

Pioneer® brand 11H50

Alfalfa Silage Inoculant



Pioneer® brand 11H50 is an alfalfa silage inoculant designed to:

- Help improve fermentation, retain nutrient content and enhance digestibility for animal performance

For stands with a minimum of 80% alfalfa.

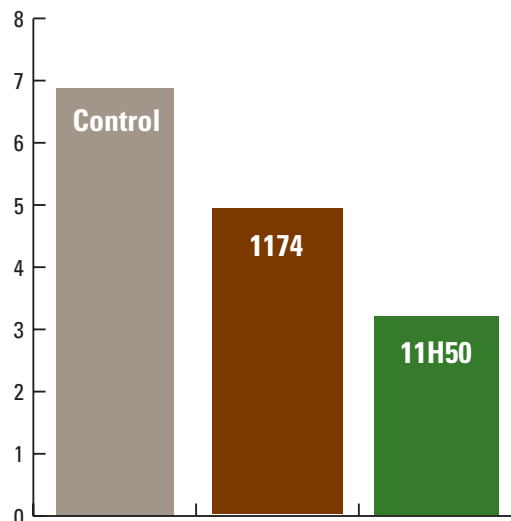
Available as a water-soluble product in packaging suitable for use in tank mixes or with the Pioneer Appli-Pro® Application Systems or as a free-flowing granular formulation for easy and convenient application.

11H50 contains a unique blend of proprietary strains of *Lactobacillus plantarum* formulated to:

- Promote faster, more efficient fermentation
- Improve dry matter recovery
- Reduce ammonia-nitrogen loss, for improved protein quality
- Improve alfalfa silage digestibility
- Reduce heating

Ammonia nitrogen as a percentage of total nitrogen

Three Trial Summary - DuPont Pioneer Livestock Nutrition Center



Economic significance: According to the CPM-Dairy Ration Evaluation and Formulation Model (CPM Ver 1.0), reducing ammonia-nitrogen lowers energy expenditure by reducing the excretion of excessive non-protein nitrogen (termed urea cost in the model). Assuming 10 lbs. of alfalfa silage dry matter intake/cow/day, 11H50 treated silage compared to control silage had an energy-sparing effect from reduced urea cost equal to .042 Mcal Net Energy of Lactation. This .042 Mcal NE-L equates to the energy in 35.7 bushels of corn or the energy to produce 8 lbs. more milk in every ton of alfalfa silage treated with 11H50.

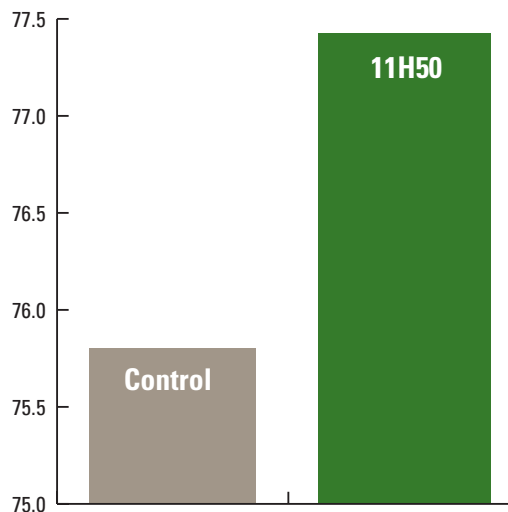
Available in Package Sizes:

***	Improves Fermentation
**	Enhances Bunklife
**	Improves Fiber Digestibility

Relative Ratings * = Good; ** = Excellent; *** = Outstanding, NA = Not Applicable. IMPORTANT: Information and ratings are based on relative comparisons with other Pioneer® brand inoculants within each specific crop, not competitive products. Information and ratings are assigned by DuPont Pioneer Forage Additive Research, based on average performance across area of use under normal conditions, over a wide range of both environment and management conditions, and may not predict future results. Product responses are variable and subject to any number of environmental and management conditions. Please use this information as only part of your product positioning decision. Refer to www.pioneer.com/inoculants or contact a Pioneer sales professional for the latest and most complete listing of traits and scores for each Pioneer® brand product. Fermentation – rate and extent of pH decline and the composition of fermentation acids occurring in silage. Bunklife – relative heat development compared to ambient temperature. Bunklife considers both how quickly silage begins to heat and the amount of heat generated while remaining above ambient temperature. Fiber Digestibility – the digestibility of neutral detergent fiber (NDF) by the ruminant animal expressed as a percentage of the total NDF.

Lbs./day of fat corrected (3.5%) milk

Three Trial Summary - Kansas State Univ. (2); Penn State Univ



Rations included 40-49% alfalfa silage (dry matter basis)

Economic significance: The average increase in milk/cow/day of 1.6 lbs. may seem incrementally small and very difficult to detect in herds given the daily variations in the bulk tank. However, it becomes much more significant when you calculate that this represents about 45 lbs. more "marginal milk" from every ton of alfalfa silage that is fed. If milk grosses 0.14/lb, this is a return of \$6.30 per ton treated with 11H50. This results in a 4.5:1 return on your investment in 11H50. The return from the additional milk must be added to the value derived from improved dry matter recovery. This represents a total return approaching 6:1 on the investment in 11H50 as an integral part of your alfalfa silage management program.

The DuPont Oval Logo is a registered trademark of DuPont.

Pioneer® brand products are provided subject to the terms and conditions of purchase which are part of the labeling and purchase documents.

®.™.SM Trademarks and service marks of Pioneer. ©2013, PHII 13-458-7

