

## Optimal Silage Management - What needs to be considered?

Consider the following for highest quality silage production!



### Safety

**Is everything possible being done to ensure safety for the entire team?**

Equipment, machinery, silage area, truck routing, etc.



### Cutting Height – Minimization of contamination

**Alfalfa and Grass Haylage: at least 3 – 4”**

This is high enough to minimize contamination from soil particles (ash) as well as harmful clostridia spores.

**Corn Silage: at least 8”**

Harvesting at this height avoids excessive contamination from soil particles (ash) as well as yeast and fungal spores, which are mainly located in the lower stalk areas.



### Haylage wilting period

**Ideal: less than 24 hours**

Wilting for too long a period is associated with nutrient losses (sugar respiration and protein degradation), an increased yeast population and leaf losses during chopping!



### Theoretical Length of Cut (TLC)

**The drier the forage, the shorter the chopping length!**

Chopping length is crucial for an adequate packing density and for driving a quality fermentation process. Also, talk to your nutritionist about the preferred length of cut in order to meet effective fiber requirements of the diet.



### Bacterial Silage Inoculant

**Corn Silage ≠ Alfalfa Haylage**

Apply quality researched proven bacterial silage inoculants that are designed for specific forages and dry matter ranges.



### Inoculant Applicator

**A clean and functional applicator is crucial to protect inoculant investment!**

Rinse applicator daily. Sanitize applicator if not being used for several days.



## Monitor Kernel Processing

**Regular field testing using a 32oz cup period.**

Sample several loads each hour to ensure no more than two half or whole sized kernels per cup. Always verify own measurements by lab analysis regularly.



## Packing density – Minimum 15 lb DM/ft<sup>3</sup>

**Each ton of silage delivered to storage per hour requires 800 lbs of packing tractor weight!**

Density drives fermentation and aerobic stability at feed-out. To achieve highest density the pushup must not exceed 6 – 10”.



## Cover

**Cover as soon as filling or compaction is completed.**

When harvesting for several days cover daily!



## Pile size & Face management

**Daily face removal: at least 6 – 12”**

Pile size needs to be adapted to herd size and daily feed-out to minimize aerobic deterioration. Remove plastic several times a week to have as little surface exposed to oxygen as possible.

## Target Values

Technical Parameter	Unit	Corn Silage	Alfalfa Haylage
Cutting height	Inches	8.0	3.0 – 4.0
Theoretical Length of Cut (TLC)	Inches (mm)	½ - 1 (12.5 – 25.4)	¾ – 1 (9.5 – 25.4)
Packing density	lb DM / ft <sup>3</sup>	15 – 18	15 – 18
Forage layering for packing	Inches	6 – 10	6 – 10
Kernel Processing Score	% < 4.75mm	> 70.0%	-
Pit Tractor Speed	mph	1.5 – 2.5	1.5 – 2.5

Nutritional Parameter			
Moisture	%	62.0 – 68.0	60.0 – 68.0
Dry Matter (DM)	%	32.0 – 38.0	32.0 – 40.0
Crude Protein	% DM	6.0 – 9.0	> 20.0
Ash	% DM	< 5.0	< 10.0
pH Value		3.7 – 4.2	4.0 – 4.8