

ANNELIDA
SOIL SOLUTIONS

Annelida Soil Solutions A SUSTAINABLE AGRIBUSINESS
FOR TODAY AND THE FUTURE

Problem – Food Waste & Soil Degradation



Government
of Canada

Gouvernement
du Canada

30% Fertilizer Reduction by 2030

Who is Annelida Soil Solutions?

Farmers today face rising input costs, soil degradation, and unpredictable weather. What if you could naturally boost soil health, reduce input costs, and increase yield –all without compromising on performance? That's exactly why **Johnston's Regenerative** has partnered with **Annelida Soil Solutions** to provide innovative products that truly deliver!



Who is Annelida?

Green Waste –100,000lbs/WEEK
(26 Million lbs diverted from landfills over 5 yrs)



Green Waste Input (worm food)



Worm Castings(Poop)



High Grade Products
(Granular, Liquid
Extracts, Blends)



ANNEMaxxAG

powered by ANNELIDA
SOIL SOLUTIONS

“ANNELIDA Mission statement - Taking food waste to create products that aid in food production”

Annelida is Canada's largest Red Wiggler worm farm producing high quality soil nutrients.

You are what you eat!!



- Proprietary blend (9 ingredients) of green waste (100,000 lbs/week) to red wiggler worms to produce a soil nutrient that is rich in biodiverse microbiological content.
- Patented, automated continuous-flow digesters (worm beds) provide an ideal environment for the worms to consume the feedstock during a 60 day cycle, delivering the highest quality worm castings and liquid extracts available on the market.



Annelida is the highest performing Vermicast based product in the market.

- Annelida products are concentrated with higher nutrient content that outperforms competitors at a fraction of the application amount.
- This is why we see results in the field even at low concentrations



Item	Description	Annelida	Competitor #1	Competitor #2
1	Active Carbon	5,858	5,119	5,114
2	Actinomycetes	2,606	1,906	190
3	Anaerobes	1,362	45	15
4	Bio Quality Rating	4.0	3.3	2.7
5	CO2 Respiration	80	42	24
6	Gram Positives	2,498	157	11
7	Gram Negatives	6,699	607	146
8	General Bacteria	2,085	1,018	108
9	General Fungi	2,183	652	614
10	Mineralizable Nitrogen	42	29	19
	Nitrogen Fixers	2,067	57	12
12	Pseudomonas	2,819	65	12
13	Rhizobium	1,814	491	130
	Total Bacteria	13,889	3,687	445
	Total Microbial Activity	18,133	4,632	1,279
16	Trichoderma (fungi)	700	248	206
	Total Yeast and Mold	2,330,000	976,667	20,500
18	Total Aerobic Colony Count	4,971,667	4,216,667	450,000
19	pH	5.9	3.6	6
20	Organic Matter	57.9	59.9	57
	Potassium	1228	111.0	77

-CFU colony forming units

Annelida = HIGH VALUE



Worms create the **ELIXIR**
for life

- ❖ Nature's most effective plant Bio-stimulant -100% natural
- ❖ They are rich in all essential plant nutrients -WILL NEVER BURN plants.
- ❖ Loaded with beneficial microbes that contribute to a thriving soil environment –100X more beneficial bacteria than your typical soil.
- ❖ Act as a buffer helping plants where soil is PH unbalanced.
- ❖ Castings hold 9X their own weight in water
- ❖ Contain Auxins –Plant growth Hormones increasing yields and flavour profiles.
- ❖ Can act as a natural plant defense against diseases well as they act as an effective pest repellent.
- ❖ Shortens the seed germination cycle and will colonize the surface protecting the seed from infection.
- ❖ OMRI Listed for organic use and third-party tested to ensure consistency and quality.



FIGURE 2.2. These three turnips received equal amounts of nitrogen. The turnip, left, received no vermicast, while the turnips, center and right, were grown in soil amended with 10 percent and 20 percent (by volume) vermicast. Photograph courtesy of J. Mark Roe.

NCSU -STUDY

“Vermicastings outperforms any known commercial fertilizer”

Dr. Clive A. Edwards – Ohio University –Internationally recognized Soil Ecologist



Enhance Soil Biology & Structure

- Annelida's vermicast products are packed with beneficial microbes, humic acids, and natural plant growth stimulants.
- Improves soil aeration, water retention, and nutrient availability.
- Helps unlock bound nutrients in the soil for better root uptake. **NUTRIENT CYCLING**

“Think of it as giving your soil a probiotic boost—healthier soil means stronger crops and higher yields.”



Reduce Dependency on Synthetic Fertilizers

Grown the Annelida way

VS

Conventional Farming Method

Planted the same day, by the same farmer in the neighbouring fields.



200lbs/acre Fertilizer



450lbs/acre Fertilizer

60% Fertility Reduction
40% Increase in yield
Increased Biomass & RFV

Conventional Method

- Increases nutrient efficiency, reducing the amount of synthetic fertilizer required
- Provides beneficial biology that assists in unlocking nutrients that are tied up in the soil

“Farmers using Annelida’s program report an average of applying up to 20-25% less synthetic fertilizer in year one while realizing

an average 15-20% increase in yield, increasing profitability thousands per season.”

ANNELIDA -AnneMaxxProduct Offering



ANNELIDA
SOIL SOLUTIONS



Seed Treatments • Foliar Treatments
BioStimulants • **Nutraboost**
to AnneMaxx Granular (AMGR)
Microbial Base (MA1)
Full spectrum blends (MA2,MA3)
Stubble/Trash Biodigester
Optimize Water Conditioner

User friendly In-Furrow and Foliar Products in Granular and Liquid form.



BULK



LIQUID



GRANULAR



RYZE -SEED TREATMENT

- Increases vigor, accelerates germination and enhances nutrient availability to the plant
- Aids in disease suppression
- Promotes root, vegetative growth and higher stress tolerance
- Designed to maximize seed potential and promote healthy roots
- Works on All Seeds and Crop types, as well as a root/transplant dip. If using on polymer or coated seeds like Canola, consult your local rep

- A 20L kit (2 x 10L) treats 500-600 acres of seed (1200-1500 bushels)



Seed Coating for
Faster Germination



Wheat, Same Field
Planted May 13, 2021
Dug up May 24, 2021
Leduc County, AB



Annelida Organics
AnneMaxx AG Seed treat

BIOME (AMGR) -GRANULAR

- Unmatched beneficial biodiversity
- Contains growth hormones and microbes that work in symbiosis with plants and their root system
- Improves seed germination. Enhances seedling growth and development
- Enhances water retention in soil. Aids in reducing erosion
- Reduces weed growth. Inhibits root disease development and pest incidence as soil gets healthier and biologically balanced
- Increases crop yield and fruit set



- Apply at early season in-furrow
- For All Crops
- Application rate: 22 lbs per acre



LIQUID PROGRAM -2 PART SYSTEM

ADVANTAGE (MA1) -Microbial Base

- Compatible with most nutrient and fertilizer programs
- Provides essential nutrients and microbial diversity
- Decreases the harmful effect of pests and diseases
- Improves cation exchange capacity

Pairing Products:

Enhance (MA2) 4-4-4– Potato, vegetable, turf etc(high value crops)

Enhance Plus (MA3) 3-6-3– Cereal, pulse, etchigher Phos efficiency

Enhance Organic (MA4) 3-0-3 - Organic Solution

Zyme (MA5) 3-2-2 - Residue Management

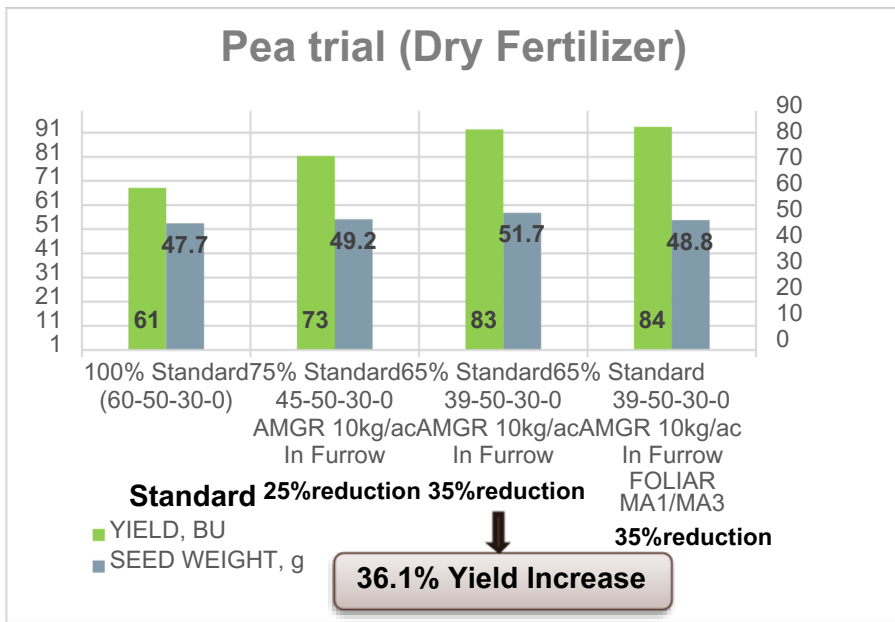
BioMaxx(MA6) 12-4-3 –Foliar application -feed the “Hidden Hunger” and give boost

HumiGro(MA7) 1-2-0 9%Humics- Manage compaction, salinity & alkalinity –High Calcium level soils



- Apply at early season in-furrow or in-crop foliar •
- Application rates: 4L per acre of combined product primarily at 3:1 ratio * exceptions apply

Trials Update -3rd Party Hamman AG

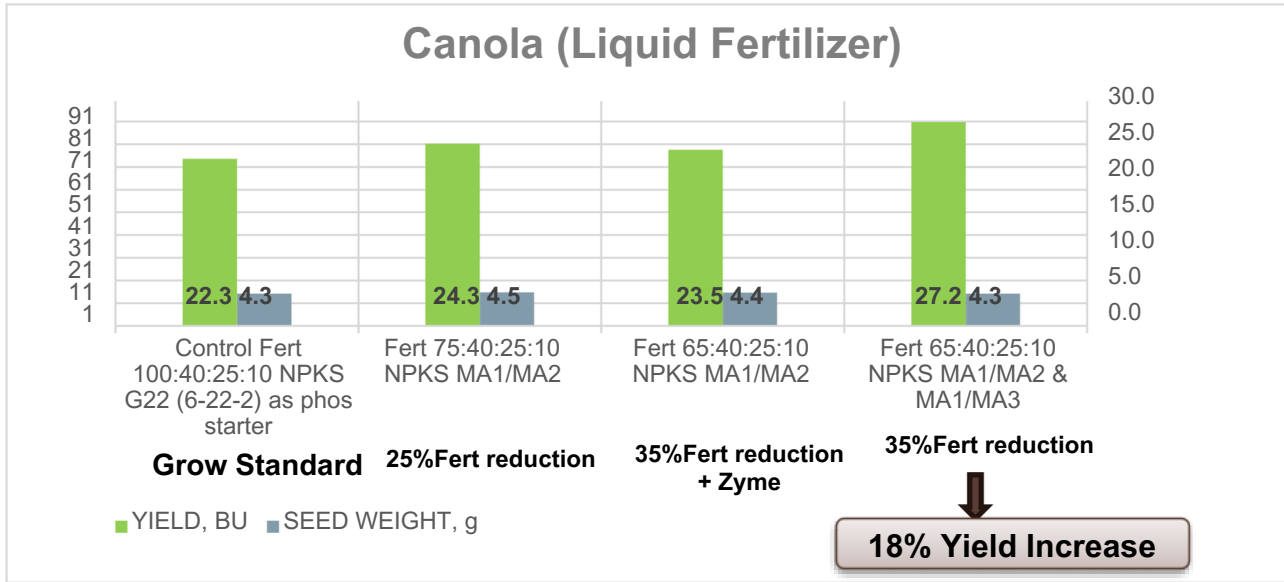


- **Yield:** As the percentage of the standard fertilizer decreases, there is a noticeable increase in yield, ranging from 61 bu/acre in the 100% Standard treatment to 84 bu/acre in the 65% Standard + AMGR + Foliar MA1 & MA3 treatment.

- **Seed Weight:** Seed weight increases with the addition of AMGR, peaking at 51.7 g in the 65% Standard + AMGR treatment.

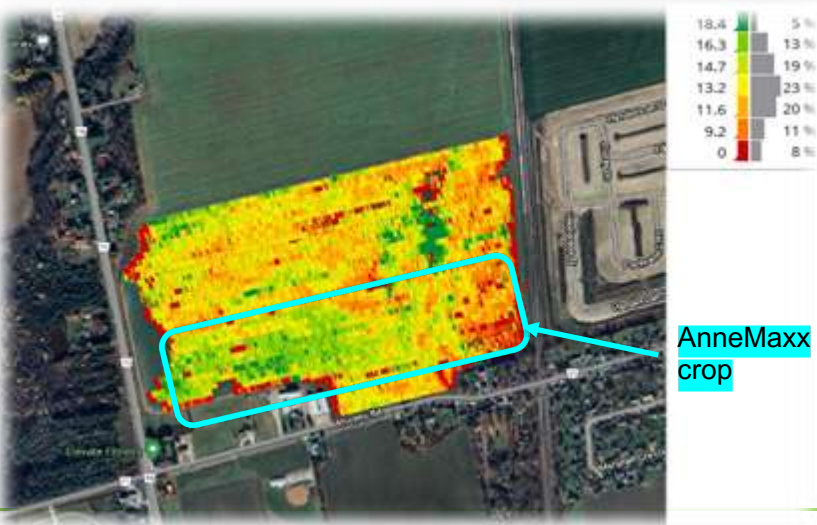
- **Overall Trend:** The highest yields are achieved with treatments that combine reduced fertilizer rates, AMGR, and foliar MA1 + MA3 applications.

Trials Update –3rdParty Hamman AG

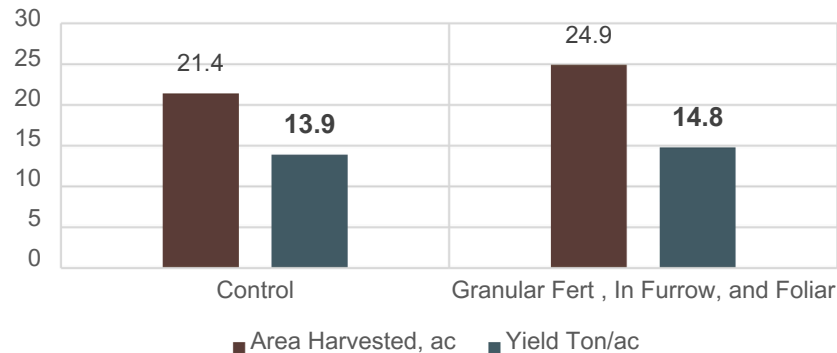


- **Yield:** The highest yield of 27.2 bulacre was achieved with the treatment that included the additional MA1 and MA3. The control treatment yielded the lowest (22.3 bulacre), with the 75% Standard Fertilizer + MA1, MA2 treatment giving 24.3 bulacre.
 - **Seed Weight:** Seed weight is relatively consistent across treatments, with the 75% Standard Fertilizer + MA1, MA2 resulting in the highest seed weight at 4.5 g. Other treatments (including the control) showed seed weights ranging from 4.3 g to 4.4 g.
- Overall Trend:

- **Yield:** The addition of MA1 and MA3 in the 65% Standard Fertilizer treatment resulted in the highest yield.
- **Seed Weight:** 75% Standard Fertilizer + MA1, MA2 achieved the highest seed weight, but overall, seed weight remained fairly consistent across all treatments.



Dakota Pearl Potato, P&K Vander Zaag Farm



Potato Research

Control: Harvested 21.4 acres, yielding 13.9 tonnes/acre.

Granular Fertilizer, In Furrow, and Foliar: Harvested 24.9 acres, yielding the highest 14.8 tonnes/acre.

Granular fertilizer treatments improve yield efficiency, and additional applications (MA1 and MA3) further boost the yield to 14.8 tonnes/acre.

6% Increase in Yield - \$320/acre increased revenue - \$200/acre increase in profit without reducing inputs - this year they are open to reducing fertility

The Annelida AnneMaxx program was one of the most impactful organic solutions that I have used in my 37 years of operating a greenhouse.”

**Ed Heissler,
HeisslerGreenhouse**

Trenton, ON

Starts 3 million tomato, pepper and onion plants per year

Incorporates 5% volume AnneMaxx Worm Castings into the potting mix and AnneMaxx Liquid Extract (MA1) into the irrigation system

Results:

Faster germination

Less die-off

Healthier, fuller plants

Stronger roots for transplant



BENEFITS OF ANNELIDA's PROGRAM FEED VALUE

ANNELIDA ONGOING TRIALS

"The big advantage is that you can back off the fertilizer amount, add AnneMaxx biology and get more volume with better feed quality." -Harvey Hollman



Balance out the soil properties

Plot [*]	In row with seed	Foliar 1 (June 8)	Foliar 2 (June 23)	Relative Feed Value
1	Grower standard [†]	2L Nutriboost + Yucca		83.83
2	Grower standard	2L TNT + Yucca		97.30
3	Grower standard	3L MA1 + 1L MA3	3L MA1 + 1L MA3 + Myco	80.69
4	Grower standard @75%	3L MA1 + 1L MA3	3L MA1 + 1L MA3	119.17
5	Grower standard @75% + AMGR (22lb/ac)			101.71
6	Grower standard @ 65% + AMGR (22lb/ac)	3L MA1 + 1L MA3	3L MA1 + 1L MA3	110.45
7	Grower standard @ 65% + 3L MA1 + 1L MA3	3L MA1 + 1L MA3	3L MA1 + 1L MA3	107.36
8	Annelida Seed Treat	2L Nutriboost + Yucca		90.10
9	EcoTea Liquid Seed Treat			88.22
10	EcoTea Liquid Seed Treat	2L TNT		92.44
11	Mn Seed Treat	2L Nutriboost + Yucca		98.05
12	Mn seed treat + 20L TNT			104.56
13	20L TNT	2L TNT + Yucca	2L TNT + Yucca	106.49
14	20L Starter P	2L Starter P		96.99



IN THE FIELD

Vegreville, Alberta

AFTER TWO APPLICATIONS OF ANNEMAXX PRODUCTS

Farmer was within 65% of the rest of his Crop production



ANNEMAXX AG

powered by ANNELIDA
SOIL SOLUTIONS

BEFORE

HIGH ALKALI, NO GROWTH IN 4yrs

Alkali Soil: A patch of land that is affected by the overuse of conventional fertilizer in which the amount of salt content increases in the soil.

We have a choice.

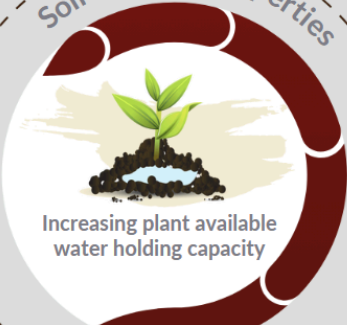
Healthy Soil

Dirt

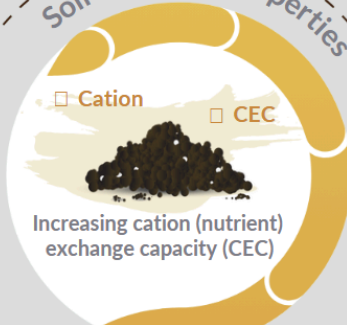


TRADITIONAL SYNTHETIC INPUTS **STRIP**
ALL NATURAL ANNELIDA INPUTS **SUPPLEMENT**

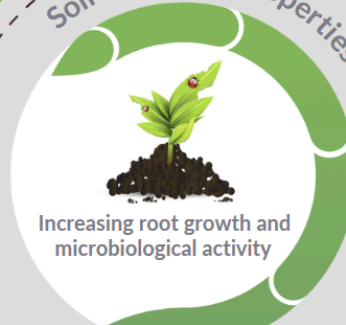
Soil Physical Properties



Soil Chemical Properties



Soil Biological Properties



Improvements in soils through vermicompost application

Increases in crop production & environmental outcomes

SOIL DIAGNOSTICS –SOLUTIONS BASED ON DATA

Provides better insight on crop input decisions

- Savings on Input costs due to understanding the physical and biological properties of the soil
- Informed decisions on nutrients that affect the EC and Sodium levels in soil that might affect crop performance
- **Utilizing science to make smart agronomic decisions**



SOIL SCAN REPORT –SOIL DIAGNOSTICS

Soil Texture	Sand %	Silt %	Clay %	Electro Chemical Analysis		
	42	34	24	Tests	Values	Remark
Soil Physical Analysis				pH	7.41	ALKALINE
Tests	Values	Remark	Buffer pH	0.00		
WHC (%)	41.11	OPTIMAL	EC (dS/m)	3.00	OPTIMAL	
Bulk Density (lbs./ft ³)	78.03		SAR	1.75	OPTIMAL	
Bulk Density (g/cm ³)	1.25	OPTIMAL	Exchangeable Cation Saturations			
Soil Biological Analysis				Tests	Values	Remark
Tests	Values	Remark	CEC (meq/100gms.)	10.48	LOW	
Organic Matter (%)	3.57	OPTIMAL	Base Sat.	100.00		
Redox (mV)	340.5	LOW	Ca (%)	63.73	OPTIMAL	
Tot. Organic C (%)	2.07	OPTIMAL	Mg (%)	18.31	OPTIMAL	
Microbial Respiration (µg CO ₂ -C/g/h)	1.25	LOW	K (%)	7.04	HIGH	
Humic Acid (ppm)	11.49	OPTIMAL	Na (%)	10.92	HIGH	
Fulvic Acid (ppm)	137.15	OPTIMAL	[H+]/ Acid Sat.	0.00		

SOIL SCAN REPORT –SOIL DIAGNOSTICS

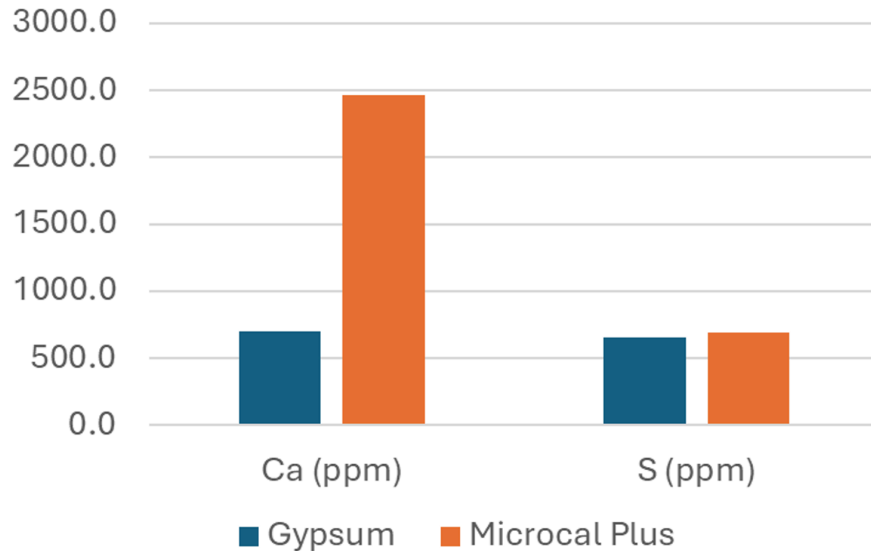
Plant Available Nutrients			
Tests	Values		Remark
Tot. N (%)			
Tests	ppm	lbs.Ac.	Remark
NO3-N	19.24	32.8	LOW
NH4-N	18.37	31.3	HIGH
Phos. (Kelowna)	34.81	59.3	OPTIMAL
Phos. (Olsen)	29.22	49.7	HIGH
Phos (Bray)	0.00	0.0	
Potassium	287.69	489.8	HIGH
Calcium	1335.22	2273.2	OPTIMAL
Magnesium	230.23	392.0	OPTIMAL
Sulphur	0.64	1.09	LOW

Plant Available Micro Nutrients		
Tests	ppm	Remark
Mn	6.23	LOW
Zn	1.10	OPTIMAL
Cu	0.69	OPTIMAL
B	0.18	LOW
Fe	23.94	OPTIMAL
Si	0.23	LOW
Mo	0.03	LOW
Cl	124.40	OPTIMAL
Na	263.01	OPTIMAL
Al	913.79	

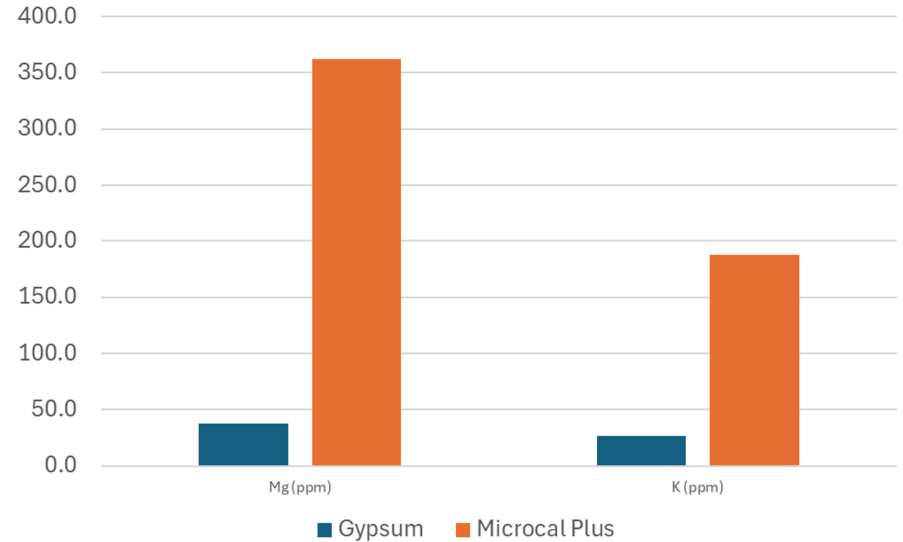
Why Annelida soil solutions?

MICRO CALPLUS : MICRO EXTRACTION

Nutrient Levels in Soil



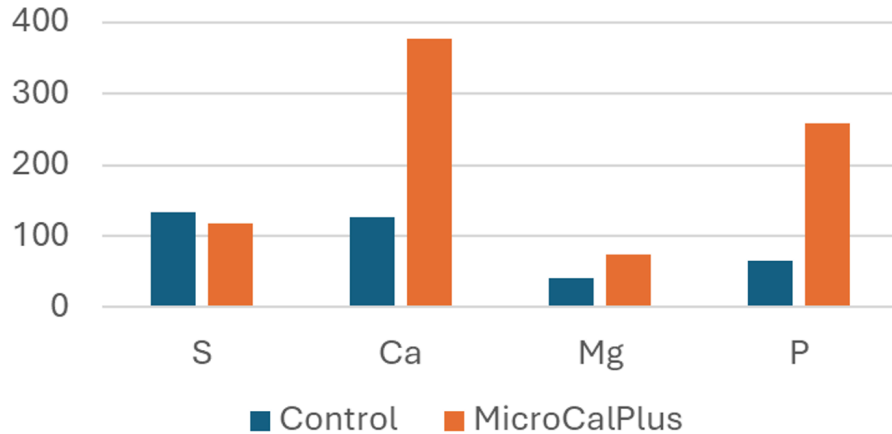
Nutrient Levels in Soil



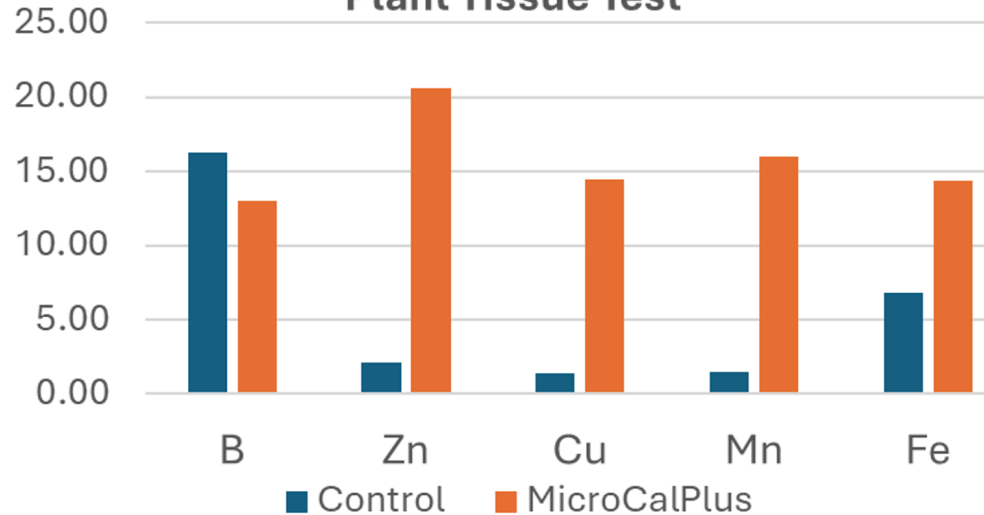
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MICRO CALPLUS : MICRO EXTRACTION

Plant Tissue Test



Plant Tissue Test



SEEING IS BELIEVING -AFTER ONLY 3 WEEKS!!



WITHOUT
CASTINGS

WITH
CASTINGS



WITHOUT
CASTINGS



WITH
CASTINGS



INTERIOR PLANTSCAPING & DESIGN
purposeful. intentional.

Conclusion



ANNELIDA
SOIL SOLUTIONS

AnneMaxx products are more than just a soil amendments—they're a game-changer for profitability and sustainability. Whether you want to boost yields, cut costs, or improve soil health for the long term, our solutions deliver real results. Let's set up a trial on your farm and see the difference firsthand."

Questions

THANK YOU



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Agriculture@annelida.ca