



Benefits

- ✓ Reduces yeast and mold growth
- ✓ Reduces spoilage
- ✓ Protects forage protein from fermentation heating
- ✓ Safe for equipment and human health

Features

- ✓ Concentrated liquid *L. acidophilus* fermentation product
- ✓ Time-proven research and field results
- ✓ Source nutrients to feed bacteria to competitively exclude yeasts and mold
- ✓ Flexibility of application at the time of cutting or baling

Promote® Forage-Mate® HayDefender liquid hay treatment is a liquid *Lactobacillus acidophilus* fermentation product to enhance the forage quality and preservation of higher-moisture hay by restricting yeast and mold growth. Hay-Defender offers the flexibility of application at cutting or baling, while being safe for equipment and human health.

Hay-Defender is for hay producers seeking to enhance forage quality and preservation of higher-moisture hay.

Recommended Usage:

Recommended Baling Moisture Rates:

	Alfalfa	Alfalfa/grass or grass
Small square	<23%	<21%
Large round	<20%	<18%
Large square	<18%	<16%

Application Rate:

Tons of Hay	50	100	150	200
HayDefender, gal	1	2	3	4
Water, gal	11.5	23	34.5	46
Total	12.5	25	37.5	50

Discard combined Hay-Defender-water solution after 72 hr of mixing.

Packaging & Forms:

2-gal jug Treats 100 tons of hay
 Case of 2 jugs (2 gal each) Treats 200 tons of hay
 55-gal barrel Treats 2,750 tons of hay
 250-gal tote Treats 12,500 tons of hay

Effect of applying Hay-Defender at baling to large-round alfalfa bales

	Control	Hay-Defender
Baling Moisture, % (After 4 weeks of storage)	21.3	23.6
Moisture, %	14.9	15.3
Protein, %	17.2	17.8
ADICP ² , %	11.8	7.4
Spoiled bales, %	60.0	0.0

¹Research conducted by TransAgra, Intl., Storm Lake, IA

²Acid detergent insoluble crude protein, % of crude protein

Guarantee:

Crude protein (Min) 4.0%
 Crude fat (Min) 0.1%
 Crude fiber (Max) 0.5%

Ingredients:

Liquid *Lactobacillus acidophilus* fermentation product and lactic acid.