



Blue Pacific
MINERALS

CLEVER *by* NATURE



REVV

FLAVONOID SIGNAL TECHNOLOGY FOR LEGUME & PASTURE PERFORMANCE

REVV is a biological signalling technology developed by Novonesis, based on naturally occurring flavonoid compounds that activate the communication pathways between plants and beneficial soil organisms.

These flavonoids act as molecular “messengers”, triggering the colonisation of roots by rhizobia and mycorrhizal fungi, which are essential for efficient nitrogen fixation, nutrient uptake, and plant resilience.

In New Zealand’s pastoral and arable systems, **REVV** enhances legume nodulation, mycorrhizal activity, and rhizosphere vitality, making it ideal for clover-based pastures, lucerne, peas, beans, and mixed swards where nitrogen efficiency is critical.



FEATURES:

- **Natural Flavonoid Signal:**
Initiates rhizobia and mycorrhiza communication for early nodulation and symbiosis.
- **Improved Root-Microbe Interaction:**
Strengthens the plant-soil interface for greater nutrient uptake.
- **Enhanced Nitrogen Fixation:**
Supports legumes to form stronger, more active nodules earlier in the season.
- **Low Use Rate, High Impact:**
Convenient, concentrated liquid applied on seed, in furrow or as a foliar spray.
- **Broad Compatibility:**
Mixable with most chemical and biological seed treatments.
- **Boosts Soil Biology:**
Promotes beneficial microbial recruitment and plant communication networks.
- **Sustainable Technology:**
Reduces reliance on synthetic nitrogen inputs by improving biological N fixation.

novonesis

THE SCIENCE - HOW REVV WORK

REVV uses flavonoid compounds (isoflavonoids) as signal molecules to “prime” plant-microbe dialogue

1. Flavonoid Signalling

- Plants release flavonoids into the rhizosphere to recruit rhizobia and mycorrhizal fungi.
- REVV supplements this process by providing pre-formed flavonoids that accelerate symbiosis.

2. Rhizobial Response

- Rhizobia perceive flavonoids and respond by producing lipo-chitooligosaccharides (LCOs), or Nod factors, which trigger nodule initiation.

3. Mycorrhizal Response

- Similarly, REVV supports strigolactone-based mycorrhizal signalling, improving hyphal branching and colonisation.

4. Outcome

- Earlier and stronger root colonisation.
- Improved nitrogen fixation, phosphorus uptake, and plant health.

TARGET CUSTOMERS

- Dairy and livestock farmers seeking to strengthen clover performance and reduce synthetic N dependency.
- Arable growers producing peas, beans, or cover crops for soil fertility.
- Agronomists promoting soil health and regenerative systems.
- Seed treatment companies looking for advanced biological signalling technologies.



FOR
AGRONOMISTS
PROMOTING
SOIL HEALTH &
REGENERATIVE
SYSTEMS

MODE OF ACTION TABLE

MODE	FUNCTION	RESULT	NZ RELEVANCE
Flavonoid Signalling	Stimulates microbial communication	Rapid nodulation and mycorrhization	Clover, lucerne, peas, beans
Nod Factor Induction	Triggers root nodule formation	More effective N-fixation	Dairy and mixed pastures
Mycorrhizal Activation	Encourages AMF branching and colonisation	Enhanced P and micronutrient uptake	Low-P pumice soils
Rhizosphere Priming	Recruits beneficial bacteria	Greater soil biological activity	Grazed paddocks & legume undersowing
Seed Interface Protection	Compatible with seed coatings	Convenient inclusion in drilling mixes	Clover, ryegrass and other seed blends

APPLICATION & COMPATIBILITY

METHOD	RATE	TIMING	NOTES
On-Seed Treatment	≈ 12 ml / 45 kg	At sowing	Mix with compatible seed treatments; maintain agitation
In-Furrow / Drill	30-50 ml / ha per 100 litres of water	At planting	Compatible with inoculants and biologicals
Foliar (for legumes or pastures)	100 ml / ha as standalone product or 50 ml/ha when combined with 100 ml/ha RATCHET LCO	Early vegetative stage	May be tank-mixed with foliar nutrients, and with RATCHET LCO

TARGET CROPS & PASTURE SYSTEMS

- Clover-based pastures**
Enhance nodulation and N fixation post-grazing.
- Lucerne (alfalfa)**
Improve establishment, root development, and persistence.
- Forage legumes (peas, beans, vetch)**
Support early root colonisation and nutrient efficiency.
- Mixed swards & dairy pastures**
Improve clover performance under high N use systems.
- Brassicas**
REVV is not favoured for use on brassica crops such as canola, kale and cabbage.



PERFORMANCE SUMMARY

- Field trials show significant increases in nodulation and early growth in legumes when **REVV** is used at low dose rates
- Compatible with most seed treatments; proven over a decade of commercial use in North America.
- Ideal companion to **RATCHET LCO** and Attis P-Solubiliser within **BPM's** integrated soil-biology program.



KEY BENEFITS

- **Earlier Nodule Formation:**
Flavonoid signals initiate nodulation before natural release peaks.
- **Improved Nutrient Cycling:**
Promotes mutualistic soil microbe activity.
- **Higher Nitrogen Fixation Efficiency:**
Supports legume performance and soil fertility.
- **Greater Root Activity & Mycorrhizal Uptake:**
Better water and P use efficiency.
- **Low Volume, High Return:**
Simple seed-coat, in-furrow or tank-mix application.
- **Sustainable Farming Tool:**
Enhances productivity through natural symbiosis rather than chemical inputs.



FORM:
Liquid

PACKAGING:
473 ml bottle
(treats ~80 units of clover or lucerne seed)

ACTIVE INGREDIENT:
0.133 % w/v isoflavonoid compounds

LABEL & SAFETY INFORMATION

- *Active ingredient: 0.133 % isoflavonoid compounds.*
- *Non-hazardous plant signal compound; avoid skin and eye contact.*
- *SDS and application guide available.*



SCAN QR FOR TRIALS
& DEMONSTRATIONS

00102025



**Blue Pacific
MINERALS**

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