

EL-I TECH™ · CONDENSED FACT SHEET

# Nitrogen Fixation at Scale

The biggest global agricultural breakthrough in 70 years.

## Core breakthrough

- First-ever plant-independent nitrogen fixation at scale.
- Continuous nitrogen delivery without relying on the host plant.
- Zero energy drain on crops.
- Considered the most significant agricultural advancement in decades.

## Performance & impact

- **Replaces up to 220 lbs of conventional fertilizer per acre** — with only 0.1 lb of EL-I Tech™.
- Improves nitrogen-use efficiency and reduces transport costs.
- **Validated across 1,000,000+ acres globally**
- Proven across multiple crops, climates, soil types, and hydroponics.

## Key results

- **75% profit increase** — corn
- **54% profit increase** — sunflowers
- **35–38% yield increase** — citrus
- **13% yield increase** — potatoes
- **30% biomass increase & 10% chlorophyll increase** — wheat
- **100% nitrogen satisfaction** — hydroponic blueberries
- **Dryland wheat** — 4.5 t/ha vs regional 2 t/ha

## Triple-action biological system

- **EL-I Tech™** — plant-independent nitrogen fixation
- **sParK Tech** — phosphorus & potassium liberation
- **Carbon Crushers** — hydrocarbon remediation

## Integration & compatibility

- **100% natural, non-GMO, biologically safe**
- No risk to soil microbiology, crops, humans, or animals.
- **24-month shelf life** — in dormant form. Activates within minutes once in soil.

- Integrates into: liquid systems, granular blending/coating, water-soluble mixes, compost, wettable powders, seed-coat mixes.
- **No new equipment required**
- Fully compatible with UAN, urea, ammonium systems, and precision-ag programs.

## Why it matters now

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- Nitrogen volatility and rising input costs.
- Regulatory pressure on nitrogen use.
- Labour shortages and demand for fewer passes.
- **Manufacturers need portfolio resilience.**
- **Farmers want efficiency, reliability, and reduced risk.**
- Market demand for sustainable, high-performance solutions.

## Digital ecosystem — a game-changer

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- Fully digital, scientifically validated field-trial system.
- Mobile-first onboarding.
- Protocol-driven workflows that remove guesswork.
- GPS-verified data capture.
- Soil, sap, and field-photo uploads.
- Automated yield and protein calculations.
- Visual dashboards with validated data.
- Mission Control for manufacturers — real-time trial visibility, farmer management tools, portfolio-level performance metrics.
- Satellite NDVI / NDRE verification.
- Voice-note field capture.
- Historical trial data warehousing.
- Dual-region data sovereignty.
- Integrated ordering and inventory management.

### OUTCOME

A global, independently verified, data-rich ecosystem proving biological performance from the ground and from space.

## About the technology & team

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- **Developed by Custom Chemistry** — a South African biotech company with 25 years of innovation.
- **Only licensed manufacturer of EL-I Tech™ globally.**
- **Powered by a patented symbiosis** — between autotrophs and diazotrophs.
- Supported by independent scientific validation and large-scale commercial performance.

- **Key team** — Gerhard Vermaak — Inventor · Paul Vermaak — Operations · Isolde Viljoen — Lead Scientist.

## Where to find more

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- Full scientific data, safety documentation, and case studies at [EL-I.tech](https://www.el-i.tech).

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EL-I Tech™ · Nitrogen fixation, independently. [el-i.tech](https://www.el-i.tech)