

Effective nutrient use efficiency tool to help you achieve consistent yield gains and superior quality

Nitrogen is crucial for building yield, volume and quality

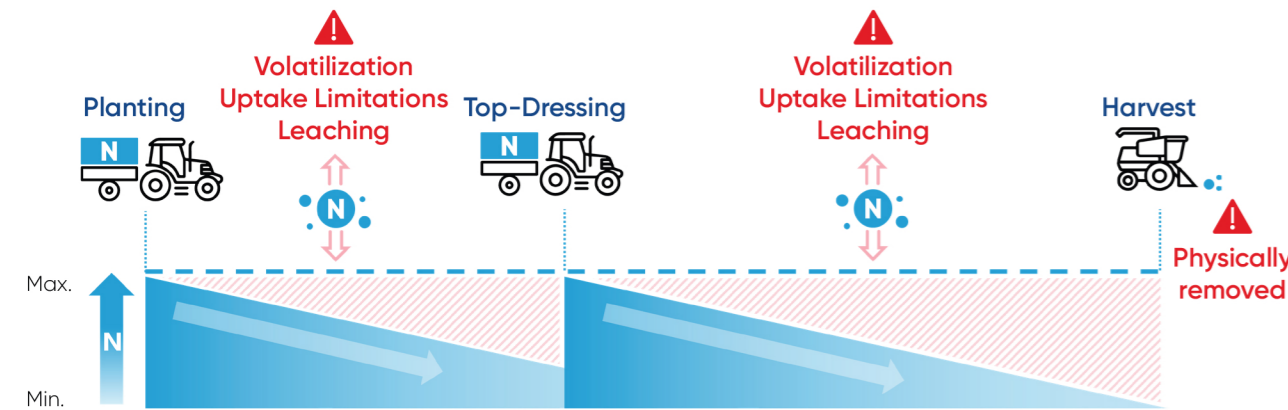


But...

Up to 50% of applied agricultural nitrogen can be lost to the environment

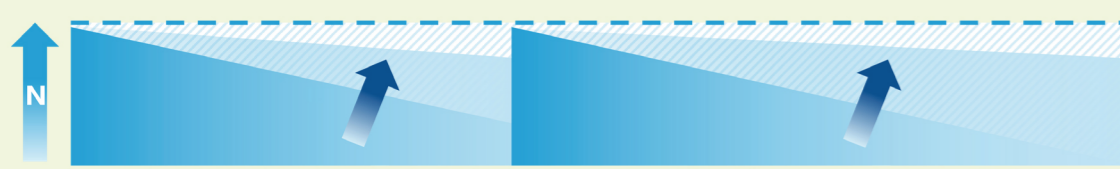
Traditional Soil Nitrogen Management

Nitrogen is typically applied twice in a crop cycle. However the availability of nitrogen for crops decrease throughout the season due to several factors.



At peak demand, nitrogen may be insufficient in the soil or inaccessible to the plant due to stress factors

Great farmers know that the real opportunity is to **empower** their crops to utilize the nutrients that are already there.



Application Guide



Leafy vegetables

Application: Foliar
Dosage: 333g/Ha
Frequency: 1 application/crop cycle
Time of application: 10-20 days after sowing/ planting and having sufficient leaf foliage
Water volume: 500litres/Ha



Durian

Application: Foliar
Dosage: 333-500g/Ha
Frequency: 1 application/crop cycle
Time of application: After shoot flushing
Water volume: 500-1000litres/Ha depending on crop stage



Fruity vegetables

Application: Foliar
Dosage: 333g/Ha
Frequency: 1 application/crop cycle
Time of application: 20-30 days after sowing/ planting and having sufficient leaf foliage
Water volume: 500litres/Ha



Oil palm (Nursery)

Application: Foliar
Dosage: 333-500g/Ha
Frequency: 1 application until transplanted
Time of application: Anytime of the year
Water volume: 100-200liters/Ha using knapsack depending on crop stage



Rice

Application: Foliar
Dosage: 333g/Ha
Frequency: 1 application/crop cycle
Time of application: 20-30 days after sowing/ planting and having sufficient leaf foliage
Water volume: 60litres/Ha (Drone)
 100litres/Ha (Mistblower)



Oil palm (Immature and mature)

Application: Foliar
Dosage: 333-500g/Ha
Frequency: 1-2 application/year
Time of application: Anytime of the year
Water volume: 200liters/Ha using knapsack

Always read and follow all label directions and precautions when using any product alone or in tank-mix combinations



Crop parameters / Air Temperature / Air Humidity

- Apply in healthy and actively growing crops with sufficient biomass for foliar application
- Recommended temperature range is 5 to 30 °C. Optimal: 15 to 25 °C
- Air humidity 30 to 80%



Time

- Always check temperature and humidity conditions before Utrisha™ N application.
- Apply at time of the day that are within the recommended temperature range.
- Rainfastness: 1 hour / Storage: Consult supporting materials for specific guidance on storage.



Tank-Mix Compatibility

- As a living organism, results depend on bacteria colonization. Always check for compatibility to maximize results. Add Utrisha™ N as the last ingredient in the tank with constant agitation.
- Check for pH 5-8. Mix and apply within 6 hours.

The secret to empowering your crops

It's not how much you put down.

It's how much your crops take in.

Utrisha™ N
 NUTRITIONAL EFFICIENCY

Effective nutrient use efficiency tool to help you achieve consistent yield gains and superior quality

A unique bacterium that makes the plant a better forager

The exclusive and patented *Methylobacterium symbioticum* strain SB 23

Technical definition

Symbiotic bacterium, Pink-Pigmented Facultative Methylophils (PPMF)

Concentration

3 x 10⁷ CFU*/g

*Colony Forming Units

Enhanced production process to ensure best performance

Proven Effectiveness

In field conditions



Helping farmers make crops more nutrient efficient. That's why we developed Utrisha™ N, an effective nutrient use efficiency tool to help you achieve consistent yield gains and superior quality.

Utrisha™ N is composed of *Methylobacterium symbioticum* strain SB 23, a naturally occurring bacterium that supports the plant throughout the entire crop cycle.

Benefits

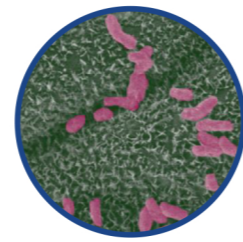
- 1. Continuous Nutrient Use Efficiency.** Utrisha™ N enables crops to efficiently use nitrogen and other nutrients for balanced nutrition and optimal plant development.
- 2. Supports growth throughout the crop cycle.** Utrisha™ N colonizes growing leaves to support growth in the younger parts of the plant
- 3. Minimizes nutrient waste.** Utrisha™ N helps you get more from your nutrient investment, by reducing waste and minimizing nutrient loss to the environment.
- 4. Flexible application and compatibility*.** Utrisha™ N integrates with your current farming practices and helps deliver proven results across a wide range of crops and geographies.
- 5. Supports farm sustainability.** Utrisha™ N is a biological solution featuring a naturally occurring bacterium that supports the efficiency and sustainability of the farm, with a low environmental impact.

Utrisha™ N helps farmers grow stronger, more productive crops - delivering consistent results and farmers who stay one step ahead of the game.

*Always check the compatibility list

Mode of action

Utrisha™ N supports continuous nutrient use efficiency throughout the crop cycle. Sprayed foliar, the bacteria quickly colonizes the aerial part of the plant, moving to actively growing leaves to support growth in the younger areas.



Sprayed foliar



Quickly colonizes the leaves

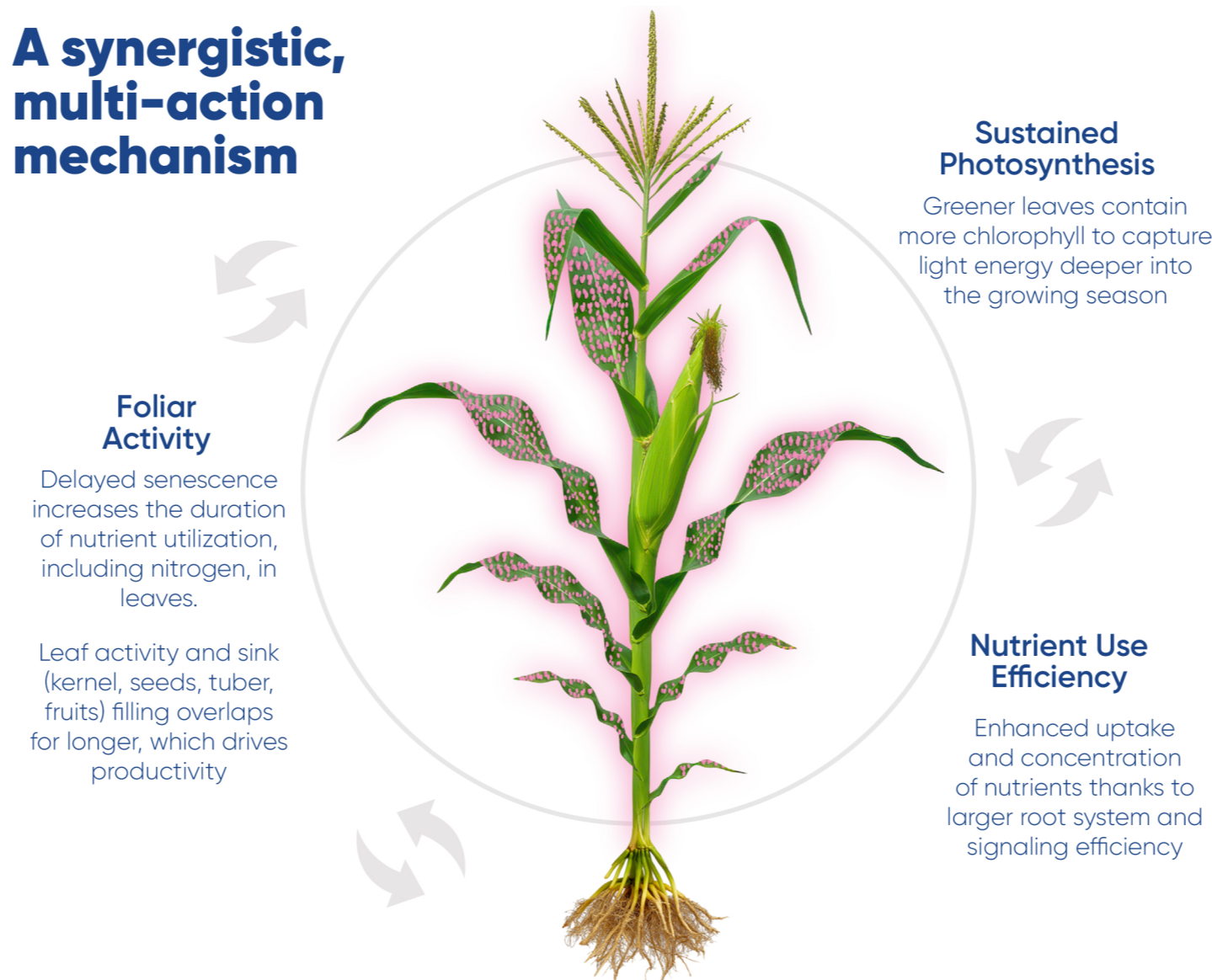


Moves to actively growing leaves

How it works?

Utrisha™ N supports continuous nutrient efficiency by enhancing multiple metabolic functions.

A synergistic, multi-action mechanism



Results

Utrisha™ N increase the **photosynthesis levels in plants later in the season**, leading to delayed senescence and greater vitality which ultimately drives **higher yields** and **quality** of the harvest.

Greater foliar activity

This can be measured through SPAD. A SPAD reading is a numerical value that represents the relative amount of chlorophyll in a plant's leaves.

A **higher SPAD** value indicates a higher chlorophyll concentration, suggesting a healthier, more nutrient-rich plant.



Consistent yield and quality gains



Corn

United States – 390 Field Trials
0.23 ton/ha average yield increase
71% Positive Results

Brazil – 136 Field Trials
0.36 ton/ha average yield increase
88% Positive Results

EMEA – 69 Field Trials
0.40 ton/ha average yield increase
80% Positive Results



Soybean

Brazil – 202 Field Trials
0.17 ton/ha average yield increase
80% Positive Results



Potato

Brazil – 32 Field Trials
2.5 ton/ha average yield increase
81% Positive Results



Citrus

Brazil, Spain, Australia <20 Field Trials
<3.0 ton/ha average yield increase
Fruit size increase



Table Grapes

Brazil, Chile, Spain <15 Field Trials
1.2 ton/ha average yield increase



Berries

Mexico, Guatemala, Peru <5 Field Trials
0.5 ton/ha average yield increase