



# Power Z Agricultural Solutions

**A Soil Management Solution Provider**



# Company Profile

- Power-Z Agriculture is a division of Genesis Water Technologies, Inc., specializing in sustainable, environmentally friendly bio-organic soil conditioning media and liquid spray growth enhancement solutions.

We serve conventional and organic farmers, growers, and landscapers worldwide. Our goals are Sustainable Agriculture, Social Equity, Environmental Health, and Economic Profitability.



# 4 major pain points experienced by the farmers in managing their soil



## Degradation of soil fertility



The practice of continually planting the same crop has resulted in removal of specific nutrient which are not replenished as quick this would reduce soil fertility for future crop plantation

## Water shortage & fertilizer during growing season



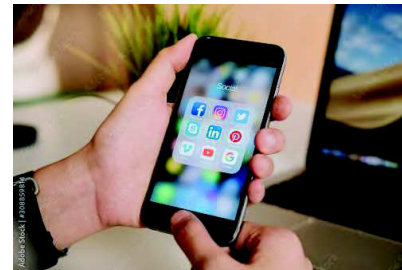
Rainfall distribution during the growing season is irregular which is aggravated when the soil moisture holding capacity is low

## Expensive upfront cost deemed unaffordable



Some farmers understand the long-term gain of sound soil management but are not financially capable. This results in reluctance to adopt conservation practice due to the need to sustain a strong cash

## Lack of info & human interaction during purchase of products



Farmers do not fully understand the recommended soil management practices to optimize plant growth and yield and this information is not readily available.



# Agriculture Context

- Agriculture uses about 65-70% of the world's freshwater resources. It faces pressures to increase food production due to a growing population, water scarcity, climatic changes, and soil health concerns.
- Power Z Agriculture advances sustainable agriculture with non-toxic, bio-organic products, serving new clients across different markets.



# How do these products work?

- Power Z and Power Z Grow work through the interchange of ion reactions between the Power Z granular bio-organic media and the Power Z Grow liquid in the soil, root zone and on the plants surface.
- These specific compounds have specific benefits for plants, crops, trees and are environmentally friendly and sustainable.



# POWER-Z Agriculture Growing Technology

## What is sustainable farming ?

Is about farming in a way that grows crops and raises animals while reducing harm to the environment. It aims to balance agricultural needs with environmental protection.

## Key goals include:

- water conservation especially in water scarcity.
- Reducing synthetic fertilizers and pesticides.
- Encourages environmental stewardship by reducing soil erosion, increasing growth rates.
- Increases economic stability and quality of life of agricultural producers.

We offer 2 Solutions:

(1, Power Z Granular Soil Conditioner

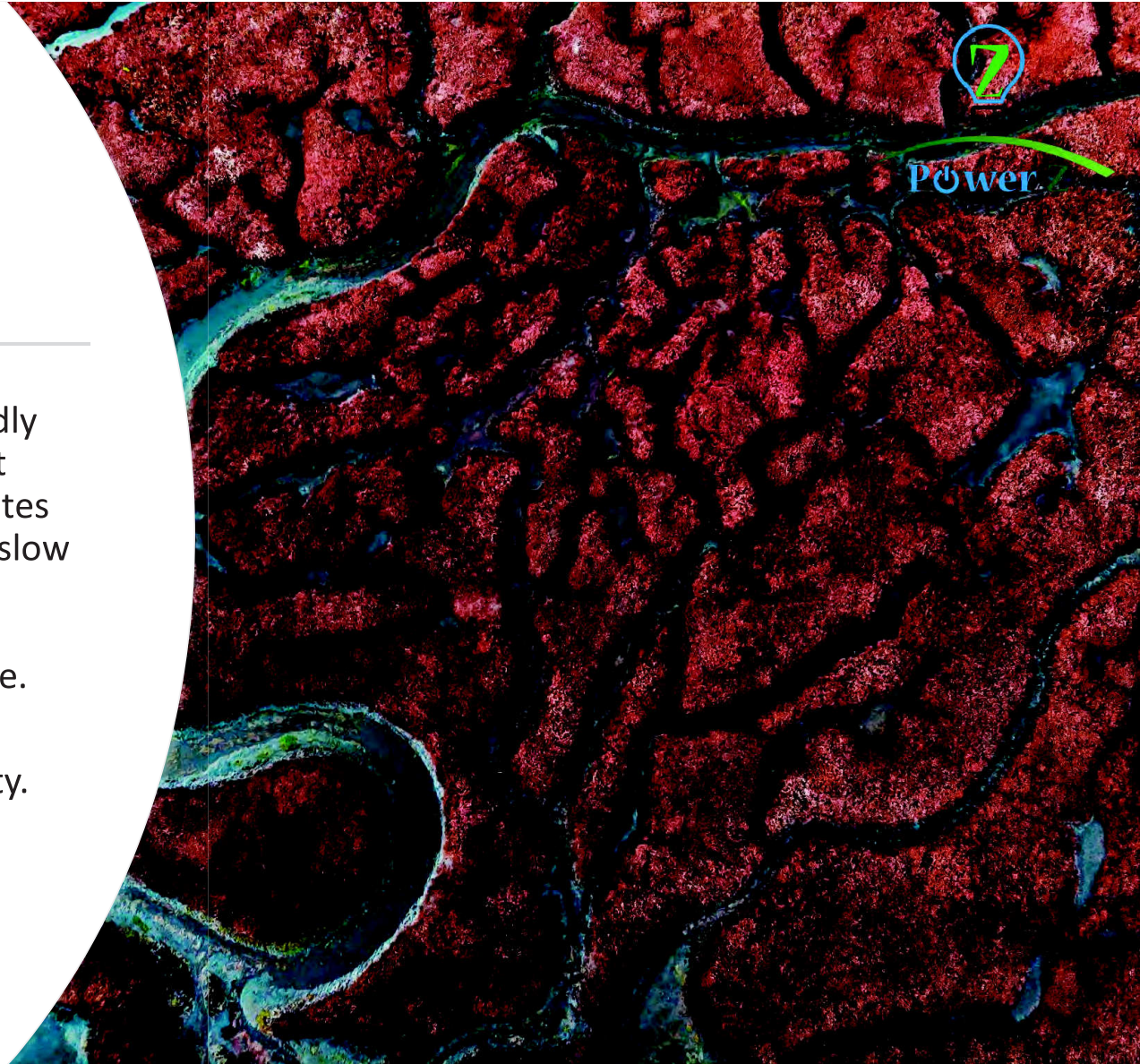
(2, Power Z Grow - Liquid Growth Spray





# Power Z™ Granular Bio-Organic Soil Amendment Media

- Power Z soil amendment is an eco-friendly media that optimizes water and nutrient management, adapted to extreme climates to increase yield and quality. It features slow nutrient release, reducing leaching and improving soil aeration, thus enhancing plant growth and optimizing fertilizer use.
- It's designed for tough climates like droughts, boosting plant yield and quality.



# Power Z™ Grow Bio-Organic Liquid Foliage Spray

- Power Z Grow is a sustainable liquid growth enhancer for various agricultural uses. It increases seed germination, root mass, and crop yield, and improves plant health by stimulating natural immune responses and reducing environmental stresses.
- It improves plant health by stimulating immune response from bacteria, viruses & fungus in crops, plants and trees.





# POWER Z Applications

## POWER-Z Granular

- Spreading of GWT Power-Z to fertilized soil via manual or machine spreader.  
Spreading of GWT Power-Z with fertilizer as a mixture in the same spreader.

## POWER-Z Grow Liquid

- It is introduced via pump spray bottle for individual manual foliage or plant applications.  
Introduced via spray hose dilution sprayers for larger application areas. It can also be introduced in hydroponics systems in this manner.



# What benefits can be experienced from using Power Z products?

There are many benefits experienced using these products, we have included some primary benefits below:

- Decreased irrigation requirements by up to 50%, even in extreme climatic conditions.
- Reduced soil nutrient leaching drastically reducing eutrophication (algae growth).
- Improved soil aeration.
- Enhanced plant yield potential and quality and naturally enhances immune response and control against bacteria, viruses, and fungus in plants, crops, trees, grasses and bushes.





# GWT Power-Z Bio-Organic Soil Conditioner – Case Study Results



Trials were conducted using both organic and conventional growing procedures using different fertilizer options to analyze results.



Cucumber on the left without Power-Z agro products  
Cucumber on the right with Power-Z agro products

Trials of seedling plants have shown improvements in primary root development. Studies have resulted in better quality produce (increased vitamin levels) with lowered nitrate levels in produce and faster ripening of crops.

Crop yield improvements have been achieved with more efficient fertilizer usage - and less nutrient leaching into the environment.

Tomato Trial			
	Control Grower Practice	Control + Agro-Z 1 ton/1 acre *	Yield Increase
Yield (cases/2.5 acre)	3,750	4,125	10% (375 cases/2.5 acre)

⌘ Power-Z was introduced with fertilizer via spreader

# Case Study - Power Z Grow



Fruit growers worldwide are aiming to boost crop production while reducing the use of synthetic chemicals and preventing environmental damage to water sources. Many are adopting sustainable practices to improve yields and antioxidant properties while using less water and minimizing soil contamination.



Power Z Grow, a bio-organic liquid enhancer, has been proven effective in stimulating growth and fighting disease without harming humans. It can be used in both conventional and organic farming at all stages of plant growth. When sprayed on plants or soil, it triggers defense mechanisms in cells and promotes the accumulation of beneficial chemicals.



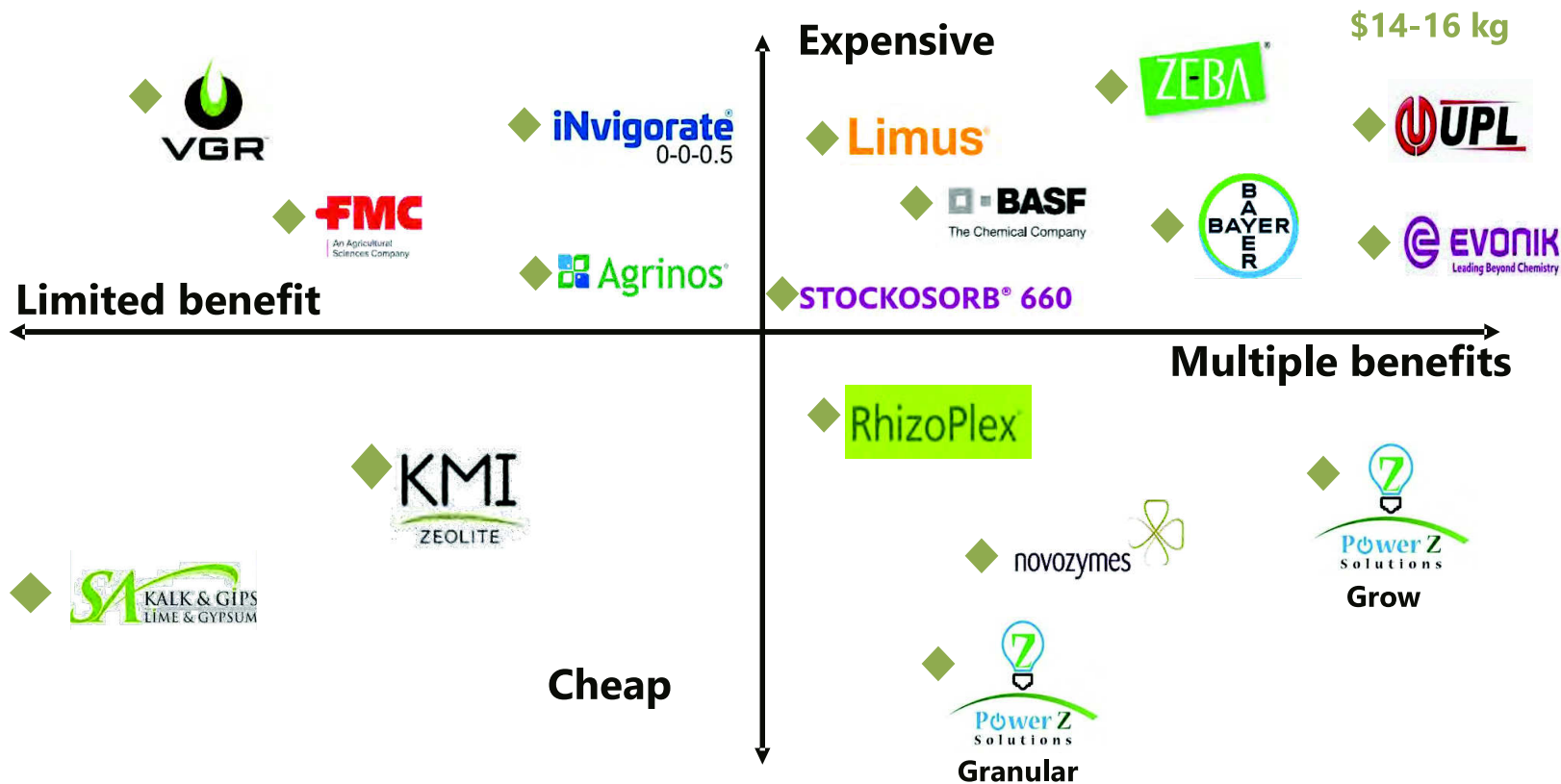
A recent study showed that spraying Power Z Grow on strawberry plants significantly increased yield and growth rates while enhancing antioxidant properties. Similar benefits are expected for other crops, making this spray a cost-effective solution for producing healthy fruits and vegetables.

Treatment	Root Length (inches)	Plant Height (inches)	Total fruit weight/ plant (pounds)	Total phenolic content	Total anthocyanins content	Total antioxidant activity
Control	7.67	7.58	0.54	311.1	81.2	251.8
150	8.00	8.33	0.70	357.5	83.2	253.6
300	8.6	8.94	0.72	318.3	94.8	359.6
600	9.88	9.61	0.78	363.7	184.5	375.4
1200+	9.80	9.53	0.75	371.3	164.5	416.1

The table results suggest similar benefits for various plants, trees, grasses, and crops, including increased yield, height, root length, nutrient quality, antioxidant activity, and disease prevention. Combining Power Z Grow liquid with the Power Z granular soil conditioner enhances these advantages, reducing water needs by up to 45% and improving nutrient efficiency while minimizing soil nutrient runoff into water sources.



# Competitive Agriculture Product Brand Matrix



# CERTIFICATE



## OMRI Listed®

The following product is OMRI Listed. It may be used in certified organic production or food processing and handling according to the USDA National Organic Program regulations.

**Product**  
Power Z Solutions Soil Conditioner

**Company**  
Power Z Agriculture Solutions, LLC  
Sales Department  
555 Winderley Place Ste 300  
Maitland FL 32751 United States

**Status**  
Allowed

**Category**  
NOP: Fertilizers and Soil Amendments, Blended

**Issue date**  
20-Aug-2021

**Product number**  
pza-15526

**Class**  
Crop Fertilizers and Soil Amendments

**Expiration date**  
1-Sep-2024

**Restrictions**  
Not applicable.


  
Executive Director/CEO

Product review is conducted according to the policies as the current OMRI Policy Manual® and based on the standards in the current OMRI Standards Manual®. To verify the current status of this or any OMRI Listed product, view the current version of the OMRI Product List® at OMRI.org. OMRI Listing is not equivalent to organic certification and is not a product endorsement. It cannot be assumed as such. Final decision on the acceptability of a product for use in a certified organic system, per the responsibility of a USDA accredited certification agent. It is the operator's responsibility to properly use the product, including following any instructions.



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Date received: 8/02/2023  
 Reporting officer: JKM soil water laboratory

**LABORATORY RESULTS**

PARAMETERS	ANALYSIS DATA	
	UNITS	RESULTS
pH		7.89
Ec	dS/m	1.60
Organic carbon	%	5.41
Nitrogen	%	0.72
Phosphorus	Ppm	610
Calcium	Ppm	2540
Magnesium	Ppm	960.5
Potassium	Ppm	1588
Manganese	Ppm	215.0
Zinc	Ppm	98.2
Copper	Ppm	26.8

Republic of Kenya





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