The Effects of Drought in Alfalfa & Increased Demand for Fall Planting

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rought conditions across the Midwest during the spring and summer of 2012 – combined with a late spring frost in Wisconsin – will likely result in a yield shortfall from the spring-planted and established alfalfa crop stands this year. This yield shortfall may result in upward pressure on alfalfa hay prices, as well as potential spot shortages of alfalfa hay in some parts of the U.S., particularly the Midwest. To offset these yield losses, growers will more than likely increase fall plantings of alfalfa this year.

According to research conducted at the University of Wisconsin, alfalfa can go dormant during extended dry periods, and is one of the few legumes that can withstand long-term drought and still recover once adequate rainfall or irrigation occurs. Alfalfa plants can survive as long as their crown and roots remain viable.

When alfalfa is subjected to drought conditions, the feed quality often increases. This is because the plant responds by decreasing the stem number and their elongation, inadvertently increasing the leaf to stem ratio. This results in an increase in forage quality, including higher crude protein and digestibility.

Researchers at Michigan State University point out that, during drought, forage is often in short supply, and producers are driven to look for every possible pound of yield. Harvest timing decisions should be based on plant maturity stage and yield estimate. Whenever plants are stressed, it becomes especially important to make sure they are allowed to replenish the energy and protein stores in the roots, which is vital to support new growth from buds in the crown once conditions improve.

The big question when deciding whether or not to harvest a droughty alfalfa crop is whether or not enough yield exists to cover the cost of harvest. Keep in mind that the value per ton of forage may increase when supplies are short, and this might allow a profitable harvest at lower yields than the normal break-even yield.

Fall Planting & Establishment

For those growers who are experiencing a shortfall of alfalfa production due to the drought, they may want to consider additional plantings in the fall beyond what they had planned before the drought conditions occurred.

Fall is generally regarded as the best time for alfalfa establishment, especially when there is adequate moisture available. An alfalfa stand seeded in the fall is typically more productive during the first growing season than a spring-seeded crop, even though yield levels tend to match spring seeding after the first season. Fall seeding may also give the grower a jump on weed control compared with fighting winter annuals in the spring.

Growers who plant alfalfa this fall will find that the Genuity[®] Roundup Ready[®] Alfalfa technology makes fall establishment much easier and more manageable compared with planting conventional alfalfa at that time of year.

This ease of fall alfalfa stand establishment with the technology is due to the level of weed control that can be achieved by applying Roundup® agricultural herbicides over the top of the alfalfa. Weeds that compete directly with newly-seeded alfalfa for precious moisture can be taken out of the equation when emerging alfalfa is sprayed without concern for crop stunting, giving the newly-emerged alfalfa a better chance for clean establishment.

Since this technology became available to growers again, Monsanto has worked closely with seed dealers, retailers, and farmers to track the technology's performance in key alfalfa-growing areas of the United States.

For instance, grower surveys that Monsanto has conducted for which growers track yield and quality results and self-report results indicate, on average, a one-half-ton-per-acre per year yield advantage when growing Genuity Roundup Ready Alfalfa, compared with conventional alfalfa varieties. With current alfalfa prices averaging \$200 per ton, this yield advantage can translate into an additional \$100 per year of revenue for the grower.

These surveys have also shown substantial improvements in Relative Feed Quality (RFQ) or Relative Feed Value (RFV) from the technology. Growers planting Genuity Roundup Ready Alfalfa averaged a RFQ or RFV quality of 187 – versus a score of 163 for conventional alfalfa. That is a 24-point advantage in terms of feed quality value, and each of those extra points translates into roughly \$1.00 in potential extra revenue. So, with an extra 24 points for higher-quality hay, growers can potentially obtain approximately \$24.00 per ton in additional return.

Genuity® Roundup Ready® Alfalfa seed is available for sale and distribution by authorized Seed Companies or their dealers for use in the United States only. This seed may not be planted outside of the United States, or for the production of seed, or sprouts.

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