Residual Weed Control is Key to Alfalfa Hay Yield and Quality

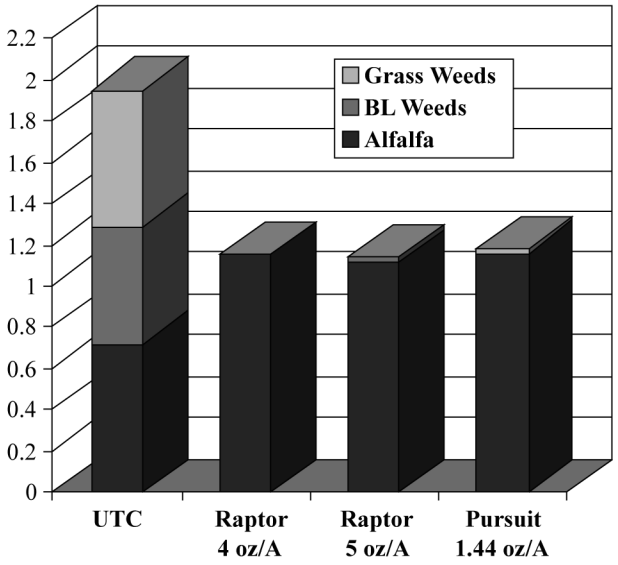
by Duane Rathmann, BASF

Alfalfa, America's favorite forage crop, is known for two major benefits: resilience and economic returns. Because of alfalfa's great importance as the preferred forage for cattle, horses and other livestock, weed control has become an increasingly important component of alfalfa production.

Weeds are the biggest single threat to alfalfa, directly impacting the quality of the end product, and more importantly, the price. In fact, up to one pound of yield is lost for every one pound of weeds. Recognizing this, BASF has studied the impact of herbicide treatments on forage quality, yield and market value.

Weeds pressure alfalfa in the same way as any other crop by competing for light, nutrients and moisture. This is why residual weed control is a better option. Prevalence of weeds causes significant reductions in stand during establishment, and stand longevity in the long run. Once alfalfa is established, it will not fill in thin stands on its own, which increases the probability of weed infestations year after year. For this reason, controlling weeds during establishment is absolutely essential in the production of alfalfa hay that contains both a high relative feed value (RFV) and crude protein (CP) content.

Upper Midwest: Relationship Between Yield and Forage Quality in Seedling Alfalfa



Trials conducted by the University of Wisconsin, 1999.

Roundup Ready® alfalfa has become increasingly popular; however, while Roundup and similar contact herbicides are excellent tools in controlling the initial advances of weeds, they must be continually applied in order to be effective as a long term solution to weed problems. Raptor® herbicide is a product designed by BASF that can provide residual protection against subsequent flushes of weeds after application, and can reduce or eliminate the need for constant treatments. Raptor is registered for postemergence grass and broadleaf weed control in both seedling and established alfalfa.

With a premium being placed on alfalfa hay of the highest quality for forage, grass and broadleaf weed control in not only seedling, but also established alfalfa it has become imperative for a grower to be financially successful in the alfalfa market. A number of on-farm trials have confirmed that Raptor increases RFV and CP in first cut alfalfa crops by controlling annual weeds, but the best way to protect against continual weed infestations year in and year out is to establish a good, uniform stand in that first year. By offering residual protection against summer and winter weeds, Raptor helps form full stands by offering lasting protection beyond its initial application that can foster quality crops again and again.

Alfalfa growers also have access to another cost-effective new weed control option with the EPA registration last Fall of Prowl® H2O herbicide for use in all alfalfa crops. Prowl® H2O provides excellent residual weed control whether growing a conventional or glyphosate-tolerant alfalfa crop.

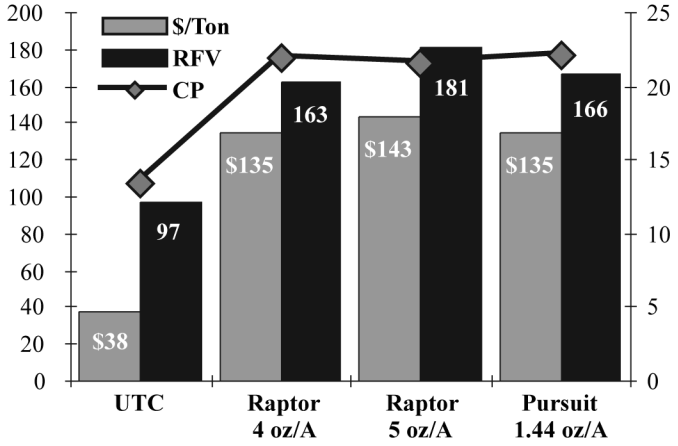
The water-based formulation of Prowl® H2O maximizes its availability for residual weed control through superior surface stability and reduced binding to field residue. As a result, it leaves more active ingredient available for weed control, and is ideally suited for dependable, broad spectrum weed control for alfalfa.

With alfalfa, growers know that weeds in the field translate into a lower price on the market. While fields with weed infestations may yield comparable or better numbers in terms of tons per acre, the price per ton is significantly lower because of the low RFV and CP values of hay that contains proportionally more weeds. Independent studies conducted through the Universities of Wisconsin, Wyoming, Kansas State, and California-Davis all found that compared to untreated checks, fields treated with Raptor yielded alfalfa crops that were valued significantly higher, with a difference of up to $100 per ton. High RFV and CP are good for livestock, but what counts for the grower is an end product with a high market value.

A BASF study in Wisconsin determined a price advantage in fields of established alfalfa treated with Raptor as well. Established, untreated fields produced a crop valued at $64 per ton in the study, whereas Raptor treated fields yielded hay at $117 per ton. The residual protection kills unwanted broadleaf weeds and grasses, and keeps them from coming back. When the alfalfa is ready to be cut, growers aren't harvesting invasive plants that they didn't intend to grow, which can drastically reduce the quality and ultimately the price of their crop.

Weed management is an issue that field crop farmers must deal with on a continual basis. There is no silver bullet that will eliminate the threat of weeds completely, but by applying a herbicide with a lasting residual effect that can keep the threat to a minimum, a grower can establish solid alfalfa stands that will produce a successful and economically productive crop for years to come.

Upper Midwest: Effect of Forage Quality on Market Value of Seedling Alfalfa



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