

Tried and Trusted
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SI-LAC[®]

extra
Silage & Hay Inoculant

For Ultimate
Performance of
Silage especially
when heating at
feedout is a
problem



Innovators in Agricultural Technology

Ultimate performance in silage and high moisture

When you need a reliable and fast acting inoculant for your silage, your first choice for reducing the likelihood of mould and creating a stable temperature is Si-Lac[®] Extra.

- Fresh culture technology accelerates the ensiling process, speeding pH reduction and consuming oxygen.
- Contains three bacteria: Lactobacillus plantarum and E. faecium for fast action, and Lactobacillus buchneri for cooling.
- Increases in strength once mixed.
- Vacuum sealed packs maximize viability of bacteria.
- Does not require continuous refrigeration - store at 20 - 24°C.
- Long tank mix life: 5 days.
- Will not block filters and nozzles - can pass through 50 mesh screens.
- Suitable for use with all crops.

Si-Lac Extra Benefits for Silage

- Ultimate performance in silage and high moisture grain especially when heating at feedout is an issue.
- Reduces growth of yeasts and moulds.
- Permacool technology stops heating at feedout in silage.
- Treated feed stays fresh for days.
- No feed wastage by eliminating spoilage on the feedpad.
- Reduces ensiling losses.
- Provides:
 - * More digestible protein.
 - * Greater dry matter yield.
 - * Greater energy yields.



FAST ACTING, FRESH GROWING BACTERIA

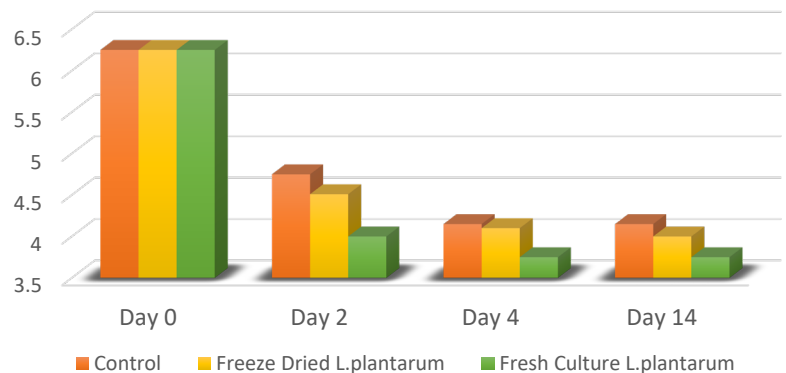
When pre-incubated as recommended, Si-Lac Extra delivers fresh growing bacteria to your silage, reducing the lag period and providing more rapid pH drop than freeze dried inoculants applied dormant. See Graph 1 (2). So silage ferments faster, resulting in greater energy yields, more digestible protein, and greater dry matter yield.

THREE FAST ACTING BACTERIA

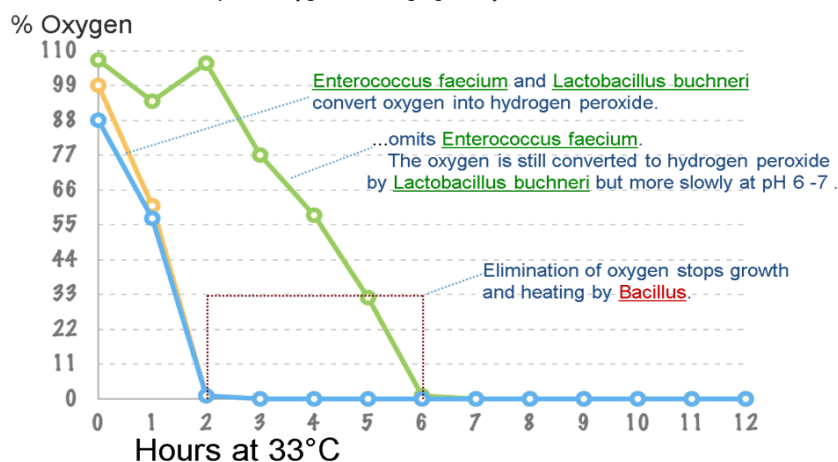
Si-Lac Extra contains Australian strains of Lactobacillus plantarum, Enterococcus faecium and Lactobacillus buchneri for exceptional performance under our harsh Australian conditions. Locally developed and manufactured, Si-Lac Extra is packed in vacuum sealed packs that ensure maximum viability. E. faecium has the added benefit that it also consumes oxygen during the early stages of ensilation, converting it to hydrogen peroxide, further eliminating or inhibiting aerobic bacteria. (1) See graph 2 (right).

Fresh Culture v Freeze Dried

(pH) Merry et al.



ABOVE: Graph 1 Faster pH drop of Fresh culture bacteria Vs freeze dried and control
 BELOW: Graph 2 - Oxygen scavenging ability of Enterococcus faecium



Developed and made Silage Inoculant adding bacteria to your silage



grain especially when heating at feed-out is an issue.

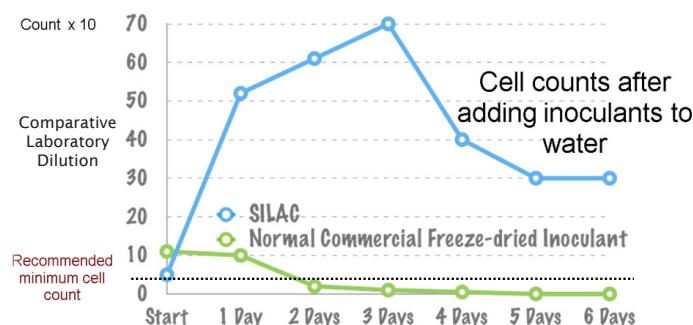
PERMACOOL TECHNOLOGY REDUCES AEROBIC SPOILAGE

The third bacteria, *Lactobacillus buchneri*, has a two fold purpose in high value silage making. By consuming oxygen and converting it to hydrogen peroxide (1) both within the silage and on the peripheries of pits and bales, the conditions for *Enterococcus faecium* and *Lactobacillus plantarum* are enhanced, and spoilage bacteria inhibited, further reducing the likelihood of spoilage bacteria attacking the silage. This significantly reduces heating in the silage and spoilage losses where silage meets the open air.

LONG LASTING AND ACTIVELY GROWING IN YOUR TANK

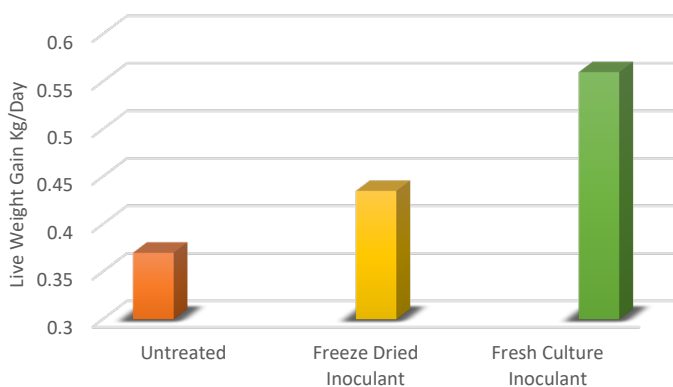
Once mixed, Si-Lac Extra actively grows in the tank, and will live for 5 – 14 days depending on the temperature due to the unique innovative formulation that includes food for the bacteria. So you can use Si-Lac Extra day after day. And at the end of the job, don't waste any leftover mix – simply store it below 4°C until next time you need it. Compare this with other inoculants that only have a 24 hour tank life and need to be kept chilled in the spray tank to stay alive longer.

Right: Graph 3—Si-Lac Extra bacteria refresh and grow in the tank after adding to water, unlike other bacteria that must be kept chilled to live more than one day. Ref: (1)



Live Weight Gain Trail

Iger Research Centre - UK



Graph 4: Live weight gain trail

BACKED BY SCIENCE

Grevillia Ag's "fresh culture" technology is backed by science. Various independent scientists around the world have shown that there is a more rapid pH drop and improved weight gains from the silage treated with inoculants applied as a fresh culture compared to untreated silage and silage treated with freeze dried inoculants that were applied dormant. See Graph 1 (previous page) and Graph 4 (left). In addition to this research by scientists at the Institute for Grassland & Environmental Research (IGER), and both Merry et al (1995) and Muck (2003) have also shown similar results. For the full story ask your Grevillia Ag Technical Specialist for the full published scientific papers that prove that the Si-Lac Extra "Fresh Culture" technology works.





The only Australian developed and made silage and hay inoculant containing *Lactobacillus buchneri*



Easy to use, hassle free formulation

Si-Lac Extra is designed to pass through 50 mesh screens, so doesn't foul tanks, or block screens and nozzles. Additionally it's colour lets you easily see that there is product remaining in your tank.

Suits all crops and uses

Si-Lac Extra is suitable for use on all crops including canola, cereals, legumes, maize, forage sorghums and all pastures used for silage. Also ideal for use with high moisture grain meaning no need to change products for different crops. Si-Lac Extra can be used in all storage situations including pit, stacks, bunkers or wrapped silage bales.

How to use

Simply add the contents of the vacuum sealed sachet to the applicator tank 12-24 hours before starting the job. If less, use water up to 40 degrees C. This starts the fresh culture growing. Then simply apply over the hay in the pickup of the baler as the hay is baled using a fine application nozzle ensuring best coverage. Apply as a ULV spray if you wish. Ensure the applicator is properly calibrated to apply the correct amount of inoculant to the hay.

Caring for your Bacterial Inoculant

When stored and handled as recommended, Si-Lac Extra has a shelf life of 3 years.

All bacterial silage inoculants will be compromised if mishandled during the lead up to application.

Do not leave sachets in the sun, e.g. on the dashboard, seat or the back of the ute, or let the sachet be stored at greater than 24 degrees C for any period of time.

Si-Lac Extra bacteria may also be compromised if the triple layer aluminum foil is broken or punctured. Ensure that sachets are firm when purchased.

Where possible store in a cool room or refrigerator.

Experience Counts

Our team has people with 28 years experience in the silage industry. If you want the best advice and innovative Australian technology you can't go past Grevillia Ag.

Air-Tech Wireless Controlled Applicator

Grevillia Ag also supplies an Australian designed and made "Air-Tech wireless controlled" ULV applicator specifically designed for use on balers. Air-Tech Wireless Controlled ULV Applicator provides accurate application of silage and hay inoculants using air blast technology to deliver rates as low as 50mL per tonne.

PACKS

| | |
|-------------|--|
| Treat 50T: | 450g sachet (10 per shipper) |
| Treat 250T: | 450g sachet (Concentrate) (10 per shipper) 2.25 Kg sachet (4 per shipper) |

References

1. Reichelt J L 2008
2. Muck 2003; Merry et Al 1995



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