



Blue Pacific
MINERALS

CLEVER *by* NATURE



PROVENTUS DS

BIOSTIMULANT COMPLEX FOR PASTURES & CROPS

PROVENTUS DS is an advanced, water-soluble biostimulant complex developed by Novonesis, formulated to help New Zealand pastures and crops withstand stress and perform at their best.

It combines humic acids, cold-water kelp extracts, amino acids, vitamins C, B₁, E, and myo-inositol - a natural complex that enhances root and shoot growth, improves nutrient uptake, and helps plants recover from stress events such as drought, cold, grazing, and high nitrogen load.

Ideal for pasture renovation, maize establishment, forage brassicas, and arable cereals, **PROVENTUS DS** supports faster recovery and sustained productivity under New Zealand's variable climate conditions.



FEATURES:

- **Multi-Stage Biostimulant:**
Supports establishment, growth, and regrowth following stress.
- **Stress Recovery System:**
Help to neutralise excessive production of stress molecules (reactive oxygen species, ROS) caused by cold, drought, grazing, herbicide damage, waterlogging or nitrogen application.
- **Root & Shoot Balance:**
Promotes root initiation and nutrient efficiency, driving pasture persistence.
- **Antioxidant Vitamin System:**
Combines C, B₁, E to protect cell membranes and chloroplasts.
- **Flexible & Safe:**
Compatible with liquid fertiliser systems, drench, foliar, or fertigation.
- **Non-Phytotoxic:**
Safe for seedlings, emerging pasture, and sensitive crops.

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SCIENTIFIC BASIS - ROS MANAGEMENT TABLE

Stress Event → Reactive Oxygen Species (ROS) → **PROVENTUS DS** Fit

STRESS EVENT	MAIN ROS TRIGGERED	VISUAL CUES	KEY PROVENTUS DS INGREDIENT FIT
Grazing / Cutting	$O_2^{\bullet-}$, H_2O_2 , $\bullet OH$	Browning, wilted patches, slow regrowth	Thiamine (B_1) - ROS scavenging + SAR priming; Kelp (polyphenols); Humic acids - neutralize ROS
Cold < 10 °C	1O_2 , $O_2^{\bullet-}$, H_2O_2	Purpling, tip chlorosis, stunted growth	α -Tocopherol (1O_2 scavenger); Ascorbic acid (H_2O_2); Thiamine ($O_2^{\bullet-}$)
Hot / Dry Weather	1O_2 , $O_2^{\bullet-}$, H_2O_2	Leaf rolling, scorch, reduced leaf area	α -Tocopherol (1O_2); Ascorbic acid (H_2O_2); Kelp - osmolyte production
Waterlogging	$O_2^{\bullet-}$, H_2O_2 , NO^{\bullet} → $ONOO^-$	Yellowing, rotting roots	Ascorbic acid + Myo-inositol - H_2O_2 control; Humic acid - redox balance
UAN or Urea Application	$O_2^{\bullet-}$, H_2O_2 , NO^{\bullet}	Tip burn, patchy greening	Ascorbic acid + Thiamine - ROS neutralize; Humic acid - osmotic control
Pest / Pathogen Attack	$O_2^{\bullet-}$, H_2O_2 , $\bullet OH$	Lesions, curling leaves	Thiamine - SAR activation; Kelp polyphenols - defence trigger; Amino acids - signalling

INGREDIENT MODE OF ACTION TABLE

PROVENTUS DS is distinctive as a biostimulants because it combines 7 anti-oxidant rich ingredients in a single product. These anti-oxidants have complimentary functions in stress mitigation.

INGREDIENT	FUNCTION IN STRESS MITIGATION	NZ RELEVANCE / EXAMPLES
Cold-water kelp	Polyphenols and osmolytes protect cells from heat/drought	Pasture establishment in pumice & ash soils
Ascorbic acid (Vit C)	ROS scavenger, restores cellular balance after stress	Summer dry, irregular rainfall zones
Thiamine (Vit B ₁)	Primes systemic acquired resistance (SAR); aids root regeneration	Post-UAN application or frost recovery
α -Tocopherol (Vit E)	Protects chloroplasts during cold/heat stress	Pasture trampling, cut and carry systems
Myo-inositol	Maintains antioxidant levels, precursor for Vit C	Winter sown crops and frost events
Amino acids	Promote signalling and N assimilation	Supports energy metabolism in rapid growth

CROP & PASTURE USE GUIDE

Application Timing and Purpose

CROP TYPE	TIMING	OBJECTIVE
Pasture (Ryegrass / Clover)	7 - 10 days post-germination or after grazing	Stimulate root regrowth and chlorophyll recovery
Maize & Cereals	4-leaf stage + pre-tassel or boot stage	Enhance nutrient uptake and drought tolerance
Kale / Fodder Beet	2-true-leaf stage and mid-season	Reduce cold and transplant stress, improve root mass
Vegetables / Horticulture	Transplant + 30 days interval	Reduce shock and improve flowering and fruit set

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TARGET CUSTOMERS

- Dairy farmers managing rotational grazing and pasture renovation.
- Contractors using liquid fert or UAN systems.
- Arable growers who face difficult soil or environmental conditions at critical times of crop growth and development.
- Horticultural crop growers who wish to protect the yield potential of crops from adverse conditions that may be experienced during flowering and fruit set.
- Agronomists and consultants building biological resilience into fertiliser programs.

KEY BENEFITS

- **Faster Stress Recovery**
Neutralises oxidative damage from cold, drought, grazing, herbicide damage, waterlogging and nutrient stress.
- **Improved Root and Shoot Development**
Humic + kelp synergy for stronger plants.
- **Enhanced Nutrient Efficiency**
Amino acids and inositol improve assimilation.
- **Greater Yield and Persistence**
Better tillering and biomass in pastures and crops.
- **Compatible with BPM Liquids**
Integrates seamlessly with ProGro, NS32 and bio-enhanced ranges.



RATE:
250 - 500 g/ha
(1 - 2 applications 30 days apart)

FORM:
Water-soluble powder

PACKAGING:
10kg bag / 25kg drum

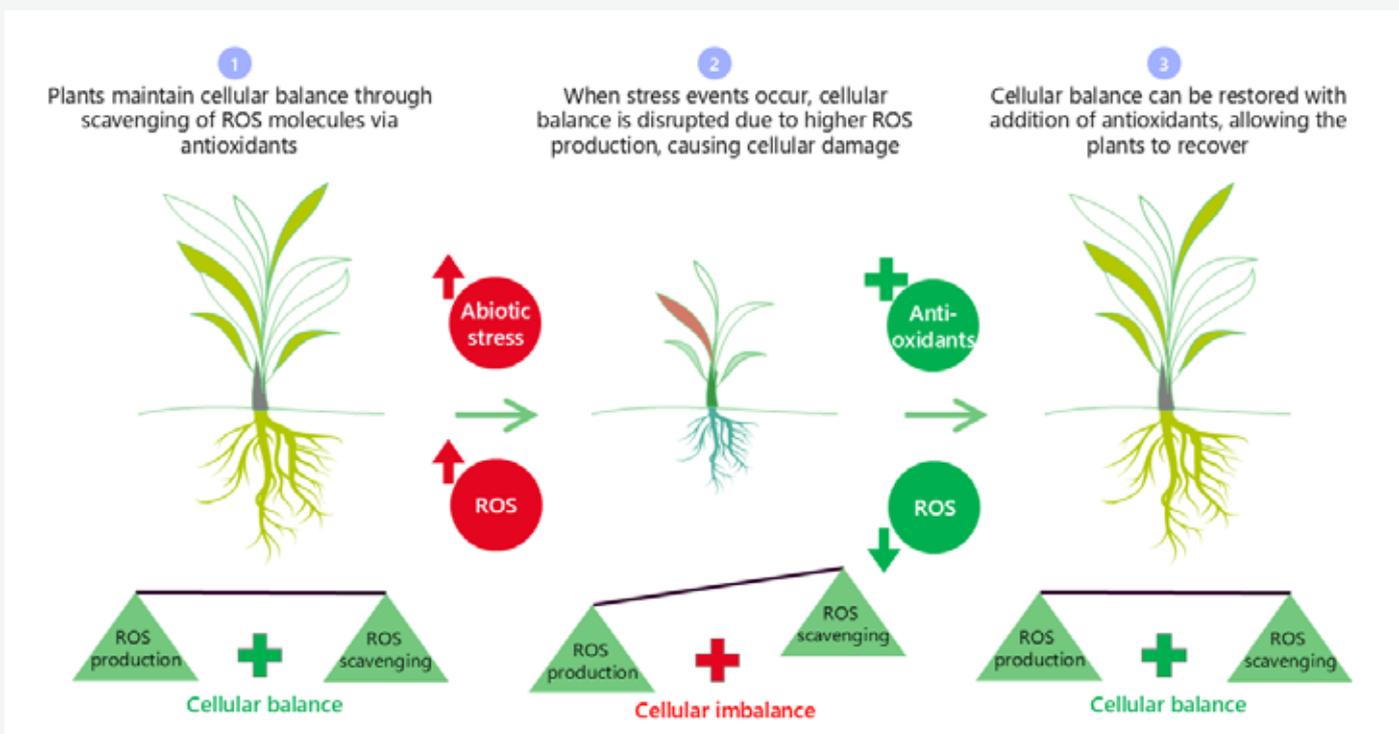


FOR
DAIRY FARMERS
MANAGING
ROTATIONAL
GRAZING AND
PASTURE
RENOVATION



PERFORMANCE EVIDENCE

- Apple Yield Improvement (+16%)
- Green gram stress trial (+7% weighted average yield gain)
- 90% trial success rate across multiple crops
- Illustrate oxidative stress diagram (ROS vs antioxidants equilibrium)



SCAN QR FOR TRIALS & DEMONSTRATIONS

LABEL & SAFETY INFORMATION

- *Biostimulant complex - non-hazardous and biodegradable*
- *SDS and technical data available*



Blue Pacific MINERALS

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