actosol®

Humic/Fulvic Acid Fertilizer

- Increases yields of crops, vegetables and fruits
- Produces superior turf and deep roots
- Enhances uptake of fertilizers
- Replenishes depleted soils
- Promotes ecological balance

ARCTECH, Inc
P. O. Box 382 • Centreville, Virginia 20122 USA
Phone 703 222-0280 • Mobile 571 338-5005
www.arctech.com

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ARCTECH Corporate Profile

- Established in 1988 as Spin-Off Company
  - From a Major US Aerospace Company
- Corporate Headquarters & Technical Research Center
  - Virginia—Washington DC Metro
- Manufacturing Plant
  - South Boston, Virginia
- Market Profile: Develop Innovative Solutions from Concept to Implementation for the Energy, Environmental, and Agricultural markets
- Commercial Products Applications in the US, Egypt, Gulf Countries, & South Korea
- Creating Biotechnology Solutions since Mid 70's
- Selected as One of the Top Six Bio-Processing Firms in the United States
  - By Ernst & Young in 1989
- Founding Member of *Humic Products Trade Association (HPTA)* in 2011

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HUMIC ACID

- Carbon-rich highly functionalized organic molecule comprising of carboxlic, phenolic, carbohydrates and enolic groups
- Colloidal organic matter, water soluble at pH above 2 and insoluble at pH below 2
- Brownish black color

ESSENTIAL ELEMENTS FOR PLANTS

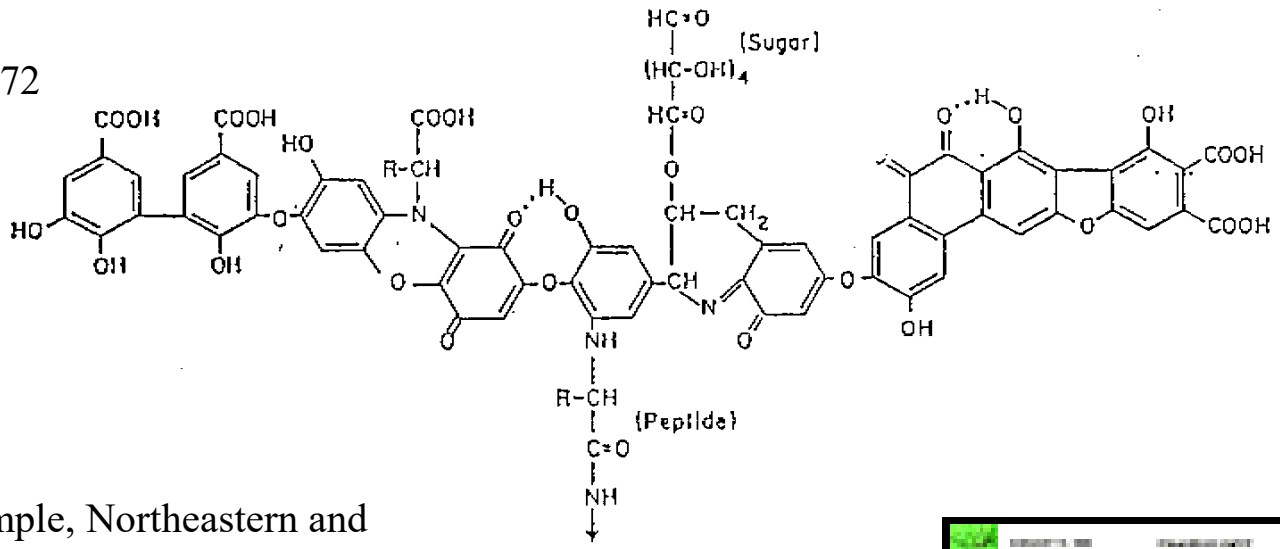
	C	carbon
	H	hydrogen
	O	oxygen

MACRO		**N**	nitrogen
		P	phosphorus
		K	potassium
	SECONDARY	**Ca**	calcium
		Mg	magnesium
		S	sulphur

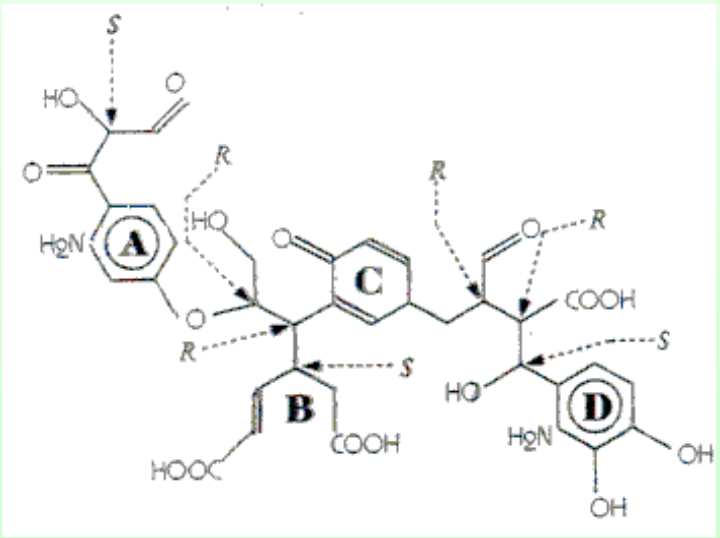
MICRO	**B**	boron
	Cu	copper
	Fe	Iron
	Mn	Manganese
	Mo	molybdenum
	Zn	zinc
	Cl	chloride
	Co	cobalt

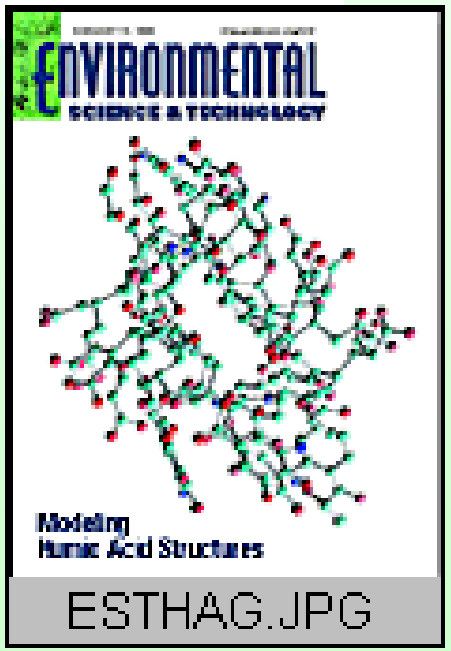
MODELS OF HUMIC ACID MOLECULE

A. Stevenson, 1972



B. TNB, 1998 (Temple, Northeastern and Birmingham)





Empirical Formula: $C_{36}H_{30}O_{15}N_2.xH_2O$

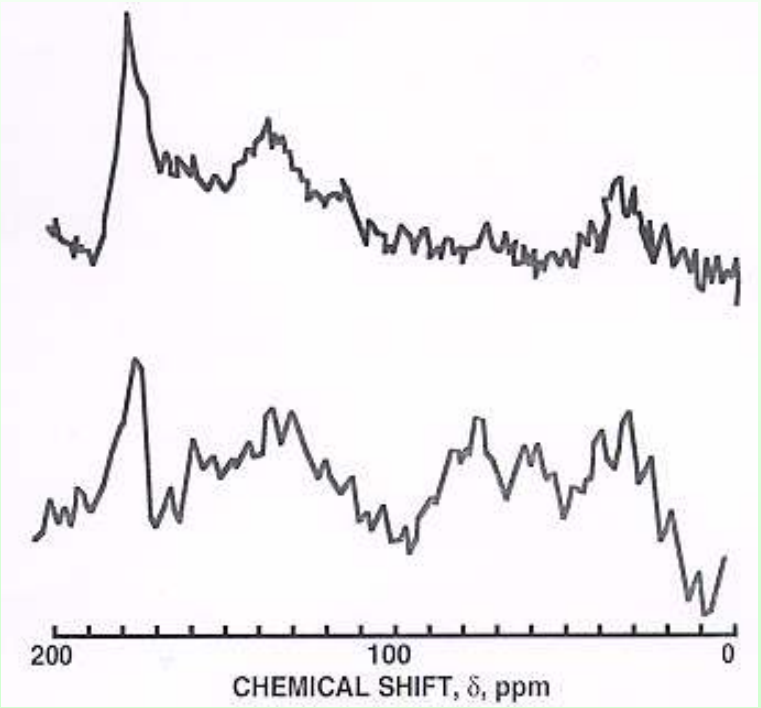
x=0-15

COMPARISON OF *actosol*® HUMIC ACIDS WITH SOIL HUMIC ACIDS

^{13}C Nuclear Magnetic Resonance

actosol® Humic Acids

Soil Humic Acids



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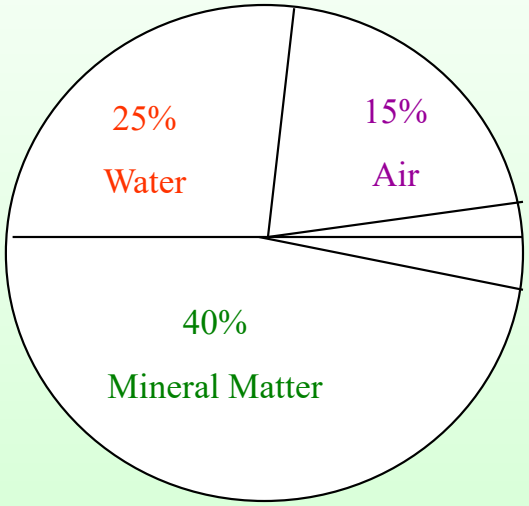
AVERAGE ELEMENT COMPOSITION OF SOIL HUMIC SUBSTANCE

Element	Humic Acid %	Fulvic Acid %
Carbon	53.8-58.7	40.7-50.6
Hydrogen	3.2-6.2	3.8-7.0
Oxygen	32.8	39.7-49.8
Nitrogen	0.8-4.3	0.9-3.3
Sulfur	0.1-1.5	0.1-3.6

COMPONENTS OF OPTIMUM FERTILE SOIL

SOIL



Living Organisms 0.1%

Organic Matter 19.9%

MOST ACTIVE

- Humic Acid (Soluble at high pH)
- Fulvic Acid (Soluble at all pH)
- Humin (Insoluble)

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COMPONENT PARTS OF SOIL TEXTURAL CLASS

Sand: Soil that contains 85% or more of sand; % silt + 1.5 times % clay shall not exceed 15

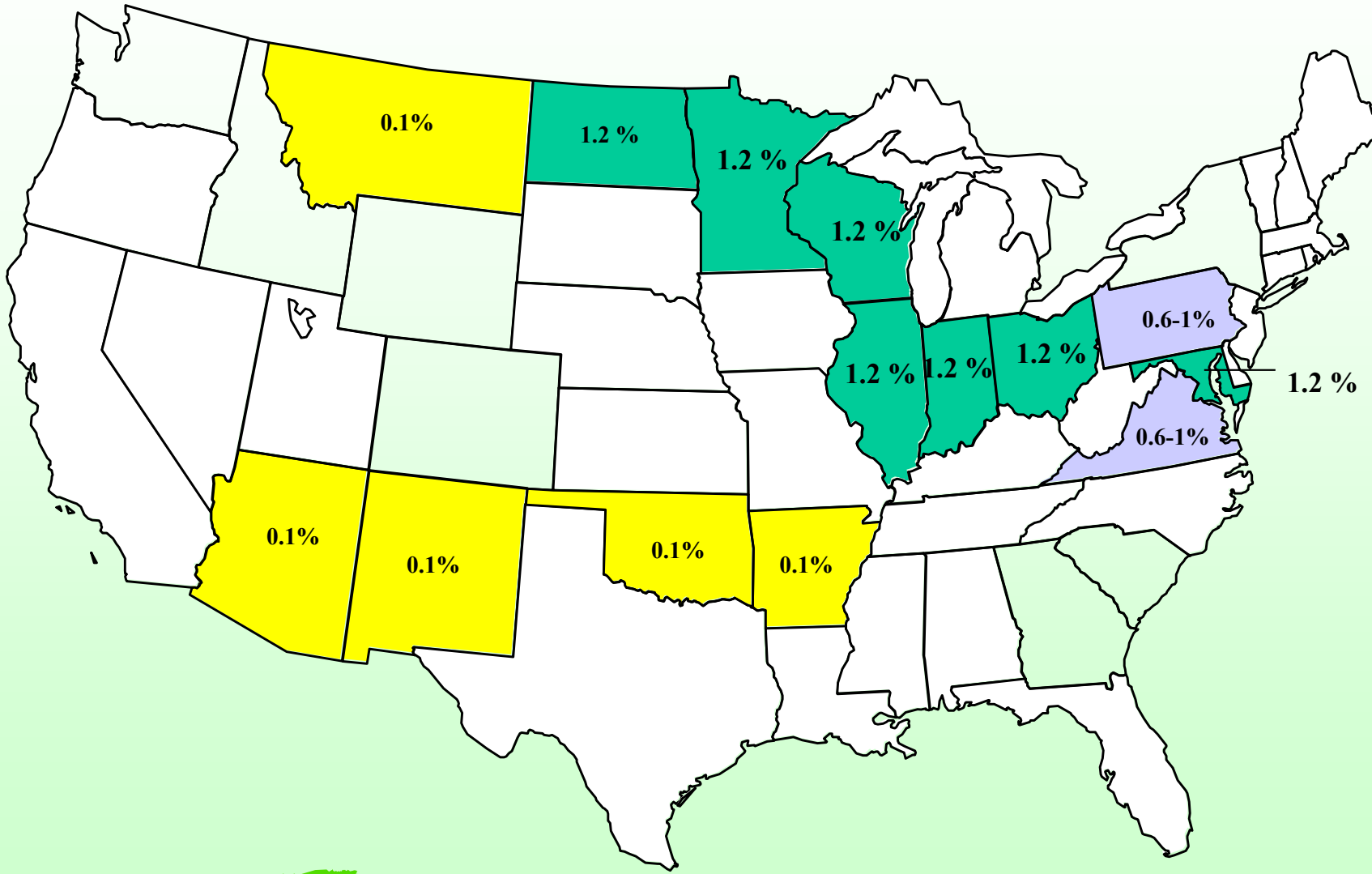
Loam: Soil contains 7-27% clay; 28-50% silt & 52% sand

Clay: Soil that contains 40% or more clay; 45% sand and 40% silt

SOIL TEXTURE CLASSES

- Sand
- Loamy sand
- Sandy loam
- Loam
- Silt loam
- Silt
- Sandy clay loam
- Clay loam
- Silty clay loam
- Sandy clay
- Silty clay
- Clay

HUMIC ACID CONTENT OF VARIOUS SOILS IN THE U.S.



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COMPARISION OF ANALYSIS OF SOIL ORGANIC MATTER OF HALIFAX COUNTY, VIRGINIA FARM SOIL

	SAMPLE ID	LOCATION	Organic Matter (%) *	Organic Matter (%) **	Organic Matter (%)***
A. Chad Francis Farm	01	Alpha Hay Field	2.2	2.1	0.04
	02	Sweet Corn Field	2.3	1.5	0.39
	03	Fescue Pasture	2.1	1.6	0.12
B. Rosemary Dairy	04	Fescue Hay Field	3.2	2.0	0.00
	05	Clover Hay Field	5.4	5.0	0.606
C. Wayne Kendrick Farm	06	Flue Cured Tobacco	2.3	1.7	0.17
	07	Burly Tobacco Field	2.2	1.4	0.39
	08	Soybean Field	2.5	1.8	0.14
	09	Corn Field	4.6	3.1	0.20
D. Bit By Bit Farm	10	Soybean Field	2.9	1.7	0.79
	11	Produce Field Tomato/ pumpkin	3.2	1.9	0.15
	12	Cornfield	1.1	0.8	0.00

*Loss-On-Ignition (LOI), a gravimetric, dry oxidation method, was used to estimate the percentage Soil Organic Matter by Virginia Tech.

** A modified Walkley-Black method was used, where dichromate solution oxidizes organic C to CO_2 in acid medium by Virginia Tech.

*** Humic Matter Analysis Method by Alkali Extraction per American Society of Soil Agronomy analysis

◦ PRESS RELEASE ◦

FOOD AND AGRICULTURAL ORGANIZATION OF THE UNITED NATIONS
VIA DELLE TERME DI CARACALLA - 00100 ·ROME, ITALY
LIAISON OFFICE FOR THE AMERICAS ·1001-22nd St.NW ·WASHINGTON, DC 20437

SOIL LOSS ACCELERATING WORLDWIDE
Hinders Effort to Feed Earth's Growing Population

- 25 billion tons per year of topsoil lost worldwide
- 6 billion tons per year lost in U.S. alone
- Critical need exists to enhance soil fertility to feed world's growing population

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THE actosol® HUMIC ACID ADVANTAGE

- Enhances yield and quality of crops, vegetables, and fruits
- Produces healthy and deeper root mass for superior turf
- Creates vegetation in saline and poor soils

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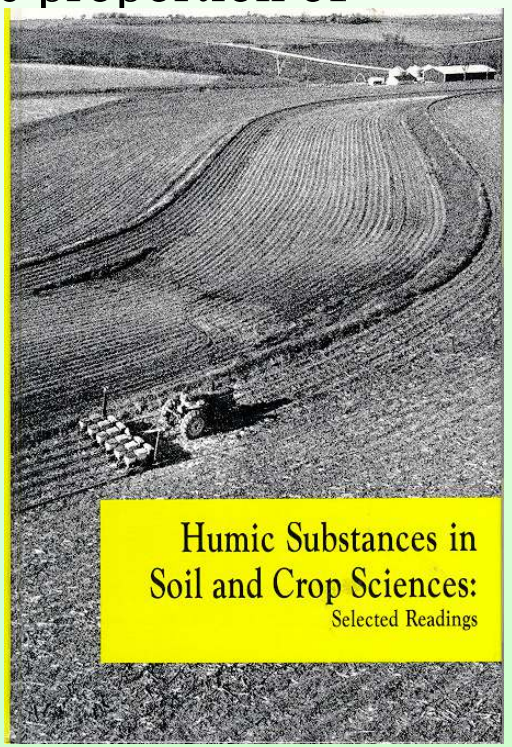
HOW DOES *actosol*® HUMIC ACID CREATE BENEFITS?

- By enhancing soil structure and fertility through the addition of vital organic matter in the soil;
- By efficient transfer of fertilizer nutrients and micronutrients because of the high chelation and cation exchange proportion of the active humic acid component of actosol®;
- By increasing moisture holding capacity of soil;
- By increasing microbial activity in the soil; and
- By enhancing plant cell biomass.



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ACTION OF HUMIC SUBSTANCES ON PLANT GROWTH

Physical

- Increases water holding capacity
- Increases aeration of soils
- Improves soil workability
- Helps resist drought
- Improves seed bed
- Makes soil more friable or crumbly
- Reduces soil erosion.

Chemical

- Chelates nutrients for uptake by plants
- Possesses high ion-exchange capacity.
- Increases buffering properties of soils
- Increases percentage of total Nitrogen in soils.

Biological

- Accelerates plant cell division and promotes growth
- Increases germination of seeds and viability
- Increases root respiration and formation
- Stimulates growth & proliferation of soil microorganisms.
- Aids in photosynthesis.

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actosol® Organic Fertilization Program for Turf Management and Plant Health Care

With ORGANIC MIRACLE for Sustained Greening

Why *actosol*®?

actosol® is an organic nutrient activator which enhances soil fertility and stimulates the growth and development of plants. It is formulated with natural humic and fulvic acids, the active components of rich soil humus. Today soils have become highly depleted in organic humus and even with high nutrient inputs, the yields are suffering. The American Society of Agronomy publication, Humic Substances in Soil and Crop Sciences (1990) states that by additions of organic humic the health and growth of plants can be significantly increased.

Benefits of *actosol*®

Physical Benefits

- Increases water holding capacity
- Increases aeration of soils
- Improves soil workability
- Helps resist drought
- Improves seed bed
- Makes soil more friable or crumbly
- Reduces soil erosion.

Chemical Benefits

- Chelates nutrients for uptake by plants
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- Increases percentage of total Nitrogen in soils.

Biological Benefits

- Accelerates plant cell division and promotes growth
- Increases germination of seeds and viability
- Increases root respiration and formation
- Stimulates growth & proliferation of soil microorganisms.
- Aids in photosynthesis.

Time	Application	actosol® Product in 200 gallon tank*	Lbs per 90,000 sq. ft Application						
			N	P	K	Ca	Fe	S	Humic/ Fulvic
Late Feb-Early March	Pre-Emergent – Restart	6gal Turf Booster 2gal Fe Chelated 100 lbs. Urea	12 46	3	3		0.4		
Late May	Emergent – Lush greening	5gal Turf Booster 2gal Ca actosol 1gal Fe Chelated 100 lbs. Urea	10 0.4 46	2.5	2.5	0.4	0.2		
Early to Mid June	Pre-Summer – Maintenance	6gal Garden 2gal Fe Chelated 100 lbs. Urea	6 46	6	6		0.4		
Late July to August	Summer – Stress free Green	8gal Turf Booster	16	4	4				
Sept. – Oct.	Fall – Sustained Beauty	6gal Ca actosol 2gal Fe Chelated 100 lbs. Urea	1.2 46			1.2	0.4		
Nov. – Dec.	Winterizer – Prepare	4gal Turf Booster 4gal Horticultural actosol	8 4	2 4	2 4				
Total:			239.6	21.5	2.5	1.6	1.4	0.5	15

Contains non-plant food ingredients, 2.9% Humic/Fulvic Acid derived from Lignite. Quick and sustained release with 30% Nitrogen, 50% P_2O_5 and 50% K_2O bound to humic/fulvic components

USDA ALLOWED/EPA APPROVED

*** If needed mix fungicide in the tank. However perform jar test for compatibility. May reduce fungicide use by as much as 50%.**

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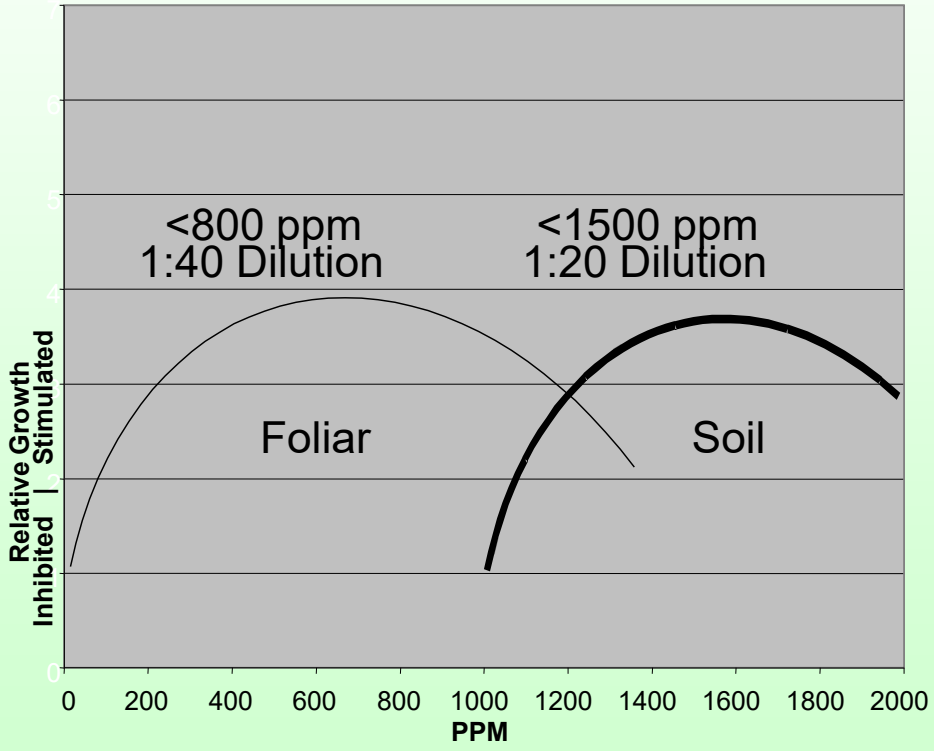
Optimum Dilution Rates for *actosol*®

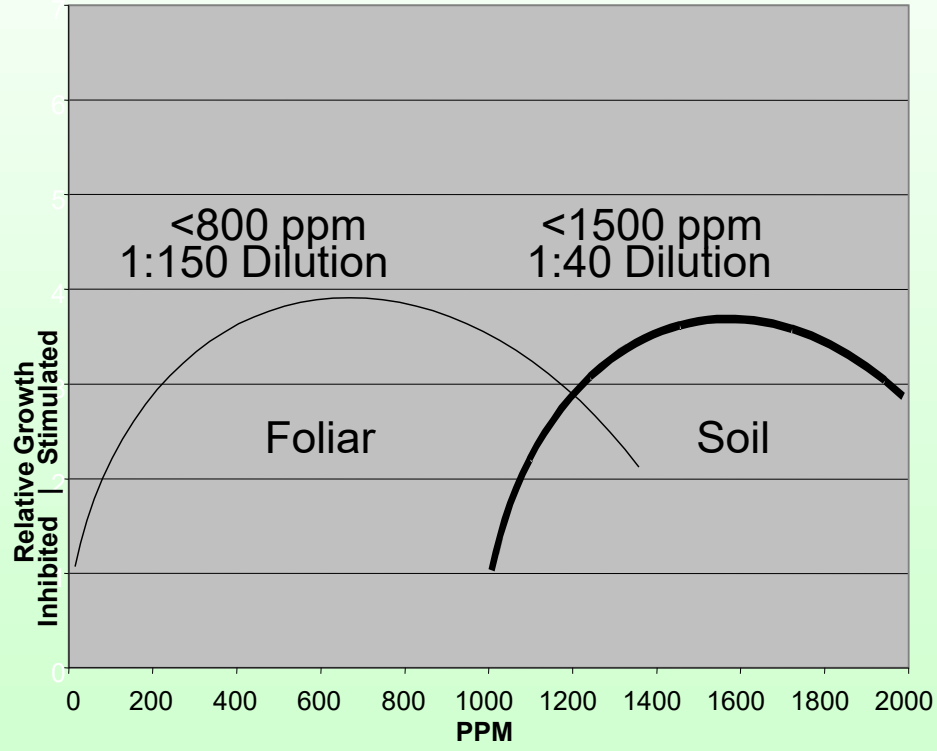
Turf actosol®, Horticultural actosol®,
Calcium actosol®, Micronutrient actosol®

3% humic acid



Base actosol®

6% humic acid



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APPLICATIONS OF *actosol*® HUMIC ACID

- ☑ Agriculture
- ☑ Horticulture
- ☑ Floriculture
- ☑ Turf Management/Maintenance
- ☑ Mine/Landfill Reclamation
- ☑ Dune Stabilization
- ☑ Road/Highway Erosion Control
- ☑ Hydroseeding
- ☑ Pasture Land, Conservation of Natural Resources

actosol® HUMIC ACID BEING APPLIED SUCCESSFULLY IN VARIOUS APPLICATIONS

UNITED STATES

- Landscaping
- Erosion Control
- Landfill Closure
- Golf Courses
- Sod Farms
- Nurseries-Tomatoes
- Sand Dunes
- Floriculture
- Agriculture
- Horticulture

GULF COUNTRIES

- Rhodes Grass
- Water Melon
- Cucumber
- Alfalfa
- Orange Groves
- Grapes
- Onion
- Date Trees

MAURITIUS

- Sugar Cane
- Horticulture

S. KOREA

- Golf Courses
- Greenhouses

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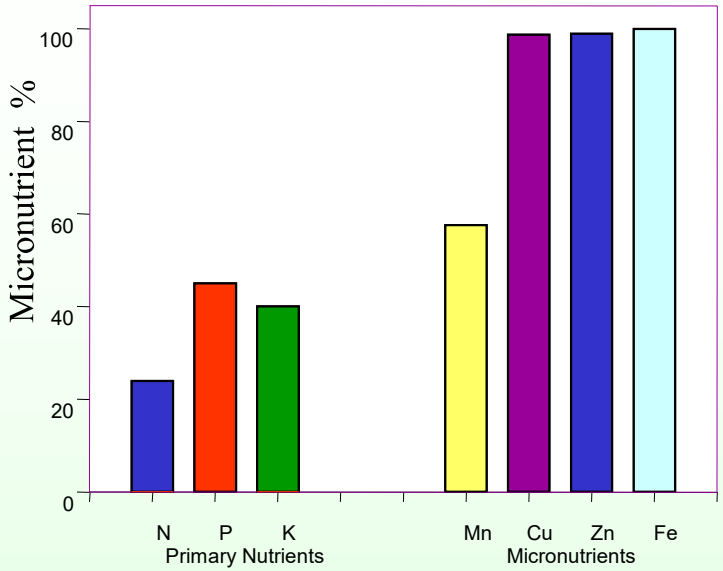
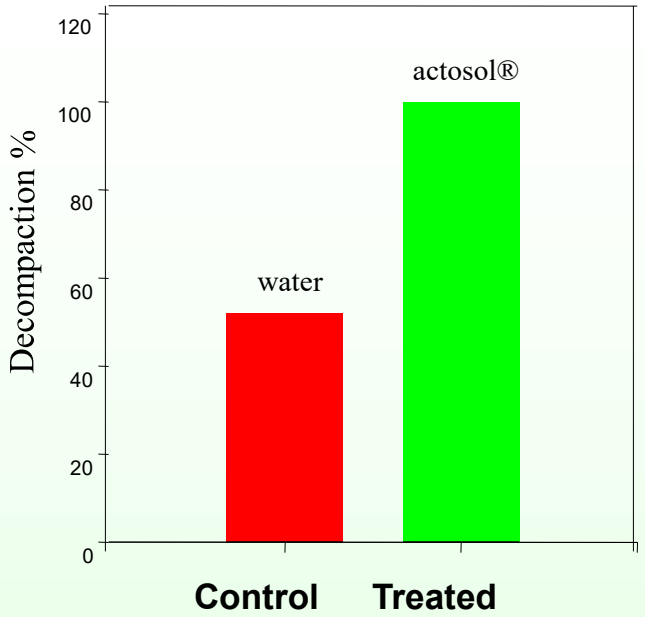
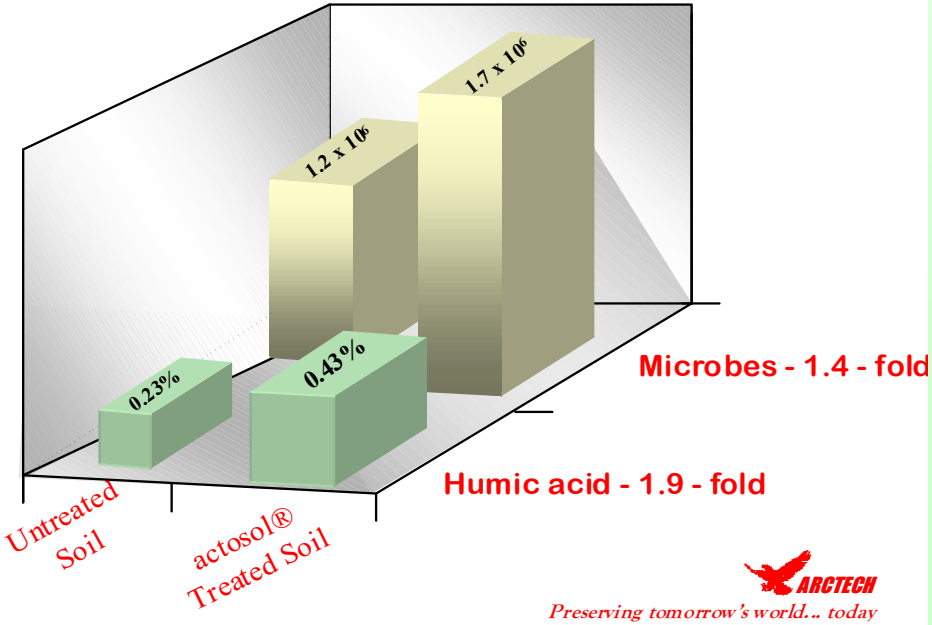
Primary and micronutrients bound to actosol® humic acid



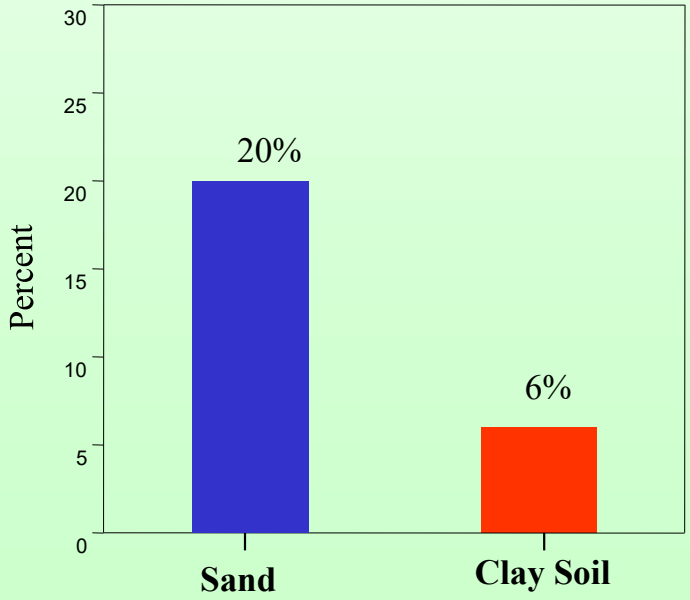
actosol® improves soil structure



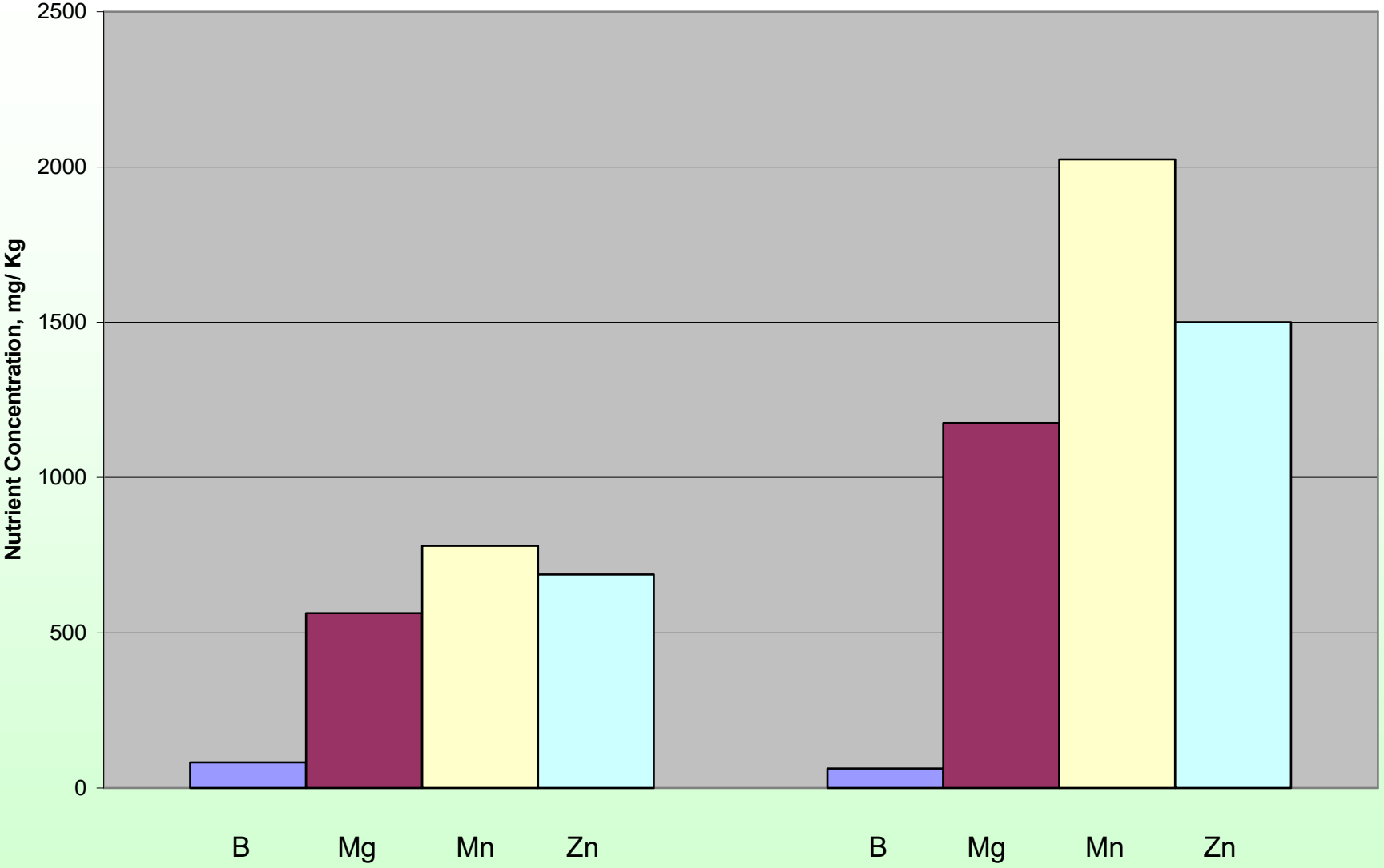
Microbial counts and humic acid content are higher in actosol® treated soils



actosol® humic acid increases water holding capacity



actosol Humic Chelated Micronutrients Increases Uptake by the Plants



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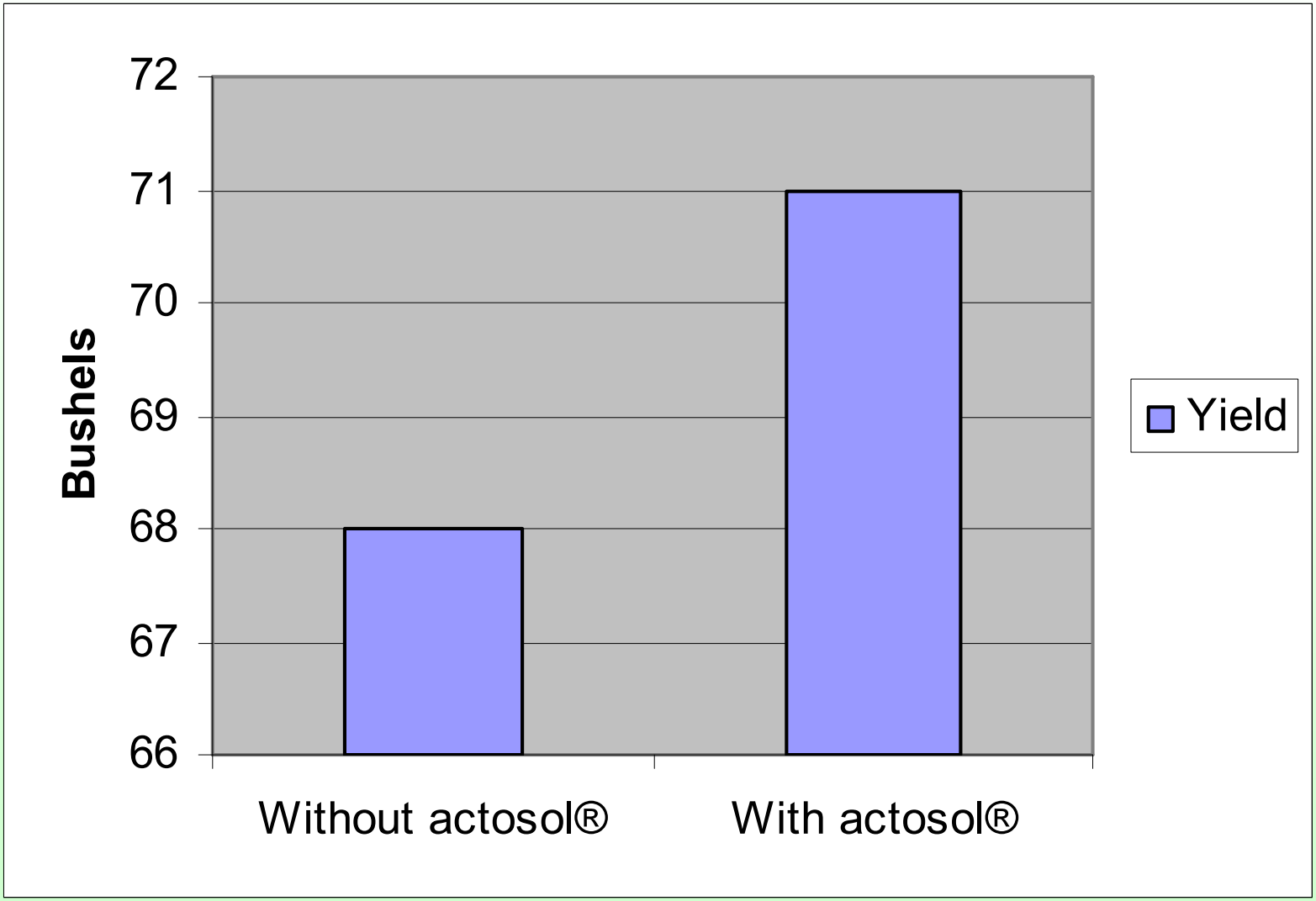
actosol® Humic Acid Application Will Reduce Nutrient Input and Increase Wheat Yield



N: 30
P: 70
K: 100

N: 30
P: 35
K: 50

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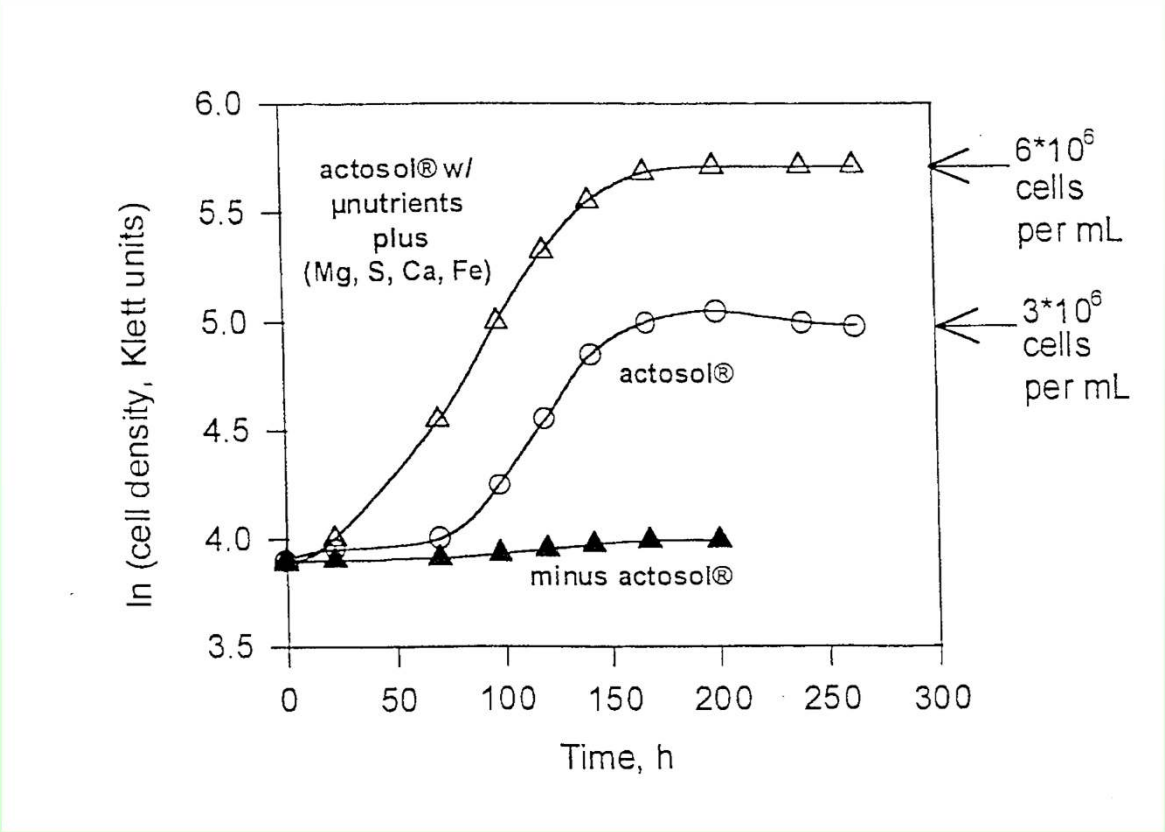
actosol® Enhances Growth of Green Algae Dunaliella Salina (D. Salina)



Dr. Anastasios Melis, Professor of University of California, Berkley

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Approval of *actosol*® Humic Acid

A. **USDA National Organic Food Production Program** **October 21, 2002**
Allows use of Humic Acid for Growing Organic Foods
Additional Info : www.ams.usda.gov/nop

B. **US Environmental Protection Agency**
June 13, 2003
Approves Humic Acid as Environmentally Safe
and Exempts from Tolerance Requirement
when Used as an Ingredient (adjuvant, UV protectant)
in Pesticide Formulations
Additional Info : www.epa.gov/fedregstr

C. **OMRI Listed (Organic Materials Review Institute)**
February 18, 2005
Additional Info : www.omri.org

D. **South Carolina, DOT**
March, 2012
Approves as Biological Stimulant

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humaxx USA
offering balanced sustainable solutions

Approvals of *Actosol* HUMIC ACID

USDA National Organic Food Production Program

October 21, 2002

Allows use of HUMIC ACID for Growing Organic Foods

www.ams.usda.gov/nop

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www.epa.gov/fedregstr

OMRI Listed (Organic Materials Review Institute)

February 18, 2005

www.omri.org

South Carolina, Dept. Of Transportation

March, 2012

Approved HUMIC ACID as a Biological Stimulant

www.scdot.org

IHS Markit Crop Science Forum Dec. 2021 Award Winner for improving efficiency, and delivery of fertilizers while enabling farmers to increase crop yields, quality, soil health-fertility, sequester carbon, and mitigate increasing ecological concerns.

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IMPORTANCE OF HUMUS, A KEY COMPONENT IN actosol®
DISCOVERED DURING ALASKAN CRUISE

Sitka, Alaska

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Turf

actosol® CREATES VEGETATION IN SAND DUNES

Ocean City, MD

HYDROSEED MIX

HYDROSEED MIX PLUS actosol®

6 weeks growth, Virginia Tech., Testing

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Astonishing Synergistic Benefits when Combined with Agrochemicals (Tests by Virginia Tech)

US Environmental Protection Agency
June 13, 2003
Approves *actosol*® Humic Acid as Environmentally Safe and Exempts from Tolerance Requirement when Used as an Ingredient (adjuvant, UV protectant) in Pesticide Formulations
Additional Info : www.epa.gov/fedregstr

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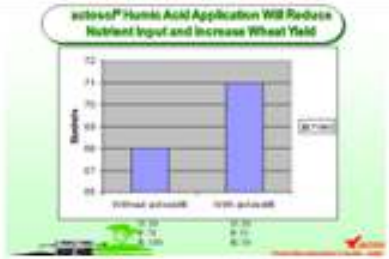
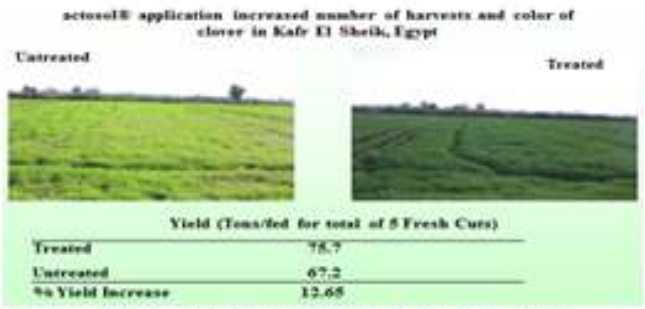
actosol Increases Primary and Feeder Roots of Tree Bareroots on the Left

Examples of the Use of actosol® Organic Humic Acid on Agriculture Crops

Agriculture	Description	Results on agricultural crops
Wheat Experiment conducted by Paul Bodenstein, Crop agronomist, Ag. Systems, Virginia Crop Consulting firm	Plot 1: 3 gal actosol® + 30 N: 70 P: 100 K Plot 2: 3 gal actosol® + 30 N: 35 P: 50 K	 Addition of actosol® humic acid reduced phosphorous & potassium application by 50% and increased yield by 4%
Wheat (Southern States 8308 variety), Woodlief Farms in Rolesville, North Carolina	Application rate @ 1.5 gal/40 gal water/ acre were applied overhead. Plot size: 1 acre/ treatment. Both treatments received the identical amount of fertilizer and same growing conditions. Data collected consisted of 10 replication for each treatment.	 actosol® control actosol® control *actosol®* Improved root development, Plant Height. Results showed that the use of *actosol* averaged 44 seeds per head vs. 21 for the control and weight of seeds per head averaged three times as great 2.2 grams vs. 0.8 grams for the control.
Wheat North Delta, Egypt	applied at 2 gal/acre before seeding	 actosol® application increased germination of wheat in Kafr El Sheik, Egypt (3 weeks after treatment) Untreated Treated Yield (Grain & Straw, Tons/acre) Treated 5.51 Untreated 4.92 % Yield Increase 12.0 Increased germinations, yield of grain & straw by 12%

Examples of the Use of actosol® Organic Humic Acid on Agriculture Crops

Agriculture	Description	Results on agricultural crops continue
Soybean At a 44,000 acre farm located in Beaufort, North Carolina. Experiment conducted by Paul Bodenstein, Crop agronomist, Ag. Systems, Virginia Crop Consulting firm	Foliar application at 550 mg actosol®/liter water (or 1.1 lb./acre) with a post-emergence application of blazer herbicide, surfactant and manganese. Applications on soybeans were during the fourth trifoliate.	 actosol® + Blazer Blazer Fourteen days after treatment, test plots treated with actosol® and Blazer had progressed to the eighth trifoliate while soybeans treated with Blazer alone were just beginning their fifth trifoliate. Addition of actosol® to the Blazer significantly reduced phytoxicity and enhanced growth resulting in an increase of 6.8 bushels /acre.
Clover North Delta, Egypt	applied at 2 gal/acre before seeding	 actosol® application increased number of harvests and color of clover in Kafr El Sheik, Egypt Untreated Treated Yield (Tons/fed for total of 5 Fresh Cuts) Treated 78.7 Untreated 67.2 % Yield Increase 12.65 Increased chlorophyll, # harvest & yield by ~13%
Tobacco Plants Hope Farm, Clinton, North Carolina	Green house: Seedlings: 288cells/tray applied *actosol®* @12.5 gal /500 gal. water Field: Seedlings transferred to field & received 2 gal actosol®/ 80 gal. water /acre	 actosol® improved root development in tobacco plants Control Treated Increased root mass, nutrient uptake, plant height by 10% & improved chlorophyll content

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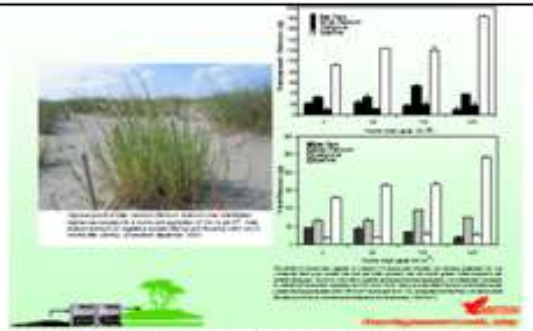
Examples of the Use of actosol® Organic Humic Acid on Turf

Turf	Description	Results on turf
Grass in Sand dunes, Ocean City, Maryland	Application rate @5 gal/ acre. actosol® was applied as part of the hydro-seed mix (recycled wood fiber mulch, biodegradable tack, seed mix of 1/3 perennial rye,1/3 grain rye and 1/3 K-31 fescue at 10 lbs/1000 square feet)	 Increased root mass, chlorophyll, established robust cover
On produced water resulted from J.M. HUBER Inc., a coal bed methane producer in Wyoming. Work was conducted by Robert Downey of Energy Ingenuity of Colorado	A field unit consisting of a chemical pulse pump and a turbine flow meter mounted on a small skid for automated metering in actosol® into the high salinity produced water prior to irrigation of the adjoining land area. actosol® was metered in to add only 50 ppm into the water during the 30 days of the 45 days of test period. The control area received only produced water without any addition of actosol®.	 The test area showed lush green vegetative growth without any bare spots compare to the control
On 4 varieties of sea grasses in Marsh Land, Louisiana, Prof. Mark Hester at Univ. Louisiana	actosol® was applied at four dosage rates.	 Application of actosol® resulted in enhanced growth of both root biomass and top growth.

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Examples of the Use of actosol® Organic Humic Acid on Turf

Turf	Description	Results on turf continued
On tall fescue in central sod farm in Maryland (Billarpinski)	2.5 gal/acre +100% STD fertilizer, 2.5 gal/acre + 80% STD fertilizer, Grower STD fertilizer.	 Reduction in fertilizer, improved root development & turf growth
On Turf in Virginia Beach Area (Symsi Manuel)	Application rate @ 3 gal. per 60 gallons of water was used to cover the turf area. The first application was made with a hand held power sprayer and then the second application was applied with a bloom sprayer.	Control actosol®  *Calcium actosol®* on Root and Turf Growth Under High Salinity Conditions

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Examples of the Use of actosol® Organic Humic Acid on Horticulture

Horticulture	Description	Results in horticulture/ornamentals
On Ornamentals at Country Joe's Nursery, at Boynton, Beach, FL (David Englert)	Application rate @ 4 oz/ 2 gallon water (1:30 ratio) or 4oz/4 gallon water (1:60 ratio)	(Begonia) (Montera)  Control actosol® Control actosol® Improved Roots and Foliage Growth on Variety of Ornamentals & Reduced the Production Time for Marketability of Container Ornamentals

actosol® vs. Miracle-Gro

AUGUST 2003

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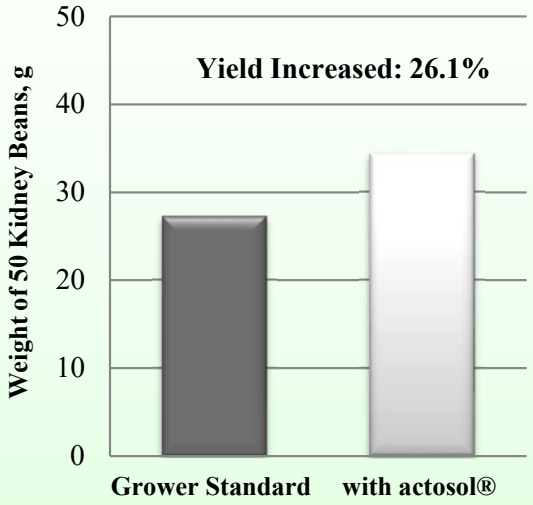
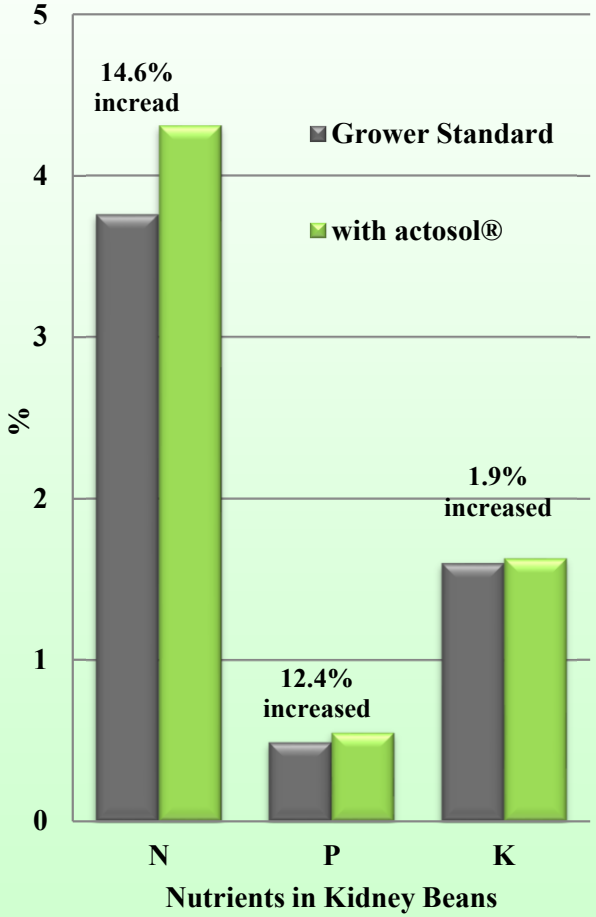
Did use our fertilizer
actosol

Kidney Beans Grown with actosol® by Carlson Farm, MN Showed Increased Yield and Size





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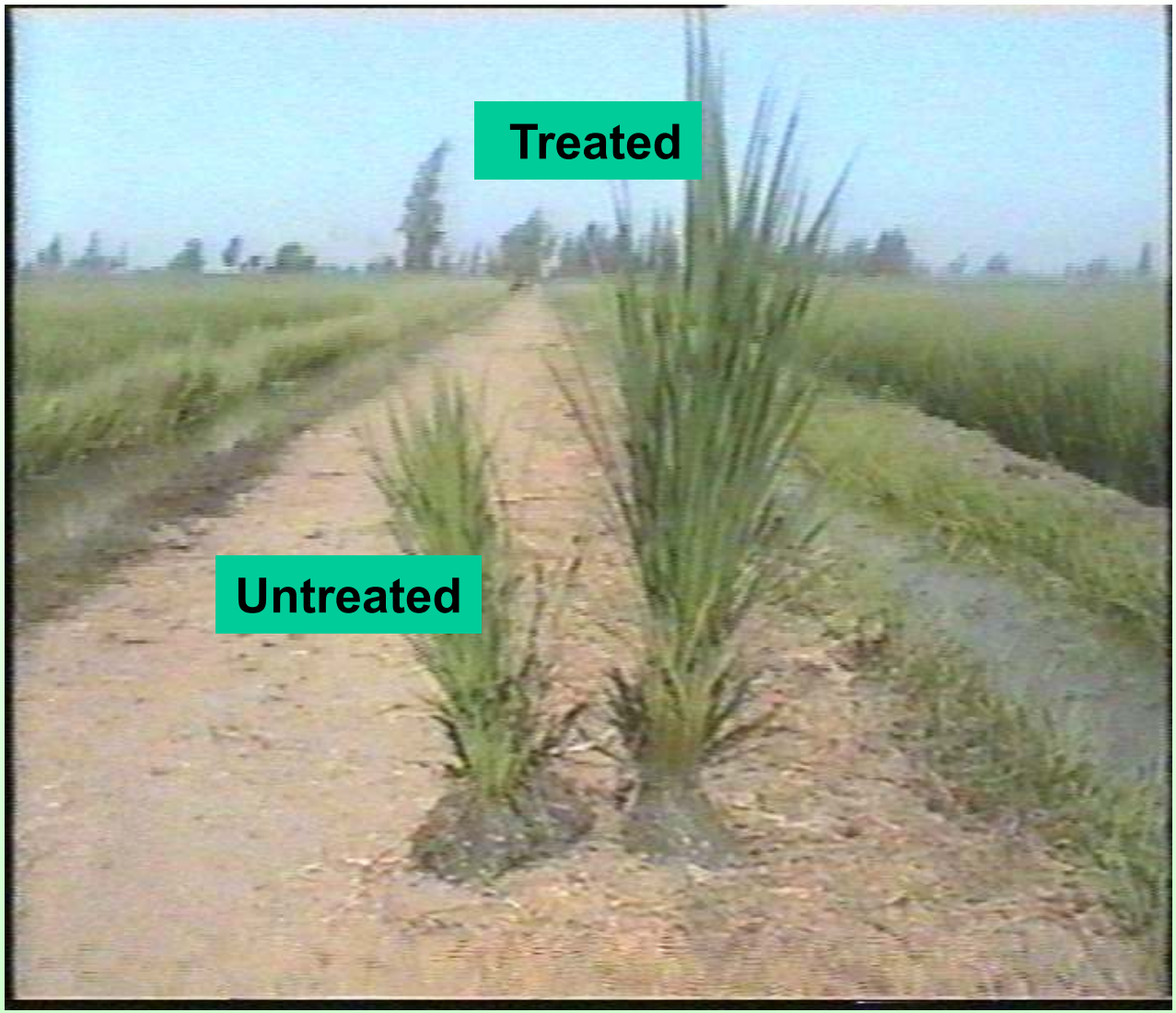
Rice



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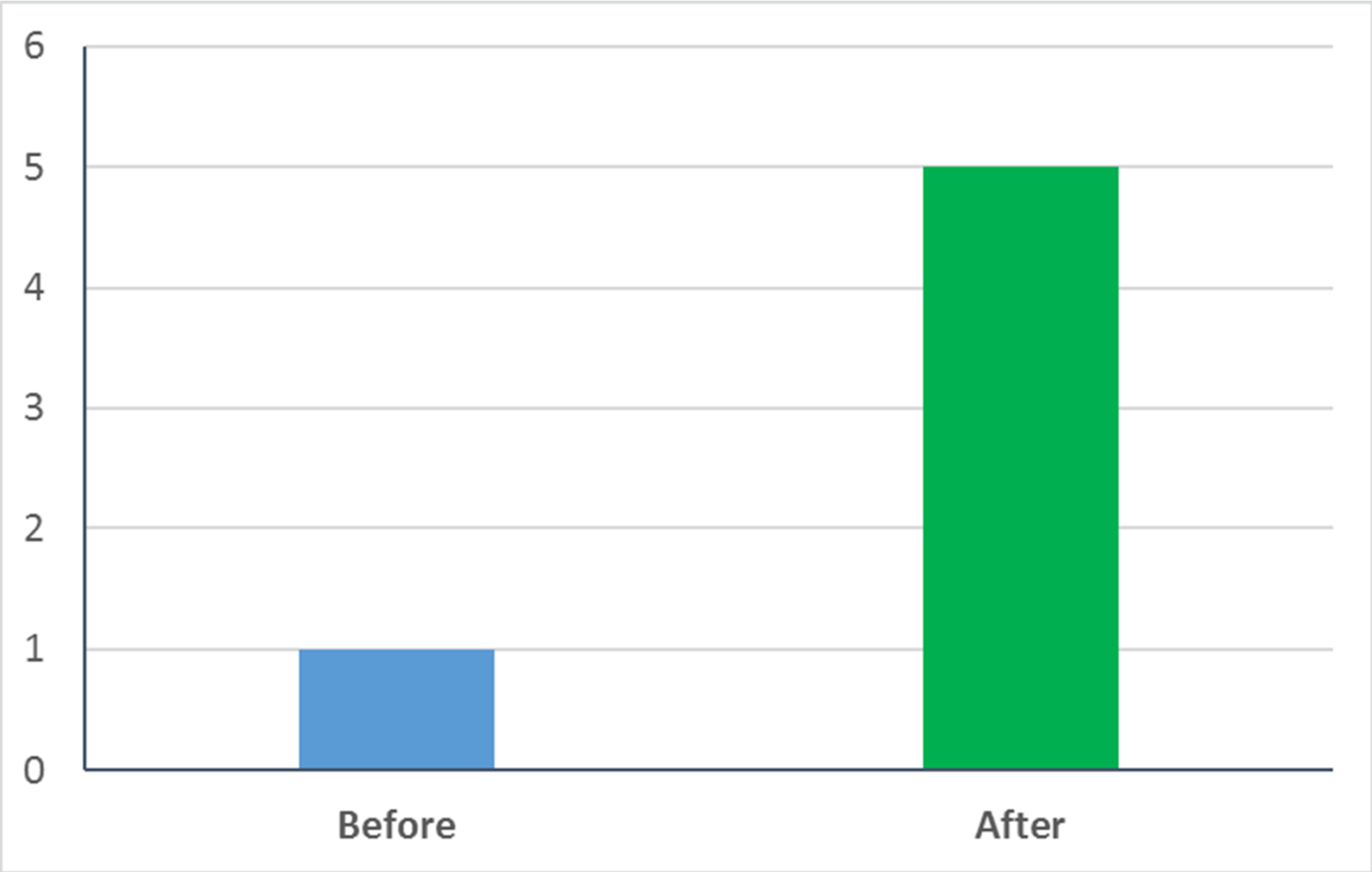
actosol® in Egypt

Crop	Location (Soil Type)	Crop Increase [ton/acre]	Crop Increase [%]	Extra Revenue from Crop Increase [LE/acre]	Chemical Fertilizers Reduction [%]	Chemical Fertilizers Savings [LE/acre]	Cost of Organic manure [LE/acre]	Cost of actosol [LE/acre]
Wheat & wheat hay	Valley	0.39	14.4	1500	30	150	400	240
Rice	Valley	0.75	18.5	1500	50	250	400	240
Sugarcane	Valley	5.7	11.8	2300	25	300	800	400
Potatoes	Desert	2.5	17.8	2500	25	300	1500	480
Cucumber	Desert	2	20	2400	25	300	1500	480
Pears	Desert	1.8	12	2700	25	150	1000	400
Orange	Desert	2	11.1	2000	20	150	1000	400
Grapes	Desert	2	20	2500	20	150	1000	400
Apple	Desert	3.3	52	3000	20	100	1000	400
Mango	Desert	0.65	16.25	3200	25	150	1000	400

US 1$ = 7.14 LE (Egyptian Pound)

actosol® Gradually Increasing Organic Matter Over 10 Years – Based on Soil Quality Assessment



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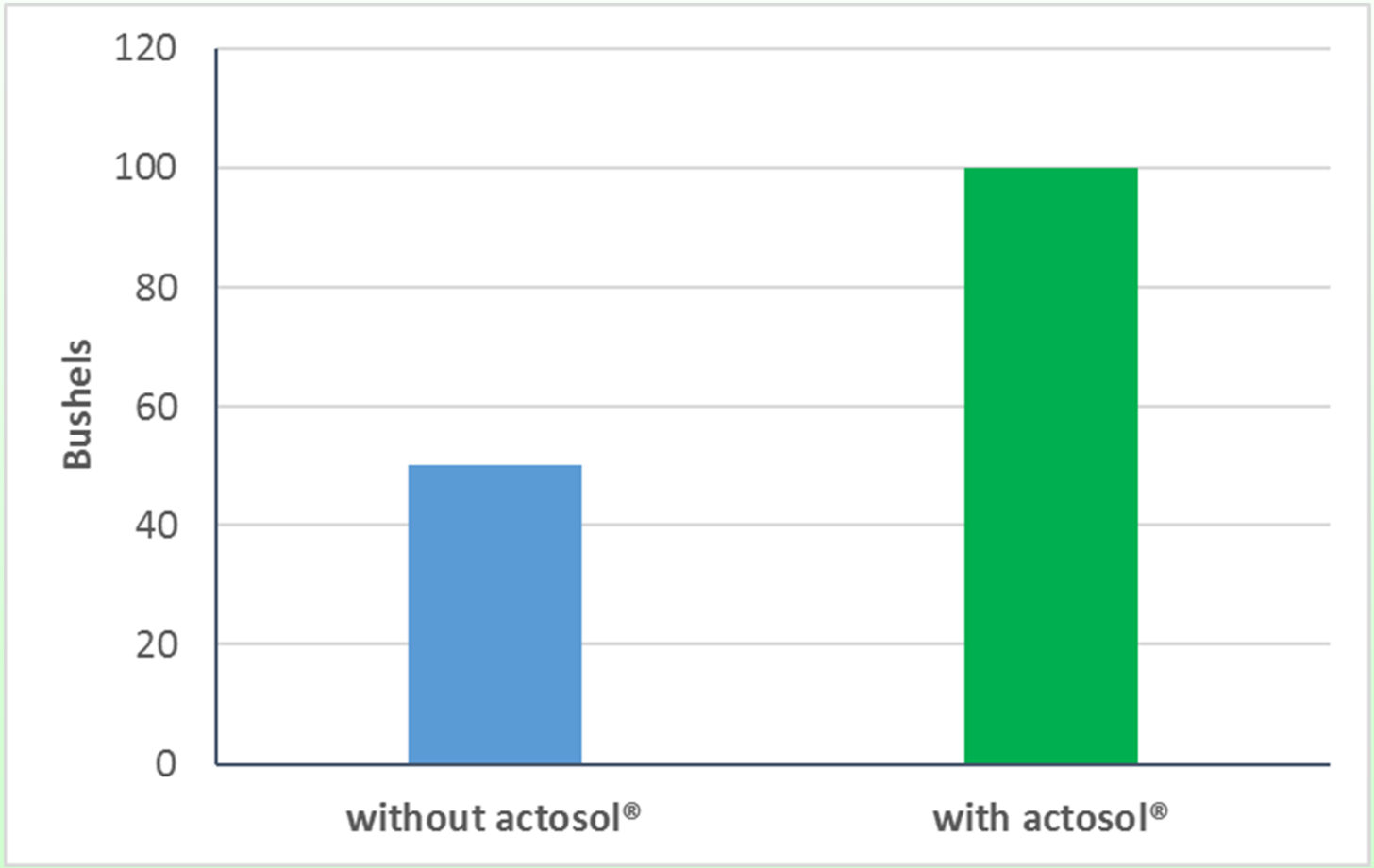
Average Yield Increased from 50 Bushels per Acre to 100 Bushels per Acre



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CALCULATIONS -Lawson Farm in Virginia USA

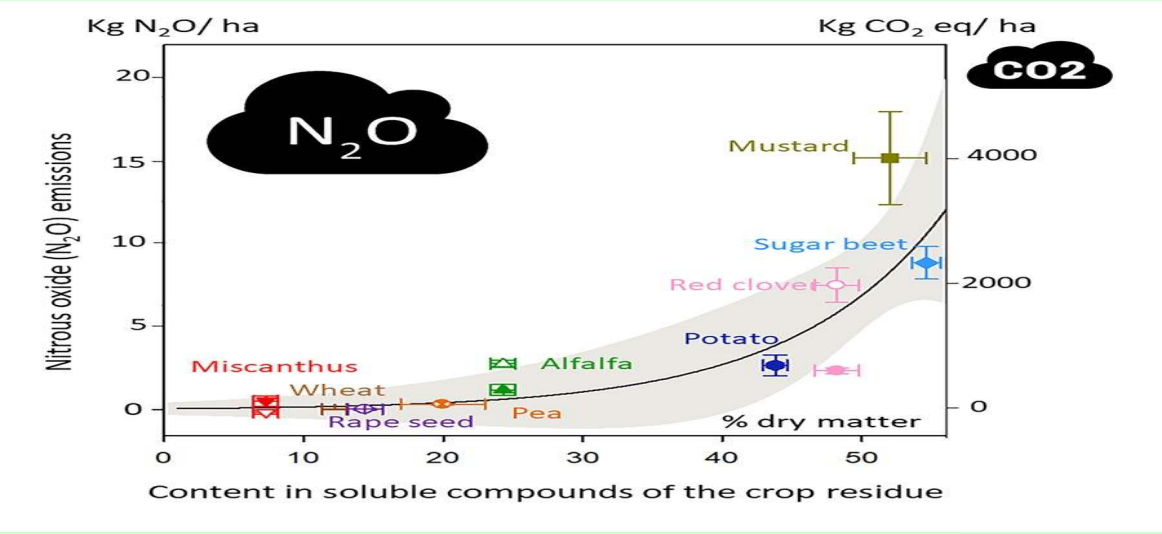
Based on Per Acre: 43,500 sq.ft per acreX 1 feet depth = 43,500 cubic Feet

@60 lbs soil per cu.ft =43,500 X60= 2,610,000 lbs or 1186 tonnes

Organic matter increase from 1 to 5% by 4% over 10 years Organic matter dry basis = 1186X0.04= 47.45 tonnes/Year 47.45/10= 4.75 tonnes/year

@ 60% C in organic matter = 2.85 tonnes/Year CO2e Equivalent 2.85X44/12 = 10.45 tonnes /Acre/Year

Average =10 tonnes/Acre /Year



actosol®

Organic **Biostimulant**

WITH & WITHOUT

Increase stress tolerance

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actosol®

Organic **Biostimulant**

WITH & WITHOUT

Enhance root growth & yield

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actosol® Hydroseeding Effective for Reclamation Site in Northern Alabama

actosol®

Treated

Before Treatment

Control

After Treatment

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SUCCESSES OF
actosol® HUMIC ACID FERTILIZER

Amazingly, the growth rate of the alfalfa and wheatgrass was significantly better – thicker, taller and a much darker green color - in the plot where the Actosol-Z™ was added, even though only about 25% of the prescribed 100 ppm concentration of Actosol-Z® was actually applied. This is also evident in the photos below, where the agricultural consultant is shown collecting alfalfa and wheatgrass samples for analysis.

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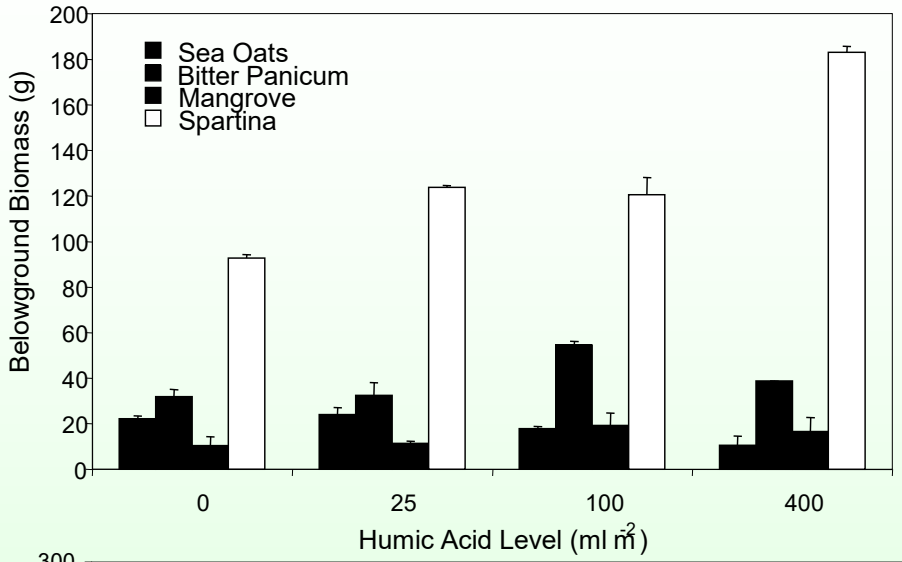
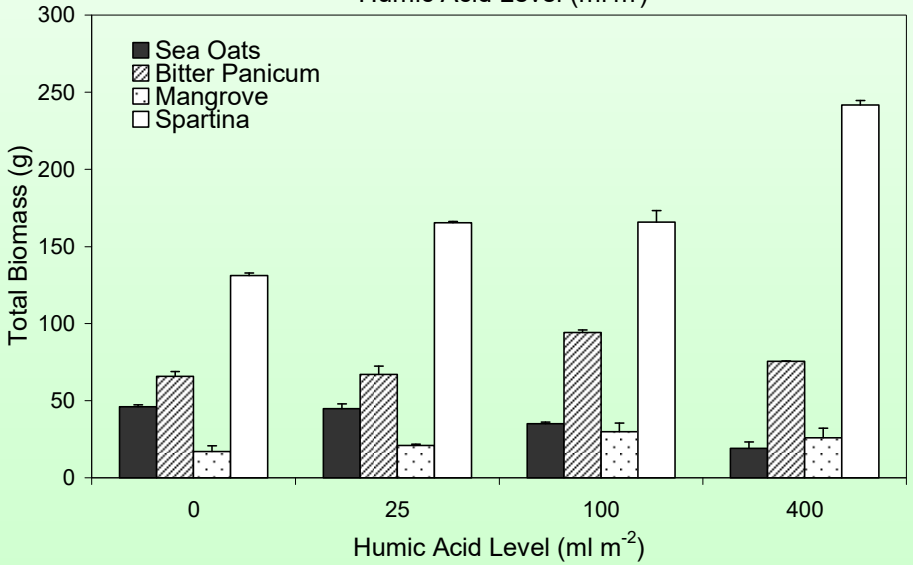
actosol® Humic Acid Application Increased Roots, Top Biomass, and Vigorous Growth of Dune Grasses for Restoration of Louisiana Coastal Lands. (Tests by Prof. Mark Hester of University of New Orleans)

Vigorous growth of bitter panicum (*Panicum amarum*) when a fertilization regime was coupled with a Humic Acid application of 100 ml per m^{-2}. Note extensive amount of vegetative spread (tillering) and flowering within only 5 months after planting (photo taken September 2004).





The effect of humic acid (applied as Actosol 3% humic acid solution) on biomass production by two widespread dune grass species (sea oats and bitter panicum) and salt marsh species (black mangrove and smooth cordgrass). *Spartina alterniflora* (smooth cordgrass) biomass production was substantially increased by addition of humic acid, especially the 400 ml m^{-2} level. Mangrove and Bitter Panicum both demonstrated greater biomass production at the 100 ml m^{-2} humic acid level. It is anticipated that Sea Oats will demonstrate elevated productivity at some more moderate level of humic acid (<25 ml m^{-2}).

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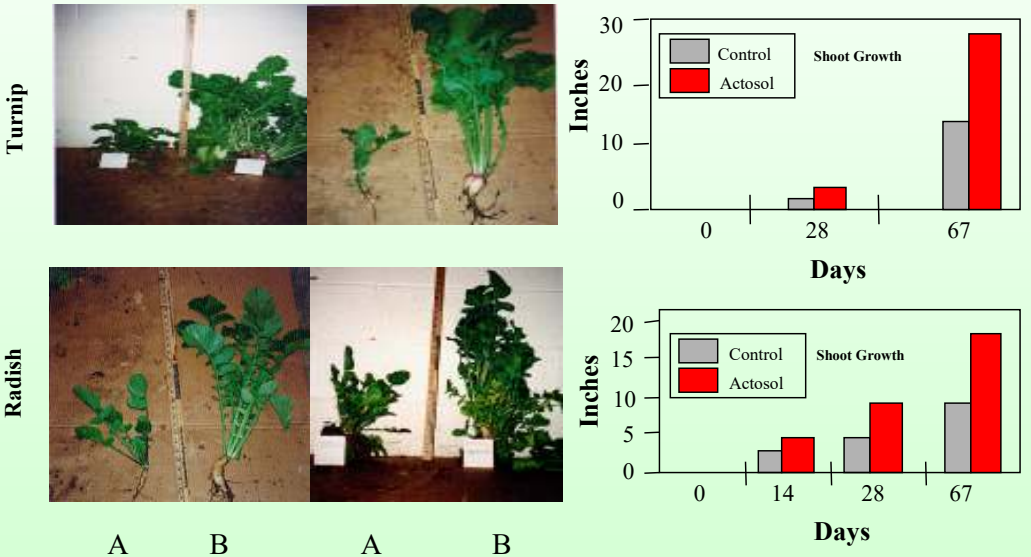
Floriculture

actosol® BRIGHTENS FLOWERS

Horticulture

actosol® MIRACLE ON VEGETABLES



A - Standard Garden (20-20-20) **B - Garden actosol® (10-10-10)**

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Vegetable Production

actosol®

control

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Organic **Biostimulant**

WITH & WITHOUT

Improve nutrient uptake

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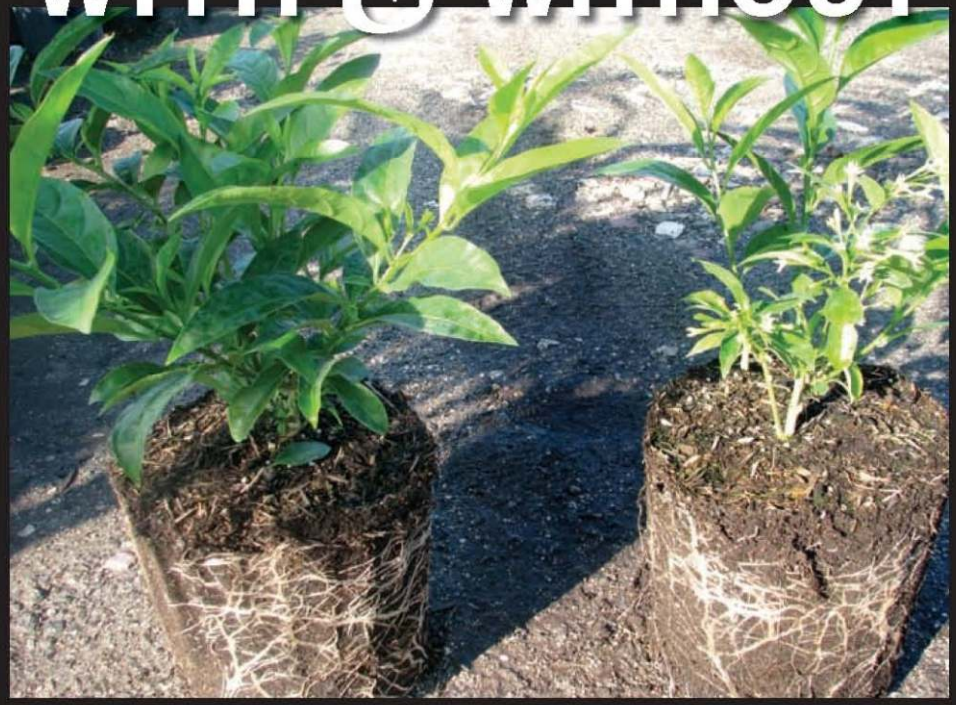
Organic **Biostimulant**

WITH & WITHOUT



Improve nutrient uptake

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Organic **Biostimulant**

WITH & WITHOUT

Begonia's tests results

Innovations by **ARCTECH**

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Organic **Biostimulant**

WITH & WITHOUT

Palm test results

Innovations by ARCTECH

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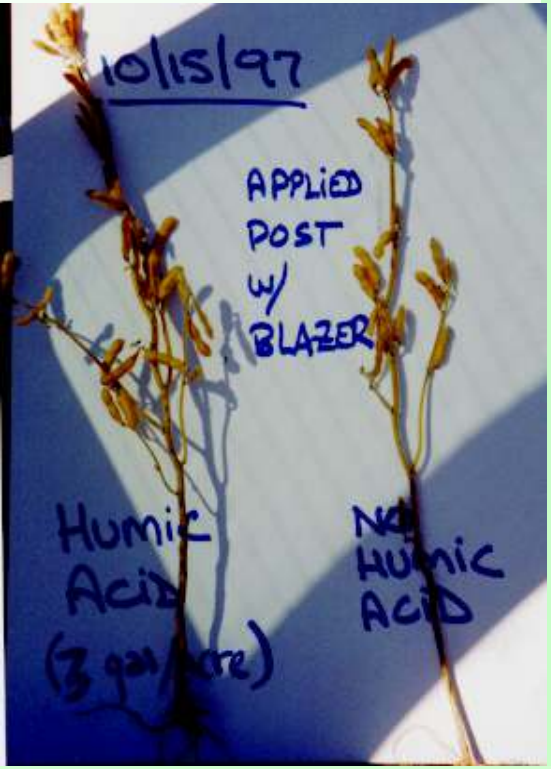
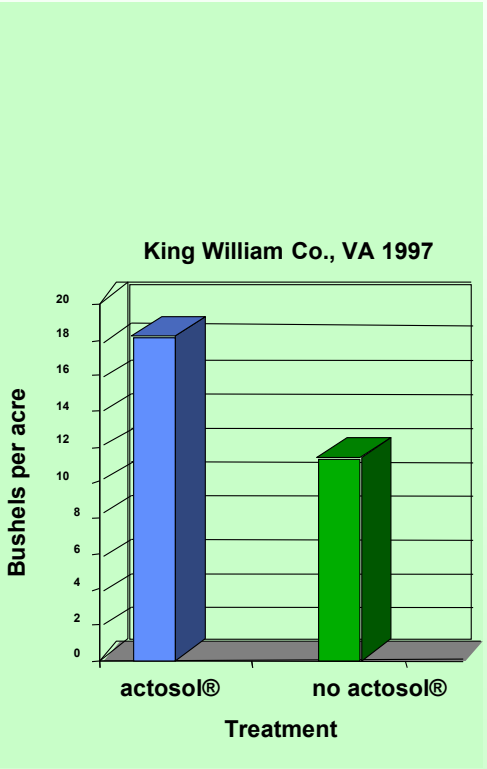
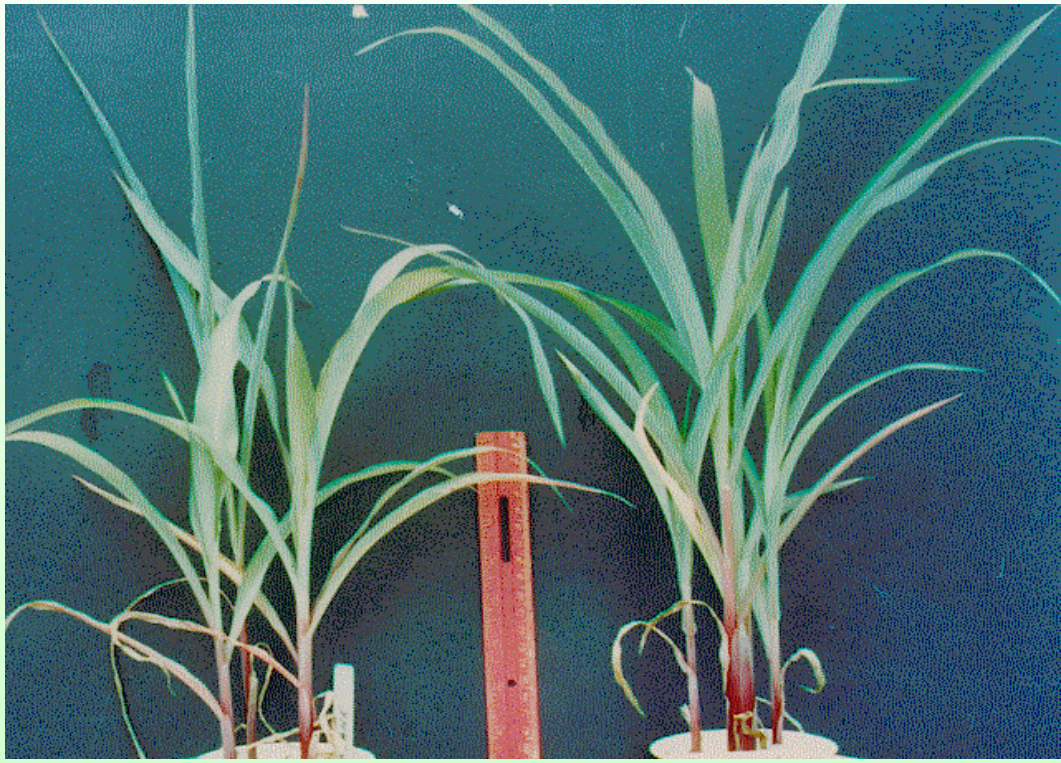
Agriculture

60% INCREASE IN SOYBEAN YIELD USING actosol®





EFFECT OF actosol® ON CORN PLANTS



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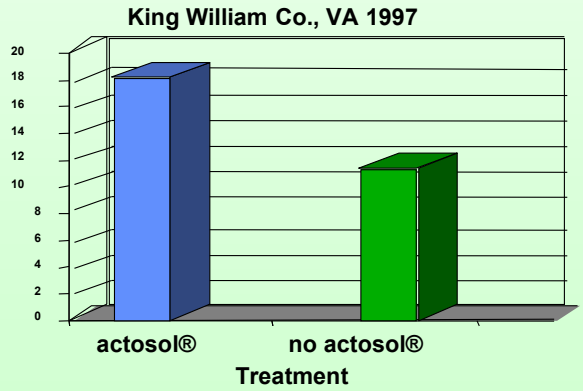
actosol®

Humic Acid Fertilizer

Derivatives of naturally occurring humus matter in soil, humic acids are the key ingredient in all actosol® products. Humic acids are active elements in organic soils and are important for the conversion of fertilizer into plant available nutrients.

60% Increase In Soybean Yield Using actosol®

Using Humic Acids Corn Yield Winner Gleans 334 bu/acre



- ***actosol®*** Increased Wheat Yield By 2.52 bu/Acre In Controlled Tests!
- Foliar Application of ***actosol®*** Increased Barley Yields by 5.2 bu/Acre

THE actosol® ADVANTAGE

- Enhances yield and quality of crops, vegetables, and fruits
- Produces healthy and deeper root mass f or superior turf
- Creates vegetation in saline and poor soils
- Proportioned releases for maximum efficiency

Distributors & Sales Reps Wanted

Contact: Daman Walia at actosol plant, South Boston, VA. 1 (800) 471-8494

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actosol® in Peoples Republic of China

腐殖酸液体肥 ACTOSOL®

生物试验报告

研究单位：西南农业大学资源环境学院

研究人员：王正银　徐卫红　叶学见

李光耀　廖琼仙

资助单位：香港民生实业有限公司

中国·重庆

一九九九年三月～一九九九年五月

actosol® Application Increased Number of Harvests and Color of Clover in Kafr El Sheik, Egypt

Untreated

Treated

Yield (Tons/fed for total of 5 Fresh Cuts)	
Treated	**75.7**
Untreated	**67.2**
% Yield Increase	**12.65**

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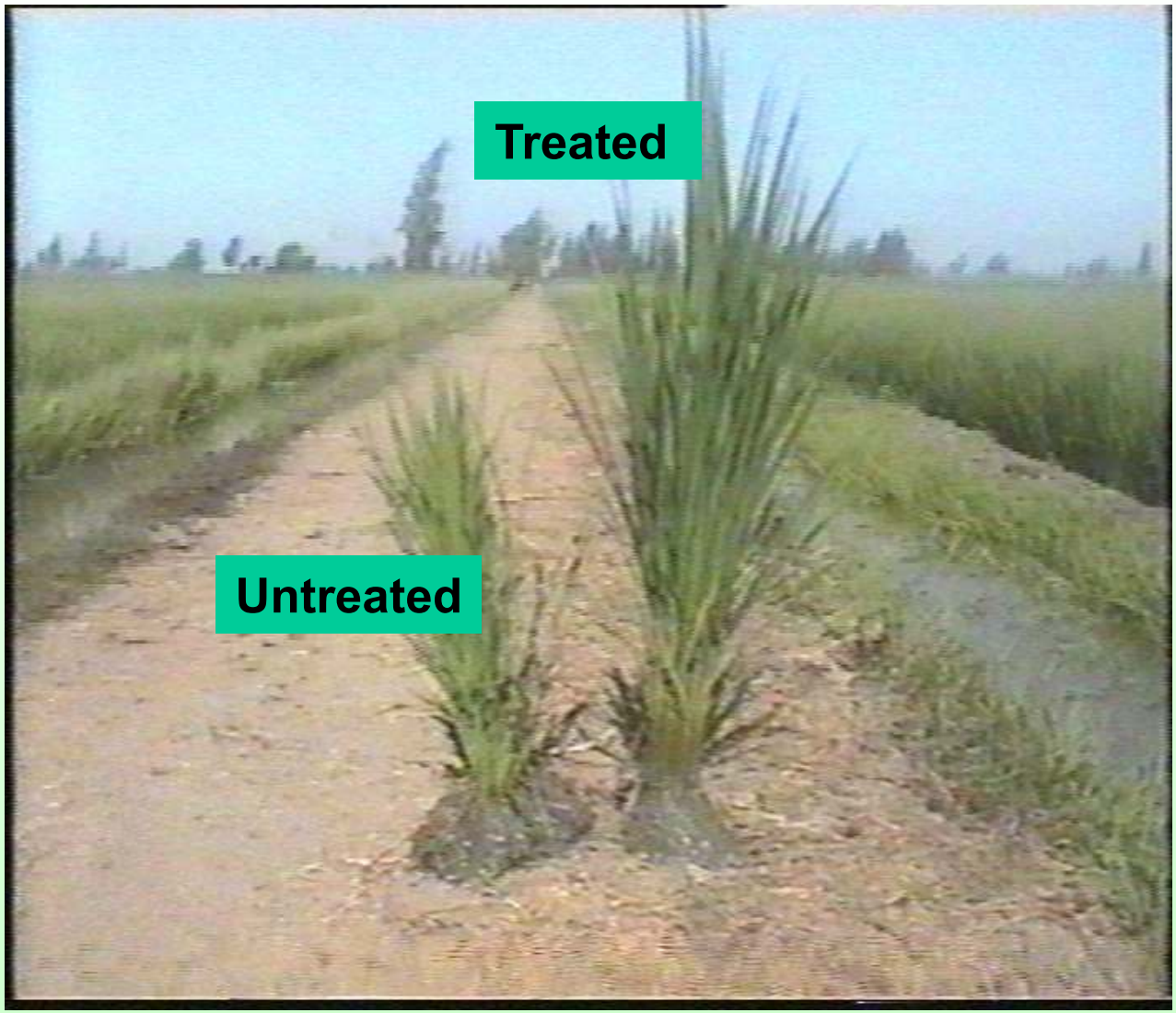
Control-Mango

Soil Application

Rice



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Pears

Treated

Untreated

ARGTECH

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Peach

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actosol® Application Enhances Growth of Strawberry Plants in West Tahrer, Egypt

Untreated

Treated

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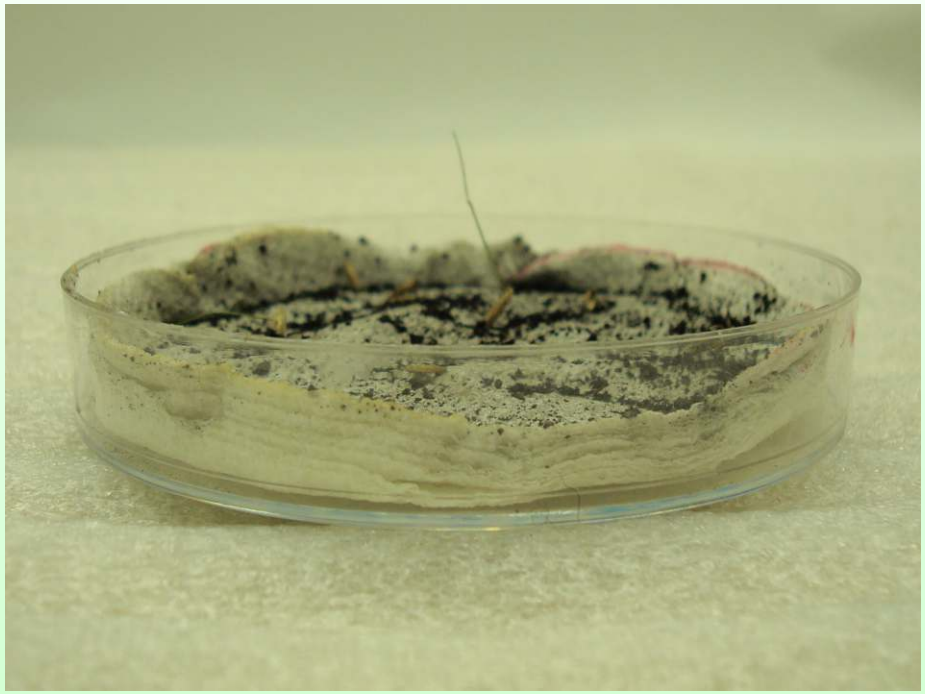
Coal Powder Inhibits Seed Germination

Coal Powder
(0.15 tons/acre)



% germination = 14%

(One seed out of seven)

Base actosol®
(3 Gallons/acre)

% germination = 71%

(Five seeds out of seven)

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