

Capacity Charts

As-fed upright silo capacity

Size, ft (diameter x height)	Corn silage & haylage			HMSC	Ground HMSC	Ground HM ear corn
	70%	60%	50%	30%	30%	30%
Moisture content	70%	60%	50%	30%	30%	30%
12x30	80	65	50	89	95	70
12x40	115	90	70	120	128	94
12x50	155	120	95	151	160	120
14x40	160	120	96	165	172	128
14x50	213	160	127	208	220	163
14x60	266	200	160	251	264	198
16x30	146	110	88	150	166	123
16x40	209	156	125	220	224	167
16x50	278	208	167	274	285	213
16x60	347	260	208	330	345	259
18x40	265	198	159	270	284	211
18x50	352	264	211	350	360	269
18x60	440	330	264	422	437	328
18x70	530	398	318	496	520	389
20x40	326	245	196	340	350	260
20x50	435	326	261	428	445	332
20x60	543	407	326	525	540	404
20x70	655	491	393	617	638	480
20x80	767	575	460	708	736	557
24x50	626	470	375	600	640	478
24x60	782	587	469	763	776	582
24x70	943	707	565	897	918	692
24x80	1,104	828	662	1,032	1,060	801
24x90	1,275	955	764	1,165	1,209	920
30x80	1,725	1,293	1,035	1,628	1,656	1,252
30x90	1,990	1,493	1,195	1,840	1,888	1,434

Wagon capacity

Depth, ft	Approximate tons (as-is basis)							
	Length, ft (65% moisture)				Length, ft (55% moisture)			
	14	16	18	20	14	16	18	20
3	3.5	4.0	4.5	5.0	2.5	3.0	3.5	4.0
4	4.5	5.5	6.0	6.5	3.5	4.0	4.5	5.0
5	6.0	6.5	7.5	8.5	4.5	5.0	5.5	6.5
6	7.0	8.0	9.0	10.0	5.5	6.0	7.0	7.5
7	8.0	9.5	10.5	12.0	6.0	7.0	8.0	9.0
8	9.5	11.0	12.0	13.5	7.0	8.0	9.0	10.0

Bag capacity*

Bag size, ft	Tons (fresh)
8	1
9	1.25
10	1.5
11	1.75
12	2.25
14	2.75

*Estimates shown are for corn silage.

Ratio for bag chart

Type of crop, moisture	Relation to 65% corn silage tonnage
Haylage, 60%	100%
HMSC, 30%	130%
Earlage, 35%	120%
Snaplage, 40%	130%

Estimated as-fed capacity for bunkers and piles

Enter avg width*	1. _____ ft
Enter avg length	2. _____ ft
Enter avg height	3. _____ ft
Multiply 1x2x3	4. _____ lb/ft ³ in structure
Est as-fed density**	5. _____ lb/ft ³
Multiply 4x5	6. _____ lb as-fed in structure
Divide by 2,000	7. _____ tons as-fed in structure

*To determine dimensions for piles, look at the slopes of each side of the pile. Visualize how much of the slope would need to be "folded back" on itself to square up the sides of the pile to determine average width.

**Use known as-fed density when possible. Otherwise, start with these average densities: 40 lb for haylage and corn silage; 60 lb for HMSC; and 45 lb for earlage/snaplage. Use higher or lower numbers for well packed or poorly packed units, respectively.

MTD/1 technology for more efficient fermentation and reduced dry matter loss



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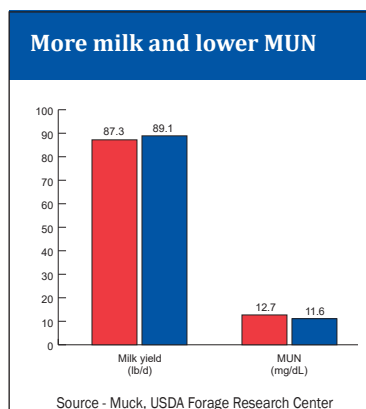
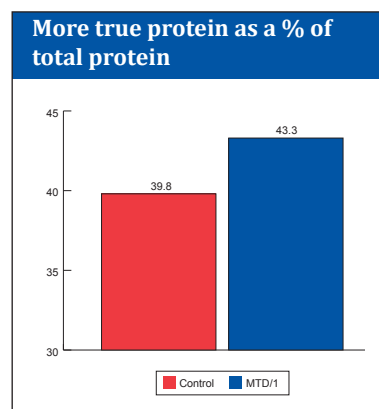
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Producing high-quality forage is a risky proposition that can be reduced with a forage inoculant that is not only proven by science, but also tested by time.

Crop-N-Rich inoculant with MTD/1 is not just another run-of-the-mill *L. plantarum* bacterial inoculant, but a specific and unique strain of *L. plantarum* that is able to outperform other products.

New USDA research shows that Crop-N-Rich-treated alfalfa haylage results in better quality protein. Because of higher quality protein, researchers saw less protein degradation and fewer biogenic amines that cause reduced protein utilization by the animal. These all culminate into improvements in protein digestion and retention in the rumen, higher milk production, and lower MUN.



Earlier studies on Crop-N-Rich inoculant with MTD/1 done in the U.S. and Europe led to this comment from researchers at the University of Delaware:

“Probably the most impressive data set for a single inoculant is that of animal experiments conducted using *L. plantarum* MTD/1.”

Other features

- 1-g-per-ton application rate
- Same 1-g rate for haylage, corn silage or high moisture grain
- Applies a minimum 100,000 cfu *L. plantarum* MTD/1 per g of feed
- Available canisters for 100-, 500- and 1,000-ton liquid application as well as 25-lb bag of granular product for dry application
- Three-year shelf life at room temperature (excluding granular product)
- Works at pH 3.5-7.5; no need for multiple strains
- Powerful upfront fermenter, resulting in high lactic acid production
- Thrives in aerobic and anaerobic conditions
- Best tank mix viability and temperature tolerance available
- Great mixing characteristics
- Active under high and low DM conditions
- Highly controlled continuous culture bacteria production process

To date, 15 independent dairy cow trials have been conducted worldwide, all carried out at recognized university and government research institutes in the U.S., Canada, UK, Eire, Holland, Germany and Japan. On average, MTD/1 treatment increased silage dry matter intake by 4% and milk yield by 2.5 pounds per cow per day (shown below). Improvements were also seen in milk constituent output and bodyweight change.

Production results from 15 Crop-N-Rich inoculant with MTD/1 trials

(lb per day)	Untreated	MTD/1
Silage DM intake	23.6	24.6
Milk yield	57.9	60.4*
Milk fat	2.18	2.30*
Milk protein	1.80	1.87*
Milk lactose	2.52	2.50*
Bodyweight change	+0.51	+0.77

*Statistically significant difference

Impressive corn silage results compared to the competition

	% improvement over untreated	
	All inoculants (including MTD/1)	MTD/1 alone
DM recovery	1.6	2.1
DM intake	0.9	2.8
Daily liveweight gain	2.7	7.4
Feed:Gain	1.4	4.4
Gain per ton ensiled	3.4	7.5

Source: Bolsen, Kansas State University