

WISCONSIN & MINNESOTA - A Preliminary Update on 2013 Evaluation of Headline® Fungicide on use on Alfalfa

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University of Wisconsin Extension, University of Minnesota Extension, and USDA-ARS researchers conducted field research evaluating Headline® fungicide on alfalfa in 2011 and 2012. Results indicated forage yield and quality were not consistent with disease control across harvests, locations, and years. In 2011, there was a statistically significant yield response in 6 of 14 comparisons ($\alpha=0.10$) from the Headline application with and without insecticide (Warrior II®). In 2012, there was a statistically significant positive yield response in 9 of 28 comparisons and in one comparison a statistically significant negative yield response. In 2013, Headline treatments were evaluated to gather additional site-year data. Warrior II was compared to Warrior II plus Headline. To increase precision, additional replicates were used. Warrior II was applied to help rule out damage from alfalfa insect pests.

Methods

In 2013, the Rochester, MN trial was conducted on a University of Minnesota Research site; the Wisconsin trials, Cashton and Waupaca, were conducted in grower fields. A randomized complete block experimental design was used with six replicates. Treatments were made at recommended label rates. Application timing was 6-9" of growth. Trials were conducted on first, second, and last cutting before September 1st. Wisconsin plots were harvested on a cutting schedule to maximize quality for dairy forage. Rochester had two cutting schedules, one for dairy quality and one for heifer/beef cattle. Yields were taken using small plot harvesters. Subsamples for quality analysis and disease assessment were collected prior to harvest. Yield (tons/ac) and forage quality data were collected. Disease assessment samples were sent to Samac and Smith for foliar disease ratings and subsequent pathogen isolation.

2013 Results

Positive yield response using Headline was observed in 5 of 12 comparisons with 0.07-0.28 tons dry matter/ac (average of 0.17 tons/ac) over Warrior II alone. Forage quality analysis indicated the Headline application had a significant negative influence on crude protein in 3 of 12 comparisons; there was no significant difference in crude protein in the other 9. The Headline application had a significant positive influence on net energy of lactation (NE_l) in 1 of 12 comparisons, however, no difference in NE_l was noted in the other comparisons.

Conclusion

Results observed in 2013 are similar to 2011 and 2012 results. Yield responses were observed less than half the time and response has been inconsistent across locations and cuttings. When complete 2013 feed price data is in, an Extension fact sheet will be available including economic analysis with return on investment using the procedure developed in 2012 (FEEDVAL2012 and Milk 2006).