

# NEXT GENERATION BIOLOGICAL SEED COATING

Biolevel GramaxNP Liquid Seed coating is the next generation of microbial seed coating technology.

A complete nutritional package that maximizes Nitrogen delivery and unlocks Phosphorus, Potassium and Micronutrition.

A first for the industry with a microbial product leading convenience and standardization to the agricultural market.

**EFFICIENT BIONUTRITION + WHOLE SEASON PERFORMANCE + CONVENIENCE**





# CONVENIENCE: EASY APPLICATION

## Typical Application Rate:

3.4 FL oz / cwt

## Storage:

No refrigeration requirement and a 2 year shelf life

## Application:

- Ready to apply right out of the container!
- No mixing with a separate biostimulant required!
- Product remains dormant in packaging and on seed, no "ballooning" of opened and re-closed containers!





# CONVENIENCE: FULLY COMPATIBLE

- Biolevel GramaxNP is compatible with standard seed coatings
- Biolevel GramaxNP can be applied as separate coating run or slurried with other products
- Glycerin based liquid, for broad compatibility as slurry
- Standard application rate of 2 Liters per metric ton of seed is designed to "leave room for other products"





# WHOLE SEASON PERFORMANCE

Better root development and emergence



**BETTER EMERGENCE + BETTER TIL COUNT + BETTER HEADS PER PLANT = BETTER YIELD**



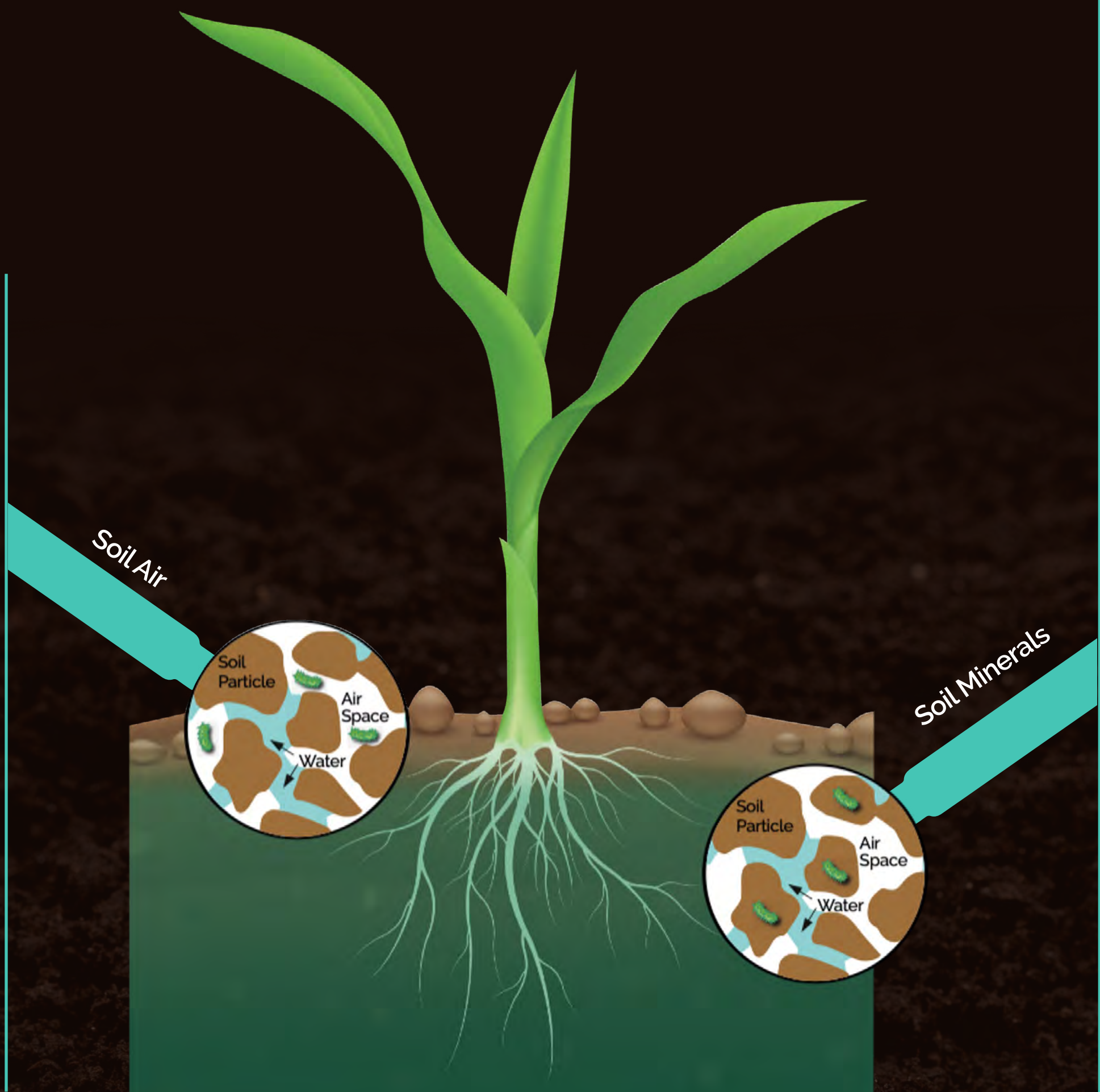
# BETTER NUTRITION

## NITROGEN

Natural pore spaces in the soil contain Air. Air is 78% Nitrogen in the form of N<sub>2</sub>, which is not plant available.

Nitrogen Fixation occurs when beneficial microbes convert N<sub>2</sub> into plant usable forms of Nitrogen such as Nitrates, Nitrites and Ammonia.

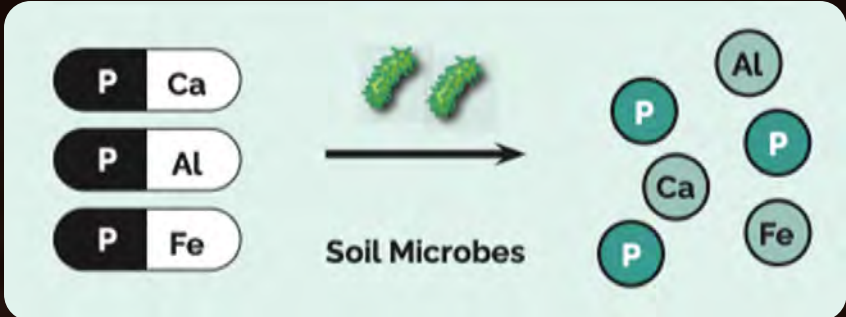
Bioevel contains a biodiverse team of bacillus, pseudomonas and azospirillum species, providing different biological pathways for reliable Nitrogen Fixation.



## PHOSPHORUS

P converts to water-insoluble P ("Lock up") in soil in acidic soils through contact with Fe Oxides or hydroxides and Al hydroxides and in alkaine soils through contact with Ca carbonat.

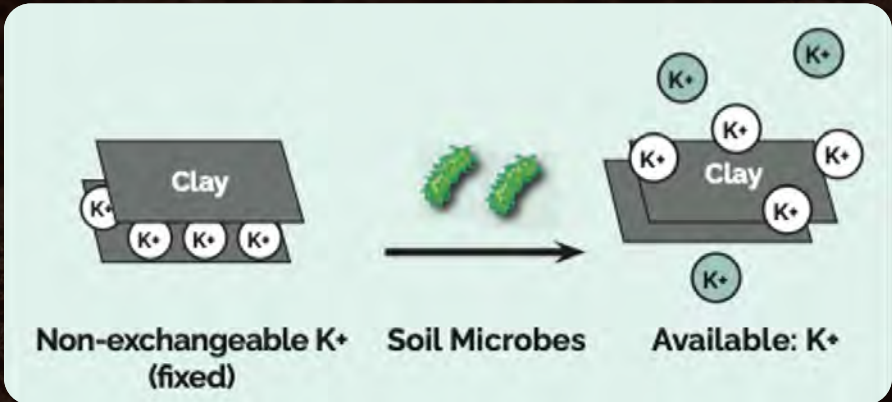
Microbes release CO<sub>2</sub> and organic acids and thus can solubilize this locked up P to make it plant available. Since P is not mobile in the soil is it heloful that the microbes do this right at the root for optimal uptake.



## POTASSIUM

**Long term:** Microbes play an active role in the weathering of Potassium containing rocks and minerals in the soil.

**Short term:** Positive charged K is often fixed on the surface of negative charged soil. Soil microbes producte H<sup>+</sup> and acids the resulting ion exchange processes releases K<sup>+</sup> into the soil solution where it becomes readily available to the plant





# TRIAL RESULTS SUMMARY

## BIOLEVEL 2023 GRAMAXNP

GramaxNP showed positive results in 9 of 10 independently conducted trials across the US, UK, and Ireland in 2023.



**IRELAND**  
Crop Plot Trials

**-20%** applied nitrogen

Biolevel maintained yield with a 20% reduction of applied Nitrogen

**MIDWEST USA**  
N&S Dakota - My Yield

**+4.2** bushels per acre\*

Returned a 4.2 Bu/ac. increase in spring wheat yield in South Dakota resulting in a return of \$34/ac from \$7/ac cost = almost 5X ROI

**UK**  
CertisBelchim

**100%** success in increased yield\*

Achieved 100% success in increased yield assessment for both winter barley and wheat, and spring barley and wheat, in the UK

**UK**  
ADAS

**16.9%** increased yield\*

Showed a 16.9% yield increase and 20% reduction in brackling in spring wheat in the UK



# TRIAL RESULTS

## SMALL GRAIN TRIALS IRELAND 2023

**Crop:** Spring Barley  
**Location:** Co. Cork Ireland  
**Planting Date:** 7th April, 2023



Assessment		26th June, 2023 Plant Height (cm)	16th August, 2023 Yield T/Ha @15%
	Rate		
OMEX Nitrogen Full Rate	156 kg/Ha	77.8	8.05
Standard Seed	165 kg/Ha		
OMEX Nitrogen Full Rate	156 kg/Ha	78.9	7.85
Standard Seed	165 kg/Ha		
BioLevel GramaxNP (in-furrow)	250 kg/Ha		
OMEX Nitrogen Reduced Rate	156 kg/Ha	77.05	8.04
Standard Seed	165 kg/Ha		
BioLevel GramaxNP (in-furrow)	250 kg/Ha		

IRELAND  
Crop Plot Trials  
**-20%** applied nitrogen  
Biolevel maintained yield with a 20% reduction of applied Nitrogen



# TRIAL RESULTS

## SPRING WHEAT TRIALS

### NORTH & SOUTH DAKOTA USA 2023



	# Main stems/plant	# True Tillers/plant	# Total Stems/plant	#Heads /plant	Bushels /acre
Waverly, SD GramaxNP	1.0	1.13	2.13	1.333	112.3
Waverly, SD Untreated	1.0	1.07	2.07	1.27	107.4
% more	0	5.6	2.9	4.7	4.6
Benedict, SD GramaxNP	1.0	1.22	2.22	2.64	72.0
Benedict, SD Untreated	1.0	1.62	2.62	2.07	69.5
% more	0	-24.7	-15.3	27.5	3.6
Overall Avg, SD GramaxNP	1.0	1.2	2.2	2.0	92.2
Overall Avg, SD Untreated	1.0	1.3	2.3	1.7	88.5
% more	0	-12.6	-7.2	18.9	4.2

MIDWEST USA  
N&S Dakota - My Yield

+4.2 bushels  
per acre\*

Returned a 4.2 Bu/ac. increase in  
spring wheat yield in South Dakota  
resulting in a return of \$34/ac  
from \$7/ac cost = almost 5X ROI



# TRIAL RESULTS

## WINTER & SPRING BARLEY TRIALS ENGLAND 2023

Field Name: Pound Breck  
Crop: Winter Barley  
Variety: Caravelle



Growth Stage: 31			Growth Stage: 61			
Summary of Tiller count / m2			Summary of Ear count / m2			
Treatment	Avg Tiller count/m2	Difference from control	Avg Ear count/m2	Difference from control	Mean Yield t/ha	Yield increase in%
Standard	989	0	7411	0	6.5	
Reduced N + GramaxNP	1013	24	762	21	7.26	11.7%
Standard N + GramaxNP	1045	56	802	61	7.61	17.1%

UK  
CertisBelchim

100% success in increased yield\*

Achieved 100% success in increased yield assessment for both spring and winter barley in the UK



# TRIAL RESULTS

## WINTER & SPRING WHEAT TRIALS ENGLAND 2023

Field Name: Pitt Lane  
Crop: Spring Barley  
Variety: Laureate



Growth Stage: 31

Summary of Tiller count / m2

Treatment	Avg Tiller count/m2	Difference from control
Standard	862	0
Reduced N + GramaxNP	889	27
Standard N + GramaxNP	956	94

Growth Stage: 61

Summary of Ear count / m2

Avg Ear count/m2	Difference from control
698	0
734	36
799	101

Mean Yield t/ha	Yield increase in%
6.31	
6.9	9.4%
7.67	21.6%

UK  
CertisBelchim

100% success in increased yield\*

Achieved 100% success in increased yield assessment for both spring and winter barley in the UK



# TRIAL RESULTS

## WINTER & SPRING BARLEY TRIALS ENGLAND 2023

Field Name: Bird Green  
Crop: Winter Wheat  
Variety: Gleam



Growth Stage: 31			Growth Stage: 61			
Summary of Tiller count / m2			Summary of Ear count / m2			
Treatment	Avg Tiller count/m2	Difference from control	Avg Ear count/m2	Difference from control	Mean Yield t/ha	Yield increase in%
Standard	846	0	526	0	8.67	
Reduced N + GramaxNP	849	3	535	9	9.12	5.2%
Standard N + GramaxNP	872	26	549	23	9.93	14.5%

UK  
CertisBelchim

100% success in increased yield\*

Achieved 100% success in increased yield assessment for both spring and winter wheat in the UK



# TRIAL RESULTS

## WINTER & SPRING WHEAT TRIALS ENGLAND 2023

Field Name: Natts  
Crop: Spring Wheat  
Variety: Cochise



UK  
CertisBelchim

Growth Stage: 31			Growth Stage: 61			
Summary of Tiller count / m2			Summary of Ear count / m2			
Treatment	Avg Tiller count/m2	Difference from control	Avg Ear count/m2	Difference from control	Mean Yield t/ha	Yield increase in%
Standard	759	0	483	0	5.95	
Reduced N + GramaxNP	763	4	499	16	6.08	2.2%
Standard N + GramaxNP	786	27	511	28	6.63	11.4%

100% success in increased yield\*

Achieved 100% success in increased yield assessment for both spring and winter wheat in the UK



# TRIAL RESULTS

## ADAS TRIAL ON SPRING WHEAT ENGLAND 2023

Treatment 2: Grower Standard  
Treatment 9: Grower Standard + GramaxNP



UK  
ADAS

Treatment	Vigour score	NDVI	NDRE	% area leaning	% area brackled	Yield t/ha	Grain moisture %	Specific weight kg/hl	TWG g
TSP = control	1.13	0.600	0.240	30.0	67.5	2.44	14.6	58.9	49.1
+ GramaxNP	1.50	0.607	0.241	30.0	53.8	2.86	14.5	59.6	49.3

16.9% increased yield\*

Showed a 16.9% yield increase and 20% reduction in brackling in spring wheat in the UK





WINNING STARTS

AT GROUND LEVEL

VISIT [BIOLEVEL.NET](https://biolevel.net) or call 904-657-0316  
to learn more, or for purchase or dealership inquiry.



BUY  
NOW



BECOME  
A DEALER



CONNECT  
WITH US