Blue Pacific MINERALS

CLEVER by NATURE

SILOSOLVE FC

DUAL-ACTION SILAGE INOCULANT FOR **FAST FERMENTATION** & **LONG-LASTING STABILITY**

SILOSOLVE FC is a next-generation dual-strain silage inoculant developed by Novonesis, designed to secure feed quality from harvest to feed-out.

It combines two proprietary bacteria - Lactococcus lactis O-224 (DSM 11037) and Lactobacillus buchneri LB1819 (DSM 22501) - to deliver fast fermentation, rapid pH drop, and exceptional aerobic stability at opening.

In New Zealand's grass, maize, and mixed-crop silage systems, **SILOSOLVE FC** protects valuable dry matter, preserves true feed energy, and reduces heating and spoilage losses common in bunker and stack silos.

FEATURES:

- **Fast Fermentation + Cool Feed-out:** The only inoculant delivering both rapid acidification and extended aerobic stability.
- **Dual-strain technology:**
  - Lactococcus lactis O-224 - drives early lactic fermentation, quickly lowers pH.
  - Lactobacillus buchneri LB1819 - converts lactic to acetic acid, suppressing yeasts & moulds.
- **Proven Dry Matter Recovery:** Up to 1.7 t DM per ha saved vs untreated silage
- **Improved Feed Stability:** Average 481 hours (≈ 20 days) longer aerobic stability across 9 global trials
- **Reduces Nutrient Loss and Waste:** Protects against heating, mould, and secondary fermentation.
- **Scientifically Proven Worldwide:** Documented in > 20 peer-reviewed studies on corn, grass, alfalfa, and tropical forages.
- **Suitable for All Ensiling Systems:** Bunker, stack, bag, and bale. Works in both temperate and high-moisture conditions.

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THE SCIENCE - HOW **SILOSOLVE FC** WORKS

Silage quality depends on how fast oxygen is removed and fermentation begins. **SILOSOLVE FC** establishes anaerobic dominance within hours, producing lactic acid rapidly to lower pH below 4.0, while preventing spoilage organisms from regrowing at feed-out.

PHASE	KEY MICROBE	FUNCTION	RESULT
Early Fermentation	Lactococcus lactis O-224	Rapid acid production → pH drop	Shorter fermentation time and higher WSC preservation
Stabilisation / Feed-out	Lactobacillus buchneri LB1819	Converts lactic → acetic acid & 1,2-propanediol	Suppresses yeasts & moulds, extends aerobic stability

DOCUMENTED EFFECTS:

- pH reduction below 4 within 48 hours.
- Aerobic stability extended by up to 20 days across multiple forages.
- Improved feed intake and milk production in animal performance trials

TRIAL EVIDENCE SUMMARY

SILOSOLVE FC - The Best Documented Inoculant in the World

CROP	CHALLENGE	FERMENTATION (DAYS)	AEROBIC STABILITY (DAYS)	RESULT
Whole-plant corn	Early opening	2-32	+7	Stable after early feed-out
Grass / Alfalfa	Multi-crop mix	90	+10	Improved DM recovery
Corn	Mycotoxin control	2 - 32	+20	Lower spoilage risk
Tropical grass	Wilting / soy hulls	60	+5	Enhanced fermentation efficiency
Barley (High moisture)	Early opening	7 - 90	+30	Stable feed over 30 days

Average gain: +481 hours (20 days) aerobic stability vs untreated controls.

NZ APPLICATION GUIDELINES

FORAGE TYPE	TARGET DM %	DOSE RATE	EXPECTED BENEFITS
Maize silage	32-38 % DM	1 g/tonne FM (≈ 1×10^5 cfu/g FM)	Fast fermentation and cool feed-out
Pasture / Ryegrass / Clover	28-35 % DM	1 g/tonne FM	Reduced clostridial activity and butyric acid
Lucerne / Alfalfa	35-45 % DM	1 g/tonne FM	Improved stability and palatability
Whole-crop cereals / barley	30-40 % DM	1 g/tonne FM	Extended storage life
Bale silage	40-50 % DM	2 g/tonne FM	Lower heating risk at feed-out

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BACKED BY GLOBAL RESEARCH

THE MOST EXTENSIVELY STUDIED SILAGE INOCULANT AVAILABLE

TARGET CUSTOMERS

- Dairy and beef farmers wanting consistent, quality silage throughout the season.
- Contractors and silage operators managing large bunker or stack operations.
- Feed advisers and nutritionists focusing on reducing DM losses and mould risk.
- Farm consultants helping farmers improve silo management and return on forage investment.

KEY BENEFITS

- **Fast Fermentation**
  Rapid pH drop to preserve nutrients and colour.
- **Improved Aerobic Stability**
  Up to 20 days longer shelf life after opening.
- **Reduced Heating & Spoilage**
  Less waste, better feed palatability.
- **Higher Dry Matter Recovery**
  1.7 t/ha more usable feed vs control.
- **Consistent Animal Performance**
  Steady intake and milk yield gains.

PERFORMANCE EVIDENCE

- Across nine independent trials, **SILOSOLVE FC** increased aerobic stability by +481 hours (≈ 20 days).
- Corn and grass silages showed temperature control benefits up to 66 % cooler at feed-out vs untreated silage
- Economic returns of ~ US $18 per ton DM from reduced loss and better feed value.

PRACTICAL GUIDELINES FOR NZ USE

1. Harvest at target DM to optimise fermentation.
2. Chop length 10-15 mm for grass; 15-20 mm for maize.
3. Compact to > 700 kg FM/m³ and seal within 12 hours.
4. Apply **SILOSOLVE FC** evenly across the forage layer.
5. Maintain tight covers and weight edges for maximum anaerobiosis.

FORM:

Freeze-dried powder with carrier and activation solution

PACKAGING:

Box contains 10 x 200g sachets sachets, a 200g sachet treats 100 tonne of fresh forage

MIXING:

Dissolve in clean water and apply uniformly using inoculant applicator or spray bar

LABEL & SAFETY INFORMATION

- *Non-hazardous freeze-dried live bacteria.*
- *Use within 24 hours after mixing with water.*
- *Avoid direct sunlight during application.*
- *SDS and technical data available from BPM*

SCAN QR FOR TRIALS & DEMONSTRATIONS

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Blue Pacific MINERALS

Manufactured by:
Blue Pacific Minerals 11-17 Huttloc Drive, Tokoroa 3420, New Zealand
P 0800 678 444 **www.bpmnz.co.nz**