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Areawide IPM Project Under Way to Assist Nebraska Wheat Growers

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Cornhusker Economics

Cooperative Extension

Institute of Agriculture & Natural Resources Department of Agricultural Economics University of Nebraska – Lincoln

Areawide IPM Project Under Way to Assist Nebraska Wheat Growers

Market Report	Yr Ago	4 Wks Ago	7/9/04
Livestock and Products, Weekly Average			
Nebraska Slaughter Steers, 35-65% Choice, Live Weight	\$75.32	\$90.66	\$85.07
Nebraska Feeder Steers, Med. & Large Frame, 750-800 lb Nebraska Feeder Steers,	*	124.50	143.40
Med. & Large Frame 550-600 lb Choice Boxed Beef,	92.88	120.17	130.48
600-750 lb. Carcass	129.95	155.38	141.48
Carcass, Negotiated	59.92	76.63	77.14
45 lbs, FOB Pork Carcass Cutout, 185 lb. Carcass,	41.53	44.37	41.12
51-52% Lean Slaughter Lambs, Ch. & Pr., 90-160 lbs.,	66.22	81.36	82.25
Shorn, Midwest National Carcass Lamb Cutout, FOB	*	97.50 *	97.50 232.99
ТОВ			202.00
<u>Crops,</u> Daily Spot Prices			
Wheat, No. 1, H.W. Omaha, bu	3.11	3.76	3.64
Corn, No. 2, Yellow Omaha, bu Soybeans, No. 1, Yellow	2.07	2.59	2.35
Omaha, bu Grain Sorghum, No. 2, Yellow	5.98	8.73	9.35
Columbus, cwt Oats, No. 2, Heavy	*	4.11	3.63
Minneapolis, MN , bu	1.49	1.67	1.59
<u>Hay</u> Alfalfa, Large Square Bales, Good to Premium, RFV 160-185			
Northeast Nebraska, ton	117.50	117.50	115.00
Platte Valley, ton	70.00	62.50	62.50
Northeast Nebraska, ton	*	57.50	57.50
* No market.			

Areawide wheat Integrated Pest Management (IPM) is a program of the United States Department of Agriculture -Agricultural Research Service (USDA-ARS). To implement the program, the USDA-ARS established cooperative agreements with research and extension professionals from five universities: Colorado State University, Kansas State University, Oklahoma State University, Texas A&M University and the University of Nebraska. The four-year implementation phase of this program began in the fall of 2002. The main theme of the program is to collaborate with growers of dryland winter wheat to evaluate and demonstrate non-chemical pest management techniques, with particular emphasis on the management of the Russian wheat aphid and the greenbug.

Chemical control of infrequent widespread outbreaks of insect pests in dryland winter wheat is undesirable, as the cost is typically too high to maintain acceptable profit margins in winter wheat (Dhuyvetter, et al., 1996 and Holtzer, et al., 1996). The consequence of this is that growers do not typically budget for insecticide applications or carefully monitor their fields for aphid outbreaks. When outbreaks do occur, insecticide applications are more likely to be made after substantial crop damage has occurred.

For the Russian wheat aphid and greenbug, host plant resistance, cultural practices and biological control by natural enemies have the greatest potential for preventive pest management (Peairs, 1998 and Souza, 1998). The latter element, biological control, may be enhanced by widespread utilization of simplified and proven methods of insect field scouting for determining insecticide spray thresholds on a site-by-site basis.

A central theme from the literature is that preventive tactics are most likely to succeed when implemented in a diversified cropping system; in this case, where winter wheat is grown in rotation with spring or summer crops. These tactics, if incorporated into the management system



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as routine practices, can prevent economic levels of pest infestations from occurring. Successful preventive pest management maintains pests below economic thresholds most of the time.

Economic surveys and focus group meetings have been completed with 146 growers throughout the six state study area. These growers represent nearly 400,000 acres in the region, with over 168,000 acres of dryland winter wheat in 2002. The 2002 crop year was difficult in the study area, as only 65 percent of the acres planted were actually harvested for wheat. The 2003 crop year appears to be much better as we begin to look at preliminary data from the second survey.

The goal for the economic portion of this project is to develop an understanding of those management practices that can be implemented in these integrated pest management programs in the most economically viable manner. The cross section of growers is providing a data base that will allow for the analysis of those practices that are most profitable under the conditions present in the four years of this study. Much of the data that is available at the present time is demographic in nature, but economic cost and return information will be analyzed over the next few months.

Discussion in the focus groups showed that producers may be making a significant number of their production decisions based on the farm programs and risk management

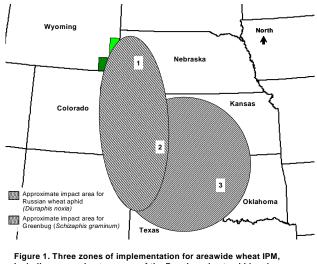


Figure 1. Three Zones of implementation for areawide wheat IPM, including approximate ranges of the Russian wheat aphid and greenbug and clusters of counties with participating growers (darker shaded counties contain field demonstration sites)

tools available to them. The information gathered during this project may be used to assist these producers in the decision making process. Stay tuned for further updates on this work as we move forward through the next three years.

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Project Zones	Focus Group Numbers and Locations (conducted January-N	March, 2003) Demonstration Field Sites	Participating Growers
1	01 & 02 - Scottsbluff, Nebraska	2	14
	03 & 04 - Pine Bluffs, Wyoming	2	14
	05 & 06 - Brush, Colorado	2	18
2	07 & 08 - Lamar, Colorado	4	19
	09 & 10 - Etter & Perryton, Texas	3	12
	11 & 12 - Umbarger & Claude, Texas	2	14
3	13 & 14 - South Hutchinson, Kansas	2	13
	15 & 16 - Cherokee, Oklahoma	2	17
	17 & 18 - Blackwell, Oklahoma	2	12
	19 & 20 - Altus, Oklahoma	2	13
	Totals	23	146

Table 1. Number of Demonstration Field Sites and Participating Growers by Project Zones and Focus Group Locations, 2003