



Spring 2010

the HAYMAKER

PROGRESS IN ALFALFA RESEARCH AND MANAGEMENT

Roundup Ready® Alfalfa Update

EIS Comment Period Closes

On March 3, 2010, the USDA formally closed the comment period for the RRA draft Environmental Impact Study (EIS). While the USDA is still processing comments, well over 1,500 positive grower comments were submitted in support of this technology. We'd like to thank those growers who took time to comment on the potential benefits (economic and environmental) of RRA in their farming and haying operations.

The USDA/APHIS draft EIS, ordered by a federal judge in 2007, recommended that RRA be de-regulated and once again become available for farmer planting. It will take the USDA several months to review all comments, draft a final version of the EIS, and finalize a decision regarding the de-regulation of RRA. Go to www.roundupreadyalfalfa.com for updates and additional information on the regulatory status of RRA as this long process moves towards completion. ■



U.S. Supreme Court Reviews Ban on Roundup Ready® Alfalfa

On January 15, 2010, the U.S. Supreme Court granted a petition for review of a March 2007 federal district court order which halted planting of Roundup Ready alfalfa (RRA), pending completion of an Environmental Impact Statement (EIS) by the USDA. The petition for review was filed with the U.S. Supreme Court by Monsanto Company in October 2009. The company argued that the 2007 ban on planting RRA should not have been ordered without first holding an evidentiary hearing. Monsanto further argued that the ban imposed unnecessary costs and restrictions on both alfalfa hay and alfalfa seed growers, and that alfalfa growers deserve choice in the products that are available to them. The Supreme Court heard arguments in the case on April 27, 2010 with a possible decision by early Summer. Stay tuned to www.roundupreadyalfalfa.com for more information. ■

WL 363HQ Out-Yields HybriForce in California

The release of hybrid alfalfa in the West has generated some interest in the alfalfa community. Are these new hybrid alfalfas significantly higher yielding? Recent promotional material suggests that hybrid alfalfa can improve forage yields by at least 15% over conventional alfalfas. These claims puzzle us, since extensive yield testing in both University and private trials have shown HybriForce alfalfas to yield well within the range of conventional alfalfas (e.g. WL 363HQ). For example, in a recent replicated multi-year yield evaluation at Woodland, CA, WL 363HQ out-yielded two HybriForce alfalfas (see Yield Table) by 4% and 20%, respectively. Forage quality was also evaluated in this trial, and WL 363HQ delivered a %TDN of 61.3 vs. 60.3 %TDN for HybriForce-620. In summary, WL 363HQ not only out-yielded HybriForce-620 by 4% in this comparison, but also delivered one full percent higher TDN when compared to the hybrid alfalfa. Impressive performance from "conventional" WL 363HQ. ■



WL 363HQ Beats HybriForce at Woodland, CA

2008-2009 Yield Results (12-Cut Totals)

VARIETY	YIELD (T/A)
WL 363HQ	13.10
HybriForce-620	12.64
LM 459	12.32
CW 500	11.28
HybriForce-420	10.89

Sulfur May Be Limiting Alfalfa Yield, Persistence

In many regions of the Midwestern and Northeastern U.S., sulfur (S) is a nutrient that can limit optimal alfalfa growth. This has not always been the case. The reduction in sulfur containing (acid) rain from cleaner coal-fired power plants has produced many instances of positive yield responses to supplemental S applications. In the last 20-30 years, sulfur concentrations in rain have declined over 40%—great for the environment but bad for alfalfa. In fact, S application to alfalfa is now an economically viable fertilization practice on many soils, increasing alfalfa yields and enhancing stand persistence and profitability.

Alfalfa yield reductions from S deficiencies are caused primarily by decreases in nitrogen-fixation in the root nodules—normal nodule function requires S to convert atmospheric N into forms useable by the alfalfa plant. The greatest positive impact from S applications to alfalfa on deficient soils appears to be on increased yield, not increased forage quality. Protein and relative feed value (RFV) levels in alfalfa on S-deficient soils do not usually increase after S application.

Soils with marginal S levels for alfalfa production are usually low in organic matter, well-drained, or highly leached through rainfall or irrigation, and have not received manure or other S-containing amendments. Inorganic soil S is mobile and susceptible to leaching losses, and soil tests alone do not usually give accurate information on the S status of the soil and/or the alfalfa stand.

Suggestions for Tissue Testing and Applying Sulfur to Alfalfa on Deficient Soils

For alfalfa, soil tests for sulfate-S in the 0-6" soil profile are NOT reliable indicators of S deficiency or need for S fertilization. The S concentration in tissue samples from the top 6" of growth at early bud stage is the best indicator of S deficiency and need for S fertilization. Apply sulfur if the S concentration from tissue tests is **less than 0.23%**

For confirmed S-deficient alfalfa soils (preferably from a tissue test), apply 20-30 lbs/a. Alfalfa will respond to S fertilizer applied

in prior years, so it is not necessary to apply S fertilizer every season. Avoid single, heavy applications of S since luxury consumption by the plant is possible. It has also been shown that applying S pre-plant to new alfalfa stands can carry the crop for 3-4 harvest years—even on lighter soils.

Sulfate forms of S fertilizers are immediately available for plant uptake, so are useful when immediate correction of S deficiencies are required. Elemental S must be applied well ahead of crop need, since the elemental S must be oxidized to the sulfate form before it becomes available to the plant; this can take time. Some studies have shown that sulfate-S was most effective when Spring-applied and elemental S when Fall-applied. ■



Sulfur Applied

Sulfur Deficient

Deficient plants tend to be entirely pale green or yellow, stunted, and unthrifty. Photo courtesy of Brian Lang-ISU.

FARMERS GIVE 6 REASONS WHY

W-L Alfalfas Yield More

1. "High germination, good seedling vigor:" More Yield.
2. "Relatively easy to establish:" More Yield.
3. "Fast growth and good stands:" More Yield.
4. "Greatest potential:" More Yield.
5. "Very responsive to good fertility program:" More Yield.
6. "Finer stemmed and leafier, with more shoots from each crown:" More Yield.

(1) So. Dakota dairy farmer; (2) Ohio hog and cattle farmer; (3) Minnesota dairy farmer; (4) Wisconsin dairy farmer; (5) Ohio hog and cattle farmer; (6) So. Dakota dairy farmer.

W-L Alfalfas marketed under these brands are bred to match local growing conditions. For yield proof and the W-L variety recommended in your area contact your nearest distributor.

We can prove it!

A Product of Continuing Research
WATERMAN-LOOMIS CO.
Bakersfield, California

GOLD PURE Brand
Germans Inc., P.O. Box 1925, Fresno, Ca. 93718
Scott Farm Seed Co., Mansfield, Ohio 43044
Beechey-Wardy Seed Co., Shrewsbury, Pa.
Old Fox Agricultural Sales, Inc., 66 Valley St., East Providence, R.I.
I. C. Babcock Seed Co., Waterloo, Nebraska 68090

INTERCROSS Brand
Cooks Seed Co., 1180 1/2 Concord St., St. Paul, Minnesota 55075
NEA Seed Division, P.O. Box 526, Marshfield, Missouri 65340
Midland Cooperative, Inc., 732 Johnson St., N.E., Minneapolis, Minnesota 55412

Some Things Never Change!

Fifty years ago (circa 1960), W-L ran this ad: "Farmers Give 6 Reasons Why W-L Alfalfas Yield More." In 1960, our top alfalfa was WL 202—50 years later, our top-yielding winterhardy alfalfa is WL 363HQ, a huge advance in variety performance. However, it's interesting how some things don't change—alfalfa producers then (1960) and now (2010) are planting the highest-yielding (and most profitable) alfalfas available: W-L Alfalfa. ■