

Team	Cropping Systems
Program Title	Integrated Pest Management (IPM) Crop Survey in North Dakota
Program Coordinator(s)	Janet Knodel, Patrick Beauzay, Samuel Markell, Andrew Friskop, Greg Endres, Venkat Chapara, Lesley Lubenow, Chet Hill, DREC Area Agronomist (vacant)
Situation	<p>Each year, pests impact North Dakota’s crops, potentially causing large losses in yield and quality. Crop producers need up-to-date data on pest occurrence, distribution and severity, so that they can make informed and timely management decisions. Correct and timely management decisions can make the difference between profit and loss for a crop that year. As a result, each year a group of NDSU trained field scouts help producers stay informed about pest problems by surveying fields of major crops for pest occurrence and severity. The survey has been titled the ‘Integrated Pest Management (IPM) Crop Survey,’ with the intent that once pests are found, they need to be managed using IPM approaches. The annual statewide IPM survey of crops had provided valuable information about distribution and severity of pests. Extension meetings with stakeholders have been a foundation for promoting the implementation of IPM practices in agriculture. NDSU Extension continues to organize meetings on IPM education to keep stakeholders informed.</p>
Objectives	To coordinate IPM extension education for agronomic crops in North Dakota. This includes the annual IPM Survey for wheat, barley, soybean, and sunflower in North Dakota, and collaborative interdisciplinary IPM trainings at extension meetings.
Extension response (planned activities – meetings/workshops, bulletins, field days, etc.)	<ul style="list-style-type: none"> -Continue to produce new and revised extension fact sheets on IPM and pests -Update IPM PowerPoints for use by extension agents / specialists -Delivery IPM information via: <ul style="list-style-type: none"> • NDSU Extension Service Crop and Pest Report • County Ag Alerts & Ag News releases • AgDakota listserve • IPM maps posted weekly at http://www.ag.ndsu.edu/ndipm/ -Provide IPM update at the 2015 NDSU Extension meetings: <ul style="list-style-type: none"> • <i>Getting It Right Soybean Production</i> meetings • <i>Best of the Best in Wheat and Soybean/Corn Research</i> • <i>2014 Wild World of Weeds Workshop</i> in Fargo • Commodity/stakeholder meetings -Provide IPM updates on pest issues at the NDSU REC Field Days

Evaluation plan/tool	<p>-Pre- and Post-surveys at meetings/field days, when appropriate. -Hits to IPM website.</p>
Anticipated impacts	<p>Producers will be able to make more informed decisions about which IPM strategies are the most economical for control of pests of field crops in North Dakota.</p> <p>For the IPM survey of agronomic crops, a NDSU Extension Impact Statement entitled "NDSU Extension's IPM Survey Program Combats Crop Insects and Diseases" was developed in 2012 for the state legislators of North Dakota and IPM stakeholders. Short and long-term benefits were identified. Long-term benefits of the IPM Survey are:</p> <ul style="list-style-type: none"> • Insect and disease occurrence or absence helps validate pest forecasting models • Support export of agricultural commodities as free of regulatory pests • Shifts in disease presence and severity may indicate a pathogen race change, necessitating new management strategies • Detection of pest resistance to pesticides • Educational and research program needs identified • Improve economic profitability of farms • Reduced environmental impacts from pesticides