Permacool Technology
Using Lactobacillus buchneri

**SI-LAC EXTRA** is a new generation, vacuum packed bacterial inoculant containing *Lactobacillus plantarum, Enterococcus faecium* and *Lactobacillus buchneri*

**INOCULANT BENEFITS**
- Provides ultimate performance of silage, earlage, high moisture hay and high moisture grain especially when heating at feedout is an issue
- Improves fermentation and aerobic stability
- Helps to prevent loss of nutritional value
- Helps to improve dry matter recovery
- Reduces the chances of major spoilage
- Helps to control heating at feedout
- Enables hay to be baled at up to 25% total moisture
- When premixed at least 12 hours before use, bacteria are applied freshly growing for fast activity, and increase in numbers in the spray tank

**SI-LAC EXTRA ADVANTAGES**
- Contains three types of bacteria
  - *Enterococcus faecium*, which is critical to start early fermentation
  - *Lactobacillus plantarum*, which accelerates fermentation
  - *Lactobacillus buchneri*, which helps aerobic stability, limiting secondary fermentation (heating) at feed out
- Lower growth of yeasts and moulds
- Increases in strength once mixed
- Long tank life
- Low water usage
- Will not foul tanks and block nozzles
- Vacuum packed in Tri-Layer Foil sachets for long shelf life
- Does not require continuous refrigeration
- User and contractor friendly
- Excellent for round bale feeding and pit face management

Made by Australian Farmers for Australian Farmers
General Instructions

When used as directed, the bacteria in the Si-Lac Extra spray mixture are delivered to the silage or hay fresh and actively growing. This ensures the fastest possible growth of the bacteria and consequent ensilation. Si-Lac Extra is suitable for use with all crops grown for silage, earlage, high moisture grain and high moisture hay.

Mixing

Add the contents of the sachet to sufficient water at least 12 hours before use. This will enable the bacteria to refresh and increase in strength in the spray tank. Warm water will speed the process. Make up to correct dilution in spray tank. Once mixed, the inoculant mixture is stable and can be used for at least 5 days.

Ultra and low volume applications using Grevillia Ag Air-Tech Applicator.

High output self propelled harvesters - Mix each 450g (50T) sachet in 5 litres of water to treat 50T. If using 2.25kg (250T) sachet, mix in 25L of water to treat 250T. Set flow meter settings to suit yield output as per chart provided with the Air-Tech Applicator.
Round and square balers - Mix the 450g sachet in 15L of water and set flow meter setting to suit output as per chart provided.

Other applicators:

Calibrate the applicator to ensure correct application rates. This will depend on the nozzle output in mls/min, machine through put in tonnes/min and spray tank capacity. Add the contents of the sachets to sufficient water to treat the correct amount of silage or hay.

Application

Apply the Si-Lac Extra inoculant mixture to the silage or hay as it is processed by the forage harvester or baler.
For high moisture hay, ensure that total moisture percentage is below 25%, measured accurately using a microwave test.
Spray nozzle placement:
Silage: Introduce the Si-Lac Extra mixture to the accelerator chamber of the harvester as a fine mist.
Hay: Apply Si-Lac Extra mixture to the hay above the rear of the pickup, ensuring even coverage of all hay. Ensure all hay bales are treated.
Not recommended: We do not recommend application of the inoculant mixture through sprayers travelling ahead of the harvester or baler.

Storage

Si-Lac Extra sachets are stable in the field for the day it is being used, however the product should be stored below 24°C at all times and where possible refrigerated. Long term storage requires refrigeration. Do not freeze. If part of a sachet is used, re-seal as tightly as possible and store in refrigerator until next use. DO NOT leave on dashboards or seats of vehicles in full sun and where significant heating occurs, as the bacteria will be killed.

Handling

Do not breath dust. Wash hands after contact. If sachet vacuum seal is broken, or sachet is swollen, do NOT use.

Ingredients

Lactobacillus plantarum, Lactobacillus buchneri and Enterococcus faecium cultures; proprietary food mixture.

Disclaimer

Because Grevillia Ag and Bacterial Fermentation Pty Ltd have no control over handling and storage of Si-Lac Extra, no express or implied representations or warranty (other than non excludable warranties) are made. This product is sold on the condition that the buyer or user assumes all risks of handling and use of Si-Lac Extra as well as the results obtained from its use.

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