



# Integrated Pest Management (IPM) Crop Survey Reduces Pesticide Inputs and Increases Farm Profitability

## Public Value Statement

The NDSU Extension IPM Crop Survey helps farmers use IPM strategies for management of crop pests, and promotes the judicious use of pesticides for economic and environmental sustainability.

## The Situation

Each year, insects and diseases attack North Dakota's field crops, potentially causing economic losses in yield and quality, and blocking exports. Farmers need up-to-date data on the occurrence, distribution and severity of both endemic and invasive pests that may rob them of yield and export markets.

## Extension Response

Each year, the statewide Integrated Pest Management (IPM) Crop Survey Program trains six to eight NDSU field scouts on pest problems of wheat, barley, soybean and sunflower. Scouts survey for endemic and invasive pests documenting their occurrence and severity, and helping farmers stay informed about pest problems. When economic pests are found, farmers are encouraged to use an IPM approach.

## Impacts

The IPM Survey provides near real-time information on pests affecting crops during the current growing season. Survey results also identify future new pests to ND, such as soybean gall midge. Outcomes related to the IPM Crop Survey were documented from a 2020 *Crop & Pest Report* reader survey.

## Short-term outcomes:

- 91.6% of survey respondents agreed that the IPM information was timely
- 91.5% indicated increased knowledge about insects and diseases and management

- 94.8% agreed that the information provided on pests, IPM and crop production was reliable and unbiased
- The NDSU IPM website received 866 visits from 12 countries, 6,553 pageviews and 53.1% were new visitors

## Medium term outcomes:

- 87% of survey respondents used pest identification
- 90.9% used pictures/videos of pests, pest damage or crop problems
- 73.5% used IPM maps of pest incidence and severity
- 74% used recommended pest scouting protocols
- 75% used economic/action thresholds to make pest management decisions
- 74.3% used recommended pest management options for control

## Long term outcomes:

By using IPM practices, the following long-term benefits are achieved.

- Reduced pesticide input by following economic threshold guidelines and alternative management practices
- Lower human health risk due to lower pesticide exposure through safe handling and application

