Vita Plus Forage Products

Quality Forages... Where Sound Nutrition Starts

Capacity Charts

Upright Silo Capacity

Size (Diameter X Height)	Corn Silage & Haylage			HMSC	Ground HMSC	Ground HM Ear Corn
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	1104	828	662	1032	1060	801
24x90	1275	955	764	1165	1209	920
30x80	1725	1293	1035	1628	1656	1252
30x90	1990	1493	1195	1840	1888	1434

Bag Capacity

Bag Size	Corn Silage & Haylage** 65%	HMSC* (tons)	Ground Shelled Corn (tons)
8' x 100'	95	95	114
8' x 150'	140	140	168
8' x 200'	190	190	228
9' x 100'	120	120	144
9' x 150'	175	175	211
9' x 200'	240	240	289
10' x 200'	295	295	355
10' x 250'	365	365	439
10' x 300'	440	440	529
12' x 200'	420	420	505
12' x 250'	525	525	632
12' x 300'	630	630	758
14' x 200'	575	575	692
14' x 250'	715	715	860
14' x 300'	860	860	1035

Actual capacity varies with moisture content and density of pack

** High moisture corn capacity is calculated using 30% moisture content, 26 lb DM/ft³*

***Density for Corn Silage & Haylage calculated at 13 lb DM/ft³*

Bunker Silo Capacity

Tons of Haylage/Corn Silage *per foot of length, as is						Tons of HMC* per foot of length			
Bottom Width (ft)	Depth (ft) 8	10	12	16	20	Bottom Width (ft)	Depth (ft) 10	12	14
20	3.4	4.3				20	6	7.2	8.4
30	5.1	6.4	7.1	10.3					
40	6.9	8.6	10.3	13.7	17.1	30	9	10.8	12.6
50	8.6	10.7	12.9	17.1	21.4				

Wagon Capacity

Depth (feet)	Approximate Tons (As-Is Basis) 65% moisture Length - Feet				55% moisture Length - Feet			
	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

To learn more about Crop-N-Rich Buchneri or Stage 2 or to place an order contact your Vita Plus sales representative, Vita Plus dealership or call 1-800.362.8334.

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Crop-N-Rich® Buchneri & Stage 2

Patented Technology Designed to Increase Aerobic Stability in Storage and at Feedout

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Vita Plus

An Employee-Owned Company

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Why Use Buchneri or Stage 2?

- Reduces yeast and mold counts that cause spoilage
- Reduce spoilage and heating that occurs at feedout
- Results in less feed loss, shrink and keeps feed in better condition, ultimately leading to improved animal performance

Buchneri 40788 *is the only FDA[1] approved research patented bacteria known to improve aerobic stability of high moisture corn and forages. Use buchneri when upfront fermentation is not a primary concern. Its use is recommended for high moisture corn. Used with proper crop management, buchneri improves bunklife and feedout.*

Stage 2 *is a unique combination of two complementary bacteria, Pediococcus pentosaceus and Lactobacillus buchneri 40788. Crop-N-Rich Stage 2 is the next "stage" in silage fermentation technology. It efficiently prepares your crops for fermentation, storage and feedout.*

Pediococcus pentosaceus: Is an aggressive bacterium that immediately starts to produce large amounts of lactic acid when added to silage. This results in a rapid decrease in silage pH, and a subsequent preservation of silage dry matter.

Lactobacillus buchneri 40788: Is a patented bacterium that dramatically increases the aerobic stability of silage at feedout. It does this by producing acetic and sometimes propionic acids, two potent antifungal compounds. This results in reduced spoilage and heating of the silage at feedout, and increased bunklife of the entire TMR.

Buchneri & Stage 2 Are Most Useful For:

- Forages fed during warm weather
- Bunkers or piles with large exposed surfaces
- High starch feeds like high moisture corn and corn silage
- Crops that are moved during storage
- Challenged crops that have experienced hail, insect damage drought or disease stress

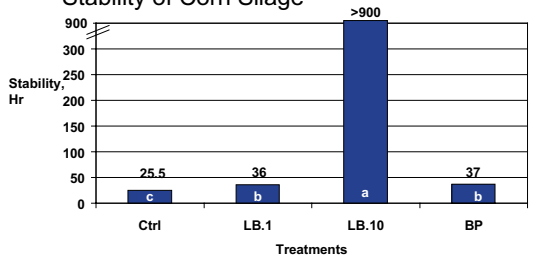
Buchneri and Stage 2 Usage Recommendations
Heat-sealed foil packages will treat corn silage, haylage, small grain silage and high moisture corn. Use Crop-N-Rich Buchneri and Stage 2 only on crops that contain at least 25% moisture. For optimum benefits of Lactobacillus buchneri, wait 45 days prior to feedout.

Storage
Store unopened packets below 4°C/40°F preferably in a refrigerator or freezer. Shelf life of Crop-N-Rich Stage 2 is 18 months when properly stored.

Bacterial Application Rates
- Buchneri : HMC: 600,000 cfu per gram when applied correctly.
  Corn Silage: 400,000 cfu per gram when applied correctly.
- Stage 2: Corn Silage, Haylage or Small Grain Silage: 400,000 cfu of Lactobacillus buchneri per gram and 100,000 cfu of Pediococcus pentosaceus when applied.
  HMC: 600,000 cfu of Lactobacillus buchneri per gram and 150,000 cfu of Pediococcus pentosaceus when applied correctly.

[1] Levels must be 400,000 cfu for corn silage and 600,000 cfu for high moisture corn.
- *Lactobacillus buchneri 40788 is Protected by US Patent #5,432,074 InternationalPatent #WO 97/29644*
- *Crop-N-Rich Stage 2 is based on patented technology from Lallemand, Inc.*

Effect of *L. buchneri* 40788 or Buffered Propionic Acid on the Aerobic Stability of Corn Silage



LB.1 = 100,000 cfu/g; LB.10 = 1,000,000 cfu/g, BP = A buffered propionic acid product at 2 lb/t
Bars with unlike letters differ P < 0.05. SE = 1.3.
Ranjit and Kung, 2000. J. Dairy Sci. 83:526-535.

Published Effects of *L. buchneri* on Fermentation and Aerobic Stability of Corn Silage – A Meta Analysis

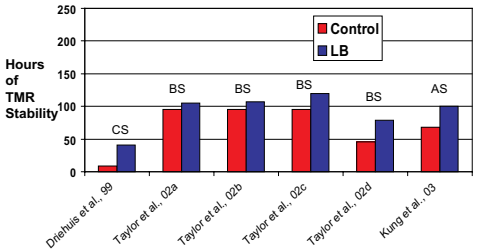
Item	Control	LB1*	LB2**
Lactate, %	6.6^{d}	5.9^{e}	4.8^{f}
Acetate, %	2.2^{c}	2.6^{b}	3.9^{a}
DM recovery, %	95.5^{a}	95.5^{a}	94.5^{b}
Aerobic stability, h	25^{b}	35^{b}	503^{a}

26 published and citable comparisons (journal articles and meeting abstracts – no in house reports or unpublished data)

*LB1 ≤ 100,000 cfu/g; **LB2 ≥ 100,000 cfu/g.
^{def}Means in a row with unlike differ P < 0.10,
^{abc}Means in a row with unlike differ P < 0.05
Kleinschmit and Kung, 2006. Accepted with revisions J. Dairy Sci.

Mixing Silages Treated with *L. buchneri 40788* into TMR Improves the Aerobic Stability of the Resulting TMR

Primary treated silage sources: CS = corn silage; AS = alfalfa silage; BS = barley silage



TMRs made with silage treated with *L. buchneri* 40788 were statistically more stable than untreated TMR in all studies P < 0.05.

Vita Plus Forage Team & You: *Customizing SOLUTIONS for Success*