

Summary: (250 words)

Biological control is an area of pest management in which the Northern Plains agricultural producers and others need training to keep up with rapidly developing technology. The purpose of this project is to build agricultural professional understanding of biocontrol techniques in order to incorporate them into current integrated pest management (IPM) programs, and ultimately mitigate environmental pressure from the use of conventional insecticides. This three-phase training proposal will cover the implementation of biocontrol (conservation and augmentation) in crop production systems in the Northern Plains. **Objective 1 Course**

Development: Over 18 months, biocontrol methods will be implemented for the control of insect pests (Wheat Stem Sawfly, Wireworms, Orange Wheat Blossom Midge, Flea beetles, Diamondback Moth, etc.), and weeds (Spotted Knap Weed, Salt Cedar, Purple Loosestrife, and Houndstongue). Photos of biocontrol agents, pest damage symptoms and weed species, as well as release schedules will be collected and developed into an instruction manual: Implementation of Biological Control of Major Insect Pests and Weeds in Northern Plains. **Objective 2**

Instruction: For four months (about 160 hours), 20 ag professionals will be instructed about biocontrol of pests using materials developed in Objective 1. **Objective 3 Training Workshop and Evaluation:** The Principle Investigator, agricultural professionals and project coordinators will host a field day for growers and the general public. Two months after the field day, the agricultural professionals will meet to provide feedback on the effectiveness of the project and to evaluate long-term gains in their knowledge of biological control methods.