Assessment of Alfalfa Pest Management Challenges in Wyoming

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Alfalfa is a major crop throughout the Intermountain West, including Wyoming (Figure 1), but is susceptible to a suite of insect pests, most notably the alfalfa weevil. Considerable economic and environmental costs of chemical pest management highlight a critical need to develop more effective and efficient control strategies. This need aligns with the goal of Wyoming producers to “improve agricultural productivity considering economic viability and stewardship of natural resources (Wyoming Production Agriculture Research Priorities 2012).” An essential first step to accomplishing this goal is to assess the current state of alfalfa pest management challenges and strategies in Wyoming so that new or modified approaches align with farmer priorities.

Objectives
Our specific objective is to define farmer priorities and decision-making strategies regarding pest management through focus groups with farmers and surveys distributed statewide.

Materials and Methods
In 2014 and 2015, we conducted focus groups with farmers in Goshen, Platte, Fremont, and Park counties, ranging in size from 3–9 farmers, with an average of six farmers per group. Randa Jabbour moderated the discussions, and Shiri Noy and one student were present as note-takers. We asked farmers which alfalfa pests they had encountered, which pests they considered most problematic, and how they solved these pest problems. We also asked farmers

Figure 1. Alfalfa hay is the most important crop in Wyoming in terms of value (in 2013, for example, its value was $278 million).

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which pest management information would be useful for them.

Results and Discussion
We are currently analyzing and summarizing the wealth of information gained from this project. We present an initial summary here. In all four focus groups, farmers agreed that alfalfa weevil was the most problematic pest in alfalfa hay, due to how quickly and dramatically they can defoliate alfalfa. The most common pest management strategies used included chemical control prior to the first cutting and an early first cutting. The second most problematic pest in alfalfa hay differed depending on the focus group, with groups either being more concerned about late-season infestation of aphids or grasshoppers moving in from the edges of fields. Finally, in Park County, there were also alfalfa seed producers who participated in the focus group. They uniformly agreed that their most problematic pest is the Lygus bug, which they attempt to control using a series of chemical applications.

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