

RUSTICA TIME RELEASE® CR-N44

CONTROLLED RELEASE NITROGEN

Rustica CR N44 contains 44% Nitrogen encased in a biodegradable plant-based coating designed to release over 90-120 days

- Long Term sustained N Release over 90-120 days
- Ideal for both pastures and crops
- Higher N recovery and efficiency
- Reduced potential leaching
- No Volatile N Losses
- Use at 70-80% of standard Urea rates
- Reduces N inputs in Overseer
- Less applications, less cost
- Environmentally friendly



REDUCES
N INPUTS IN
OVERSEER

APPLICATION RATE GUIDELINES:

Rustica® Time Release is a range of Controlled Release Fertilisers (CRFs).

Release rates will vary according to grade selected, the soil temperature, and the availability of adequate moisture to activate them. In excessively wet conditions, these CRFs do not release any faster which means low losses to leaching. Because in the case of CR-N44 and CR-NK, there is no volatilisation of N, they provide much higher N efficiency due to the metered release of N over time. Because there are no gaseous losses, application can occur in dry conditions.

FODDERCROPS

Fodderbeet: This crop has a high demand for Potassium so Potash should be applied in the base dressing, especially in second and subsequent years on the same ground. Drilling with **Rustica® Kickstart** is an ideal starter fertiliser with a balance of NPKS to get the crop established. **Rustica CR-NK** is sidedressed @ 210-250kg / ha at 4-6 leaf stage, and before canopy closure. No further dressings should be required.

Kale: Apply 110kg/ha (Dryland) or 210kg/ha (Irrigated) Rustica CR-N44 at 4-6 weeks post emergence. This should carry the crop through without the need for further applications.

Maize: Depending on deep N soil test results, paddock history, and amount of starter N applied, aim to supply a total of 220kg N/ha for a 20mt crop. Apply the balance of N as Rustica CR-N44 calculated at 65% the rate it would be applied as Urea. e.g. 100kg N = 220kg Urea x 0.65 = 145kg/ha Rustica CR-N44. No further dressings should be required.

DAIRY PASTURE

Apply **Rustica CR-N44** at 65-70% the rate of standard Urea/Sustain/N-Protect in **ONE application** which should be enough to last 90-120 days, ie., if 3x 100kg Urea normally applied, use 1 x 195-210kg CR-N44. As there are no volatile losses with Rustica CR-N44, dry weather application is fine, and N efficiency is superior to standard alternatives. As less N is applied, that counts in Overseer to reduce N loadings overall.

APPLICATION:

Spread through conventional equipment, however if any dust is observed, back off the spinner speed rpm until no further dust is evident. Some spreaders have an aggressive action that will damage the coating causing premature release of the contained nutrients. Bredal spreaders need to be set at no more than 550-600rpm on Shute setting 7.5-8.0 to deliver an even 24m spread width without damage to the coating.

AVAILABLE FROM:



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RUSTICA TIME RELEASE®

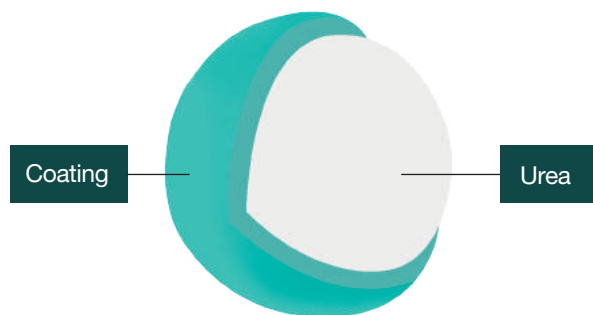
CONTROLLED RELEASE FERTILISER



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Biodegradable Plant Based Resin COATING TECHNOLOGY



RUSTICA TIME RELEASE CRFs are fertilisers made by encasing Urea and Potash with patented biodegradable modified plant based coatings, the number of which will determine the nutrient release characteristics, ie, the more coatings, the longer the release.

Nutrient supply is continuous and stable, slower in cooler conditions, faster when warmer. The same conditions that control plant growth rates apply to the nutrient release from these CRFs.

In soils, the absorption of water by these CRF granules occurs because of Osmotic pressure, ie, high concentration of nutrient (salt) inside the granule causes moisture to be pulled into the granule via minute pin holes in the coating where it is dissolved in water causing the granule to swell. As the swelling increases over time more nutrient is released, until all the salts are dissolved and release is complete.

The key release factors that determines release rate are temperature, followed by moisture, followed by coating thickness.

RUSTICA TIME RELEASE® CR K42

Rustica CR K42 (NPKS 0-0-42.3-0) are spherical MOP granules encased with biodegradable plant based coating with a release time of 90-120 days depending on soil temperatures and moisture availability.

Using Rustica CR K42 on Dairy pasture will ensure a steady availability of K without causing metabolic disorders such as Milk Fever or Grass Staggers by reducing luxury uptake of K. Soil nutrient antagonism with Mg and Ca is avoided.

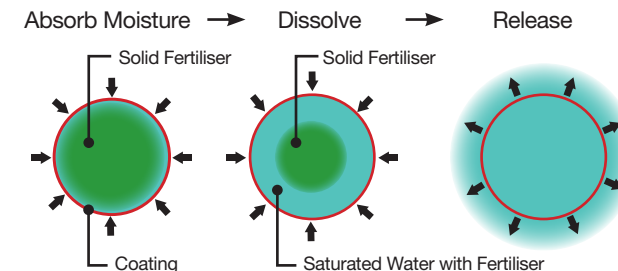
Use at 65-75% rate of Standard MOP either alone or in fertiliser mixes. Take care when mixing that mixing equipment does not damage the coating. Avoid screw type mixing equipment and screw type augers for this reason. Ideally CR K42 should be applied alone or as Rustica CR NK to avoid mixing damage.

When spreading avoid excessive spinner RPM that will damage the coating and cause premature release.

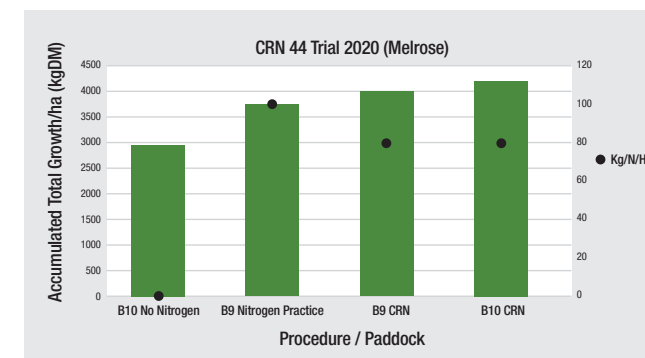
Rustica CR NK (NPKS 26-0-17-0) is a 60:40 factory blend of CR N44 and CR K42 designed specifically for Fodderbeet and other Fodder crops, also for direct application to Dairy Pasture. Release time is 90-120 days.

Both grades are ideal on Peat, sandy, or lighter soils where K is more prone to leaching.

RUSTICA TIME RELEASE® CR N44



Initial CR-N44 trials on Canterbury dairy pasture very encouraging



Value of Additional DM Production Using CRN 44

In this trial we recorded;

- Superior NUE (Nutrient Uptake Efficiency) of CRN 44 grew 62% more DM
- The cost of the DM grown using CRN 44 was \$0.20 cents/kg
- The N applied as CRN 44 was 0.8 kg N/ha/day to produce 4186 kg DM/ha
- N applied as urea at 1.0 kg N/ha/day cost \$0.22 cents/kg DM to give 3836 kg DM/ha
- The margin over cost of N applied in this trial was \$31/ha for CRN 44 calculated with pasture at \$0.25 cents/kg DM and pasture at 3.7% N content
- Volatilisation losses make urea very inefficient and therefore more expensive
- CRN 44 gave outstanding value and reduced N losses
- CRN 44 supplied N to the pasture consistently for 90-100 days
- The supply of N from CRN 44 was closely matched to pasture requirements
- CRN 44 from Viable Agriculture will improve pasture production and reduce cost
- CRN 44 will minimise losses of N and improve compliance requirement
- CRN 44 will enhance the sustainability of your farming business

