
Cutworm Damage to the Missouri Corn Crop

1977-1980



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Abstract

A cutworm damage survey was conducted from 1977 through 1980 in Missouri. The objective was to obtain specific information on the extent of the cutworm problem in the state and related information on insecticide use. Questionnaires were mailed to more than 1,000 farmers each year. The response ranged from 57 to 72 percent and represented from 2.5 to 3.6 percent of all corn acres planted. All crop reporting districts reported losses due to cutworms each year. Peak damage occurred in 1978, and the least damage in 1980. Cutworms were the major reason for replanting of corn during the four-year period. Insecticide use showed a dramatic shift away from preplant incorporated compounds toward compounds labeled for planting time and rescue applications for cutworms. Insecticide use for planting time compounds increased sharply in the years after cutworm outbreaks.

Introduction

Missouri corn producers have suffered economic losses from the black cutworm, Agrotis ipsilon (Hufnagel), for many years. However, information on the magnitude of the problem has been limited to general surveys on soil insect pests and soil insecticide use (Keaster et al. 1981). Therefore, a cutworm damage survey was initiated in 1977 to obtain specific information on: 1) the extent of the cutworm problem in Missouri, 2) related information on insecticide use, and 3) field history information on specific cutworm problem fields. This survey was continued each year through 1980. This report summarizes information on the extent of black cutworm damage and insecticide use in Missouri from 1977 through 1980.

Methods

Each survey during the four-year period was part of a cooperative effort between the Department of Entomology at the University of Missouri-Columbia and the Missouri Crop and Livestock Reporting Service (CRS). The Department of Entomology designed the questionnaires and tabulated results. CRS provided mailing lists and facilities for preparing and sorting questionnaires before mailing.

The questionnaires asked for information on corn acreage planted, the number of acres damaged by cutworms, the severity of damage, acreage replanted for reasons unrelated to cutworms, insecticide use on corn, and specific field history information on fields with cutworm problems. The 1977 questionnaire asked farmers to supply information on the most severely damaged cutworm field and to estimate replanting costs if they replanted any acreage because of cutworms. The 1978 and 1979 questionnaires asked for information on each damaged field and included a question on cutworm damage to grain sorghum and soybean acreage. A sample questionnaire from 1979 is in the Appendix.

Forms were sent to all farmers who reported corn acreage on the annual CRS June acreage survey. In 1977 and 1979, this list was supplemented with several hundred additional names drawn from the general crop survey list. The questionnaire was mailed during late June or early July each year. The mailing coincided with the end of the cutworm season in Missouri, so farmers responded while the details of planting and cutworm problems were still relatively fresh. During 1977 to 1979, a second request form was sent to all farmers who had not responded within about four weeks.

Survey results were tallied separately for each of the nine

state crop reporting districts (Fig. 1). Results from Districts 7 and 8 were combined each year because of the low corn acreage planted and the correspondingly small number of returns received from the two districts. Expanded estimates of cutworm damage, replanting for reasons unrelated to cutworms, and insecticide use were based on CRS estimates of the total corn acreage planted in each district. Corn acreage estimates were based on the annual CRS June acreage survey.

Results

Cutworm Damage

Response to the survey was excellent each year (Table 1). When second request forms were mailed (1977 to 1979), total response ranged from 73 to 75 percent. In 1980, the single mailing received almost a 60 percent response. A few farmers reported planting no corn, and a small number of additional returns were not usable. Unusable returns represented about 3 percent of the total mailing each year.

Table 2 shows grower response and the percent by district and year of growers reporting a cutworm problem. The percent of growers experiencing a cutworm problem in 1980 was below 10 percent in all districts, but cutworms were present in outbreak proportions in 1977, 1978 and 1979. In these years, a high percentage of growers reported cutworm problems in some districts. Nearly 60 percent of the growers reported a cutworm problem in northeast Missouri in 1978 (District 3). Nearly 50 percent of the growers in the north-central and west-central regions reported a cutworm problem the same year (Districts 2 and 4). The northern one-third of the state (Districts 1 through 3) and the west-central area (District 4) had the highest percentages of growers reporting cutworm problems during the four-year period. The northwest area of the state (District 1) had the most consistent number of growers reporting a problem. The southern third of the state (Districts 7 through 9) was relatively cutworm-free when compared to the northern two-thirds.

Regional and statewide cutworm damage estimates for the years 1977 through 1980 are in Tables 3 through 6. Four-year totals are in Table 7. Total corn acreage planted (CRS June acreage survey) was almost 3 million acres in 1977 and near 2.4 million acres from 1978 through 1980. District 1 in northwest Missouri accounted for more than 25 percent of the total each year, and District 3 accounted for more than 15 percent each year. The combined acreage from Districts 7 and 8 never exceeded 4.4 percent of the state's corn acreage.

As shown by Tables 3 through 6, expanded acreage estimates for cutworm damage are based upon the sampling of a fairly sizeable and consistent percentage of the state's corn acreage. The total acreage reported by growers for the cutworm damage survey ranged from 59,000 acres in 1978 to 91,000 acres in 1977. Sample sizes ranged between 2.5 and 3.6 percent of all corn acres planted. On a regional basis, the percent of acres sampled fell below 2.0 percent only once, and ranged as high as 5.3 percent.

During the four-year survey period, almost 1.4 million acres (13.6 percent) of the 10.2 million acres planted were damaged by

cutworms (Table 8). Of this total, 265,000 acres (2.6 percent of the total acreage) was replanted. The remaining 1.1 million acres suffered an average estimated stand loss of 22.5 percent.

Cutworm damage ranged from a low of 53,000 acres (2.1 percent) in 1980 to a high of 665,000 acres (27.4 percent) in 1978. Despite more widespread damage in 1978, a higher percent of damaged acres was replanted in 1977 (24.4 percent) and 1979 (22.1 percent) than in 1978 (16.5 percent). One reason is the very late planting season in 1978. Many growers were left with little opportunity to replant after cutworm damage was sustained in early to mid-June. This is reflected in the higher estimated stand reduction (28.4 percent) for fields not replanted in 1978 than for other years (23.9 percent, 17.9 percent, 19.6 percent) (Tables 3 through 6).

On a regional basis, cutworm damage peaked at 46.8 percent of the corn acreage in northeast Missouri (District 3) in 1978 (Table 4). Cutworm damage during the four-year period involved more than 10 percent of the corn acreage among the crop reporting districts about one-third of the time (13 times). Seven of these 13 times involved more than 20 percent damage, and on three occasions there was more than 30 percent damage. Throughout the four-year survey period, cutworm damage involved between 10 and 20 percent of the total acreage planted in five of the nine districts.

Although the extent of cutworm damage varied within districts from year to year, the severity of damage (percent of total acreage damaged by cutworms) generally increased from south to north within the state (Tables 3 through 6). Southern Districts 7, 8, and 9 had consistently less cutworm damage than districts to the north. With the exception of 1978, central Districts 4, 5, and 6 had less damage than northern Districts 1, 2, and 3. In 1978, District 1 had less damage than Districts 4 or 5, but the other two northern districts had considerably more damage than any of the central regions.

Cutworm damage was the principal cause for replanting during the survey period (Table 9). Cutworm damage accounted for 90 percent of the replanted acreage in 1978 and almost two-thirds of the replanted acreage in 1979. Cutworm damage was also the leading cause for replanting in 1977 (44 percent). Wet weather caused more than 60 percent of the remaining total replanted acres, and problems associated with dry weather and poor seed bed preparation were responsible for about one-half of the remainder. Other insects, including wireworms, webworms, and white grubs, accounted for only 1.4 percent of the total acreage replanted from 1977 through 1980.

Insecticide Use

Tables 10 through 13 provide estimates of insecticide use for soil insect pests of corn for each crop-reporting district for the years 1977 through 1980. Each table divides insecticide use into three categories: 1) compounds applied preplant incorporated (PPI), which are primarily for cutworm control; 2) compounds applied in a band or in-furrow at planting, for control of corn rootworms, cutworms, wireworms, and other soil insect pests; and 3) postemergence compounds applied principally for cutworm control.

Table 14 provides a statewide summary for 1977 through 1980. Several dramatic shifts in insecticide use are evident during this

period. There was a general decrease in the use of PPI compounds due to the withdrawal from registration of the chlorinated hydrocarbon insecticides aldrin, Belt (chlordane), and heptachlor. This withdrawal both preceded (aldrin) and was on-going during (Belt and heptachlor) the first survey in 1977. Undoubtedly, total use of these compounds was considerably higher before 1977 (Keaster et al. 1981). Total chlorinated hydrocarbon use continued to decline throughout the survey period as carryover stocks dwindled. Total PPI insecticide use bottomed out in 1979 and rose slightly in 1980 with the introduction and labeling of Lorsban (chlorpyrifos) 4E for PPI cutworm control. The planting time insecticide market in 1977 was oriented toward rootworm control and dominated by Furadan (carbofuran). Approximately 30 percent of the corn acreage was treated with a planting time compound in 1977. With the decline of PPI compounds and following widespread cutworm problems in 1977 and 1978, the percentage of acres treated at planting time jumped to 38 percent in 1978 and to slightly more than half in 1979. Most of the increase in use of planting time compounds was oriented to those labeled for cutworm control (Lorsban, Mocap (ethoprop)). Increases in use of planting time compounds and especially increases in use of planting time cutworm compounds were most dramatic in those areas with substantial cutworm problems.

For instance, in 1977 in Districts 7, 8 and 9, planting time compounds were used on 55,000 acres (19 percent) of the acreage planted. In 1980, the corresponding figures were 68,000 and 30 percent. During the same period, use of compounds labeled for cutworm control increased only from 4 percent to 12 percent of the market. By contrast, in 1977 in Districts 1, 2 and 3, planting time compounds were used on 542,000 acres (53 percent). Compounds labeled for cutworm control increased their market share from 26 percent in 1977 to 53 percent in 1980. Therefore, there was both a greater shift in acres treated and a greater shift to compounds labeled for cutworm control in cutworm-prone areas. All of this occurred despite the fact that Lorsban 15G was not introduced until the 1978 growing year. Lorsban's share of the planting time market went from 0 percent in 1977 to 43 percent in 1980. Compounds labeled for cutworm control had 19 percent of the planting time market in 1977 and 53 percent of the market in 1980.

Use of postemergence compounds for rescue control closely paralleled the cutworm situation from year to year. Total acreage treated peaked in 1978 at 194,000 acres (8 percent of the planted acreage). This was followed by 145,000 acres (6 percent) in 1979, 22,000 acres (0.7 percent) in 1977 and 20,000 acres (0.8 percent) in 1980. However, the frequency of use of rescue control increased steadily during the period. In 1977, only 10 percent of the infested acres were treated with rescue compounds. This increased to 29 percent in 1978, 32 percent in 1979, and 38 percent in 1980. This reflects both the availability of more efficacious rescue compounds and increased cutworm awareness by growers after several years of widespread cutworm problems. However, the data also indicate that most infested acreage went untreated for a variety of reasons throughout the period.

Summary

Missouri corn producers demonstrated their concern for the cutworm problem by the high rate of response (57 to 72 percent) during the four years of the cutworm survey. Serious damage occurred over wide areas of the state during 1977, 1978, and 1979. No area was immune from damage, although damage was most prevalent in the northern and central parts of the state. The data collected during the survey indicate cutworms present an economic hazard to many growers within the state. Cutworms were easily the leading cause for corn replanting from 1977 through 1980, and more than one acre in eight suffered significant stand reduction.

The increase during the survey in the use of Lorsban as a planting time application for cutworm control indicates cutworm efficacy is, and likely will continue to be, a leading factor in the selection of soil insecticides for corn in Missouri. The continued decrease of PPI treated acreage following registration withdrawal of several cutworm insecticides indicates the lack of economically feasible alternatives.

LITERATURE CITED

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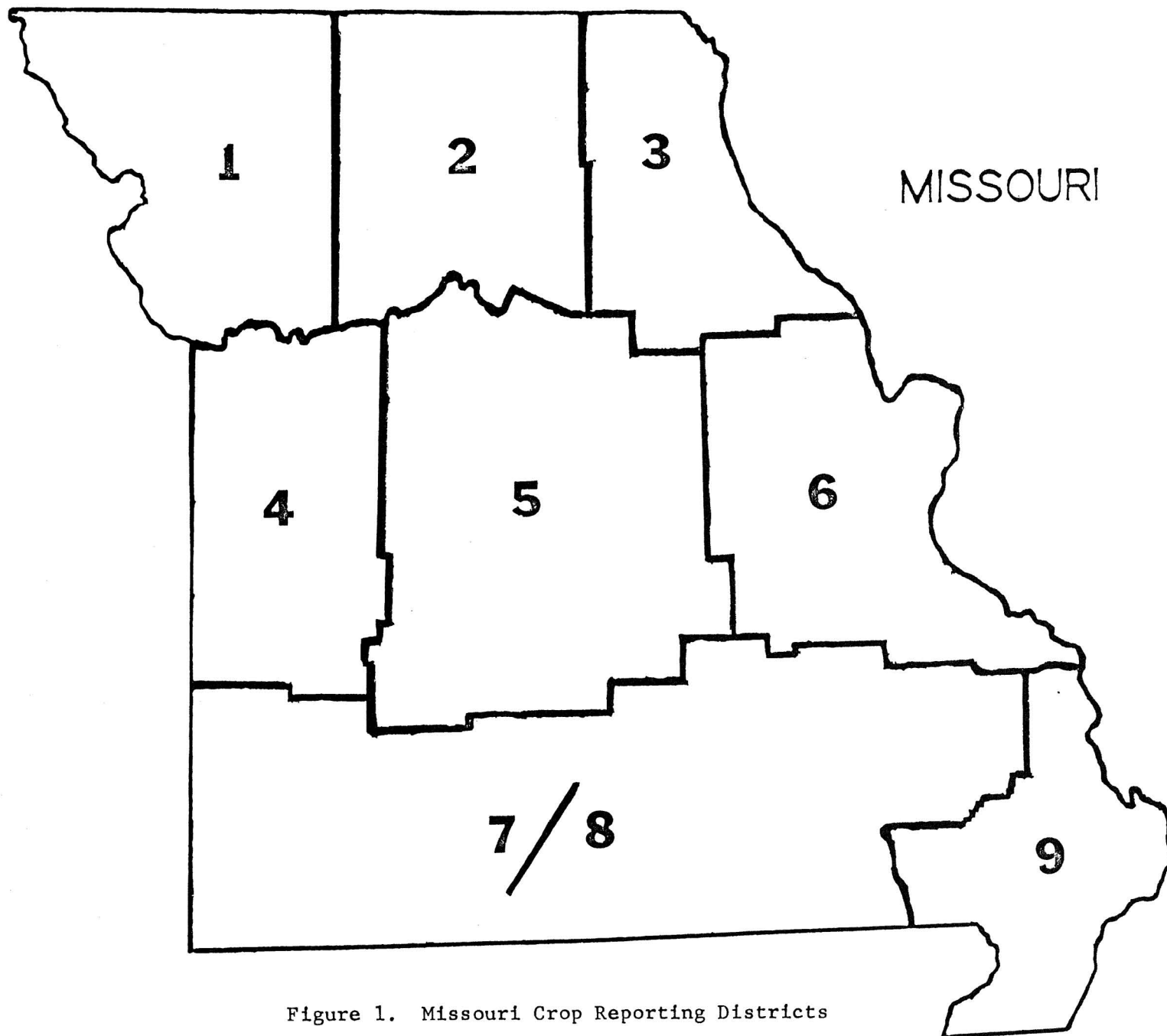


Figure 1. Missouri Crop Reporting Districts

TABLE 1. GROWER RESPONSE TO CUTWORM DAMAGE SURVEY

Years ¹	Number of Forms Mailed	Number of Forms Returned ²	Percent Returned
1977	1,643	1,174	71
1978	1,185	850	72
1979	1,673	1,170	70
1980	1,536	868	57

¹1977-79: First mailing followed by second request.

1980: One mailing only.

²Usable returns.

TABLE 2. GROWER RETURNS FROM CUTWORM DAMAGE SURVEY, 1977-1980

Region	<u>Number of Usable Returns</u>				<u>Percent of Growers Reporting a Cutworm Problem</u>				
	1977	1978	1979	1980	1977	1978	1979	1980	Average
1	230	153	219	172	23.5	33.3	37.0	8.1	25.5
2	145	94	141	116	18.6	47.9	24.8	5.2	24.1
3	165	124	178	111	14.5	59.7	27.0	8.1	27.3
4	123	88	127	96	11.4	47.4	27.6	3.1	22.4
5	174	139	202	132	12.1	26.0	25.3	4.5	17.0
6	200	147	186	158	14.5	17.0	20.4	5.7	14.4
7 & 8	51	38	53	27	5.9	13.2	5.7	7.4	8.1
9	86	67	64	56	7.0	16.4	4.7	3.5	7.9
Total	1,174	850	1,170	868	15.2	34.0	25.1	5.9	20.1

TABLE 3. 1977 CUTWORM DAMAGE AS ESTIMATED FROM GROWER RETURNS

District	Estimated corn acreage		Acres reported on survey	% of regional total	Cutworm Related Damage						Replanted for reasons not related to cutworms		
	Acres ¹	% of state acreage			Damaged and not replanted Acres ²	Ave. % stand reduction	Replanted Acres ²	%	Total Acres ²	%	Acres ²	%	
1	780	26.4	23,561	3.0	61	7.8	22.8	21	2.7	82	10.5	10	1.2
2	415	14.1	10,470	2.5	25	6.0	25.9	13	3.1	38	9.1	6	1.4
3	465	15.8	15,644	3.4	28	6.0	22.3	6	1.2	34	7.2	17	1.8
4	305	10.3	8,509	2.8	7	2.4	32.6	3	0.9	10	3.2	4	1.2
5	415	14.1	10,331	2.5	18	4.4	28.6	5	1.1	23	5.4	5	1.3
6	285	9.7	11,487	4.0	13	4.7	22.9	4	1.3	17	6.0	17	5.8
7 & 8	120	4.1	2,379	2.0	11	9.2	9.9	1	0.2	12	9.4	1	0.1
9	165	5.6	8,678	5.3	4	2.6	30.7	0	0.0	4	2.6	8	4.7
Total	2,950	100.0	91,059	3.1	167	5.5	23.9	53	1.6	220	7.2	68	2.3

¹Thousands of acres, rounded to nearest thousand.

²Expanded damage, in thousands of acres, rounded to nearest thousand.

TABLE 4. 1978 CUTWORM DAMAGE AS ESTIMATED FROM GROWER RETURNS

District	Estimated corn acreage		Acres reported on survey	% of regional total	Cutworm Related Damage						Replanted for reasons not related to cutworms		
	Acres ¹	% of state acreage			Damaged and not replanted Acres ²	%	Ave. % stand reduction	Replanted Acres ²	%	Total Acres ²	%	Acres ²	%
1	678	28.3	15,513	2.3	120	17.8	23.7	11	1.6	131	19.4	2	0.3
2	315	13.1	6,152	2.0	89	29.0	27.8	33	10.7	122	39.7	2	0.7
3	405	16.9	10,785	2.7	152	38.0	28.6	35	8.8	187	46.8	1	0.2
4	260	10.8	5,194	2.0	77	29.5	28.8	13	5.0	90	34.5	2	0.8
5	270	11.3	7,018	2.6	61	22.5	26.5	9	3.3	70	25.8	2	0.7
6	220	9.2	8,080	3.7	36	16.7	41.0	6	2.6	42	19.3	1	0.4
7 & 8	57	2.4	1,648	2.9	4	6.7	25.2	0	0.0	4	6.7	0	0.0
9	195	8.1	5,147	2.6	16	8.3	25.7	3	1.6	19	9.9	2	1.1
Total	2,400	100.0	59,537	2.5	555	22.9	28.4	110	4.4	665	27.4	12	0.5

¹Thousands of acres, rounded to nearest thousand.

²Expanded damage, in thousands of acres, rounded to nearest thousand.

TABLE 5. 1979 CUTWORM DAMAGE AS ESTIMATED FROM GROWER RETURNS

District	Estimated corn acreage		Acres reported on survey	% of regional total	Cutworm Related Damage						Replanted for reasons not related to cutworms		
	Acres ¹	% of state acreage			Damaged and not replanted Acres ²	%	Ave. % stand reduction	Replanted Acres ²	%	Total Acres ²	%	Acres ²	%
1	630	25.7	21,092	3.3	107	17.0	21.2	48	7.6	155	24.6	6	0.9
2	380	15.5	11,820	3.1	71	18.6	13.6	8	2.1	79	20.8	4	1.1
3	435	17.8	15,317	3.5	88	20.3	16.1	12	2.7	100	23.0	1	0.3
4	265	10.8	8,403	3.2	29	11.0	18.0	6	2.5	35	13.5	1	0.4
5	315	12.9	13,127	4.2	33	10.4	18.0	14	4.3	47	14.7	2	0.6
6	235	9.6	10,683	4.5	16	7.0	22.6	10	4.2	26	11.3	4	1.6
7 & 8	40	1.6	1,760	4.4	1	1.3	25.7	1	1.7	2	3.0	1	1.5
9	150	6.1	4,829	3.2	3	1.8	15.3	0	0.0	3	1.8	34	22.5
Total	2,450	100.0	87,031	3.6	348	14.2	17.9	99	4.0	447	18.2	53	2.0

¹Thousands of acres, rounded to nearest thousand

²Expanded damage, in thousands of acres, rounded to nearest thousand.

TABLE 6. 1980 CUTWORM DAMAGE AS ESTIMATED FROM GROWER RETURNS

District	Estimated corn acreage		Acres reported on survey	% of regional total	Cutworm Related Damage						Replanted for reasons not related to cutworms		
	Acres ¹	% of state acreage			Damaged and not replanted Acres ²	%	Ave. % stand reduction	Replanted Acres ²	%	Total Acres ²	%	Acres ²	%
1	673	28.2	18,696	2.8	17	2.5	22.3	1	0.2	18	2.7	3	0.4
2	370	15.5	8,045	2.2	8	2.2	32.5	0	0.0	8	2.2	8	2.1
3	409	17.1	9,400	2.3	15	3.7	13.5	0	0.0	15	3.7	1	0.4
4	207	8.7	5,766	2.8	1	0.2	20.3	0	0.0	1	0.2	6	2.9
5	248	10.4	8,347	3.4	2	0.9	11.8	1	0.4	3	1.3	1	0.5
6	253	10.6	10,797	4.3	5	2.0	16.3	1	0.1	6	2.0	1	0.4
7 & 8	43	1.8	680	1.6	1	1.0	20.0	0	0.0	1	1.0	3	6.0
9	183	7.7	4,779	2.6	1	0.4	20.0	0	0.0	1	0.4	6	3.5
Total	2,386	100.0	66,510	2.8	50	2.0	19.6	3	0.1	53	2.1	29	1.1

¹Thousands of acres, rounded to nearest thousand.

²Expanded damage, in thousands of acres, rounded to nearest thousand.

TABLE 7. 1977-1980 CUTWORM DAMAGE AS ESTIMATED FROM GROWER RETURNS.

District	Estimated corn acreage		Acres reported on survey	% of regional total	Cutworm Related Damage						Replanted for reasons not related to cutworms		
	Acres ¹	% of state acreage			Damaged and not replanted Acres ²	%	Ave. % stand reduction	Replanted Acres ²	%	Total Acres ²	%	Acres ²	%
1	2761	27.1	78,862	2.9	305	11.0	22.5	81	2.9	386	14.0	21	0.8
2	1480	14.5	36,487	2.5	193	13.0	25.0	54	3.6	247	16.7	20	1.4
3	1714	16.9	51,146	3.0	283	16.5	20.1	53	3.1	336	19.6	20	1.2
4	1037	10.2	27,872	2.7	114	11.0	24.9	22	2.1	136	13.1	13	1.3
5	1248	12.2	38,823	3.1	114	9.1	21.2	29	2.3	143	11.5	10	0.8
6	993	9.8	41,047	4.1	70	7.0	25.7	21	2.1	91	9.2	23	2.3
7 & 8	260	2.5	6,467	2.5	17	6.5	20.2	2	0.8	19	7.3	5	1.9
9	693	6.9	23,433	3.4	24	3.5	22.9	3	0.4	27	3.9	50	7.2
Total	10,186	100.0	304,137	3.0	1120	11.0	22.5	265	2.6	1385	13.6	162	1.6

¹Thousands of acres, rounded to nearest thousand.

²Expanded damage, in thousands of acres, rounded to nearest thousand.

TABLE 8. COMPARISON OF CUTWORM DAMAGE AND REPLANTED ACREAGE IN MISSOURI FOR THE YEARS 1977-1980.

Acres in Thousands										
Corn	1977	%	1978	%	1979	%	1980	%	Total	%
Planted	2,950		2,400		2,450		2,386		10,186	
Damaged, Not Replanted	167	5.5	555	22.9	348	14.2	50	2.0	1,120	11.0
Replanted	53	1.6	110	4.4	99	4.0	3	0.1	265	2.6
Total	220	7.2	665	27.4	447	18.2	53	2.1	1,385	13.6
Replanted for other Reasons	68	2.3	12	0.5	53	2.0	29	1.1	162	1.6

TABLE 9. CORN ACREAGE REPLANTED AND CAUSES FOR REPLANTING IN MISSOURI FROM 1977-1980.

Reason for Replanting	Year				Total	Percent
	1977	1978	1979	1980		
Cutworm Damage	53,000 ^a	110,000	99,000	3,000	265,000	62.3
Wet Weather ^b	47,800	4,100	35,600	10,500	98,000	23.0
Dry Weather	4,700	2,400	9,300	8,700	25,100	5.9
Poor Seed Bed	7,000	1,200	-	-	8,200	1.9
Poor Seed	-	200	800	-	1,000	0.2
Equipment Problems	1,100	200	-	-	1,300	0.3
Bird Damage	1,400	400	700	200	2,700	0.6
Other Insects ^c	2,200	1,300	1,000	1,400	5,900	1.4
Miscellaneous ^d	3,300	2,200	4,800	8,100	18,400	4.3
Total	120,500	122,000	151,200	32,000	425,700	99.9
Cutworms as a Percent	44.0	90.2	65.5	9.4	62.3	-

^aCutworm damage rounded to nearest thousand. Other figures rounded to nearest hundred.

^bWet Weather Damage - Includes floods, washouts, ground crusting, and rotted seed from cool and damp weather.

^cOther Insects - Includes wireworms and webworms.

^dMiscellaneous - Includes hail, volunteer corn, herbicide damage, fertilizer burn, rodent and other animal damage, and unspecified causes.

TABLE 10. 1977 ESTIMATED INSECTICIDE USE BY REGION BASED ON GROWER RETURNS.

Region	Estimated Corn Acreage (CRS) Acres ¹	Expanded Use of Insecticides (Acres) ¹										
		PPI			Planting Time						Postemergence	
		Aldrin	Belt	Heptachlor	Counter	Dyfonate	Furadan	Mocap	Thimet	Other	Sevin	Toxaphene
1	780	3	1	39	57	13	111	72	26	3	0	12
2	415	0	5	17	28	0	59	16	4	0	1	2
3	465	1	29	64	4	23	53	43	0	0	0	3
4	305	12	0	21	18	0	77	5	0	2	0	1
5	415	1	6	25	6	7	118	23	0	0	0	0
6	285	25	18	46	11	1	33	5	1	0	1	2
7 & 8	120	0	0	0	0	0	6	2	0	0	1	0
9	165	7	4	6	0	0	47	0	0	0	0	0
Total	2,950	49	63	218	124	44	504	166	31	5	2	20
%	100.0	1.6	2.1	7.4	4.2	1.5	17.1	5.6	1.1	0.3	0.1	0.7

¹Thousands of acres

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TABLE 11. 1978 ESTIMATED INSECTICIDE USE BY REGION BASED ON GROWER RETURNS.

Region	Estimated Corn Acreage (CRS) Acres ¹	Expanded Use of Insecticides (Acres) ¹											
		PPI			Planting Time					Postemerge			
		Aldrin	Belt	Heptachlor	Counter	Dyfonate	Furadan	Lorsban	Mocap	Thimet	Lorsban	Sevin	Toxaphene
1	678	0	0	8	53	35	88	2	30	86	20	2	3
2	315	3	3	9	44	2	53	12	-	19	28	0	10
3	405	11	15	11	7	33	68	14	17	0	61	2	25
4	260	4	0	1	13	6	59	1	12	0	1	0	14
5	270	0	2	1	26	6	47	0	21	0	2	0	7
6	220	0	1	10	19	13	35	13	10	1	16	1	0
7&8	57	0	0	0	2	0	10	0	2	7	0	0	0
9	195	0	0	16	3	0	42	0	3	0	0	0	0
Total	2,400	18	21	56	167	95	402	42	95	113	128	5	60
%	100	0.8	0.9	2.4	7.0	4.0	16.7	1.7	4.0	4.7	5.4	0.2	2.5

¹Thousands of acres, rounded to the nearest thousand.