



AGRIOS

the first name in seaweed science

What is AGRIOS?



*AGRIOS is an Innovation in
Biotechnology Research.*

*It is a unique formula produced by organic
products in scientifically controlled
conditions to give you the maximum yield*

How AGRIOS is Different?



- *Highly complex product, a blend of Seaweed and vegetable products*
- *Derived from a natural source*
- *Contains majority of organic and inorganic constituents and breakdown products of seaweed*
- *High quality seaweed from a reputed Norwegian source*
 - *Norwegian Source : The worlds largest producer and supplier of seaweed extract used in Agriculture*

A Unique Formula

How AGRIOS is Different?



- *R&D strength in Biotechnology.*
- *Leading the way in Research and development of seaweed for use in Indian agriculture.*
- *Lactobacillus fermentation process.*
- *The extraction process is carefully controlled to ensure the maximum solubilisation of the seaweed constituents in order to provide the best quality seaweed extract available.*



Superior Technology

How is Seaweed Extract Made?



The Harvesting of Seaweed

How is Seaweed Extract Made?



The Harvesting of Seaweed

How is Seaweed Extract Made?



The Harvesting of Seaweed

How is Seaweed Extract Made?



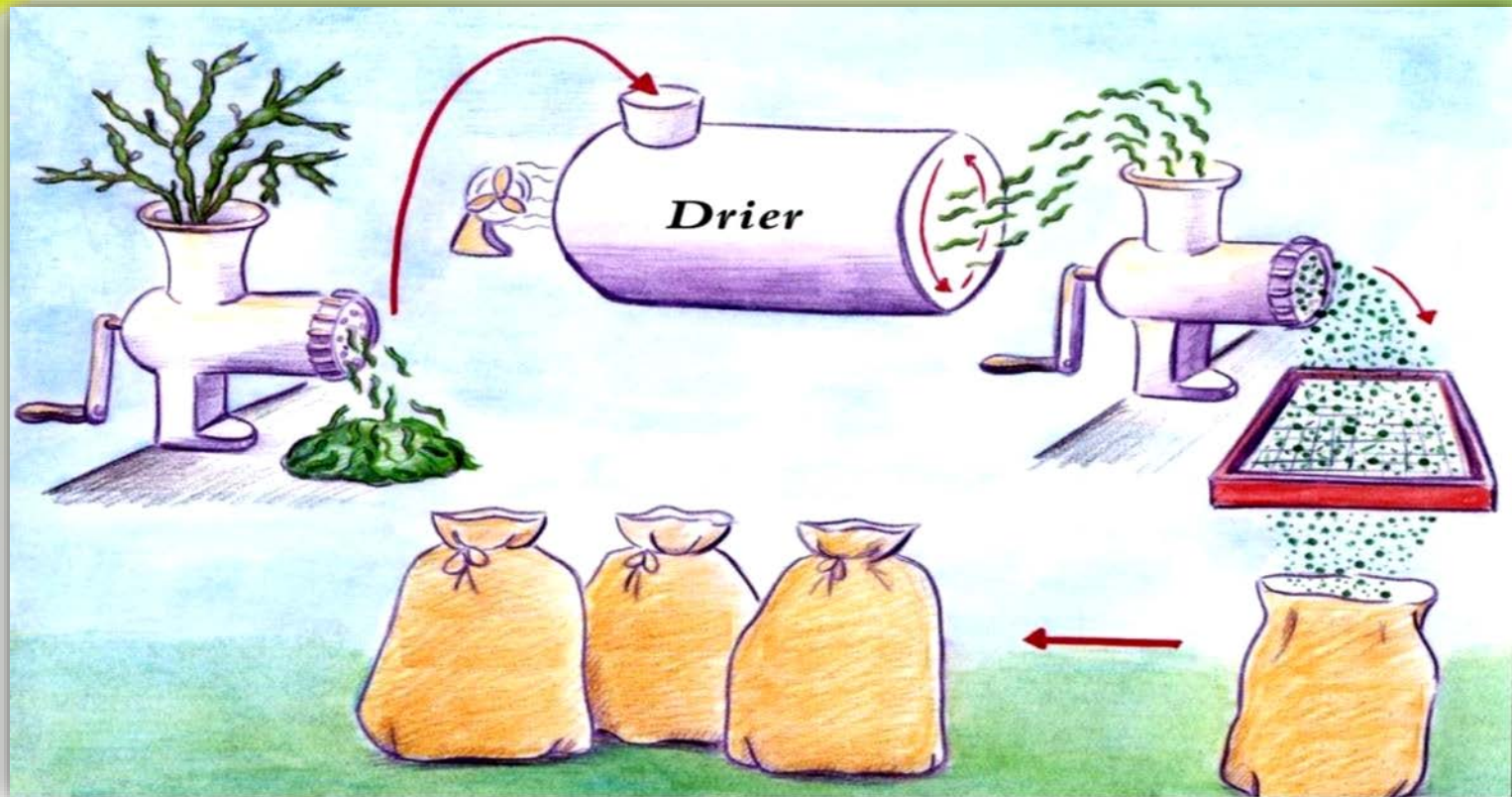
The Harvesting of Seaweed



How is Seaweed Extract Made?



How is Seaweed Extract Made?



Washed ➤ Dried ➤ Ground ➤ Processed

The 7 Principle Effects of AGRIOS



1

- *Greater Microbial Activity in Soil*



The 7 Principle Effects of AGRIOS



2

- *Greater Microbial Activity in Soil*
- *Increased Chlorophyll Production*



The 7 Principle Effects of AGRIOS



- *Greater Microbial Activity in Soil*
- *Increased Chlorophyll Production*
- *Improved Resistance to Stress*

3



The 7 Principle Effects of AGRIOS



- *Greater Microbial Activity in Soil*
- *Increased Chlorophyll Production*
- *Improved Resistance to Stress*

4

- *Localized acquired Resistance to pathogens*



The 7 Principle Effects of AGRIOS



- *Greater Microbial Activity in Soil*
- *Increased Chlorophyll Production*
- *Improved Resistance to Stress*
- *Localized acquired Resistance to pathogens*
- *Effective Tertiary Root Development*

5



The 7 Principle Effects of AGRIOS



- *Greater Microbial Activity in Soil*
- *Increased Chlorophyll Production*
- *Improved Resistance to Stress*
- *Localized acquired Resistance to pathogens*
- *Effective Tertiary Root Development*
- *Increased Nutritional Uptake*

6



The 7 Principle Effects of AGRIOS

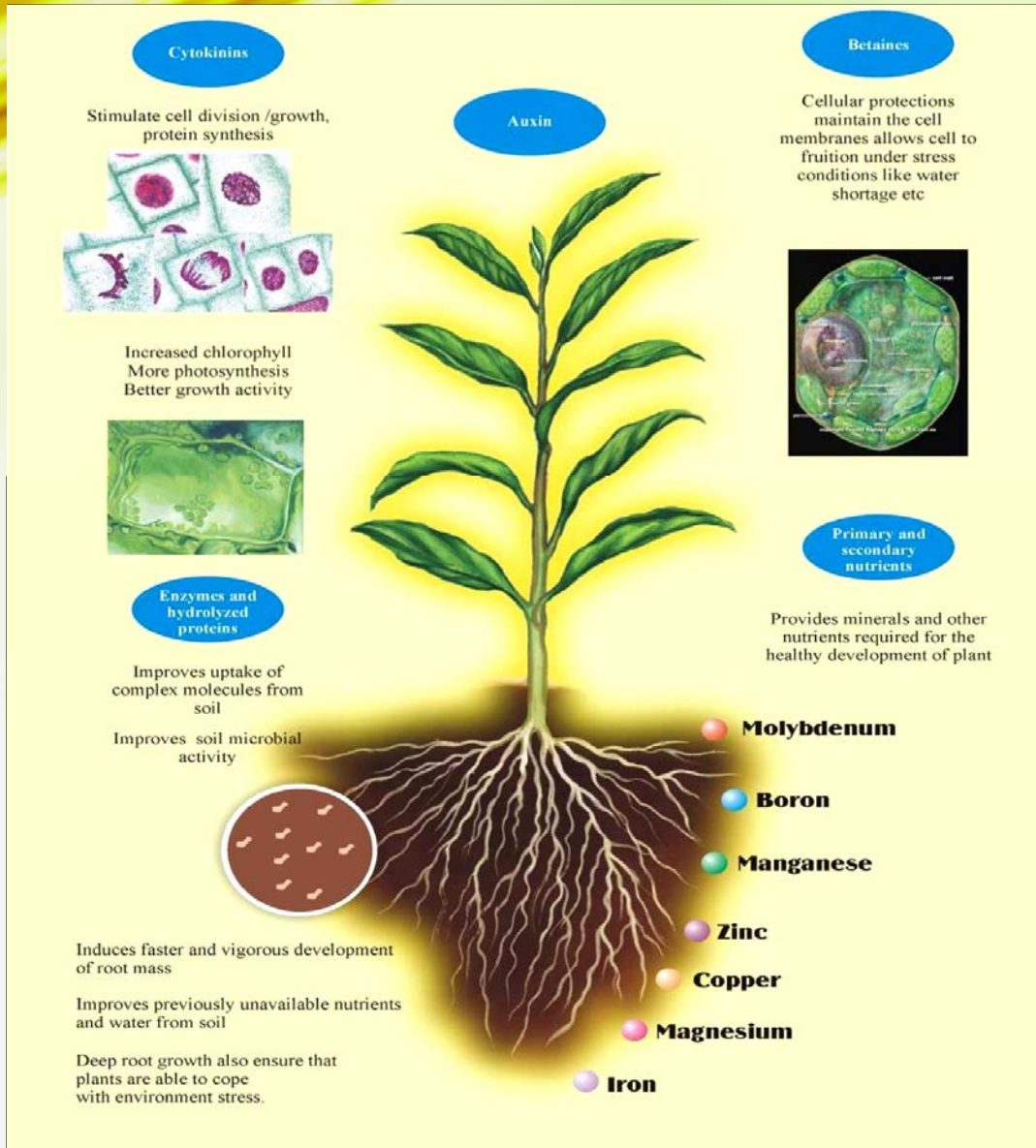


- *Greater Microbial Activity in Soil*
- *Increased Chlorophyll Production*
- *Improved Resistance to Stress*
- *Localized acquired Resistance to pathogens*
- *Effective Tertiary Root Development*
- *Increased Nutritional Uptake*
- *Assimilation of the plant nutrients*

7



How does AGRIOS work?



AGRIOS works by maximizing the utilization of essential inputs as well as providing nutrients to prevent deficiencies and overall strengthening of the plant.

Plants protect themselves against disease



Oligosaccharides in seaweed extracts can be elicitors for phytoalexin synthesis and induce plant protection against pathogens



The Formaldehyde Cycle



Betaines in the seaweed extract are methyl donors which the plant converts to formaldehyde – a protective agent against intruders.



Cytokinins / Betains / Auxins



Why are Cytokinins Important

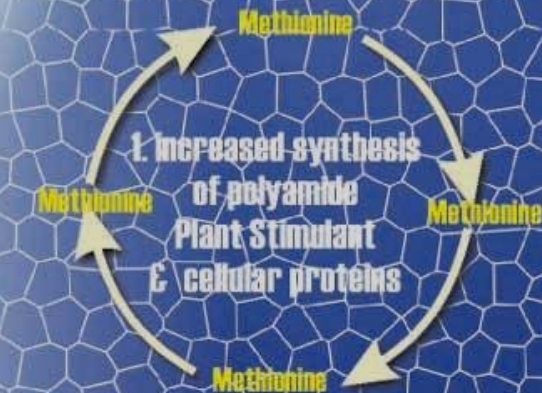


Increases Production of Insecticidal compounds like oxidants alkaloids.



Why are Betains Important

stabilizes **Turgor pressure** & **Osmotic balance**



Prevents cell membrane collapse in water scarcity

AGRIOS vs Chemical Fertilizers?



- *Chemical Fertilizer degrades soil*
- *Chemical Fertilizer kills micro-flora & fauna*
- *Chemical Fertilizers are Toxic in Nature when used indiscriminately.*
- *Chemical Fertilizers have a Temporary effect*



Bio-stimulants v/s Chemical Fertilizers



Bio-stimulants

- *Biological compounds*
- *Highly complex*
- *Insignificant levels of nutrition to plant*
- *Stimulates microbial activity in the soil*
- *Increases plant growth by enhanced cell division*
- *Increases plants ability to withstand stress*

Chemical Fertilizers

- *Chemical Fertilizer degrades soil*
- *Chemical Fertilizer kills micro-flora & fauna*
- *Chemical Fertilizers are Toxic in Nature when used indiscriminately.*
- *Chemical Fertilizers have a Temporary effect*

AGRIOS



***Microbial
Activity***



***Nutrient
Uptake &
Assimilation***



***Improved
Root Growth***



***Greater
Chlorophyll
Production***



***Resistance
to Stress &
acquired resistance***



- Nutritional Support***
- Improved Plant Health***

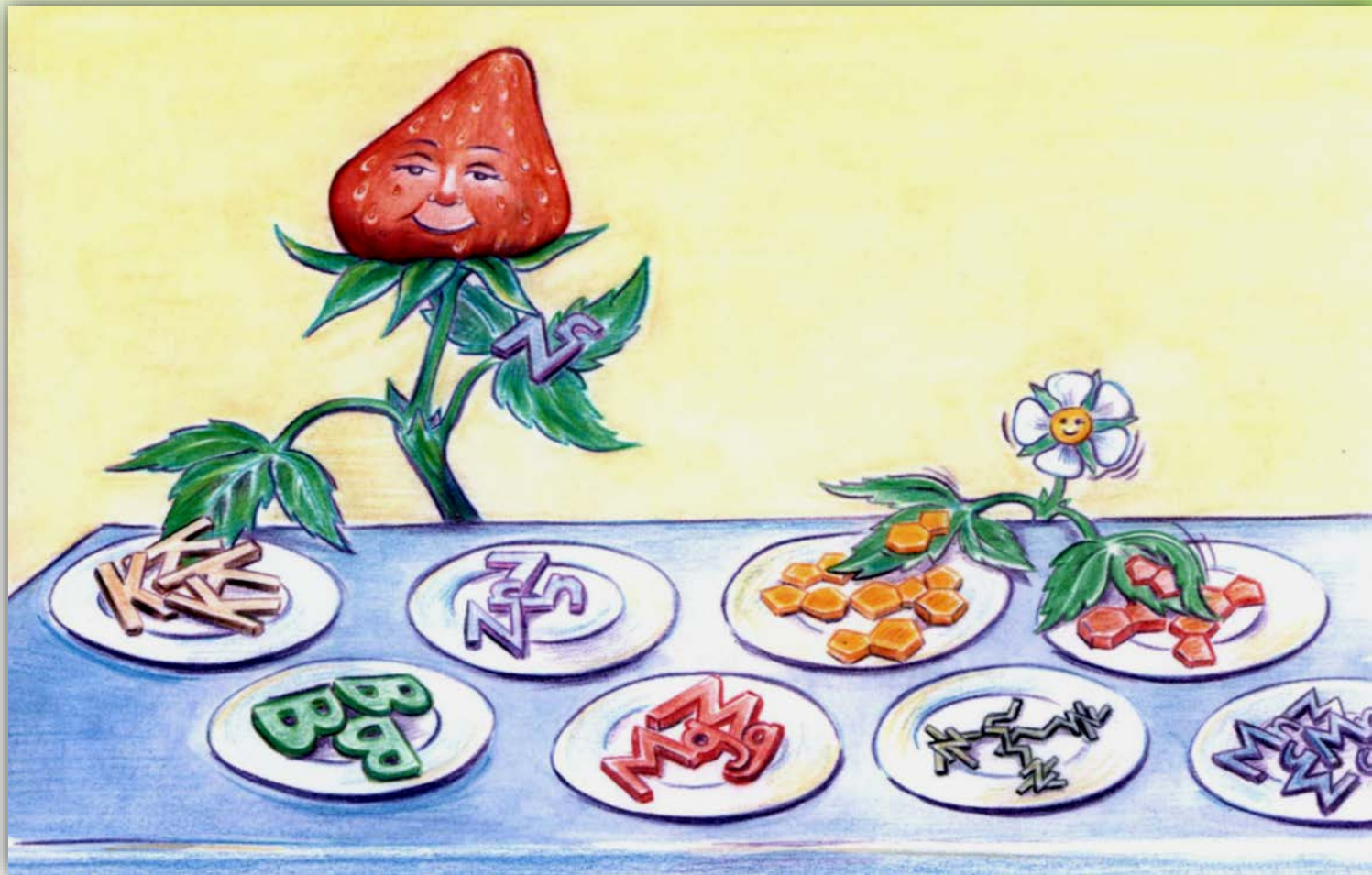


***Better Quality
&
Increased Yield***

Seaweed Extracts — a biological parallel to the buffet lunch



The plant makes use of ingredients in seaweed extract dependent on the chemical status of the recipient tissue



Dosage of AGRIOS



AGRIOS Crop+ @ 300 ml/acre

AGRIOS Granules @ 6 kg/acre

AGRIOS Crop+ @ 2ml/litre in Orchards

AGRIOS Granules @ 500gm/tree in Plantations

8 Qt

4 Qt

2 Qt
4 Qt

7.5 L



Potato Crop in Punjab, India January 2006

After frost damage





Control

Treated Plot



AGRIOS Gr. - 1st appl at transplanting, 2nd appl in vegetative growth at 30 DAT.
AGRIOS liquid - 2ml/ltr at 50 DAT

Farmer: Bhagwatrao Gaikar, Village: Nimgaovakda, Crop: Onion, Sowing Date: 15/8/2005



Treated Plot

Control



 **Control**

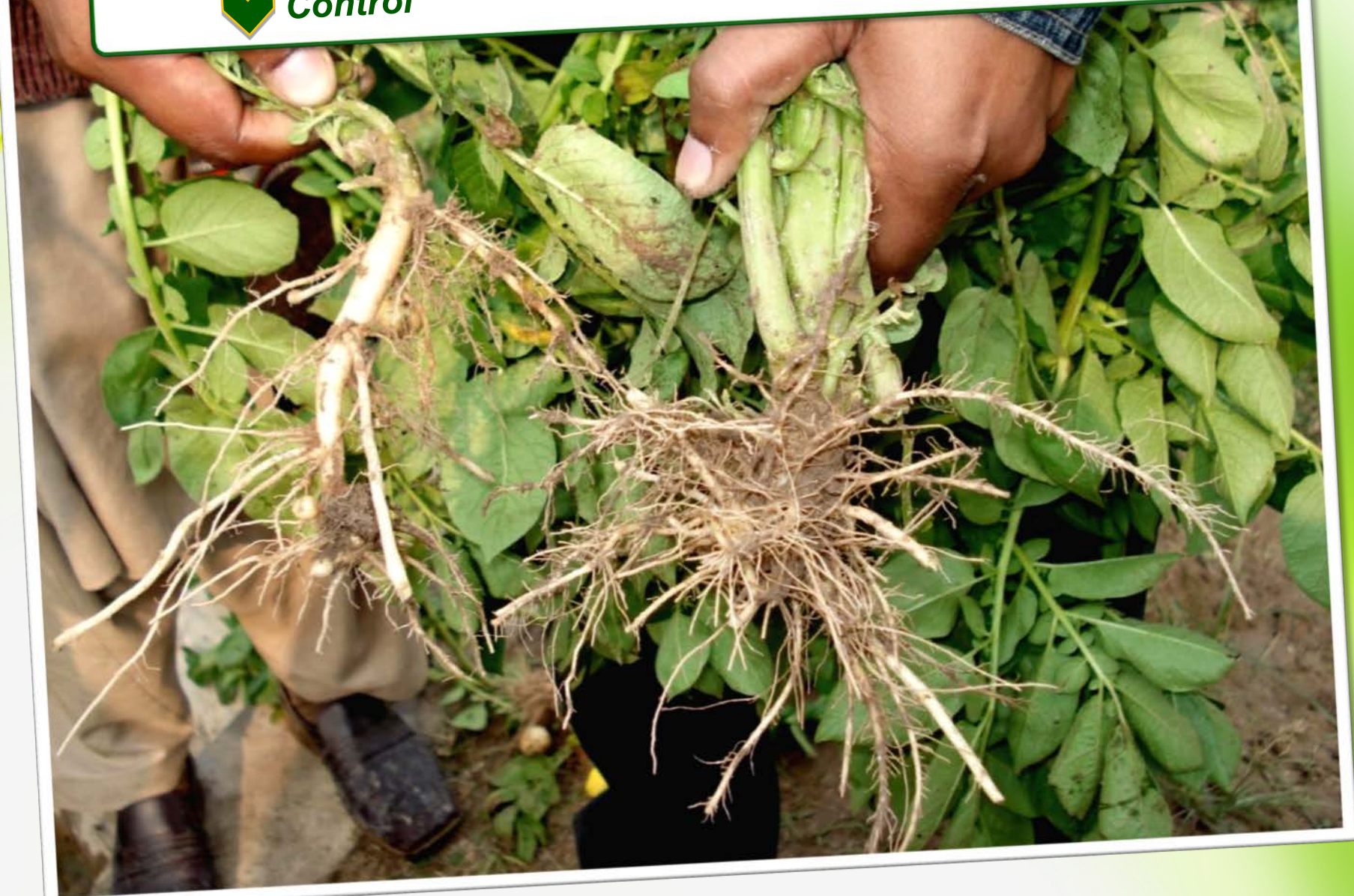
Treated Plot





Control

Treated





Control

Treated





Treated Plot

Control





Treated Plot

Control



AGRIOS Trial

In MADA Musim, 2/2006 Yan, Malaysia



AGRIOS Trial

in MADA areas during season of 2/2006 Kodiang, Malaysia



Control

AGRIOS



**(better root development
& uniform ripening)**

Results of AGRIOS Trial in Kodaing, MADA, Malaysia



Control	AGRIOS Gr broadcast once only at 50 DAS with Urea
<ul style="list-style-type: none">• Yield 6.37 t/ha• Moisture: 23%	<ul style="list-style-type: none">• Yield : 6.72 t/ha• Moisture: 21%

Benefits of AGRIOS

- Better grain filling & uniform ripening
- Yield Increase **6%**



Kawalan



*AGRIOS:
Healthier roots
and greater root
mass.*

AGRIOS Trial

*in MADA areas during season of 2/2006 Kota Sarang Semut,
Malaysia*





Control

AGRIOS



AGRIOS Trial

at Kg Alor Sekawan, Tajar, MADA Season 2/2006 (Seed Plot
planted by transplanter)



AGRIOS Trial

in Tokai, Malaysia MADA Season 2/2006



Control



Treated Plot

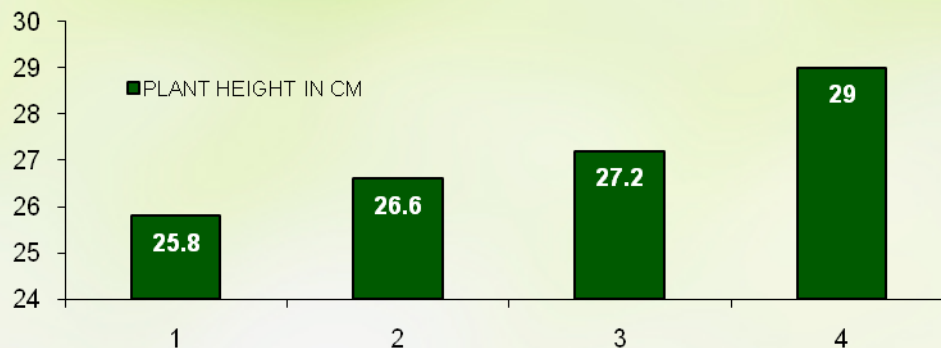


AGRIOS

Towards achieving a yield of 10 MT/ha.

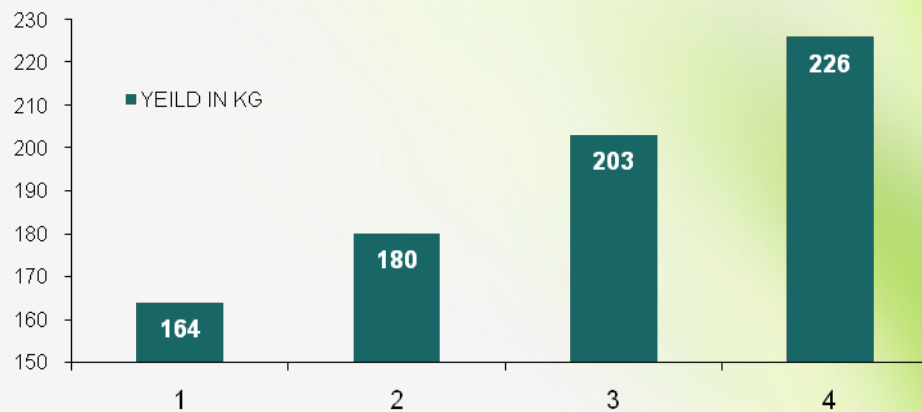


AGRIOS Trial



*AGRIOS Trial on Chilli
in Galewaal Farms, Lodhran district
Pakistan*

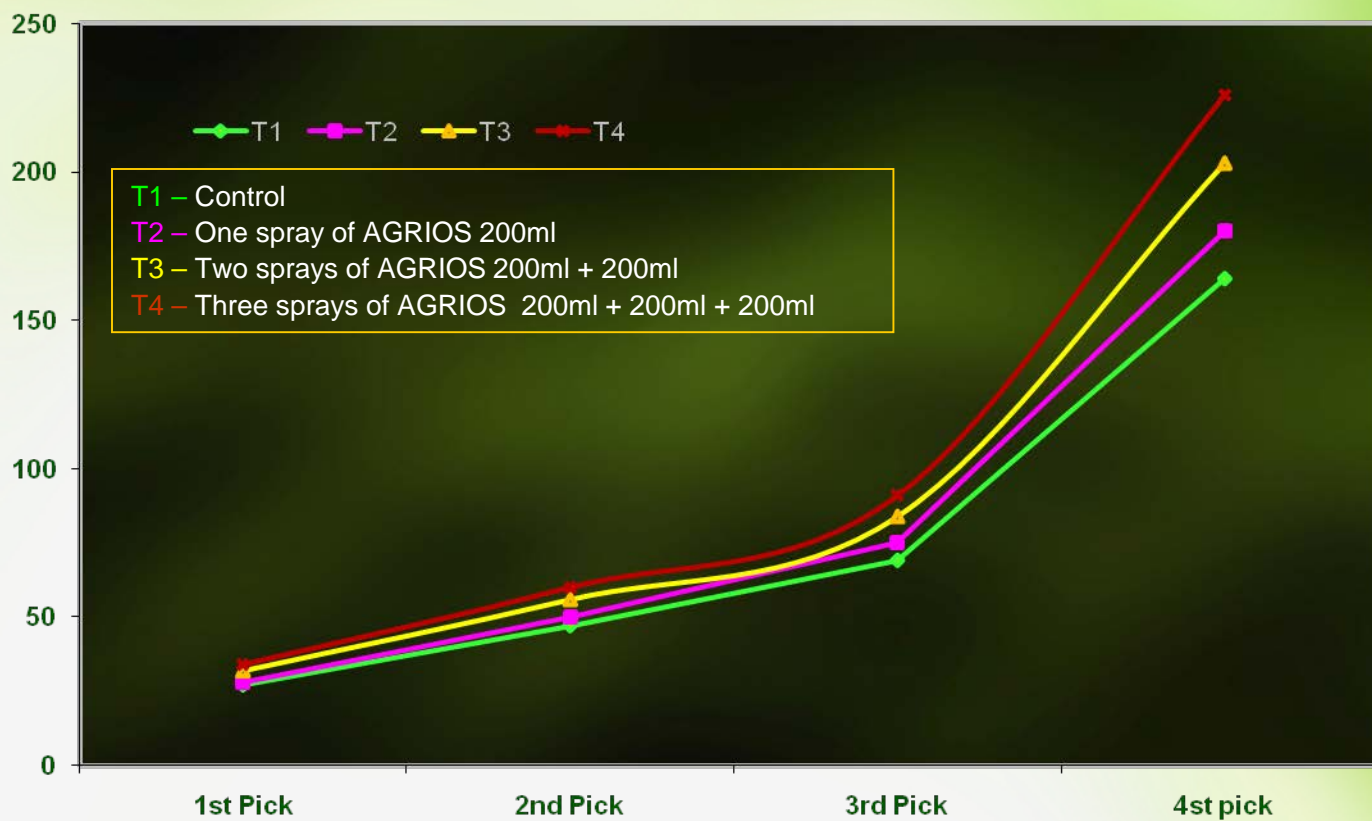
T1 – Control
T2 – One spray of AGRIOS 200ml
T3 – Two sprays of AGRIOS 200ml + 200ml
T4 – Three sprays of AGRIOS 200ml + 200ml + 200ml



AGRIOS Trial



Cumulative Effect of AGRIOS on multi plucking crop



AGRIOS Cotton on Cotton (2003)



Dose/Acre	No. of Bolls/Plant	Yield Per acre (in Qt.)
	239	9.8
200	245	10.1
200+200	269	11
200+200+200	285	11.8

Results:

No Phyto toxicity to cotton crop due to any of the treatments

Number of Bolls/Plant:

AGRIOS (3spray) has 19.2% increase over control

AGRIOS (2spray) has 12.5% increase over control

Yeild:

AGRIOS (3spray) has 20% increase over control

AGRIOS (2spray) has 12.2% increase over control



AGRIOS Cotton on Cotton (2004)



Location: Dabwali, Haryana and Abohar, Punjab

Crop Varieties: RCH-134, Rch-317

Number of Trials: 2

Dose ml/Acre	No. of Bolls / Plant	Yield / Acre (Q./ Acre.)
200+200	310	12.5
200+200+200	323	13
-	260	10.5

Results:

No Phyto toxicity symptoms and other side effect found on observation

Number of Bolls/Plant:

AGRIOS (3spray) has 24% increase over control

AGRIOS (2spray) has 19.2% increase over control

Yeild:

AGRIOS (3spray) has 23.8% increase over control

AGRIOS (2spray) has 19% increase over control



AGRIOS Fruit Plus on Mango Orchards (2004)



Spray Date:

Trial 1 – 11th March '04, 1st April '04, 12th May '04

Trial 2 – 11th March '04, 2nd April '04, 13th May '04

Location :

Malihabad, Lucknow, UP

Dose ml/lt.	Inflorescence length	No of Fruits /Inflorescence	wt of 10 Fruit/Tree in Gm(Avg. of 10 Fruits)	Yield /Tree in Kg
1	29.6	2.6	286.6	70.7
1.5	31.4	3	303.3	80
2	31.6	3	300	80.6
1	29	2.3	250.1	72.3
2	30.3	2.6	283.3	76
	28.1	2	246.7	54.3

Results: No Phyto toxicity to mango crop due to any of the treatments

Inflorescence length: AGRIOS Fruit+ (1.5 & 2.0ml) have 12% increase over control

Fruit Set/ Inflorescence : AGRIOS Fruit+ (1.5 & 2.0ml) have 50% increase over control

Fruit wt: AGRIOS Fruit+ (1.5 & 2.0ml) have 23% increase over control

Yield: AGRIOS Fruit+ (1.5 & 2.0ml) have 40% increase over control

AGRIOS Fruit Plus on Mango Orchards (2005)



Location: Saharanpur, Lucknow, UP

Crop Varieties: Dashehari, Langra, Chausa

Number of Trials: 4

Dose ml/lt.	Inflorescence Length	No. of Fruits / Inflorescence	Wt. Of 10 Fruits (in gm.) Avg. of 10 fruits	Yield / Tree (in kg.)
1	29.5	2.6	310	102.5
1.5	30.7	3	330	112
2	30.8	3	335	112.5
1	29.4	2.4	300	102.5
-	28.5	2	280	94

Results: No Phyto toxicity symptoms and other side effects found on observation

Inflorescence length: AGRIOS Fruit+ (1.5 & 2.0ml) have 7.7% increase over control

Fruit Set/ Inflorescence : AGRIOS Fruit+ (1.5 & 2.0ml) have 50% increase over control

Fruit wt: AGRIOS Fruit+ (1.5 & 2.0ml) have 23% increase over control

Yield: AGRIOS Fruit+ (1.5 & 2.0ml) have 19% increase over control

AGRIOS Fruit + treated mango trees an excellent color, shape and shiny leaves

According to Farmers, AGRIOS treated mangoes have a better market price as compared to control

AGRIOS Granule- Veg on Tomato (2004-05), Haryana



Total :

Trials to Kamal

S.No	Treatment	Dose /Acre.	No. of Fruit per Plant	wt of Fruits/Plant	Yield /Acre in Qt.(Total Picking 12)
1	WZM G	8 Kg	64.7	4.5	118
2	WZM G + Crop+	8+180	65.7	4.8	123.5
3	WZM G + Veg +Veg	8+180+180	67	5.3	126.5
4	WZM G +Veg	12+180	65.7	4.7	124
5	WZM G + Veg	16+180	66.7	5	128
8	Untreated		61.7	3.8	98

Results: No harm due to any of the treatments

Number of fruit/Plant: T-3 AGRIOS + Veg+ Veg Has maximum number of fruits (67 than control (61.7)) -9% increase over control

Yeild: T-3 (WZMFruit+ Veg + Veg) has maximum yield (126 qt. per acre) than control (98 qt. per acre)

40% increase over control per acre

Effect of AGRIOS on Cauliflower

(PHILIPPINES DATA)



Year 1988-89

Results: 26-41 % Growth in Yield

Reference :

DEPARTMENT OF AGRICULTURE,
BUREAU OF SOILS AND WATER
MANAGEMENT, ELLIPTICAL ROAD,
DILIMAN, QUEZON CITY
PHILIPPINES



Effect of AGRIOS on Grapes

(PHILIPPINES DATA)



Year 1999

Results: 33 % Growth in Yield

Reference :

*DEPARTMENT OF AGRICULTURE, BUREAU OF SOILS
AND WATER MANAGEMENT, ELLIPTICAL ROAD,
DILIMAN, QUEZON CITY
PHILIPPINES*



Effect of AGRIOS on Corn

(PHILIPPINES DATA)



Year 1988-89

Results: 12–28 % Growth in Yield

Reference :

DEPARTMENT OF AGRICULTURE,
BUREAU OF SOILS AND WATER
MANAGEMENT, ELLIPTICAL ROAD,
DILIMAN, QUEZON CITY
PHILIPPINES



Effect of AGRIOS on Rice

(PHILIPPINES DATA)



Year 1988-89

Results: **30 %** Growth in Yield

Reference :

DEPARTMENT OF AGRICULTURE,
BUREAU OF SOILS AND WATER
MANAGEMENT, ELLIPTICAL ROAD,
DILIMAN, QUEZON CITY
PHILIPPINES



Effect of AGRIOS Crop+ on Rice

(INDIAN DATA)



Year 1986-87

Results: 20.25% Growth in Yield

Reference :

**JOINT DIRECTOR OF AGRICULTURE,
SAAIDAPET,
TAMIL NADU,
INDIA**



Effect of AGRIOS Granules & AGRIOS Crop+ on Banana

(INDIAN DATA)

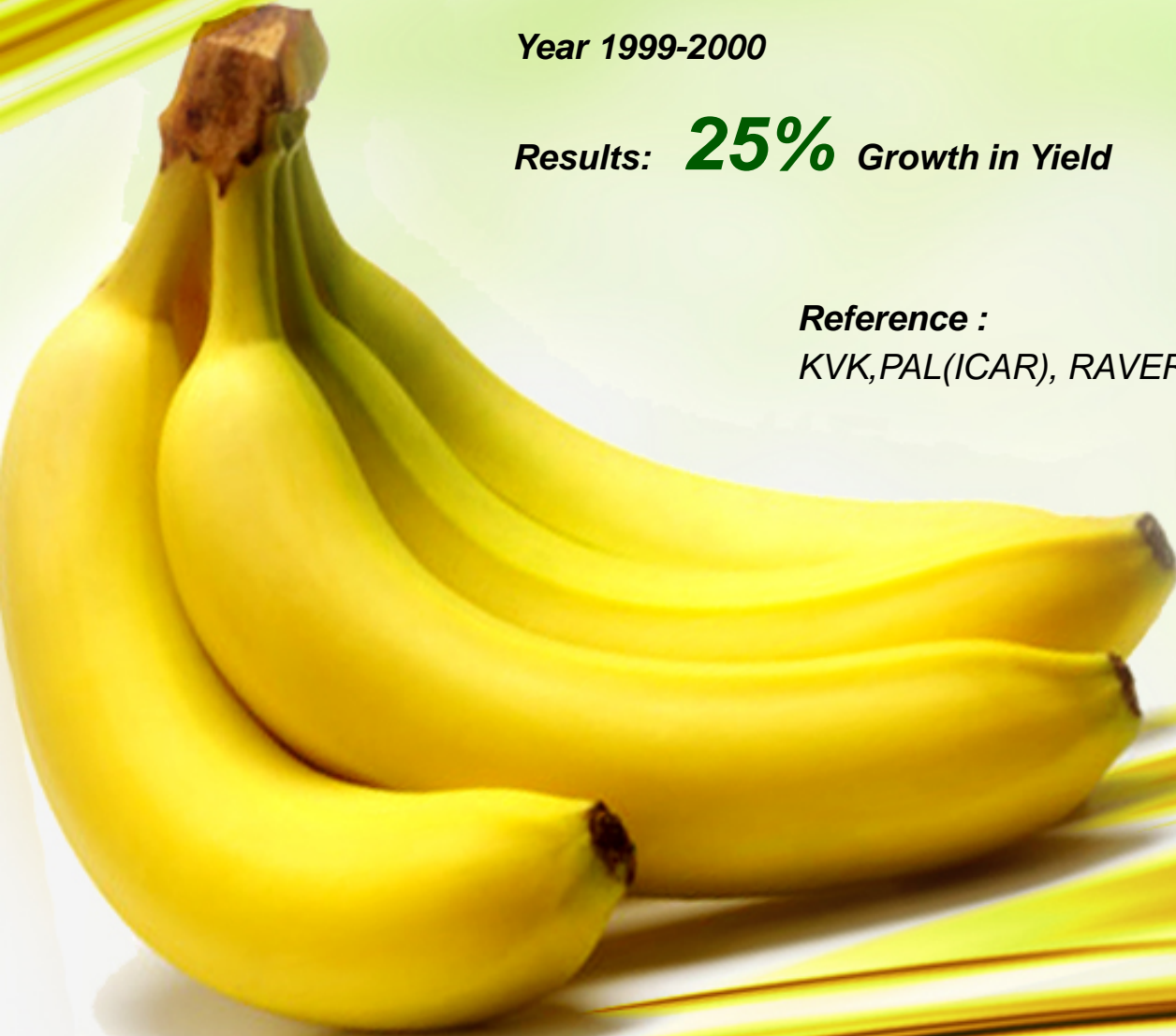


Year 1999-2000

Results: 25% Growth in Yield

Reference :

KVK,PAL(ICAR), RAVER, JALGOAN



AGRIOS - Spain



“ YOU CAN’T FIND ORANGES OF SUCH SIZE, QUALITY & SWEETNESS. THANKS TO AGRIOS, MY ONLY CHOICE!”

AGRIOS - Thailand



Some Field activities in Thailand for marketing AGRIOS Granules along with basic fertilizer for easy application.

AGRIOS - Thailand



*AGRIOS Power+ Trial
results in Orchid flowers in
Thailand.*

AGRIOS - Thailand



Early adopters & satisfied customers are our brand promoters & ambassadors.

AGRIOS - Thailand



Plot size 3X6 m²



10 Days after sowing



60 Days after sowing



90 Days after sowing



*Efficacy Test of
AGRIOS-Granule on
Growth of Rice (Oryza
sativa Linn.)- Thailand.*

AGRIOS - Thailand



110 Days after sowing



Harvesting 2x5 m² from 3x6 m²



Threshing

Efficacy Test of AGRIOS-Gr on Growth of Rice (Oryza sativa Linn.)- Thailand.

AGRIOS - Adverts of Promotions





Terima Kasih

Thank You