

# SUMMARY: 1983 COOPERATIVE CUTWORM PHEROMONE PROJECT

Department of Entomology

North Dakota State University

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OBS	SITE	DATE	EM	EO	ET	EA	PS	ST	AO	LC	PU	FJ	HE
1	BISMARCK	508	0	0	0	0	0	0	0	1	0	0	.
2	BISMARCK	515	0	0	0	0	0	0	0	3	0	0	.
3	BISMARCK	522	5	0	1	0	4	5	1	10	1	0	.
4	BISMARCK	529	10	0	1	1	15	6	0	10	3	0	.
5	BISMARCK	605	0	0	0	0	5	5	0	20	4	0	.
6	BISMARCK	612	1	0	1	1	3	4	0	20	1	0	.
7	BISMARCK	619	0	0	0	1	2	4	1	35	0	0	.
8	BISMARCK	626	0	0	8	0	6	1	1	67	0	0	.
9	BISMARCK	703	0	0	7	0	7	3	0	56	0	0	.
10	BISMARCK	710	0	0	5	0	8	0	0	60	0	0	.
11	BISMARCK	717	0	2	9	0	0	2	0	40	0	0	.
12	BISMARCK	724	0	6	7	1	0	5	0	20	0	0	.
13	BISMARCK	731	0	3	8	0	0	1	0	20	0	0	.
14	BISMARCK	807	0	1	6	0	0	2	0	14	0	0	.
15	BISMARCK	814	0	0	1	0	0	1	0	10	0	0	.
16	BISMARCK	821	0	1	0	0	0	2	0	5	0	0	.
17	BISMARCK	828	0	0	0	0	0	0	0	1	0	0	.
18	BISMARCK	904	0	0	0	0	0	0	0	2	0	0	.
19	BISMARCK	911	0	0	.	0	0	0	0	0	1	0	0
20	CARRINGTON	515	0	0	0	0	100	0	0	35	0	0	.
21	CARRINGTON	609	0	0	0	0	15	26	0	0	2	2	.
22	CARRINGTON	620	0	0	0	0	7	53	0	5	2	0	.
23	CARRINGTON	701	1	0	0	0	19	66	1	17	6	0	.
24	CARRINGTON	715	8	1	23	0	6	16	1	4	3	4	.
25	CARRINGTON	729	1	25	20	0	10	25	0	76	0	1	.
26	CARRINGTON	805	3	43	2	0	0	10	0	7	0	1	.
27	CARRINGTON	1006	487	54	0	2	42	112	0	103	0	10	.
28	COGSWELL	503	0	0	0	0	8	2	0	3	13	2	.
29	COGSWELL	509	0	0	0	0	15	0	0	9	4	1	.
30	COGSWELL	516	1	0	0	0	14	0	0	5	1	0	.
31	COGSWELL	523	0	0	0	0	2	0	0	3	0	1	.

**Cutworm Project Continued:**

OBS	SITE	DATE	EM	EO	ET	EA	PS	ST	AO	LC	PU	FJ	HE
32	COGSWELL	601	0	0	0	0	2	3	0	2	0	0	.
33	COGSWELL	606	0	0	0	0	1	1	0	2	0	0	.
34	COGSWELL	613	0	0	0	1	2	15	0	5	1	0	.
35	COGSWELL	620	0	0	0	0	1	2	2	3	0	0	.
36	COGSWELL	627	0	0	0	0	3	8	0	8	0	1	.
37	COGSWELL	705	2	0	9	0	4	7	0	10	0	0	.
38	COGSWELL	715	5	0	0	0	9	10	0	62	2	4	.
39	COGSWELL	718	2	0	41	0	1	2	0	123	0	0	.
40	COGSWELL	725	0	0	9	0	1	1	0	12	0	0	.
41	COGSWELL	801	2	1	9	0	0	3	0	35	0	0	.
42	COGSWELL	808	0	2	1	0	1	15	0	15	0	0	.
43	COGSWELL	817	8	0	0	0	1	7	0	9	0	0	.
44	COGSWELL	822	5	0	0	2	1	4	0	5	0	1	.
45	COGSWELL	829	18	0	0	1	2	4	0	3	1	2	.
46	COGSWELL	907	11	0	0	0	4	3	0	2	0	0	.
47	COGSWELL	911	2	0	0	1	1	0	0	8	1	0	.
48	COGSWELL	918	0	0	0	0	4	0	0	4	0	0	.
49	COGSWELL	1003	13	0	1	12	8	0	0	14	1	0	.
50	DICKINSON	509	0	0	0	0	5	0	0	7	0	0	0
51	DICKINSON	516	0	0	0	0	0	0	0	0	0	0	0
52	DICKINSON	523	0	0	0	0	0	0	0	5	0	1	0
53	DICKINSON	531	0	0	0	0	0	29	0	8	0	0	0
54	DICKINSON	606	2	0	0	0	0	27	0	3	0	0	0
55	DICKINSON	613	2	0	0	0	0	7	1	3	1	2	0
56	DICKINSON	620	11	1	0	0	0	17	0	17	0	27	0
57	DICKINSON	627	17	2	0	0	2	21	3	26	7	29	2
58	DICKINSON	705	15	2	37	0	3	47	12	115	13	16	6
59	DICKINSON	711	0	0	18	0	0	0	0	111	18	0	1
60	DICKINSON	718	0	0	66	0	0	41	0	357	4	0	2
61	DICKINSON	725	2	3	42	2	0	45	0	281	2	0	2
62	DICKINSON	801	0	3	36	0	1	8	0	122	0	0	0
63	DICKINSON	808	9	0	14	0	0	1	0	47	0	0	0
64	DICKINSON	815	45	0	0	0	0	27	0	3	0	0	2
65	DICKINSON	822	48	0	0	0	0	38	0	3	1	2	2
66	DICKINSON	830	39	0	0	0	1	25	2	6	0	2	3
67	DICKINSON	906	51	0	0	0	1	13	2	4	3	2	0
68	DICKINSON	913	20	2	0	0	1	10	0	3	12	0	1
69	DICKINSON	922	23	0	0	0	0	3	1	1	10	0	0
70	HETTINGER	602	0	0	0	0	23	5	0	14	0	0	.
71	HETTINGER	613	0	0	0	0	5	1	0	3	1	0	.

**Cutworm Project Continued:**

OBS	SITE	DATE	EM	EO	ET	EA	PS	ST	AO	LC	PU	FJ	HE
72	HETTINGER	620	1	0	0	0	7	5	0	4	4	0	.
73	HETTINGER	627	4	0	0	0	3	2	0	1	6	9	.
74	HETTINGER	705	13	0	0	0	4	7	0	2	10	4	.
75	HETTINGER	711	2	0	2	0	5	1	3	7	7	3	.
76	HETTINGER	718	4	0	3	0	8	3	5	7	6	5	.
77	HETTINGER	725	4	0	15	0	10	3	2	13	3	3	.
78	HETTINGER	801	3	7	13	0	3	0	0	9	0	0	.
79	HETTINGER	807	1	7	8	0	4	0	0	5	0	1	.
80	HETTINGER	906	25	3	0	2	4	8	0	6	1	2	.
81	HETTINGER	913	1	0	0	1	2	1	2	2	0	0	.
82	HETTINGER	921	0	0	0	3	0	0	0	1	0	0	.
83	HETTINGER	927	0	0	1	9	0	0	0	0	0	0	.
84	LANGDON	509	0	0	0	0	0	0	0	0	0	0	0
85	LANGDON	516	2	0	0	0	1	0	0	0	0	0	0
86	LANGDON	523	3	0	0	0	3	0	0	0	0	0	0
87	LANGDON	531	0	0	0	0	5	0	0	5	0	0	0
88	LANGDON	606	0	0	0	0	5	3	0	2	0	0	0
89	LANGDON	614	2	0	0	0	3	0	0	3	0	1	0
90	LANGDON	621	0	0	0	0	2	7	0	3	0	4	0
91	LANGDON	627	7	1	0	0	7	2	0	1	0	0	0
92	LANGDON	705	11	0	1	0	0	0	0	0	8	10	0
93	LANGDON	711	5	0	13	0	4	9	0	0	0	0	0
94	LANGDON	718	0	0	28	0	0	2	0	0	0	0	0
95	LANGDON	725	0	4	3	0	0	2	0	0	0	0	0
96	LANGDON	801	0	30	72	0	0	8	0	0	0	0	0
97	LANGDON	808	11	126	47	0	0	111	0	0	0	0	0
98	LANGDON	815	29	32	33	0	0	35	0	0	0	0	0
99	LANGDON	822	24	25	3	0	0	8	0	0	0	0	0
100	LANGDON	829	30	58	0	0	2	0	0	0	0	0	0
101	LANGDON	906	23	39	0	0	3	14	0	0	0	0	0
102	LANGDON	912	3	7	0	0	0	0	0	0	0	0	0
103	LANGDON	919	0	0	0	0	2	0	0	0	0	0	0
104	LANGDON	926	1	0	0	0	5	0	0	0	0	0	0
105	LANGDON	1003	0	0	0	0	0	1	0	0	0	0	0
106	MINOT	527	1	0	0	0	16	0	0	12	1	0	.
107	MINOT	602	0	0	0	0	2	2	0	6	0	0	.
108	MINOT	608	0	1	0	0	6	0	0	2	0	0	.
109	MINOT	615	0	1	0	0	.3	3	0	4	0	0	.
110	MINOT	623	3	1	0	0	.2	1	0	11	7	6	.
111	MINOT	630	8	0	2	1	5	1	0	111	1	8	.
112	MINOT	708	13	0	4	0	8	2	0	100	6	8	.

**Cutworm Project Continued:**

OBS	SITE	DATE	EM	EO	ET	EA	PS	ST	AO	LC	PU	FJ	HE
113	MINOT	713	0	0	10	0	9	1	0	95	2	2	0
114	MINOT	728	1	0	65	0	51	4	0	196	0	4	1
115	MINOT	805	1	0	10	0	0	2	0	96	0	1	1
116	MINOT	819	56	0	6	0	0	14	0	14	0	3	0
117	MINOT	825	4	0	0	0	1	1	0	0	0	0	2
118	MINOT	831	32	0	0	0	0	3	0	0	0	0	0
119	WILLISTON	505	0	0	0	0	2	0	0	0	0	0	0
120	WILLISTON	513	0	0	0	0	3	0	0	1	0	0	0
121	WILLISTON	520	0	0	0	0	1	0	0	0	0	0	0
122	WILLISTON	603	0	0	0	0	4	8	0	4	0	0	0
123	WILLISTON	609	0	0	0	0	2	11	0	3	0	0	0
124	WILLISTON	616	1	0	0	0	1	6	0	1	8	1	0
125	WILLISTON	623	3	0	0	0	0	6	0	0	2	0	0
126	WILLISTON	630	4	0	5	0	6	7	0	20	8	6	0
127	WILLISTON	707	1	1	8	0	2	4	1	49	2	2	0
128	WILLISTON	714	2	1	18	0	6	3	2	46	0	0	0
129	WILLISTON	725	1	6	90	0	2	16	1	49	1	0	0
130	WILLISTON	728	1	3	22	0	0	10	0	11	0	0	0
131	WILLISTON	804	13	4	34	0	1	5	0	30	2	0	0
132	WILLISTON	812	31	5	14	0	0	5	0	2	1	3	1
133	WILLISTON	819	62	1	0	0	0	28	0	1	0	3	0
134	WILLISTON	826	47	3	0	0	2	12	0	3	0	1	2
135	WILLISTON	901	77	1	2	1	2	28	3	4	1	0	0
136	WILLISTON	1003	79	5	0	0	5	21	0	6	12	1	0

Trap	Species Name	Common Name
Em	<i>Euxoa messoria</i>	dark-sided cutworm
Eo	<i>Euxoa ochrogaster</i>	red-backed cutworm
Et	<i>Euxoa tessellata</i>	striped cutworm
Ea	<i>Euxoa auxiliaris</i>	army cutworm
Ps	<i>Peridroma saucia</i>	variegated cutworm
Sc	<i>Scotogramma trifolii</i>	clover cutworm
Ao	<i>Agrotis orthogonia</i>	pale-western cutworm
Lc	<i>Leucania commoides</i>	
Pu	<i>Pseudaletia unipuncta</i>	armyworm
Fj	<i>Feltia jaculifera</i>	dingy cutworm
He	<i>Homoeosoma electellum</i>	sunflower moth

**Annual Trap Catch and Average Trap Catch of Various Moths Attracted to  
Pheromone Baited Traps in North Dakota**

		Em	Eo	Et	Ea	Ps	St	Ao	Lc	Pu	Fj	He
<b>Straubville</b>	82	152	1	12	3	--	41	1	293	34	--	7
	83	77	3	66	5	89	97	6	338	33	12	--
	$\bar{X}$	115	2	39	4	89	69	4	316	34	12	7
	<hr/>											
<b>Williston</b>	80	768	157	191	164	31	112	9	330	--	--	--
	81	334	72	182	25	90	146	7	235	28	--	--
	82	79	34	144	20	--	103	52	151	72	--	2
	83	322	30	183	1	39	169	6	230	37	17	3
	$\bar{X}$	376	73	175	53	53	133	19	236	46	17	3
<hr/>												
<b>Dickinson</b>	80	723	123	331	232	65	195	4	329	--	--	--
	81	244	70	203	100	224	216	36	371	43	--	--
	82	634	24	173	6	--	296	9	384	130	--	1
	83	284	13	213	2	14	359	21	1122	62	81	21
	$\bar{X}$	471	57	230	85	101	267	18	552	78	81	11
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<b>Langdon</b>	80	199	613	523	21	117	134	23	501	--	--	--
	81	250	463	436	26	186	55	15	605	144	--	--
	82	165	198	117	0	--	55	5	109	30	--	3
	83	151	322	200	0	42	202	0	14	8	15	0
	$\bar{X}$	191	399	319	12	115	112	11	307	61	15	3
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<b>Hettinger</b>	80	831	94	324	287	50	122	17	294	--	--	--
	81	117	27	61	332	243	48	25	356	76	--	--
	82	98	9	101	12	--	56	5	216	96	--	18
	83	58	17	42	15	78	36	12	74	38	27	--
	$\bar{X}$	276	37	132	162	124	66	15	235	70	27	18
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<b>Bismarck</b>	80	57	4	56	0	6	27	0	57	--	--	--
	81	151	21	225	10	159	179	7	307	23	--	--
	82	137	20	134	3	--	102	2	432	37	--	3
	83	16	13	54	4	50	41	2	395	9	0	--
	$\bar{X}$	90	15	117	4	72	87	2	298	23	0	3
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<b>Carrington</b>	82	834	174	166	8	--	127	1	161	50	--	1
	83	490	123	45	2	199	308	2	247	13	18	--
	$\bar{X}$	662	149	106	5	199	218	2	204	32	18	1
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<b>Minot</b>	80	1322	627	710	20	95	241	9	865	--	--	--
	81	303	158	147	3	263	57	14	256	50	--	--
	82	235	49	238	1	--	13	2	237	59	--	0
	83	119	3	97	1	87	34	0	647	17	4	4
	$\bar{X}$	495	212	298	8	148	86	8	501	42	4	2