## SURVEY OF INSECTICIDE USE IN SUGARBEET IN EASTERN NORTH DAKOTA AND MINNESOTA - 2001

Alan G. Dexter and John L. Luecke Extension Sugarbeet Specialist and Sugarbeet Research Specialist

North Dakota State University - University of Minnesota Fargo, ND

Other portions of the survey are published in the Weed Control and Plant Pathology sections

Sugarbeet growers reported sugarbeet acreage treated with insecticide on the annual survey of sugarbeet growers (Table 1). Counter 15G, Counter 20G, Lorsban 15G and Temik 15G were primarily used as planting-time treatments, whereas Lorsban 4E and malathion were primarily applied postemergence. Counter 15G and Lorsban 15G were used on 51% and 14% of the acres, respectively, in 2001 while Counter 15G was used on 52% and Lorsban 15G on 13% of the acreage in 2000. The acreage treated with Lorsban 4E declined from 42% of the acreage in 1992 to 2% in 1996. Lorsban 4E usage was 8% in 1998, 3% in 1999, 2% in 2000 and 11% in 2001. The increased use of Lorsban 4E in 2001 was partly due to an unusual infestation of tarnished plant bug (lygus bug) especially in Polk and Grand Forks counties. Averaged over all insecticides and counties, 83% of the acreage was treated in 2001 compared to 71% in 2000, 74% in 1999, 83% in 1998, 74% in 1997 and 73% in 1996.

The grower evaluations of insect control averaged over counties is presented in <u>Table 2</u>. The satisfaction with root maggot control generally was good with 91% evaluating control as good or excellent. Other insect control was evaluated as good or excellent by 84% of the respondents.

Table 1. Insecticide use by survey respondents in 2001.

| County                | Number of appl. | Acres<br>not<br>treated | Counter<br>15G     | Counter<br>20CR | Lorsban<br>15G | Lorsban<br>4E | Other <sup>7</sup> | Temik<br>15G | Malathion | Total<br>acres<br>treated |  |  |  |
|-----------------------|-----------------|-------------------------|--------------------|-----------------|----------------|---------------|--------------------|--------------|-----------|---------------------------|--|--|--|
|                       |                 |                         | % of acres planted |                 |                |               |                    |              |           |                           |  |  |  |
| Cass                  | 17              | 17                      | 81                 | 0               | 0              | 0             | 1                  | 0            | 0         | 82                        |  |  |  |
| Chippewa <sup>1</sup> | 0               | 100                     | 0                  | 0               | 0              | 0             | 0                  | 0            | 0         | 0                         |  |  |  |
| Clay <sup>2</sup>     | 34              | 8                       | 51                 | 0               | 39             | 1             | 0                  | 0            | 3         | 94                        |  |  |  |
| Grand Forks           | 29              | 6                       | 60                 | 13              | 12             | 43            | 0                  | 0            | 0         | 128                       |  |  |  |
| Kittson               | 22              | 15                      | 75                 | 0               | 4              | 0             | 0                  | 0            | 1         | 80                        |  |  |  |
| Marshall              | 34              | 1                       | 57                 | 10              | 26             | 4             | 0                  | 0            | 0         | 96                        |  |  |  |
| Norman <sup>3</sup>   | 22              | 37                      | 55                 | 0               | 8              | 14            | 0                  | 0            | 0         | 78                        |  |  |  |
| Pembina               | 35              | 0                       | 71                 | 17              | 13             | 9             | 0                  | 0            | 3         | 128                       |  |  |  |
| Polk                  | 104             | 7                       | 81                 | 0               | 12             | 34            | 2                  | 0            | 1         | 129                       |  |  |  |
| Renville <sup>4</sup> | 4               | 98                      | 0                  | 0               | 0              | 2             | 0                  | 0            | 0         | 2                         |  |  |  |
| Richland              | 8               | 71                      | 15                 | 7               | 7              | 0             | 0                  | 0            | 0         | 29                        |  |  |  |
| Traill                | 21              | 0                       | 77                 | 0               | 24             | 9             | 0                  | 0            | 0         | 109                       |  |  |  |
| Traverse <sup>5</sup> | 0               | 0                       | 0                  | 0               | 0              | 0             | 0                  | 0            | 0         | 0                         |  |  |  |
| Walsh                 | 41              | 6                       | 64                 | <1              | 29             | 7             | 5                  | 11           | 0         | 116                       |  |  |  |
| Wilkin <sup>6</sup>   | 18              | 63                      | 25                 | 1               | 16             | <1            | 0                  | 0            | 0         | 43                        |  |  |  |
| Total                 | 389             | 31                      | 51                 | 3               | 14             | 11            | 2                  | 1            | 1         | 83                        |  |  |  |

<sup>&</sup>lt;sup>1</sup>Includes Swift and Kandiyohi Counties.

Table 2. Insecticide usage and evaluation of control by survey respondents in 2001.

|              | Root Maggot Control |       |         |          |      | Other Insect Control |       |      |      |      |  |
|--------------|---------------------|-------|---------|----------|------|----------------------|-------|------|------|------|--|
| Insecticide  | No. of appl.        | Excel | Good    | Fair     | Poor | No. of appl.         | Excel | Good | Fair | Poor |  |
|              |                     |       | % of re | esponses |      | % of responses       |       |      |      |      |  |
| Counter 15G  | 226                 | 56    | 36      | 4        | 4    | 120                  | 38    | 44   | 13   | 4    |  |
| Counter 20CR | 12                  | 42    | 50      | 8        | 0    | 4                    | 25    | 75   | 0    | 0    |  |
| Lorsban 15G  | 60                  | 55    | 35      | 8        | 2    | 22                   | 41    | 46   | 14   | 0    |  |
| Lorsban 4E   | 22                  | 41    | 50      | 9        | 0    | 46                   | 41    | 41   | 13   | 4    |  |
| Temik 15G    | 3                   | 67    | 0       | 0        | 33   | 1                    | 100   | 0    | 0    | 0    |  |
| Malathion    | 3                   | 67    | 0       | 0        | 33   | 4                    | 50    | 50   | 0    | 0    |  |
| Other        | 4                   | 50    | 50      | 0        | 0    | 4                    | 0     | 100  | 0    | 0    |  |

<sup>&</sup>lt;sup>2</sup>Includes Becker County.

<sup>&</sup>lt;sup>3</sup>Includes Mahnomen County.

<sup>&</sup>lt;sup>4</sup>Includes Redwood, Fairbault, Yellow Medicine, Lac Qui Parle, and Sibley Counties.

<sup>&</sup>lt;sup>5</sup>Includes Grant, Stevens and Big Stone Counties.

<sup>&</sup>lt;sup>6</sup>Includes Ottertail County.

<sup>&</sup>lt;sup>7</sup>Other insecticides were Thimet (2 uses) and Asana (3 uses).

Total 330 54 37 5 3 201 39 45 12 4