Under the conditions of these; tests it appears that dusting segmented sugar beet seed with DDT dusts before storing was much more effective in keeping away live insects than any other treatment except Arasan. DDT on the walls of the bags was also effective. When insects were placed in lots of seed already treated, the DDT dusts and Dichloricide were most deadly,

Further tests under more nearly normal conditions are planned. Powdered magnesium oxide will be thoroughly tested since it is a non-poisonous material and has shown such great promise in stored grains.

Literature Cited

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Lygus Control on Sugar Beet Seed Isolation Plots By Dusting With DDT

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Tn the iniiial increases of breeding stocks of sugar beet seed it is quite essential that a large yield of good quality seed be produced. Generally these increases are small in area, usually less than 1/4 acre, and are plantings of mother beets or steckling roots.

Satisfactory seed yields can be assured by maintaining a high soil fertility level and optimum care throughout the growing season. Quality as reflected by germination is much harder to maintain, and many times the yields are high but quality low.

These lower germinations are caused principally by the attacks of lygus *(Lygus elisus* and *Lygus oblineatus).* Dusting to control lygus by killing the insects or repelling them has proved very satisfactory. Many chemicals have been tried in dust form on these isolations but none has been so effective as DDT in killing the lygus.

Two or three dustings per season using about. 25 to 30 pounds of 3-percent DDT has proved very effective in the control of this insect on the isolation plots at the Holly Experiment Station, Sheridan, Wyo.

Results of the control by one dusting are reported in the following table. The day was not ideal for dusting, it being slightly windy with frequent gusty periods which drifted the dust off several plots.

The kill was greater by 10 percent at the end of the second day than it was 24 hours after dusting, and probably had counts been made at 72 hours it would have been still higher. The greatest kills have been recorded on the third and fourth days in some instances.

Table 1.—Results of dusting seed beets with DDT (3-percent) at 27 pounds per acre, July 10, 1045.

	Lygus count*			Percentage kill	
Plot No.	Before dusting	24 hours after dusting	48 hours after dusting	24 hours after dusting	48 hours after dusting
187	11	2	0	81.8	100
188	4	1	0	75.0	100
189	6	1	0	83.3	10(1
195	4	0	2	100.0	50
199	8	2	1	75.0	87.5
200	6	1	1	83.3	83.3
202	28	5	3	82.1	89.3
203	8	3	1	62.5	87.5
205	14	8	1	42.8	92.8
225	6	1	1	83.3	83.3
			Averages	76.9	87.4

•Total lygus (green and brown) per 50 sweeps of the net.

Lygus populations on these plots were not as high as in previous years, the average being 9 1/2 lygus per 50 sweeps.

The advtange of dusting for controlling lygus is also reflected in germination records. The average germination of 19 isolations dusted with DDT was 83 percent and for 20 isolations not dusted 62 percent, or a gain of 21 percent due, to a large extent, to the dusting.