1982 Statewide Cutworm Pheromone Project Summary

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Trap catches for almost all locations and species were down significantly this year as compared to last year's counts. In addition to lower numbers of these species, the emergence period of many was delayed almost two weeks from 1981 emergence periods. This delay was more apparent in the early season, cutworms (i.e. Leucania & Scotogramma) than in the later season cutworm. (i.e. E. messoria).

The dark sided cutworm (Euxoa messoria) was the only species with an increased catch. Most of the state total was contributed by Carrington (new this year) and Dickinson, which had more than doubled its catch from last year. Other locations did have a lower catch this year, although it did not seem to be reduced as much as other insect species.

This year the sunflower moth pheromone was added to our trap line. It caught very few moths even though adults were observed in nearby sunflower fields. Conversations with researchers who developed this pheromone indicate that the trap design was not effective for this moth. The pheromone itself is being tested for purity, but is not suspect at this time. Next year a new, more efficient trap will be used.

We hope to have an improved armyworm pheromone for next year. The pheromone we now use is a single component pheromone, but a more effective multi-component pheromone is now available from Canadian researchers. This should improve our ability to monitor armyworm moth populations and make our trap counts more reflective of actual field population levels.

The extreme cold this past winter probably was the major factor contributing to the decline in trap catch this past season. We would expect that another hard winter would again take its toll on resident, overwintering populations. If we get the predicted hard winter, we can expect another moderate problem with cutworms next spring as we had this year. We can say, at least, that in most trapped locations we are probably entering the winter with a smaller overwintering population of cutworms than last year.

Species Abbreviation	Species Name	Common Name
Em	Euxoa messoria	Dark sided cutworm
Eo	Euxoa ochrogaster	Red backed cutworm
Et	Euxoa tessellata	Striped cutworm
Ea	Euxoa auxiliaris	Army cutworm
Ps	Peridroma saucia	Variegated cutworm
St	Scotograma trifolii	Clover cutworm
Ao	Agreotis orthogonia	Pale Western cutworm
He	Homoeosoma electellum	Sunflower moth
Lc	Leucania commoides	
Pu	Pseudaletia unipuncta	Armyworm

1982 Cutworm Pheromone Trap Catch

	Pu	St	Ps	Lc	Ea	Ao	Et	Eo	Em	He	Total
Bismarck	27	37	102	432	3	2	144	20	135	3	**905**
Carrington	21	50	127	161	8	1	166	174	834	1	**1543**
Dickinson	90	132	296	284	6	9	173	24	634	1	**1649**
Hettinger	4	91	56	156	12	5	101	9	98	18	**550**
Langdon	15	30	55	190	0	5	38	179	157	3	**591**
Minot	1	59	13	37	1	2	238	49	215	0	**615**
Williston	20	72	103	150	20	52	144	34	19	2	**616**
Straubville	1	34	41	293	3	1	12	1	15	7	**544**
Total	**179**	**505**	**793**	**1622**	**53**	**77**	**1016**	**490**	**2243**	**35**	**7013**