

 **Advance**

ENERGIZE

NUTRIENT RELEASE & DELIVERY TECHNOLOGY



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MICROSOIL
liquid fertiliser

Energize has been created to put the energy back into tired, heavily farmed soils.



Advance ENERGIZE

NUTRIENT RELEASE & DELIVERY TECHNOLOGY

Energize (NRDT) is a unique combination of liquid nutrients, enzymes, amino acids, sugars and bio-stimulants that release tied up nutrients and deliver those nutrients to plant roots.

The product ingredients have been carefully balanced with an array of trace minerals to aid in overall plant health and vitality.

Crops

Energize can be safely used in any crop to give a plant greater access to soil applied nutrients.

Energize is currently used in the following sectors:

- Horticulture
- Broad acre cropping
- Viticulture
- Cotton
- Pastures
- Turf grass

Energize is applied at specific times during the growing season, generally straight after the application of fertilisers or manures.

INCREASE
PLANT NUTRIENT UPTAKE

REDUCE
FERTILISER LOSS

Application Methods.

- Liquid inject
- Fertigation
- Water run
- Plant hole drench
- Boom spray

Energize can be tank mixed with fertiliser and pesticides to increase plant uptake in key growth periods.

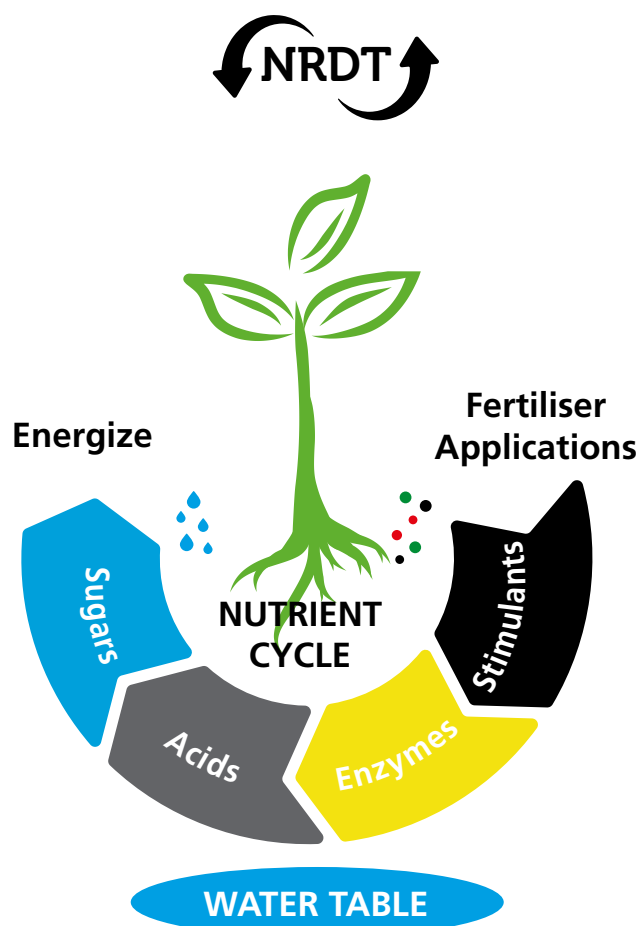


Beneficial Modes of Action.

Energize is a formulation of nutrient, enzymes carbohydrates and bio stimulants that extract and deliver greater amounts of nutrients to plants. This unique combination of ingredients leads to three independent yet linked modes of action:

- **Nutrient Extraction** – formulation contains enzymes that are exuded through all root systems to enhance nutrient mineralisation and release locked up nutrients (Phosphorus etc)
- **Rhizosphere Microbe Stimulation** - the carbohydrates in Energize activate soil microbes to deliver soil nutrients to plant root systems
- **Trace Mineral Delivery** - aids in overall plant health and vigour.

Components of carbohydrates, organic acids and amino acids can liberate soil organic solutes from their mineral protection, which in turn promote the microbial mineralisation of soil organic matter and the release of inorganic nutrients into the rhizosphere for uptake by plants (Jones, Hodge et al 2004).



**INCREASE
YIELD.**

**INCREASE
MINERALISATION.**

**MAXIMISE
FERTILISER UPTAKE.**

**REDUCE
LOSSES.**

**DECREASE
FERTILISER TIE UP.**

Five years of R&D and successful field trials has been invested into the creation of Energize.





Trial Work.

Trials conducted in laboratories and the field have demonstrated the ability of Energize to release soil bound nutrients and increase their uptake by plants via the mentioned Beneficial Modes of Action.

SOIL BIOLOGY LEVELS

Micobes	Slow Release Fert	Energize	% Difference
Nutrient Solubilizing	68.9	77.3	12%
Nutrient Cycling	89.4	97.1	9%
Disease Resistance	79.2	84.9	7%
Total Microorganisms	45.2	67.4	49%
Total Fungi	27.5	44.8	63%
Fungi: Bacteria	1.8	2.5	39%
Bacterial Stress	0.9	0.8	-11%
N	3.586	4.581	28%
P	1.351	1.941	44%
K*	0.452	0.647	43%
S*	0.452	0.647	43%
Ca*	0.452	0.647	43%
Mg*	0.452	0.647	43%
Carbon	21.246	30.118	42%

* Estimation of value given

Method	L/HA	Application Timing
Fertigation	10 - 20	With fertiliser application and again 2 - 3 weeks later.
Liquid Inject	5 - 10	At planting.
Water Run	10 - 20	First water after planting and again after side dress fertiliser application.

Ingredients: 1.6% K, 0.4% Ca, 15% carbohydrates, organic acids, amino acids, trace minerals, enzymes. pH: 4 - 6

About Microsoil Australia.

Significant investment into Research & Development over the last 10 years has seen Microsoil develop, manufacture and supply an extensive range of high quality products for agricultural production. The range of independently tested, innovative products includes:

- Liquid fertilisers
- Plant stress relief products
- Plant and soil stimulants
- Colour enhancement (red skin fruit)
- Crop protection products

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