Ensiling crimped grain

With ProMyr™ Crimp and ProSid™ MI 700
User instructions

Efficient storage of feed grain

- High feed quality
- Flexibility
- Cost effective

Ensiling crimped grain (crimping) is a flexible and cost effective method of storing feeding grain for cattle. Undesired microorganisms are inhibited due to the oxygen-free environment. Using Perstorp's crimping recommendations yields high quality forage and protection during storage and feed-out and facilitates the handling.

Moisture content crucial

The moisture content of the grain determines the amount of lactic acid produced during storage. A moisture content above 30 % encourages fermentation whereby during the ensiling process lactic acid will be produced. With a moisture content below 30 % fermentation will be limited and the result will be more like preservation in an oxygen free environment. It is important to choose the correct product appropriate for the type of material.

Ensiling crimped grain in silobags or pit

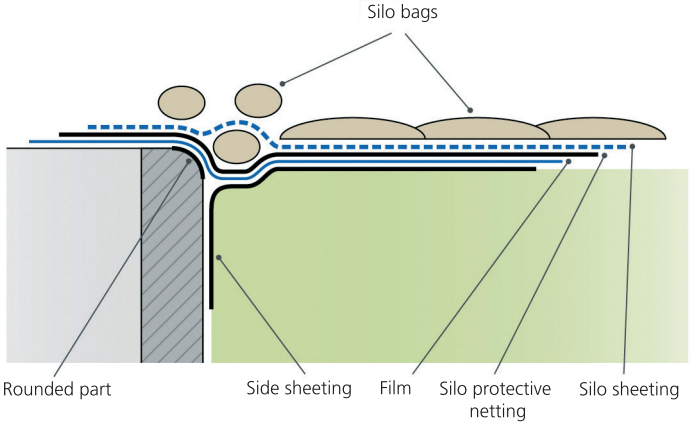
Careful handling is as essential as the actual method used. It is important to have a well-drained, hard and flat surface for storing the silo bags. The risk of rats and mice entering from below is eliminated. A well-drained surface avoids water penetrating into the bags, preventing quality damage of the forage.

If a pit is used it is very important to ensure adequate compaction as well as an airtight coverage at the sides and top of the pit.

Moisture content for crimping

Moisture content below 30 % oxygen free = preservation	Propionic acid based product ProSid™ MI 700	4 litres/tonne during normal conditions, extra 2 litres at slow feed-out rate,
moisture content above 30 % fermentation = ensiling	Combination preparation with propionic acid and formate ProMyr™ Crimp	4 litres/tonne

Cover of pit



Perstorp
WINNING FORMULAS

Application of the product

Grain to be crimped for silage must be freshly threshed and be of a good hygienic quality. If damp grain is stored temporarily before crimping, microbial and enzymatic activity might increase, yielding temperature increase. Stored grain that has become warm will not produce a good result after ensiling and may cause stabilisation problems during feed-out.

For the best result, the silage additive must be sprayed as evenly as possible over the crimped grain. This can be achieved by placing nozzles directly below the crimper rollers. The preferred nozzles are the ParLock type which should be installed evenly over the width of the crimper. A flow meter is important to ensure the application of the correct dosage.

Protection and inspection during storage

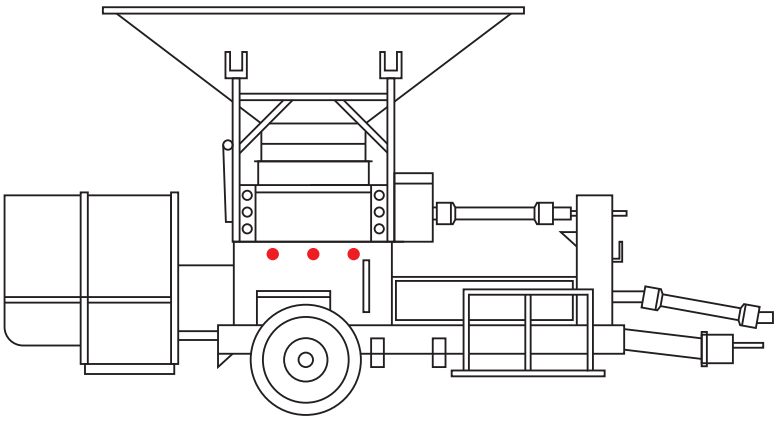
The silo bags, or the pit, should be covered with protective netting in areas where there is a risk of damage by birds. The netting should reach the ground to prevent the risk of birds picking holes in the plastic. Rat poison in bait stations can also be placed adjacent to the silo bags. Carry out regular inspections to prevent damage to the silo bags; daily when newly installed and a few times a week during the rest of the storage period.

Feed-out

Perstorp's feed preservatives for crimped grain silage provide very good protection against secondary fermentation, warming up and mould development during the feed-out. To enable the silage to stabilise, allow a period of 6 weeks after installation before opening the silo bags or the pit. The required feed-out rate of an opened silo bag will be determined by the air temperature. An estimated minimum of 1–2 metres per week should be used during the winter months and 2–4 metres during the summer months. The lower the temperature, the lower the feed-out rate. Ensure that no water enters an open silo bag and never open the silobags at both ends. Note that an increased dose should be used for dry material during the summer season.

Crimped grain is less dusty than dry grain and provides a tastier feed. Damp grain naturally contains less vitamin E than dried grain and the maintenance ration of forage may therefore require an addition of vitamin E. Make a habit of smelling the silage and check the temperature regularly with your hand. Warmer material indicates an increase in yeast and suggests that the feed-out rate is too low. If this is the case, you will need to increase the feed-out rate. To avoid warming-up after opening a correct level of feed preservative is recommended.

Placement of the nozzles



Perstorp
WINNING FORMULAS