

# TERRA

TERRA  
LOGIC



**SOIL CONDITIONER**

# What is TERRA ?

**Philosophy**  
Nature is our  
Inspiration  
and Solution

Novelgro TERRA a Soil Conditioner resembling HUMUS CONCENTRATE.

The main ingredient is FULVIC ACID, the very active part of Humus.

The conversion process of Vegetable Source into Fulvic Acid is mimicking the natural process in Earthworm (*Lumbricus Rubellus*) digestive tract.

By learning from Nature, we create an environmentally safe and sound product for Farmers benefit

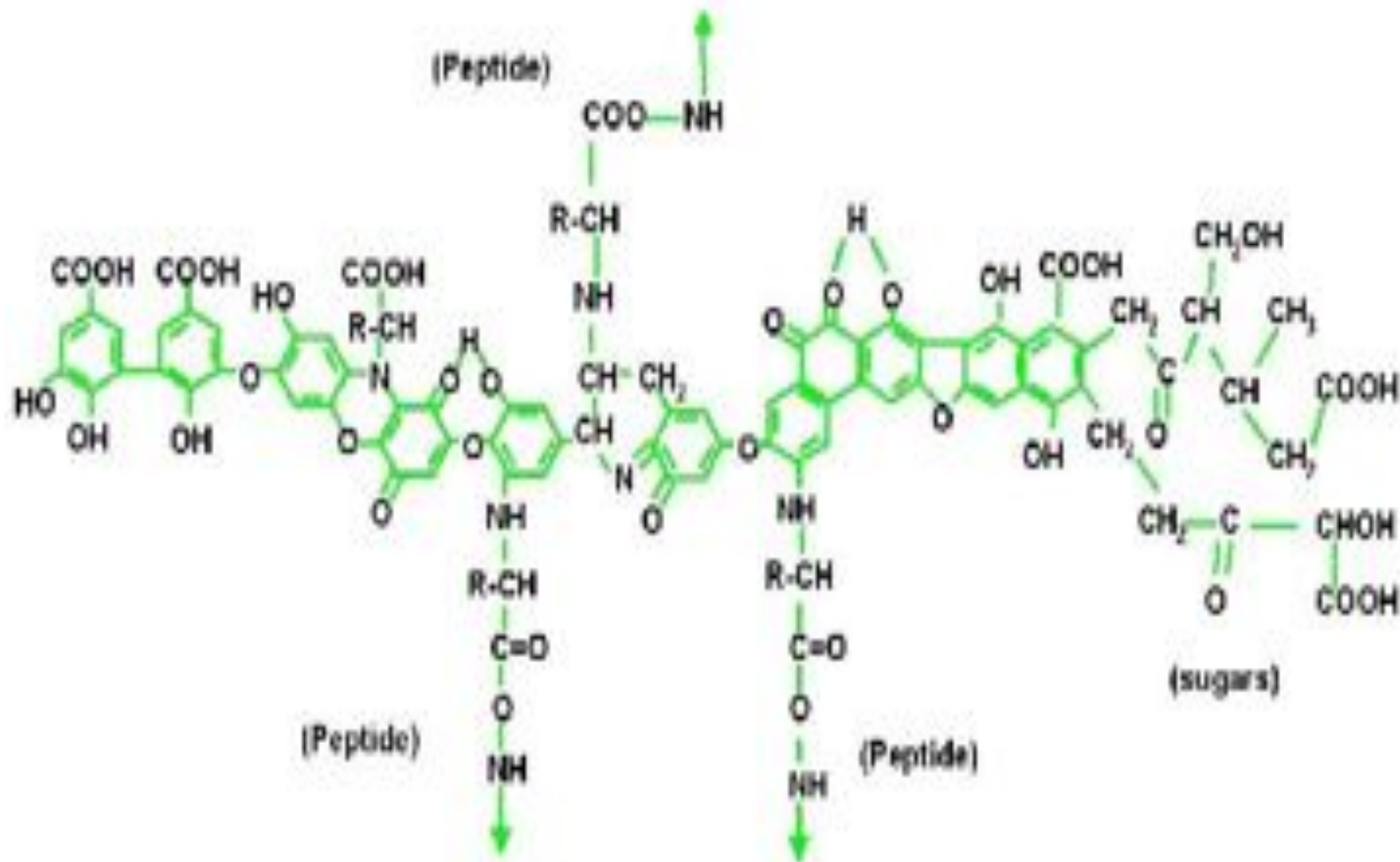


Earthworm (*Lumbricus Rubellus*) population in soil is one of the indicator of a good and healthy soil.

# TERRA molecular model

TERRA  
LOGIC

SOIL CONDITIONER





# How to apply TERRA ?

**Philosophy**  
Nature is our  
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## APPLICATION METHOD

The common method of TERRA application is using Knapsack Sprayer, Boom Sprayer or any means of irrigation equipment.

## DILUTION RATE:

- 1 cc TERRA : 1 L water
- 1 sachet TERRA : 1 knapsack sprayer
- 400 cc TERRA : 400 L water for 1 ha
- 165 cc TERRA : 165 L water for 1 acre

## APPLICATION RATE:

- 400 cc/ha = 165 cc/acre.
- 25 sachets/ha = 10 sachets/acre

Increased application rate will not harm the plants or soil.

TERRA can be sprayed directly to soil or on the foliage then drip to the soil due to rain or irrigation spray.

TERRA is best applied to the soil at growing season.

**SEASONAL PLANT:** At soil preparation time until seeding or transplanting time.

**PERENIAL PLANT:** In Tropics, once every 6 months best at the beginning and the end of wet season. In Subtropics, at the beginning of growing season.

**HARDY PLANT:** In tropics, once every 6 months best at the beginning and the end of wet season. In Subtropics, at the beginning of growing season.

## SAFETY PRECAUTION

Wear standard safety clothing and equipment for handling chemicals when handling and using this product. Avoid any contact with the chemical

# Benefit of using TERRA ?

TERRA promote better soil for plants growth and finally increase yield.

The better growth of plants can be observed from:

- **Stronger plant growth**
- Larger Root Volume
- Larger Leaf Area Index



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# Benefit of using TERRA ?

**Larger Root Volume** enable plant to:

- absorb more nutrient and water
- get deeper into the soil to reach deeper water source. Thus make plants more draught tolerant.
- catch more of leached fertilizer. Increase fertilizer efficiency



# Benefit of using TERRA ?

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The better growth of plants can be observed from:

- Stronger plant growth
- Larger Root Volume
- **Larger Leaf Area Index**

**Larger Leaf Area**, means more Photosynthetic Area for plants to absorb Solar Energy from sun ray, and use the energy to convert carbon dioxide and water into starch and sugar.

Greater Photosynthetic Activity leads to greater yield.

TERRA



CONTROL



# Benefit of using TERRA ?

	OBSERVATION PARAMETER	TERRA	CONTROL	TERRA ----- CONTROL RATIO
1.	PLANT HEIGHT	102 cm	84 cm	121%
2.	NUMBER OF LEAVES	18 pcs	12 pcs	150%
3.	LEAF AREA INDEX	122.9 cm <sup>2</sup>	79.5 cm <sup>2</sup>	156%

# TERRA on maize



# TERRA on maize



# TERRA on maize



# Benefit of TERRA on rice in Indonesia



# Benefit of TERRA on rice in Indonesia

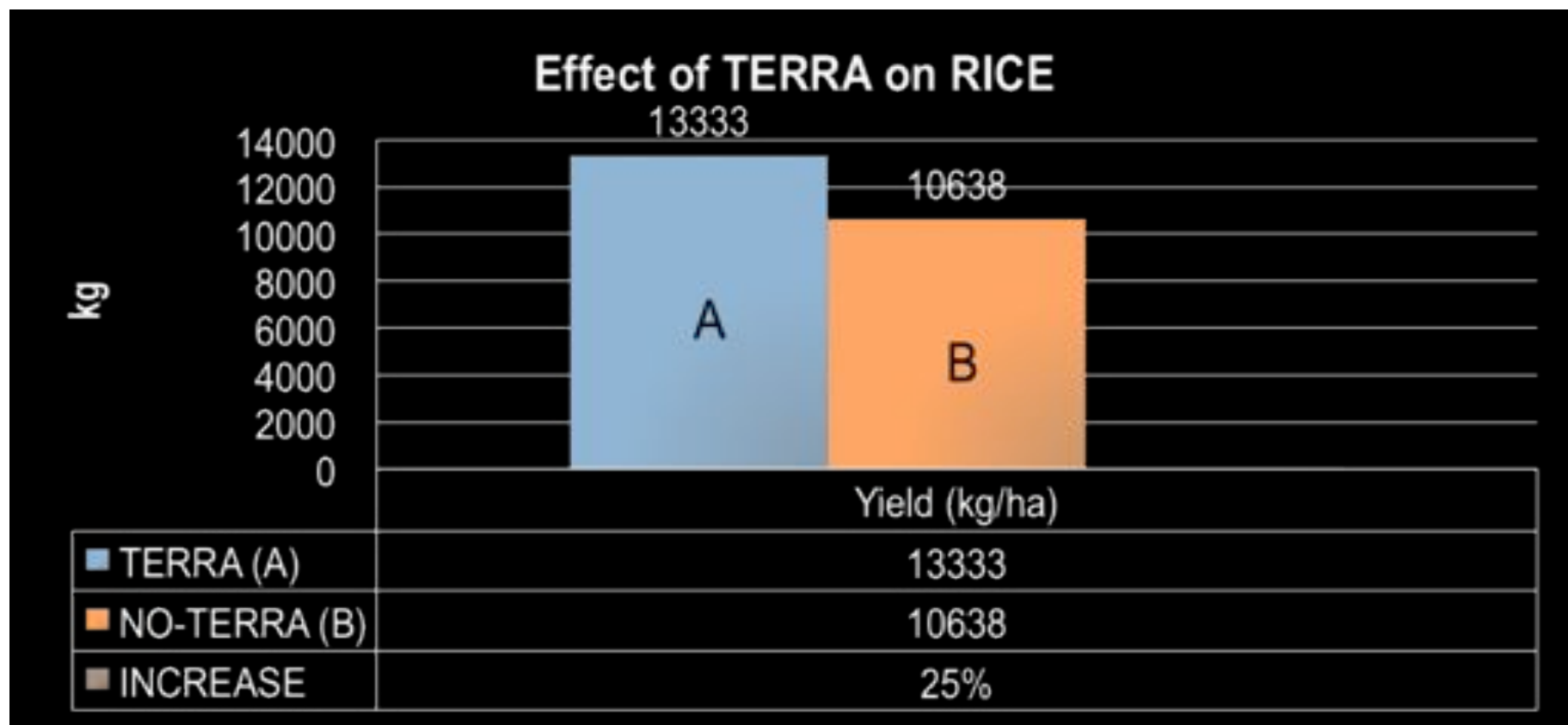
**TERRA**



**NO-TERRA**



# Benefit of TERRA on rice in Indonesia



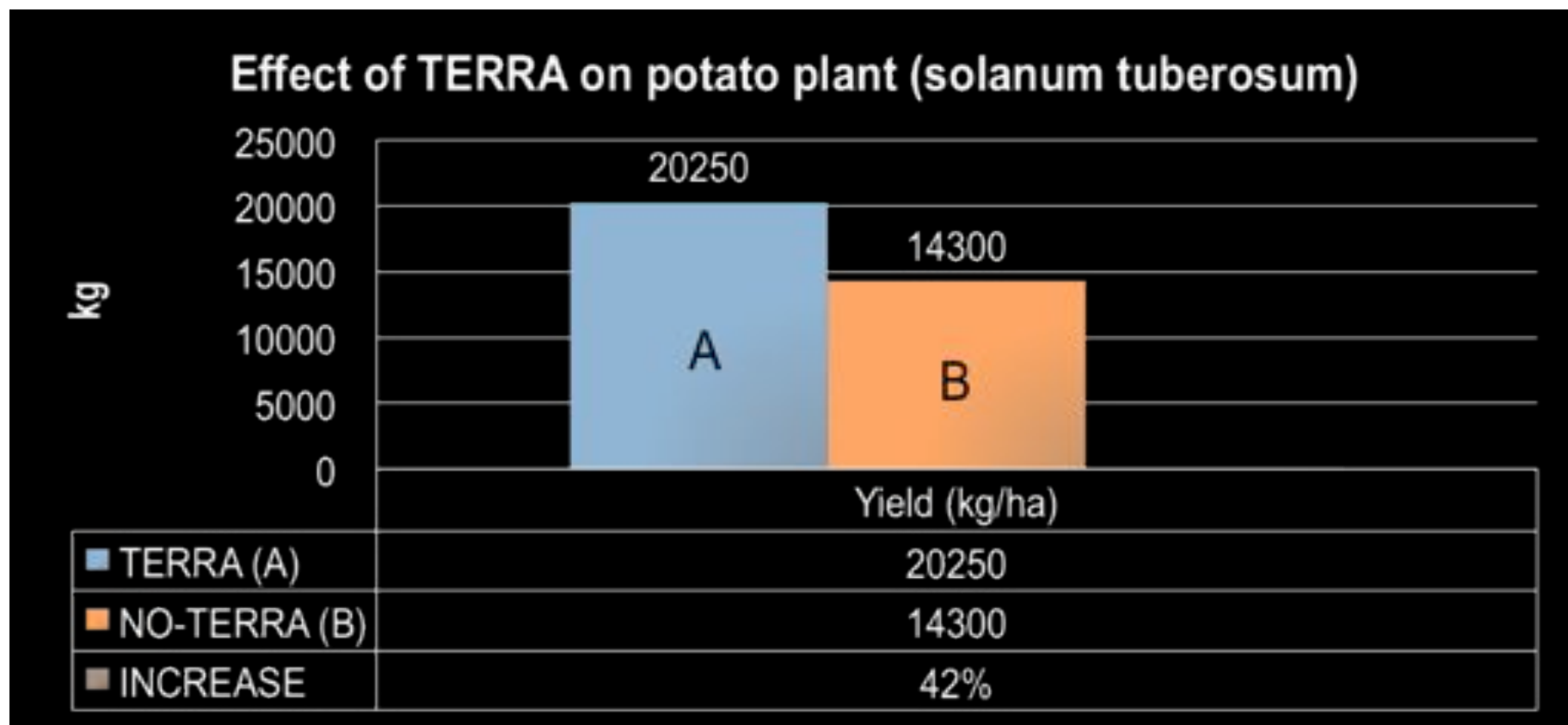
# Benefit of TERRA on potato in Indonesia



# Benefit of TERRA on potato in Indonesia



# Benefit of TERRA on potato in Indonesia



# Benefit of TERRA on sugarcane in Indonesia



CONTROL  
100% NPK  
YIELD: 100%

NOVELGRO  
50% NPK + TERRA  
YIELD: 135% of CONTROL

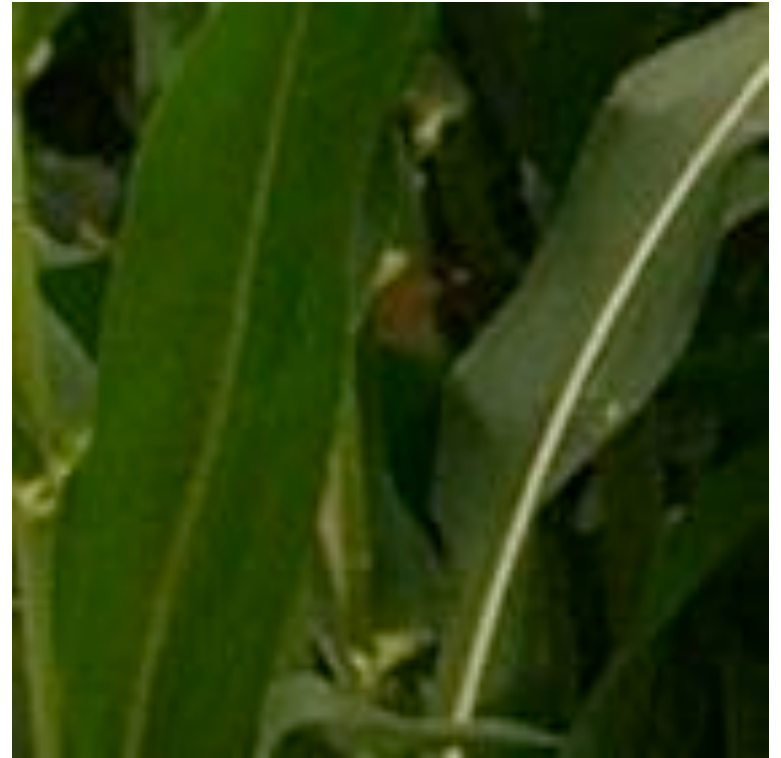
# How TERRA works ?

TERRA promote plants health



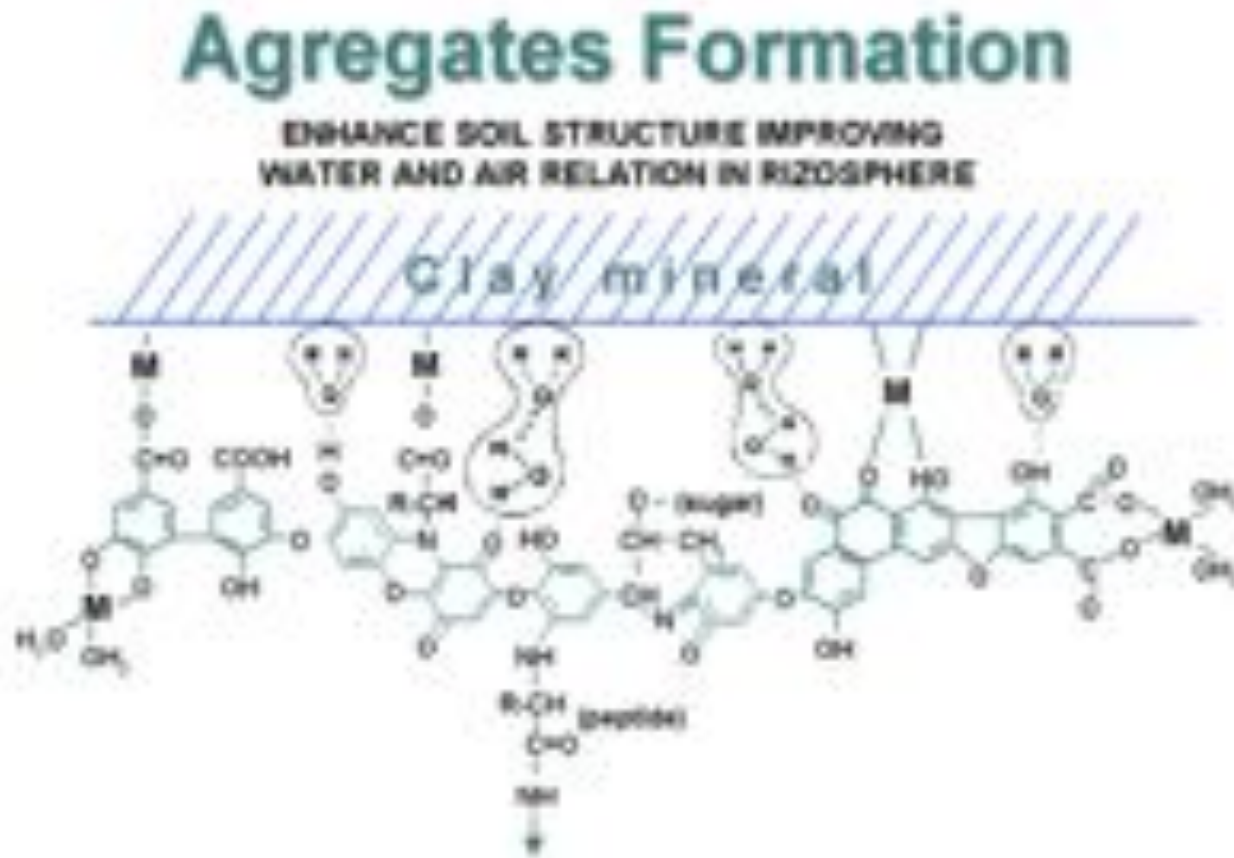
TREATED →  
NO SPOTS &  
SPECKLES

← UNTREATED  
HAS SPOTS &  
SPECKLES



# How TERRA works ?

TERRA promote soil aggregate formation



# How TERRA works ?

TERRA promote beneficial soil fungi



# How TERRA works ?

(Detoxification simulation)

## Soil and Water Detoxification by TERRA

Watch it at:

[http://www.youtube.com/watch?v=7pVa\\_gwfcNE](http://www.youtube.com/watch?v=7pVa_gwfcNE)

2012/09/25  
13:50:31

# How TERRA works ?

(increase water extraction capacity)



How TERRA  
Increases soil nutrient  
availability

Watch it at:

<http://www.youtube.com/watch?v=fTR-w9L-09E>

2012/09/25

13:15/25

# How TERRA works ?

- TERRA is a very strong chelating agent that works in all environment, whether it is neutral, acidic and alkaline environment. This chelating capability increase soil capacity to exchange ions in soil. Improving soil chemical properties.
- TERRA promote the forming of soil particles aggregate. Forming soil loam for better water and air penetration to deeper soil layer. Improving soil physical properties.
- TERRA promote soil biological activity. Improve soil microbiology.
- TERRA has the capability to detox soil from plant growth limiting chemical.
- TERRA improve water capacity to extract tied-up nutrient from soil and organic matter, making nutrition more available to plants.
- TERRA promote the solubilization of rock mineral into plant.
- TERRA promote the absorption of nutrient into plant tissue.
- TERRA promote plant immune system

# TERRA chemical analysis



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NAMA PENGIRIM : Ir. Herman Suripto  
ALAMAT PENGIRIM : PT. Novelvar  
TANGGAL KRIM : 18 November 2010

LOKASI CONTOH :  
JUMLAH CONTOH : 1 (Satu)  
JENIS CONTOH : Pupuk Cair

No. Lab	No. Lapang	C	N	P	K	Ca	Mg	Fe	Cu	Zn	Mn	pH	Bahan Organik	Humic Acid	Fulvic Acid
		-- (%) --			(ppm)	-- (ppm) --							(%)	-- (%) --	
K.458	Novelgo Terra	12.90	0.51	0.04	109.00	8.23	4.08	44.85	tr	4.05	tr	9.40	22.29	0.55	74.26

Bogor, 4 Januari 2011  
Laboratorium Departemen Ilmu Tanah  
& Sumberdaya Lahan

Dr Ir Budi Nugroho, MSc.  
Koordinator Laboratorium