0.20	0.020	$0.23	0.01%	30,327	$1,660,270	$0.28	2.7%
Banded Cucumber Beetle	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	4,130,000	70.0%	885,000	15.0%	885,000	15.0%	1	$10.00	0.30	0.150	$1.50	0.21%	636,866	$15,218,662	$2.58	25.1%
Blister Beetle	177,000	3.0%	59,000	1.0%	44,250	0.8%	1	$8.50	0.01	0.008	$0.06	0.00%	910	$385,223	$0.07	0.6%
Corn Earworm	885,000	15.0%	590,000	10.0%	590,000	10.0%	1	$12.00	0.85	0.100	$1.20	0.13%	386,669	$10,946,687	$1.86	18.0%
Cutworms	708,000	12.0%	590,000	10.0%	590,000	10.0%	1	$12.00	0.00	0.100	$1.20	0.00%	0	$7,080,000	$1.20	11.7%
Dectes Stem Borer	4,130,000	70.0%	0	0.0%	0	0.0%	0	$0.00	0.20	0.000	$0.00	0.14%	424,577	$4,245,774	$0.72	7.0%
Garden Webworms	59,000	1.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grape Colaspis	885,000	15.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	2,360,000	40.0%	5,900	0.1%	5,900	0.1%	1	$8.50	0.00	0.001	$0.01	0.00%	1,213	$62,281	$0.01	0.1%
Green Cloverworm	3,540,000	60.0%	59,000	1.0%	29,500	0.5%	1	$8.50	0.02	0.005	$0.04	0.01%	36,392	$614,674	$0.10	1.0%
Japanese Beetle	5,015,000	85.0%	413,000	7.0%	295,000	5.0%	1	$8.50	0.05	0.050	$0.43	0.04%	128,890	$3,796,396	$0.64	6.3%
Kudzu Bug	4,130,000	70.0%	29,500	0.5%	0	0.0%	0	$0.00	0.01	0.000	$0.00	0.01%	21,229	$212,289	$0.04	0.3%
Lesser Cornstalk Borer	0	0.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Potato Leafhopper	177,000	3.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	2,360,000	40.0%	59,000	1.0%	59,000	1.0%	1	$10.00	0.00	0.010	$0.10	0.00%	0	$590,000	$0.10	1.0%
Seedcorn Maggot	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Slugs	413,000	7.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Aphid	295,000	5.0%	177,000	3.0%	59,000	1.0%	1	$8.00	0.05	0.010	$0.08	0.00%	7,582	$547,817	$0.09	0.9%
Soybean Gall Midge	118,000	2.0%	59,000	1.0%	59,000	1.0%	1	$10.00	0.00	0.010	$0.10	0.00%	6	$590,061	$0.10	1.0%
Soybean Looper	295,000	5.0%	118,000	2.0%	59,000	1.0%	1	$13.00	0.02	0.010	$0.13	0.00%	2,275	$789,745	$0.13	1.3%
Spider Mites	177,000	3.0%	29,500	0.5%	11,800	0.2%	1	$11.00	0.03	0.002	$0.02	0.00%	2,729	$157,094	$0.03	0.3%
Spotted Cucumber Beetle	5,015,000	85.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	4,425,000	75.0%	590,000	10.0%	472,000	8.0%	1	$7.75	0.25	0.080	$0.62	0.19%	568,631	$9,344,305	$1.58	15.4%
Thistle Caterpillar	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	5,900,000	100.0%	118,000	2.0%	59,000	1.0%	1	$7.75	0.04	0.010	$0.08	0.04%	121,308	$1,670,328	$0.28	2.8%
Thrips	5,900,000	100.0%	0	0.0%	11,800	0.2%	1	$7.75	0.00	0.002	$0.02	0.00%	0	$91,450	$0.02	0.2%
Velvetbean Caterpillar	2,950,000	50.0%	0	0.0%	0	0.0%	0	$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	$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%	885,000	15.0%	1	$3.00	0.00	0.150	$0.45	0.00%	0	$2,655,000	$0.45	4.4%
									TOTAL	0.718	$6.26	0.78%	2,369,603	$60,658,056	$10.28	100.0%

SUMMARY DATA

Data Input

State	MO
Year	2024
Total Acres	5,900,000
Yield/acre	51
Price/Bushel	$10.00
% Acres Scouted	50
Scouting Fee/scouted acre	$7.50
% Acres Insect Seed Trt.	75
Seed Trt Cost/treated ac	$8.00

Yield & Management Results

Total Bushels Harvested	300,900,000
Total Bushels Lost to Insects	2,369,603
Percent Yield Loss	0.78%
Yield w/o Insects	51.40
Ave. # Spray Applications	0.718
Seed Treated Acres	4,425,000
Scouted Acres	2,950,000

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$36,962,025	$6.26
Seed Treatment Costs	$35,400,000	$6.00
Scouting costs	$22,125,000	$3.75
Total Costs	$94,487,025	$16.01
Yield Lost to insects	$23,696,031	$4.02
Total Losses + Costs	$118,183,056	$20.03

Stink Bug Composition

Species	% of SB
Brown	20
Brown Marmorated	20
Green	50
Redbanded	0
Redshouldered	0
Southern Green	10
Total (make it 100%)	100

Appendix 13. North Carolina soybean insect losses, 2024.

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	372,600	23.0%	16,200	1.0%	16,200	1.0%	1	$13.50	0.50	0.010	$0.14	0.12%	72,888	$946,123	$0.58	1.1%
Banded Cucumber Beetle	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	1,328,400	82.0%	162,000	10.0%	226,800	14.0%	1.2	$9.50	0.60	0.168	$1.60	0.49%	311,834	$5,697,627	$3.52	6.8%
Blister Beetle	534,600	33.0%	16,200	1.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Corn Earworm	1,490,400	92.0%	1,053,000	65.0%	972,000	60.0%	1.2	$13.50	5.00	0.720	$9.72	4.60%	2,915,525	$44,843,336	$27.68	53.8%
Cutworms	16,200	1.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Dectes Stem Borer	421,200	26.0%	0	0.0%	16,200	1.0%	1	$9.50	0.10	0.010	$0.10	0.03%	16,479	$318,361	$0.20	0.4%
Garden Webworms	48,600	3.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grape Colaspis	583,200	36.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	583,200	36.0%	97,200	6.0%	16,200	1.0%	1	$9.50	0.10	0.010	$0.10	0.04%	22,817	$381,615	$0.24	0.5%
Green Cloverworm	1,117,800	69.0%	162,000	10.0%	81,000	5.0%	1.1	$9.50	0.10	0.055	$0.52	0.07%	43,733	$1,282,904	$0.79	1.5%
Japanese Beetle	793,800	49.0%	81,000	5.0%	16,200	1.0%	1	$9.50	0.25	0.010	$0.10	0.12%	77,642	$928,764	$0.57	1.1%
Kudzu Bug	567,000	35.0%	16,200	1.0%	16,200	1.0%	1	$9.50	0.10	0.010	$0.10	0.04%	22,183	$375,290	$0.23	0.5%
Lesser Cornstalk Borer	16,200	1.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Mexican Bean Beetle	64,800	4.0%	0	0.0%	0	0.0%	0	$0.00	0.50	0.000	$0.00	0.02%	12,676	$126,508	$0.08	0.2%
Potato Leafhopper	453,600	28.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	210,600	13.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Seedcorn Maggot	48,600	3.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Slugs	1,085,400	67.0%	16,200	1.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Aphid	145,800	9.0%	16,200	1.0%	16,200	1.0%	1	$9.50	0.10	0.010	$0.10	0.01%	5,704	$210,829	$0.13	0.3%
Soybean Gall Midge	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	1,490,400	92.0%	307,800	19.0%	324,000	20.0%	1.1	$13.50	0.50	0.220	$2.97	0.46%	291,552	$7,721,094	$4.77	9.3%
Spider Mites	178,200	11.0%	16,200	1.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Spotted Cucumber Beetle	550,800	34.0%	0	0.0%	0	0.0%	0	$0.00	0.05	0.000	$0.00	0.02%	10,775	$107,532	$0.07	0.1%
Stink Bugs (see box below)	1,490,400	92.0%	793,800	49.0%	599,400	37.0%	1.1	$9.50	2.00	0.407	$3.87	1.84%	1,166,210	$17,902,504	$11.05	21.5%
Thistle Caterpillar	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	1,134,000	70.0%	81,000	5.0%	64,800	4.0%	1	$0.00	0.10	0.040	$0.00	0.07%	44,367	$442,779	$0.27	0.5%
Thrips	1,620,000	100.0%	0	0.0%	16,200	1.0%	1	$9.50	0.00	0.010	$0.10	0.00%	0	$153,900	$0.10	0.2%
Velvetbean Caterpillar	194,400	12.0%	16,200	1.0%	16,200	1.0%	1	$9.50	0.50	0.010	$0.10	0.06%	38,029	$533,425	$0.33	0.6%
Other	437,400	27.0%	0	0.0%	16,200	1.0%	1	$9.50	0.05	0.010	$0.10	0.01%	8,556	$239,293	$0.15	0.3%
Automatic (no insects)	0	0.0%	0	0.0%	372,600	23.0%	1	$3.00	0.00	0.230	$0.69	0.00%	0	$1,117,800	$0.69	1.3%
									TOTAL	1.930	$20.26	7.99%	5,060,970	$83,329,686	$51.44	100.0%

SUMMARY DATA

Data Input	
State	NC
Year	2024
Total Acres	1,620,000
Yield/acre	38
Price/Bushel	$9.98
% Acres Scouted	25
Scouting Fee/scouted acre	$6.50
% Acres Insect Seed Trt.	31
Seed Trt Cost/treated ac	$10.00

Yield & Management Results	
Total Bushels Harvested	58,320,000
Total Bushels Lost to Insects	5,060,970
Percent Yield Loss	7.99%
Yield w/o Insects	39.12
Ave. # Spray Applications	1.930
Seed Treated Acres	502,200
Scouted Acres	405,000

Economic Results	Total	Per Acre
Foliar Insecticides Costs	$32,821,200	$20.26
Seed Treatment Costs	$5,022,000	$3.10
Scouting costs	$2,632,500	$1.63
Total Costs	$40,475,700	$24.99
Yield Lost to insects	$50,508,486	$31.18
Total Losses + Costs	$90,984,186	$56.16

Stink Bug Composition	
Species	% of SB
Brown	50
Brown Marmorated	8
Green	27
Redbanded	0
Redshouldered	0
Southern Green	15
Total (make it 100%)	100

Appendix 14. North Dakota soybean insect losses, 2024.

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	264,000	4.0%	66,000	1.0%	33,000	0.5%	1.00	$13.00	1.00	0.005	$0.07	0.04%	100,671	$1,637,054	$0.25	2.0%
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	4,620,000	70.0%	660,000	10.0%	330,000	5.0%	1.00	$13.00	2.00	0.050	$0.65	1.40%	3,523,490	$46,571,879	$7.06	55.7%
Green Cloverworm	6,600	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%
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	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	1,452,000	22.0%	1,320,000	20.0%	1,320,000	20.0%	1.00	$18.00	1.00	0.200	$3.60	0.22%	553,691	$30,404,295	$4.61	36.4%
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	6,600	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	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)	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%
Thistle Caterpillar	6,600	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%
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%	990,000	15.0%	1.00	$5.00	0.00	0.150	$0.75	0.00%	0	$4,950,000	$0.75	5.9%
									TOTAL	0.405	$5.07	1.66%	4,177,852	$83,563,228	$12.66	100.0%

SUMMARY DATA

Data Input

State	ND
Year	2024
Total Acres	6,600,000
Yield/acre	37.5
Price/Bushel	$12.00
% Acres Scouted	65
Scouting Fee/scouted acre	$5.50
% Acres Insect Seed Trt.	50
Seed Trt Cost/treated ac	$8.00

Yield & Management Results

Total Bushels Harvested	247,500,000
Total Bushels Lost to Insects	4,177,852
Percent Yield Loss	1.66%
Yield w/o Insects	38.13
Ave. # Spray Applications	0.405
Seed Treated Acres	3,300,000
Scouted Acres	4,290,000

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$33,429,000	$5.07
Seed Treatment Costs	$26,400,000	$4.00
Scouting costs	$23,595,000	$3.58
Total Costs	$83,424,000	$12.64
Yield Lost to insects	$50,134,228	$7.60
Total Losses + Costs	$133,558,228	$20.24

Stink Bug Composition

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

Appendix 15. Ohio soybean insect losses, 2024

Pest	Acres Infested	% Acres Infested	Acres above ET	% Acres above ET	Acres Treated	% Acres Treated	# of apps/acres treated	Cost of1 Insecticide	% loss per acre infested	# ofapps 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	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	242,500	5.0%	0	0.0%	0	0.0%	0	$17.00	0.10	0.000	$0.00	0.01%	12,669	$127,067	$0.03	0.3%
Blister Beetle	0	0.0%	0	0.0%	0	0.0%	0	$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	$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	$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	$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	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	0	0.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Japanese Beetle	388,000	8.0%	0	0.0%	242,500	5.0%	1	$17.00	0.10	0.050	$0.85	0.01%	20,270	$4,325,807	$0.89	11.6%
Kudzu Bug	0	0.0%	0	0.0%	0	0.0%	0	$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	$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	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	242,500	5.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Seedcorn Maggot	242,500	5.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Slugs	388,000	8.0%	242,500	5.0%	145,500	3.0%	1	$25.00	5.00	0.030	$0.75	0.40%	1,013,492	$13,802,829	$2.85	36.9%
Soybean Aphid	0	0.0%	0	0.0%	0	0.0%	0	$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	$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	$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	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	242,500	5.0%	48,500	1.0%	194,000	4.0%	1	$17.00	1.00	0.040	$0.68	0.05%	126,687	$4,568,666	$0.94	12.2%
Thistle Caterpillar	0	0.0%	0	0.0%	0	0.0%	0	$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	$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	$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	$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	$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%	1,455,000	30.0%	1	$10.00	0.00	0.300	$3.00	0.00%	0	$14,550,000	$3.00	38.9%
									TOTAL	**0.420**	**$5.28**	**0.46%**	**1,173,118**	**$37,374,369**	**$7.71**	**100.0%**

SUMMARY DATA

Data Input

State	OH
Year	2024
Total Acres	4,850,000
Yield/acre	52
Price/Bushel	$10.03
% Acres Scouted	20
Scouting Fee/scouted acre	$12.00
% Acres Insect Seed Trt.	80
Seed Trt Cost/treated ac	$9.00

Yield & Management Results

Total Bushels Harvested	252,200,000
Total Bushels Lost to Insects	1,173,118
Percent Yield Loss	0.46%
Yield w/o Insects	52.24
Ave. # Spray Applications	0.420
Seed Treated Acres	3,880,000
Scouted Acres	970,000

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$25,608,000	$5.28
Seed Treatment Costs	$34,920,000	$7.20
Scouting costs	$11,640,000	$2.40
Total Costs	$72,168,000	$14.88
Yield Lost to insects	$11,766,369	$2.43
Total Losses + Costs	$83,934,369	$17.31

Stink Bug Composition

Species	% of SB
Brown	25
Brown Marmorated	50
Green	25
Redbanded	0
Redshouldered	0
Southern Green	0
Total (make it 100%)	100

Appendix 16. South Carolina soybean insect losses, 2024.

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	390,000	100.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Banded Cucumber Beetle	390,000	100.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	97,500	25.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Blister Beetle	58,500	15.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Corn Earworm	390,000	100.0%	195,000	50.0%	97,500	25.0%	1	$20.00	1.50	0.250	$5.00	1.50%	220,043	$4,150,430	$10.64	19.0%
Cutworms	390,000	100.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Dectes Stem Borer	390,000	100.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Garden Webworms	97,500	25.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	390,000	100.0%	78,000	20.0%	39,000	10.0%	1	$13.00	0.20	0.100	$1.30	0.20%	29,339	$800,391	$2.05	3.7%
Green Cloverworm	390,000	100.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Japanese Beetle	195,000	50.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Kudzu Bug	390,000	100.0%	117,000	30.0%	78,000	20.0%	1	$13.00	0.75	0.200	$2.60	0.75%	110,021	$2,114,215	$5.42	9.7%
Lesser Cornstalk Borer	78,000	20.0%	0	0.0%	0	0.0%	0	$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	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	292,500	75.0%	0	0.0%	0	0.0%	0	$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	$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	$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	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	390,000	100.0%	234,000	60.0%	195,000	50.0%	1	$20.00	1.00	0.500	$10.00	1.00%	146,695	$5,366,953	$13.76	24.5%
Spider Mites	390,000	100.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Spotted Cucumber Beetle	390,000	100.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	390,000	100.0%	351,000	90.0%	292,500	75.0%	1	$13.00	3.00	0.750	$9.75	3.00%	440,086	$8,203,360	$21.03	37.5%
Thistle Caterpillar	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	390,000	100.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Thrips	390,000	100.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Velvetbean Caterpillar	390,000	100.0%	39,000	10.0%	39,000	10.0%	1	$13.00	0.50	0.100	$1.30	0.50%	73,348	$1,240,477	$3.18	5.7%
Other	0	0.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
									TOTAL	1.900	$29.95	6.95%	1,019,533	$21,875,825	$56.09	100.0%

SUMMARY DATA

Data Input

State	SC
Year	2024
Total Acres	390,000
Yield/acre	35
Price/Bushel	$10.00
% Acres Scouted	25
Scouting Fee/scouted acre	$10.00
% Acres Insect Seed Trt.	50
Seed Trt Cost/treated ac	$13.00

Yield & Management Results

Total Bushels Harvested	13,650,000
Total Bushels Lost to Insects	1,019,533
Percent Yield Loss	6.95%
Yield w/o Insects	37.61
Ave. # Spray Applications	1.900
Seed Treated Acres	195,000
Scouted Acres	97,500

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$11,680,500	$29.95
Seed Treatment Costs	$2,535,000	$6.50
Scouting costs	$975,000	$2.50
Total Costs	$15,190,500	$38.95
Yield Lost to insects	$10,195,325	$26.14
Total Losses + Costs	$25,385,825	$65.09

Stink Bug Composition

Species	% of SB
Brown	15
Brown Marmorated	1
Green	7
Redbanded	1
Redshouldered	1
Southern Green	75
Total (make it 100%)	100

Appendix 17. Tennessee soybean insect losses, 2024.

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	85,000	5.0%	170,000	10.0%	170,000	10.0%	1	$11.50	0.80	0.100	$1.15	0.04%	31,409	$2,284,791	$1.34	5.9%
Banded Cucumber Beetle	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	1,700,000	100.0%	255,000	15.0%	255,000	15.0%	1	$8.00	0.30	0.150	$1.20	0.30%	235,565	$4,513,430	$2.65	11.7%
Blister Beetle	8,500	0.5%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Corn Earworm	340,000	20.0%	85,000	5.0%	85,000	5.0%	1	$15.00	1.00	0.050	$0.75	0.20%	157,043	$2,923,953	$1.72	7.6%
Cutworms	8,500	0.5%	17,000	1.0%	17,000	1.0%	1	$8.00	0.01	0.010	$0.08	0.00%	39	$136,412	$0.08	0.4%
Dectes Stem Borer	1,445,000	85.0%	0	0.0%	0	0.0%	0	$0.00	0.20	0.000	$0.00	0.17%	133,487	$1,401,610	$0.82	3.6%
Garden Webworms	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grape Colaspis	425,000	25.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	85,000	5.0%	8,500	0.5%	8,500	0.5%	1	$9.00	0.01	0.005	$0.05	0.00%	393	$80,622	$0.05	0.2%
Green Cloverworm	1,700,000	100.0%	102,000	6.0%	102,000	6.0%	1	$8.00	0.40	0.060	$0.48	0.40%	314,086	$4,113,906	$2.42	10.7%
Japanese Beetle	170,000	10.0%	1,700	0.1%	1,700	0.1%	1	$8.00	0.01	0.001	$0.01	0.00%	785	$21,845	$0.01	0.1%
Kudzu Bug	1,530,000	90.0%	340,000	20.0%	340,000	20.0%	1	$8.00	0.50	0.200	$1.60	0.45%	353,347	$6,430,145	$3.78	16.7%
Lesser Cornstalk Borer	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Mexican Bean Beetle	17,000	1.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Potato Leafhopper	85,000	5.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	17,000	1.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Slugs	425,000	25.0%	85,000	5.0%	85,000	5.0%	1	$16.00	0.75	0.050	$0.80	0.19%	147,228	$2,905,894	$1.71	7.6%
Soybean Aphid	0	0.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	425,000	25.0%	85,000	5.0%	85,000	5.0%	1	$15.00	0.50	0.050	$0.75	0.13%	98,152	$2,305,596	$1.36	6.0%
Spider Mites	85,000	5.0%	8,500	0.5%	8,500	0.5%	1	$10.00	0.01	0.005	$0.05	0.00%	393	$89,122	$0.05	0.2%
Spotted Cucumber Beetle	1,530,000	90.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	1,700,000	100.0%	595,000	35.0%	595,000	35.0%	1	$8.00	0.50	0.350	$2.80	0.50%	392,608	$8,882,383	$5.22	23.1%
Thistle Caterpillar	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	1,700,000	100.0%	85,000	5.0%	85,000	5.0%	1	$8.00	0.20	0.050	$0.40	0.20%	157,043	$2,328,953	$1.37	6.1%
Thrips	1,700,000	100.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Velvetbean Caterpillar	85,000	5.0%	0	0.0%	0	0.0%	0	$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	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
									TOTAL	**1.081**	**$10.11**	**2.57%**	**2,021,577**	**$38,418,661**	**$22.60**	**100.0%**

SUMMARY DATA

Data Input

State	TN
Year	2024
Total Acres	1,700,000
Yield/acre	45
Price/Bushel	$10.50
% Acres Scouted	80
Scouting Fee/scouted acre	$7.50
% Acres Insect Seed Trt.	75
Seed Trt Cost/treated ac	$8.00

Yield & Management Results

Total Bushels Harvested	76,500,000
Total Bushels Lost to Insects	2,021,577
Percent Yield Loss	2.57%
Yield w/o Insects	46.19
Ave. # Spray Applications	1.081
Seed Treated Acres	1,275,000
Scouted Acres	1,360,000

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$17,192,100	$10.11
Seed Treatment Costs	$10,200,000	$6.00
Scouting costs	$10,200,000	$6.00
Total Costs	$37,592,100	$22.11
Yield Lost to insects	$21,226,561	$12.49
Total Losses + Costs	$58,818,661	$34.60

Stink Bug Composition

Species	% of SB
Brown	15
Brown Marmorated	25
Green	45
Redbanded	0
Redshouldered	0
Southern Green	15
Total (make it 100%)	100

Appendix 18. Texas soybean insect losses, 2024.

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	19,250	25.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Banded Cucumber Beetle	77,000	100.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Blister Beetle	23,100	30.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Corn Earworm	19,250	25.0%	770	1.0%	578	0.8%	1	$21.00	0.25	0.008	$0.16	0.06%	1,639	$28,513	$0.37	1.1%
Cutworms	2,310	3.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Dectes Stem Borer	7,700	10.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grape Colaspis	57,750	75.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	77,000	100.0%	7,700	10.0%	0	0.0%	0	$0.00	0.10	0.000	$0.00	0.10%	2,622	$26,217	$0.34	1.0%
Green Cloverworm	7,700	10.0%	0	0.0%	0	0.0%	0	$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	$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	$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	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Potato Leafhopper	61,600	80.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	7,700	10.0%	0	0.0%	0	0.0%	0	$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	$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	$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	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	34,650	45.0%	11,550	15.0%	11,550	15.0%	1	$18.00	0.20	0.150	$2.70	0.09%	2,360	$231,496	$3.01	8.6%
Spider Mites	3,850	5.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Spotted Cucumber Beetle	77,000	100.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	77,000	100.0%	57,750	75.0%	53,900	70.0%	1.5	$13.50	5.00	1.050	$14.18	5.00%	131,086	$2,402,338	$31.20	89.4%
Thistle Caterpillar	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	77,000	100.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Thrips	77,000	100.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Velvetbean Caterpillar	3,850	5.0%	0	0.0%	0	0.0%	0	$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	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
									TOTAL	1.208	$17.03	5.25%	137,706	$2,688,564	$34.92	100.0%

SUMMARY DATA

Data Input

State	TX
Year	2024
Total Acres	77,000
Yield/acre	32.26
Price/Bushel	$10.00
% Acres Scouted	25
Scouting Fee/scouted acre	$10.00
% Acres Insect Seed Trt	90
Seed Trt Cost/treated ac	$9.00

Yield & Management Results

Total Bushels Harvested	2,484,020
Total Bushels Lost to Insects	137,706
Percent Yield Loss	5.25%
Yield w/o Insects	34.05
Ave. # Spray Applications	1.208
Seed Treated Acres	69,300
Scouted Acres	19,250

Economic Results

	Total	Per Acre
Foliar Insecticides Costs	$1,311,503	$17.03
Seed Treatment Costs	$623,700	$8.10
Scouting costs	$192,500	$2.50
Total Costs	$2,127,703	$27.63
Yield Lost to insects	$1,377,062	$17.88
Total Losses + Costs	$3,504,764	$45.52

Stink Bug Composition

Species	% of SB
Brown	25
Brown Marmorated	0
Green	5
Redbanded	45
Redshouldered	5
Southern Green	20
Total (make it 100%)	100

Appendix 19. Virginia soybean insect losses, 2024.

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	122,000	20.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Bean Leaf Beetle	183,000	30.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Blister Beetle	61,000	10.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Corn Earworm	305,000	50.0%	61,000	10.0%	183,000	30.0%	1	$13.00	3.00	0.300	$3.90	1.50%	422,899	$6,607,992	$10.83	31.9%
Cutworms	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Dectes Stem Borer	30,500	5.0%	0	0.0%	0	0.0%	0	$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	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshopper	122,000	20.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Green Cloverworm	305,000	50.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Japanese Beetle	122,000	20.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Kudzu Bug	61,000	10.0%	12,200	2.0%	30,500	5.0%	1	$13.00	0.00	0.050	$0.65	0.00%	0	$396,500	$0.65	1.9%
Lesser Cornstalk Borer	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Mexican Bean Beetle	6,100	1.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	6,100	1.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Slugs	122,000	20.0%	30,500	5.0%	18,300	3.0%	1	$20.00	2.00	0.030	$0.60	0.40%	112,773	$1,493,731	$2.45	7.2%
Soybean Aphid	30,500	5.0%	0	0.0%	0	0.0%	0	$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	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Soybean Looper	335,500	55.0%	30,500	5.0%	30,500	5.0%	1	$18.00	2.00	0.050	$0.90	1.10%	310,126	$3,650,261	$5.98	17.6%
Spider Mites	30,500	5.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Spotted Cucumber Beetle	152,500	25.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (see box below)	549,000	90.0%	122,000	20.0%	122,000	20.0%	1	$13.00	2.00	0.200	$2.60	1.80%	507,479	$6,660,790	$10.92	32.1%
Thistle Caterpillar	0	0.0%	0	0.0%	0	0.0%	0	$0.00	0.00	0.000	$0.00	0.00%	0	$0	$0.00	0.0%
Threecornered Alfalfa Hopper	366,000	60.0%	30,500	5.0%	30,500	5.0%	1	$13.00	0.00	0.050	$0.65	0.00%	0	$396,500	$0.65	1.9%
Thrips	457,500	75.0%	0	0.0%	0	0.0%	0	$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	$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	$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%	305,000	50.0%	1	$5.00	0.00	0.500	$2.50	0.00%	0	$1,525,000	$2.50	7.4%
									TOTAL	1.180	$11.80	4.80%	1,353,277	$20,730,773	$33.98	100.0%

SUMMARY DATA

Data Input	
State	VA
Year	2024
Total Acres	610,000
Yield/acre	44
Price/Bushel	$10.00
% Acres Scouted	30
Scouting Fee/scouted acre	$12.00
% Acres Insect Seed Trt	25
Seed Trt Cost/treated ac	$12.00

Yield & Management Results	
Total Bushels Harvested	26,840,000
Total Bushels Lost to Insects	1,353,277
Percent Yield Loss	4.80%
Yield w/o Insects	46.22
Ave. # Spray Applications	1.180
Seed Treated Acres	152,500
Scouted Acres	183,000

Economic Results	Total	Per Acre
Foliar Insecticides Costs	$7,198,000	$11.80
Seed Treatment Costs	$1,830,000	$3.00
Scouting costs	$2,196,000	$3.60
Total Costs	$11,224,000	$18.40
Yield Lost to insects	$13,532,773	$22.18
Total Losses + Costs	$24,756,773	$40.58

Stink Bug Composition	
Species	% of SB
Brown	30
Brown Marmorated	20
Green	45
Redbanded	0
Redshouldered	1
Southern Green	4
Total (make it 100%)	100