

SILO CAPACITY CHART

TONS AT VARIOUS MOISTURES

SILO SIZE	HIGH MOISTURE FORAGES				
	70%	65%	60%	55%	50%
12x30	70	61	52	47	42
12x40	106	93	80	72	64
12x50	147	129	110	99	88
12x60	192	160	142	129	114
14x40	145	128	110	99	88
14x50	200	175	150	135	120
14x60	260	228	195	176	156
14x70	325	293	245	226	194
16x40	189	164	142	128	114
16x50	261	233	195	180	156
16x60	341	300	255	225	204
16x70	425	386	322	281	260
18x50	330	290	247	222	198
18x60	430	376	322	291	258
18x70	539	472	405	365	324
18x80	660	578	493	446	396
20x30	220	170	145	145	120
20x40	295	260	222	195	170
20x50	407	356	305	275	244
20x60	529	463	397	358	318
20x70	660	578	495	446	396
20x80	800	705	600	544	480
20x90	950	846	710	653	570
24x70	947	830	710	640	568
24x80	1100	1038	883	800	707
24x90	1400	1245	1045	961	839

BUNKER SILO CAPACITY

A simple way to compute bunker capacity is to calculate the number of cubic feet (width x length x height) and multiply by 50 lbs. per cubic foot. This is then divided by 2000 to compute the number of tons. Example: (10 feet of depth) x (26 feet of width) x (80 feet of length)= 20,800 cubic ft. x 50/2000=520 tons. Subtract volume in slopes as applicable. Example: Average depth was calculated as 10 feet, but the front of the bunker slopes from ground level to 30 feet back. Take $10 \times 30 \times 26 = 7800/2 = 3900 \times 50/2000 = 97.5$ tons off.

1199PSCOVER

LOAD CAPACITY OF WAGONS

Depth Feet:	APPROX. TONS @ 70% MOIST.			
	LENGTH (feet)			
	14	16	18	20
5	6.6	7.5	8.5	9.5
6	7.9	9.0	10.0	11.0
7	9.2	10.2	11.7	13.0
8	10.5	11.8	13.1	14.5
	APPROX. TONS @ 65% MOIST.			
5	6.0	6.8	7.7	8.6
6	7.2	8.2	9.2	10.3
7	8.4	9.6	10.8	12.0
8	9.6	11.0	12.3	13.7
	APPROX. TONS @ 60% MOIST.			
5	5.5	6.1	6.8	7.5
6	6.5	7.3	8.2	9.0
7	7.5	8.5	9.5	10.5
8	8.5	9.6	10.8	12.0
	APPROX. TONS @ 55% MOIST.			
5	4.6	5.3	5.9	6.6
6	5.5	6.3	7.1	7.9
7	6.5	7.4	8.3	9.3
8	7.4	8.5	9.6	10.7
	APPROX. TONS @ 50% MOIST.			
5	4.0	4.6	5.3	6.0
6	5.0	5.7	6.3	7.3
7	5.8	6.6	7.5	8.4
8	6.5	7.5	8.5	9.5

PRO-STORE & PRO-STORE 1/T

Is formulated for use on:

Alfalfa and Grass Haylage, Corn Silage, Wheatlage, Ryelage, Pealage, Oatlage, Sudan or Sorghum Silage, and other forages.

For Use In:

Upright Silo's--(Oxygen Limiting and Conventional), Bags, Bunkers, Piles
AGRI-NUTRITION CONSULTING, INC.

P.O. Box 407 Windsor, Wisconsin 53598

608-846-2727 800-747-7447

www.agrinutrition.com

0.3 and 1/T Products

PRO-STORE
AGMTM
HIGH MOISTURE FORAGE
FERMENTATION AID

HOW DOES PRO-STORE WORK?

BACTERIA & ENZYMES are combined in a potent combination to provide maximum insurance against negative fermentation factors that occur frequently during silage making. Here's what they do:

LACTOBACILLUS PLANTARUM & CASEI can be active under lower pH, and are formulated to produce extremely high quantities of lactic acid, which helps preserve the energy value of the forage.

PEDIOCOCCUS PENTOSACEUS is a fermentation initiator that works well in cooler temperatures before the heat of fermentation occurs. *Pediococcus* strains extend the temperature range for good fermentation.

PEDIOCOCCUS ACIDILACTICI begin multiplying in the first half hour of ensiling and works at a higher temperature. They reduce oxygen and shut down plant metabolism which reduces heating.

STREPTOCOCCUS and ENTEROCOCCUS SPECIES help prepare the way for *Lactobacillus* bacteria by rapidly reducing the pH the first 10 hours of fermentation. These bacteria can stay alive in silages for many months, helping reduce spoilage if secondary fermentation occurs.

LACTOBACILLUS BREVIS is a heterofermentor, and produces acetic acid which helps extend bunk life.

ENZYME ACTIVITY is provided by **BACILLUS SUBTILIS** and **ASPERGILLUS ORYZAE**. Cellulase, xylanase & hemicellulase aid in the breakdown of fibers to simple sugars. Amylase converts starch to simple sugars. Sugars provide energy for rapidly growing bacteria.

***POTASSIUM SORBATE** is a mold and yeast inhibitor.

***BHT: (Butylated Hydroxy Toluene)** is an antioxidant (oxygen scavenger) which minimizes harmful aerobic bacterial growth, reducing rancidity and butyric acid.

**These ingredients are more important for high moisture grains, baled hay, and low moisture (below 45%) silages.*

FERMENTATION RESULTS

A low pH (corn silage 3.5-4.0 and haylage 4.5-5) is needed to preserve feeds. The growth of undesirable bacteria, molds, and yeasts is inhibited in low pH silages. A stable fermentation occurs, which reduces ammonia nitrogen and water soluble carbohydrates, reducing spoilage when the silage is exposed to oxygen.

Production of acetic acid improves aerobic stability, even though acetic acid takes a little plant energy to produce. Stability tests indicate forages with higher acetic acid show greater resistance to spoilage when exposed to air, which means a longer bunk life.

WHEN STORING, PLEASE KEEP IN A COOL, DRY PLACE. OPEN BAGS SHOULD BE FOLDED OVER TIGHT AND OVERPACKED IN PLASTIC TRASH BAGS AND TIED SHUT WHEN STORED OVER LONG PERIODS.

PRO-STORE

A concentrated product applied at the rate of 0.3 pounds per ton of wet forage. This reduces shipping and ingredient (carrier) costs, which, in turn, reduces the cost to treat a ton of forage. A 45 pound bag treats 150 tons of wet forage. Apply with dry granular applicator.

PRO-STORE 1/T

The same as regular Pro-Store but a 1 pound per ton application rate. A 50 pound bag treats 50 tons of high moisture forage. Granular applicator suggested.

LABEL AND DIRECTIONS FOR USE:

When used according to ANC recommendations, both products provide 154,000 CFU's/gram of wet forage. This is over 70 million CFU's per pound, or 140 billion CFU's applied per ton of wet forage.

PRO-STORE

466,700,000,000 CFU's per pound

DIRECTIONS FOR USE

All Haylages/Silages from 50% - 70% Moisture..... 0.30 lb./ton
All Haylages/Silages Under 50% Moisture..... 0.60 lb./ton
High Moisture Ear & Shell Corn, Min. 25% Moisture..... 0.75 lb./ton

*Small bales: Baled Hay, up to 25% Moisture..... 1.50 lb./ton

**Do not use Pro-Store on baled hay above 25% moisture. ANC recommends the use of propionic acid on baled hay higher than 25% moisture, and on large square bales)*

PRO-STORE 1/T

140,000,000,000 CFU's per pound

DIRECTIONS FOR USE

All Haylages/Silages from 50% - 70% Moisture..... 1.0 lb./ton
All Haylages/Silages Under 50% Moisture..... 2.0 lb./ton
High Moisture Ear & Shell Corn, Min. 25% Moisture..... 2.5 lb./ton

*Small bales: Baled Hay, up to 25% Moisture..... 5.0 lb./ton

**Do not use Pro-Store on baled hay above 25% moisture. ANC recommends the use of propionic acid on baled hay higher than 25% moisture, and on large square bales)*

INGREDIENTS: Calcium carbonate, potassium sorbate, butylated hydroxy toluene (BHT), diatomaceous earth, roughage products, dried *Lactobacillus plantarum* fermentation product, dried *Pediococcus acidilactici* fermentation product, dried *Pediococcus pentosaceus* fermentation product, dried *Enterococcus faecium* fermentation product, dried *Lactobacillus brevis* fermentation product, dried *Lactobacillus casei* fermentation product, dried *Streptococcus lactis* fermentation product, dried *Streptococcus cremoris* fermentation product, dried *Streptococcus diacetylactis* fermentation product, dried *Bacillus subtilis* fermentation extract (source of enzyme), dried *Aspergillus oryzae* fermentation extract (source of enzyme), whey, sodium silico aluminate.

USAGE: Recommended for all types of high moisture forage. Pro-Store should be used in accordance with good silage management practices. Use proper application equipment, and harvest at proper maturity stage.

ECONOMIC\$

MORE TONS TO FEED: By reducing dry matter loss by 4%, there is 40 tons of additional forage in an 1000 ton bunker. Haylage at 65% moisture and 20% protein is worth approximately \$43/ton. 40 x \$43 = \$1720. This alone is worth double the cost of purchasing **PRO-STORE** for this entire bunker!

FASTER FERMENTATION, HIGH LACTIC ACID, MORE ENERGY: Research shows that **PRO-STORE** treated forage has produced as much lactic acid in 4 days as untreated forage had in 90 days! **PRO-STORE** treated forage provides fermentation insurance, as various temperatures and harvesting conditions can cause significant fluctuation in bacterial levels. Feeding treated forages reduces production drop when switching to different silo's or bunkers!

INCREASED DRY MATTER INTAKE: Better quality forages and grains lead to higher DMI. For each 1 pound of additional DMI we can expect an increase of 2 to 2.5 pounds of milk production per cow per day.

MORE MILK: Research trials show increased milk production when feeding treated forages vs. untreated with similar dry matter intake. At 35 pounds of haylage fed, a 3 point increase in NEL (0.64 to 0.67) is worth approximately \$550/month/100 cows in added profit!

LONGER BUNK LIFE: Forages treated with **PRO-STORE** undergo a stable fermentation which reduces free ammonia nitrogen and water soluble carbohydrates. This controlled fermentation also reduces pH and increases lactic acid. Forages stay fresh and palatable longer after exposure to air whether in storage or after removal. This is especially critical on farms with bunker silo's, piles, bags, and total mixed rations.

LESS WASTED FEED: Dairy men will have less feed to dispose of due to molds or spoilage when forages are treated with **PRO-STORE!**

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PRO-STORE IS ALSO AVAILABLE IN A WATER SOLUBLE PRODUCT (**PRO-STORE WS**). **PRO-STORE HMC** IS AVAILABLE FOR HIGH MOISTURE GRAINS. PLEASE CHECK WITH YOUR **ANC** REPRESENTATIVE OR CALL OUR OFFICE FOR FURTHER INFORMATION.
1-800-747-7447.