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ZEBA®

BRAND

SOIL CONDITIONER

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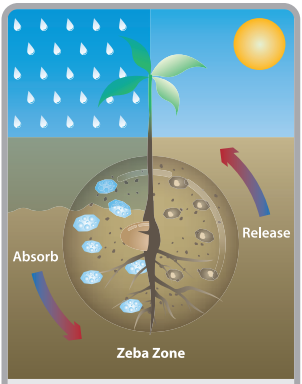
What is ZEBA?

- Revolutionary patented starch-based granule intended for soil incorporation in the root zone
- It has the function to absorb water up to 495 times its own weight, forming hydrogels suspended in and around the roots
- Performing in all soil types, it hydrates and releases water on demand multiple times in cycle before fully degrading
- Increases the soils water holding capacity (WHC), positively impacting on water use efficiency (WUE)
- Very high Cation Exchange Capacity (CEC) positively impacts on nutrient use efficiency (NUE)
- Non-toxic, safe and degradable



As more water enters the soil, Zeba repeatedly hydrates and releases captured moisture, on demand, as plants need it.

ZEBA Water Holding Capacity Tests

Due to either the lack of overall irrigation, precipitation or the infrequency of water delivery to potatoes, it is very important to hold moisture around the tuber development zone, especially during the 4 – 5 week period of tuber initiation.

Allowing the soil to dry out at this critical stage can effect nutrient supply, tuber numbers and affecting skin quality.

ZEBA is ideally able to increase a soil's water holding capacity above that of a control.

ZEBA is repeatedly able to release the water it absorbs back to the plant more easily than that of clay, therefore providing a valuable source of water supply and nutrients, whilst providing a stable environment for soil Microbes.

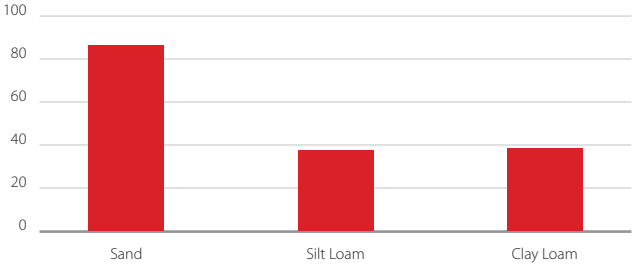
Soil Types of Test Samples

Sample	Type	% Sand	% Silt	% Clay
1	Sand	100	0	0
2	Silt Loam	37	40	23
3	Clay Loam	30	48	22

Soil Types of Test Samples

Type	Test	Water passing (ml)	Water retained (ml)	% retained	% increase
Sand	Control	425	325	43.3	—
	w/**ZEBA**	150	600	80	85
Silt Loam	Control	275	475	63.3	—
	w/**ZEBA**	100	650	86.1	37
Clay Loam	Control	352	398	53.1	—
	w/**ZEBA**	200	550	73.3	38

% Increase in Water Holding Capacity



Source: Logan Labs, LLC. Dose rate: 12kg/ha

ZEBA in Potatoes

Rates of Application in potatoes: 10 – 12kg/ha in row; 20 – 25kg/ha overall.

- **ZEBA** is a starch based Super Hydrating Granule which helps plants use water efficiently, producing healthier, higher quality, higher yielding crops
- Helps to maintain stomata function and tuber bulking rates for higher yields
- Reduces stress from lack of water
- Maintains moisture around the tuber at critical times e.g. tuber initiation, leading to increases in saleable grades and overall yield
- **ZEBA** is commonly applied using all standard granular application methods
- **ZEBA** is superior to wetting agents, other additive and soil conditioners in its ability to provide maximum water, precisely when plant roots need it most.
- Unlike products applied monthly, **ZEBA** is applied only once per year.
- Through efficient water management, **ZEBA** can allow longer intervals between watering.

Summary

- **ZEBA** increases the water holding capacity of soils
- **ZEBA** has direct and indirect influences on beneficial soil properties
- **ZEBA** maintains a level of moisture in the applied root zone (rhizosphere)
- **ZEBA** reduces leaching of key nutrients
- **ZEBA** is a fully degradable starch Super Hydrating Granule
- **ZEBA** supports soil microbial communities and adds to a sustainable soil policy

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UPL 2016 **ZEBA** Trials

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