

Hi-Gest[®] Low Lignin

ALFALFA TECHNOLOGY

Patents Pending

- **Higher intake and digestibility for more milk/meat**
- **Delivered in elite genetics**
- **Better quality without changing harvest practices**
- **Harvest flexibility options**



Very leafy with medium to fine stems.

Lignin is the complex organic compound that binds to cellulose fiber to harden and strengthen the cell walls of plants. In mature plant tissue lignin increases yield, but negatively affects forage quality and interferes with animal digestion. To minimize this yield versus quality dilemma, producers have traditionally harvested at late-bud stage or by one-tenth bloom to reach a compromise between yield and quality.

Through conventional plant breeding, Alforex Seeds has addressed this yield versus quality dilemma with Hi-Gest alfalfa varieties that provide a significant reduction in plant lignin and improved digestibility. The varieties trace to natural genetic variation within the Alforex germplasm collection that were identified by aggressive screening for low lignin as well as sound agronomic performance. The commercial Hi-Gest Low Lignin Alfalfa Technology varieties are estimated to have a 7 to 10% lignin reduction depending upon harvest maturity stage, management practices and variety.

Using the Milk 2013 Program* to calculate change, increasing Neutral Detergent Fiber Digestibility (NDFD) by one percent will increase Relative Forage Quality (RFQ) 2 to 3%, increase Milk Per Ton by 21 pounds and increase Milk Per Acre by 167 pounds. Additionally, Michigan State University shows that a one percent unit increase in forage NDF digestibility yields a +0.4 pound increase in dry matter intake and a +0.51 pound increase in milk.

Alfalfa varieties with Hi-Gest Low Lignin Alfalfa Technology do not require producers to adjust harvesting or feeding practices. They can produce dairy quality hay with high yield at their normal ~28-day cutting schedule, choose to increase yield out to ~35 days without sacrificing quality, use the technology to work around wet weather or manage tonnage and quality to maximize return per acre.

*<http://www.uwex.edu/ces/forage/pubs/milk2000.htm>

Hi-Gest[®] 360

Low Lignin Technology

Performance

- First commercially available low-lignin alfalfa variety for dormant producers. Variety Patents Pending.
- Whole plant lignin for Hi-Gest 360 is 7 to 10% lower than other dormant varieties for improved performance
- Product of conventional plant breeding
- No yield drag, no loss of pest resistance, no reduction in winter hardiness with 28 to 30 day harvest schedules

Management

- Adapted to today's best alfalfa management practices. No on-farm field or management adjustments needed to grow or feed.
- Hi-Gest 360 alfalfa offers a wider harvest window of up to 7 days if harvest timing is delayed past late bud or one-tenth flower
- Rations using Hi-Gest can be easily balanced by nutritionists with the results of an accurate feed test

Appearance at Harvest Maturity

- Plants are medium-tall, with a dense canopy of stems and leaves

Agronomics

Yield rating	5
Fall dormancy class:	FD 3
Winter hardiness class:	WS 1.5
Multifoliate leaf expression:	73%/Moderate MF
FastGrowth rating**:	1.83/Avg

Pest Package

	HR	R	MR	LR	S
Diseases					
Anthraxnose	●				
Aphanomyces-Race 1	●				
Aphanomyces-Race 2	●				
Bacterial wilt	●				
Fusarium wilt	●				
Phytophthora root rot	●				
Verticillium wilt	●				
Insects					
Blue alfalfa aphid		●			
Cowpea Aphid		●			
Pea aphid					
Spotted alfalfa aphid					
Nematode Resistance					
Northern root knot					
Stem					