

# Five-Acre Corn Club Contest Announces 1999 Winners

(Continued from Page 19)

## Cultural Practice Summary

Management factor	Entries	Bu/A	%H2O	Population	%Down	%Barren
<b>Cultivation</b>						
No	55	134.5	21.0	25640	4.6	7.2
Yes	7	145.5	20.8	24618	1.0	4.5
<b>Row Spacing (inches)</b>						
30	47	137.8	21.3	26251	4.1	6.3
36	6	124.6	21.1	24554	0.7	6.6
38	8	115.1	20.0	22589	7.9	11.7
<b>Tillage</b>						
Minimum	28	135.6	21.5	25856	2.8	6.0
Conventional	12	133.1	20.3	23814	4.1	10.1
No-till	18	139.0	21.1	25907	6.6	6.9
Ridge	2	120.1	17.9	27318	1.1	1.7
<b>Average all club members</b>	<b>62</b>	<b>135.7</b>	<b>21.0</b>	<b>25524</b>	<b>4.2</b>	<b>6.9</b>

Average N applied (lb/A): 133  
(does not include manure and previous crop credits)

Average starter fertilizer rate (lb/A): 173

Percentage of fields receiving a sidedress N application: 52%

Average sidedress N application: 113 pounds

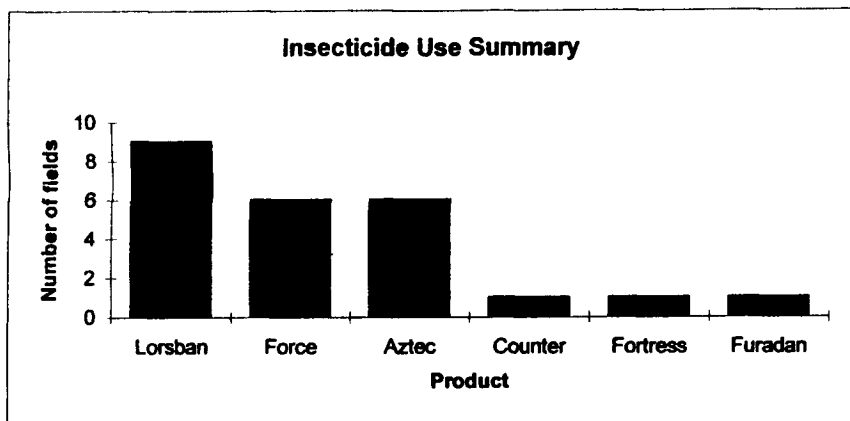
Percentage of fields receiving a row insecticide:

Previous crop	Percentage
corn	62.5%
alfalfa/hay	33.0%
soybeans	28.0%
wheat, barley	33.0%

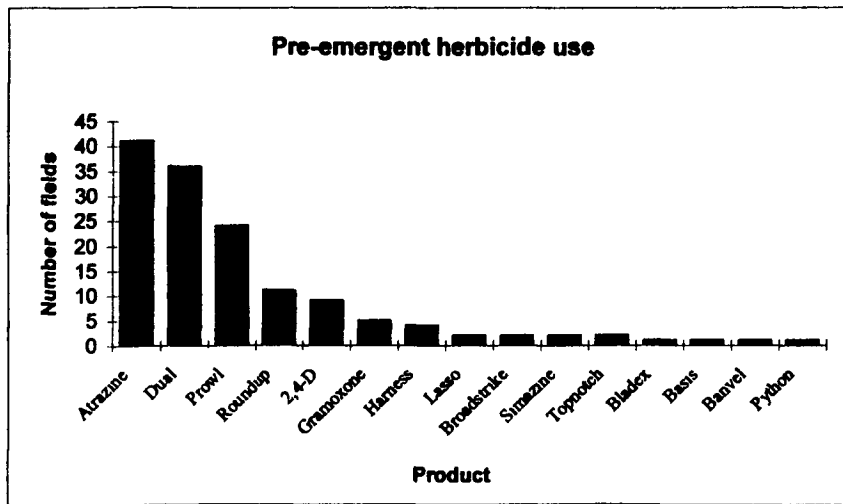
Average planting depth: 1.7 inches

Corn acres grown by participants: 16609

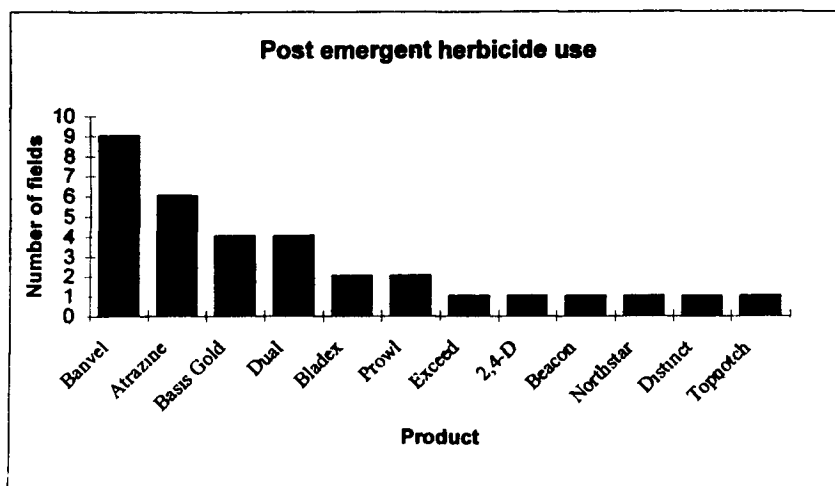
The graph below reflects the use of the soil insecticides reported in the Club



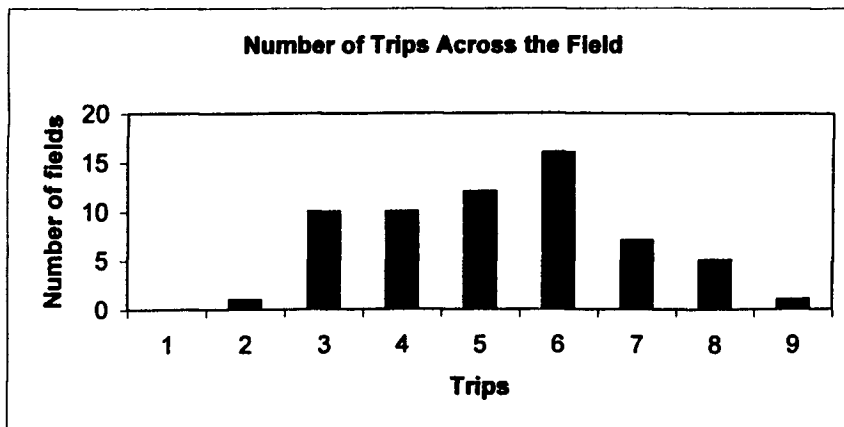
Below is a distribution of the most popular pre emergent herbicides applied to Corn Club fields.



Below is a distribution of the most popular post emergent herbicides applied to Corn Club fields.



There was a wide variation in the number of trips made across Corn Club fields.



### Leading Researchers Take Issue Regarding Genetically Engineered Crops

Two prominent entomologists, including one from Cornell University, have warned that recent studies on the effects of genetically engineered crops have distorted the debate about engineered crops and that this could have "profound consequences" for science and public policy.

One study was led by Cornell Assistant Entomology Professor John Losey suggesting that Bt corn pollen can kill monarch butterfly larvae. In the article, "False Reports and the Ears of Man," Cornell Entomology Professor Anthony M. Shelton and University of

Adelaide, Australia, Professor Richard T. Roush urge that the public should not be swayed "by laboratory reports that, when looked at with a critical eye, may not have any reality in the field even in the laboratory."

Shelton and Roush question whether the cornell monarch butterfly study was realistic.

"If I went to a movie and bought a hundred pounds of salted popcorn, because I liked salted popcorn, and then I ate the salted popcorn all at once, I'd probably die. Eating that much salted popcorn simply is not a real-world situation. But if I died, it may be reported that salted popcorn was lethal," Shelton said in an interview.

### Grain Producers Offered Guidelines For Genetically Modified Crops

With resistance to products containing genetically modified ingredients in Europe and Asia rising in recent weeks, growers need to focus on how to manage the marketing of their grain.

According to Dr. Neil E. Harl, professor of agriculture and economics at Iowa State University, it's especially critical for those producing non-biotech varieties.

Here's what producers can realistically do:

- State that no seed represented by the seed company as biotech seed was planted.
- State that seed representative by the seed company as conventional seed was planted.
- State that care was taken in avoiding contamination in bins, augers and the combine.

Here's what producers should be careful not to do:

- State that the crop in question has no biotech germplasm.

- State that no contamination has occurred from mechanical handling and storage of the crop.
- State that no contamination has occurred from pollen drift.

### Biotech Produces Golden Rice

Greg Roth  
Penn State Agronomy  
Associate Professor

In the January 14, 2000 edition of Science magazine, a report by X. Ye et al and others described the development of rice plants using biotechnology that accumulate beta carotene (Vitamin A) in the grain.

This development of "golden rice" is significant because more than half of the world's population eat rice daily and rice is a poor source of many minerals and vitamins. In Southeast Asia, for example, approximately 70 percent of the children under five suffer from vitamin A deficiency. UNICEF (United Nations Children's Fund)

predicts that improved vitamin A could prevent 1 to 2 million child death each year.

The rice was developed by inserting three genes that encode for three different enzymes that are necessary for the biosynthesis of beta-carotene in the endosperm. Variety development and field testing remain to be completed, but if the testing is successful, this could be a major development similar to the green revolution.

The Rockefeller Foundation, the Swiss Federal Institute of Technology, and the European Community Biotech Program funded this work. Since these are public sources of funding, the rice should be freely available to farmers who need it most.

If this program is successful, it will be a major boost to the proponents of biotechnology, because it demonstrates the potential of the technology to address consumer problems, even for the less developed countries.