

The Nutrient Revolution Is Here — and It Changes Everything for SA and Global Producers

Our new biological nitrogen technologies are delivering more than 65 kg of fixed N per hectare, at a fraction of the cost of urea, with zero volatilisation, no soil acidification, and full regenerative compatibility.

Here is why every SA Producer should be paying close attention right now.....For more than eight decades, the Haber-Bosch process has sat at the foundation of nitrogen fertilisation across South Africa and the world. Urea has been the king of Nitrogen provisions: reliable, widely available, and universally understood. But that dominance has come at a steep price: volatilisation losses, soil acidification, high logistics costs, supply chain vulnerabilities, and an increasingly uneasy relationship with the principles of regenerative agriculture.

Even our most progressive regenerative producers, those who have committed to building soil health and reducing input dependency, have continued to struggle with nitrogen shortfalls as they try to scale up productivity targets. The soil Nitrogen bank and input Nitrogen has not been able to keep pace with yield ambitions. Until now.

“More than 65 kg of mineralised soil N, per hectare can now be produced over eight weeks, independently of any plant or any chemical process and is available right now supported with our Granular Mineral provisions”

The atmosphere is 78% nitrogen. What has changed dramatically is our ability to cost effectively harness it, independently of any plants or the need for any mechanical or electrical means. These breakthroughs in microbial biology have produced new strains and consortia capable of fixing and mineralising atmospheric nitrogen, energised with NIR (Near Infra-Red) energy at commercially meaningful rates (**of more than 65 kg of plant-available N per hectare**, every eight weeks, independently of leguminous host plants).

These Agri and Bio Granule products are now produced and **available in South Africa from our Springs Production Facilities**. They can be pre-blended and deployed as a co-supply alongside existing NPK granule programmes (excluding chemical nitrate-type N/carbon, to exclude explosive blend risks), or as stand-alone 100% regenerative planting band provisions with additional, pre- and post-planting N and other P, K and Mineral provisions.

Why This Matters to Your Bottom Line

South African grain producers are facing a perfect storm in 2026: input Nutrient costs that remain stubbornly elevated with commodity prices still under pressure. Our Biological nitrogen addresses all three simultaneously:

BENEFIT	WHAT IT MEANS FOR YOUR OPERATION
Zero Volatilisation	Every kilogram of N applied reaches the soil system. No losses to atmosphere, no early-morning application anxiety, no weather-window stress.
No Soil Acidification	Eliminate future liming costs. Protect your long-term soil capital without the pH management overhead that synthetic N demands.
Lower Logistics Cost	With negligible physical mass relative to conventional granular N, transport, storage and on-farm handling costs drop dramatically.
Reduced River Pollution Risk	Regulatory and ESG pressure on nutrient runoff is only increasing. Biological N positions your operation ahead of the curve.
Supply Chain Independence	Urea prices track global gas markets and geopolitics. Biological N puts you in control of your own input economics.
Desert & Marginal Land Potential	Where water is available, these technologies enable the early and cost-effective conversion of degraded or overly sandy soils into productive agricultural land at viable cost with our Bento desert range of Nutrients.

The Regenerative Producer’s Advantage

For those already **on a regenerative journey**, this is not a disruption, **it is the missing link to easy and continuous soil productivity**. Our Biological nitrogen does not damage the soil microbiome the way synthetic nitrogen does. It works *with* the biology and organic matter you have been building, not against it. For conventional producers, it represents **a low-risk entry point into regenerative practice that does not require abandoning existing yield targets**.

We encourage every producer not already on our network, to treat the current season as the opportunity to trial these technologies on a portion of your hectares, with your local soils, weather and crops. It is the new step to profitable productivity, even in tough years! Our Biological nitrogen and full NPK Plus Nutrients are no longer a future technology, they are a present season decision.

TALK TO YOUR AGRONOMIST THIS SEASON

Ask specifically about biological nitrogen options that are compatible with your current NPK programme. Request trial plot designs for a portion of your farm so you can measure N outputs, soil biology response, and input cost savings against your conventional blocks, with your own data, on your own land.

The producers who trial this season will have two seasons of data when the wider market catches up. First-mover advantage in input cost reduction is real, and it is available now.

