

**Innovation, Talent & Globalization** 







Fertilizers

Spike form of Slow Release Fertilizer (SRF)

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## Fertilizers

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24 Water keeper Water keeping agent & root developer

25 Amino Root Root growth and development bio-stimulant

26 Crack Win Fruit cracking preventive agent

## Silica Bubble

Si and K fertilizer for yield increase & better quality





- Provides essential silicic acid(SiO<sub>2</sub>) and Potassium(K) for crops.
- Increases resistance against pests and diseases.(Si)
- Prevents blast.(Si)
- Prevents lodging and helps stem & leaf erection.(Si)
- Helps opening up of stoma and accelerates crop's photosynthesis.(K)
- Citric Acid helps in the mobility of nutrients and energy within crop.
- Increases yield and quality in crops.
- Applicable to all kinds of crop.
- Easy to use & reduces labor time: high effect with small dosage.
- Dissolves rapidly and not necessary to stir thanks to the bubble.
- The nutrients spread in all directions in water.



#### Silica Bubble is tested & sold to over 10 countries!



SiO <sub>2</sub> (Si)	K20	Etc.
12 (5.6)	20	Citric Acid



	Method	Dosage	Interval or Time	Frequency
Foliar or Fertigation	Dissolve powder in water	1:1000 dilution ratio	Every 2 - 3weeks	3 to 4 times for whole growing period
Top Dressing	Throw tablets or pellets into paddy field	2.5 - 5.0 kg/ha (1.01 - 2.02 kg/acre)	Between tillering & panicle initiation stage	1time, 5cm water height

Apply every bag once opened.











Crop: Paddy Rice

• Location: Andhra Pradesh, India

Date: March 2015

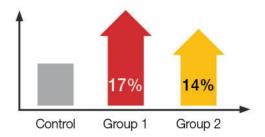
Application: Hand throwing of tablets



### 1. Test Preparation

Group	Treatment	DAT
Control	Compound Fertilizer 100%	25
Group 1	Compound Fertilizer 100% + Silica Bubble Tabs 2.5kg/ha	25
Group 2	Compound Fertilizer 75% + Silica Bubble Tabs 2.5kg/ha	25

#### 2. Test Result



Group	Yield (kg/ha)	Increase (%)
Control	4,530	-
Group 1	5,280	17
Group 2	5,140	14

<sup>\*</sup> Increase relative to control group



► Yield Increase



► Lodging Prevention

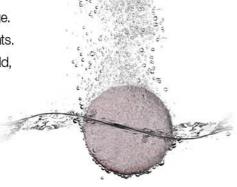
## Nutri Bubble

100% water soluble effervescent Micro Element fertilizer





- Contains 8 different micro elements and K altogether.
- EDTA chelate form of micro elements is the most suitable and ideal form for foliar and Irrigation application because it helps;
  - nutrients have higher solubility in water and faster mobility in crop.
  - to control and manage the exact dosage of nutrients.
  - Application with small dosage, gives very high efficacy.
- Promotes formation of chlorophyll which helps increase fruit set percentage.
- Prevents and recovers any problem caused by deficiency of micro elements.
- Increases plant's tolerance to environmental stresses such as drought, cold, and high temperature.
- Highly concentrated micro elements promote healthy crop growth.
- Each tablet weighs exactly 4g, so you don't need to weigh.
- Dissolves within 2 3 mins and no stirring is necessary: Save labor cost.





K₂0	Fe-EDDHA	Zn-EDTA	Mn-EDTA	Cu-EDTA	B <sub>2</sub> O <sub>3</sub> (B)	MgO (Mg)	Мо	
12.4	0.18	2.35	2.44	0.15	4.4 (1.3)	1.35(0.8)	0.04	



Crop	Application	Dosage	Frequency
All Overe	Foliar	2,000x - 4,000x dilution ratio	Every 10 to 15days
All Crops	Fertigation	0.5 - 1.0 kg/ha (0.2 - 0.4 kg/acre)	Every 3weeks

	Unchelated Nutrients	Chela	ted Nutrients
Fe**	<ul> <li>Metallic Micro Elements usually have (+) charge like Fe for example.</li> <li>This unchelated Micro Elements have risk of forming insoluble precipitates with another nutrients.</li> </ul>	C=O-O CH N O CH <sub>2</sub> Fe <sup>++</sup> CH CH <sub>2</sub> N C=O-O	<ul> <li>Metallic Micro Elements are covered in a chelate chemical that is negatively charge.</li> <li>This cover protects the Micro Elements from becoming insoluble and fixed in the soil.</li> </ul>





100% water soluble effervescent NPK fertilizer



- 100% water soluble NPK fertilizer.
- Crops uptake balanced soluble NPK and fully utilize it.
- Helps crop recover quickly from disorder especially in hot climates.

#### ■ Effects of Bubble

- Never gets solidified. (Anti-caking)
- No need to stir when mixing in tank.
- Gets fully diluted in water within 3-4 mins.

#### NPS

- NPS helps crop increase number of root and manage osmotic pressure.
- Even with smaller dosage or content, the effects are better than another WSF.
- NPS helps crop survive which provides in harsh conditions such as drought, hot or cold temperature, and/or salty soil.
- contains citric acid which provides excellent bioactive effects.
- contains micro elements to prevent micro element deficiency problems.

## Formula(%)

Growth	N	P <sub>2</sub> 0 <sub>5</sub>	K <sub>2</sub> 0	Etc.
Early	26	8	11	
Middle	16	12	16	NPS, Citric Acid, Micro Elements
Late	10	10	30	

\*NPS: Nousbo Plant Synergist.



Application	Crop Classification	Dosage	Frequency
	Horticulture	1:1000 dilution	E 40 45 I
Foliar	Turf	3-5 g/m² water : 80 - 100 cc/m²	Every 10 - 15 days
Irrigation	Horticulture	15 kg/ha (6.07 kg/acre)	Every 2 days

Apply the whole bag once opened.



WSF (Water Soluble Fertilizer) + SRF (Slow Release Fertilizer)





- · World's first effervescent slow release foliar fertilizer.
- Contains functional material that enhances the utility and prolongs the effects on foliage application.
- Farmers may mix pesticides with Foliar Bubble during side dressing, so it not only decreases labor cost but also maximizes the effects of fertilizer.
- Contains Nitrate-N which can be absorbed by crops.
- No caking issue due to special material.

## Formula(%)

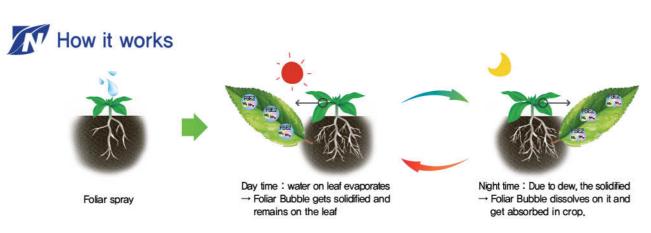
N	P <sub>2</sub> 0 <sub>5</sub>	K₂0	Etc.
21	3	17	B, Mo, NPS, FSE2

\*FSE2: Foliar Spray Effect Enhancer

## Application

Method	Dilution Rate	Crop	Time	Frequency
Folior Corov	1,050 1,500	Fruit tree & Fruit vegetable	After fruit setting	Every 2-3
Foliar Spray	1:250 - 1:500	Leafy vegetable	30 days after transplanting	weeks

Apply the whole bag once opened.





## Nousbo Coat

Controlled Release Fertilizer



- Derived from Polymer-coated N, P and K.
- One time fertilization necessary until harvest.
- Timely and proper release of nutrients carefully developed using sophisticated scientific technology.
- Low application dosage and labor cost per unit area.
- Guaranteed not to have any fertilizer damage to crop's leaves and roots.
- Proven effective in different soil conditions.
- Nutrient release lasts up to approximately 100 days. (Customizable depending on crop duration)



	Temperate Climate Region			Tropical / Sub-tropical Climate Region				
Сгор	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Maximum Release Days@temp.	N	P <sub>2</sub> O <sub>5</sub>	K₂O	Maximum Release Days@temp.
Cereal (Corn, maize, etc.)	29	4	10	60 days @25℃	28	5	10	60 days @35°C
Fruit vegetables	20	6	13	90 days @25℃	20	7	12	90 days @35°C
Leafy Vegetables	26	5	11	60 days @25℃	26	5	12	60 days @35°C
Palm Oil		١	Not Ava	ilable	20	6	9	365 days @35℃

## Application

Methods include dibbling, soil incorporation, and top dressing.

Target Crop	Dosage per hill or plant
Cereals	
Fruit vegetables	3g - 5g
Leafy Vegetables	











## **NOUSBO CRF**

Urea, MAP, SOP





### Properties

- NOUSBO COAT Fertilizer is a Nousbo-developed controlled release fertilizer based on sophisticated technology and high precision.
- There are two types of Nousbo Coat Fertilizer: Linear type, in which components are uniformly eluted over time and sigmoid type, in which elution starts after a certain time period.
- Sigmoid type possesses high precision of nutrient release During lag period of growth, components elute 5% slower.
- Produces highly quality products using both types with various elution periods.
- Derived from coated DAP, coated MAP, coat SOP and coated compound fertilizer containing NPK.

#### Unique Technology

- Precise and uniform coating technology.
- Guaranteed precise elution (according to plant needs).

### High Fertilizer Utilization and Economical Efficiency

- Increases utilization by reducing fertilizer loss (leaching, volatilization, etc.).
- Reduces fertilizer usage.

#### Labor Saving

- One time application provides all NPK requirements until harvesting.
- · Eliminates the need for additional top dressing.

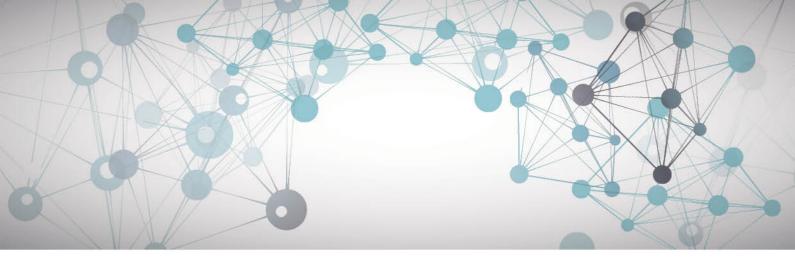
- Reduces groundwater pollution.
- Reduces greenhouse gas emission.

## Release Mechanism





**NOUSBO COAT** 



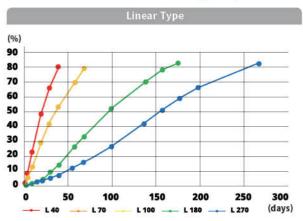
## **Guaranteed Contents**

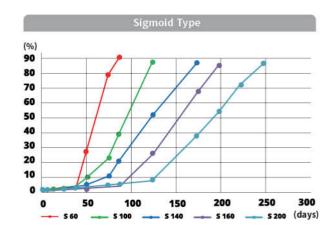


- Component by type
  - Linear 42~43%
  - Sigmoid 40%
- Coating Color : Various
- Granule Size : 3~4.5mm
- pH:7.0
- Hardness: 3kg/f

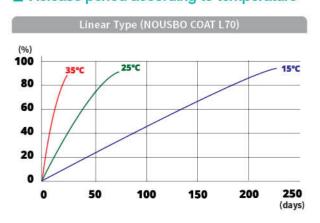


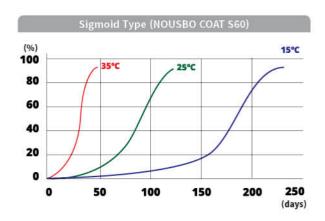
#### ■ Cumulative Release Curve (25°C)





#### ■ Release period according to temperature







## Linear Type

	Release	Formula	Draduet Nama	Release period(25°C)		
	period		Product Name	Release	Total	
	40	43-0-0	NOUSBO COAT L4	40	40	
	70	43-0-0	NOUSBO COAT L7	70	70	
Urea	100	42-0-0	NOUSBO COAT L10	100	100	
	180	42-0-0	NOUSBO COAT L18	180	180	
	270	42-0-0	NOUSBO COAT L27	270	270	
MAP	100	10-40-0	NOUSBO COAT L	100	100	
SOP	100	0-0-45	NOUSBO COAT SOP L10	100	100	

## Sigmoid Type

	Release	se F	Dua du et Nama	Rele	Release period(25°C)			
	period	Formula	Product Name	Lag	Release	Total		
	60	40-0-0	NOUSBO COAT S6	30	30	60		
	100	40-0-0	NOUSBO COAT S10	30	70	100		
Urea	140	40-0-0	NOUSBO COAT S14	40	100	140		
	160	40-0-0	NOUSBO COAT S16	80	80	160		
	200	40-0-0	NOUSBO COAT S20	90	110	200		
MAP	100	10-40-0	NOUSBO COAT S	30	70	100		





## Forchid Spike

Spike form of Slow Release Fertilizer



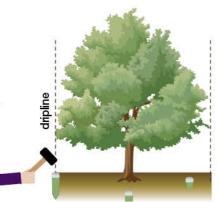
- The easy-to-use spikes form fertilizer does not disrupt any landscape especially for golf course, garden, or park.
- Contains Methylene Urea that releases balanced nutrients slowly over 6 months.
- Seaweed extract and fulvic acid promote root growth.



N	P <sub>2</sub> O <sub>5</sub>	K₂0	MgO (Mg)	S	B <sub>2</sub> O <sub>3</sub> (B)	Etc.
18	10	12	5 (3.0)	4	0.2 (0.06)	MU 20%, Fulvic Acid, Seaweed Extract

## Application

- Twice a year.
- Apply when ground is moist. Please wet the ground if the ground is dry.
- Apply spike into ground around tree and shrub following dripline.
- Apply spike at least 40-50 cm away from the center of tree or shrub.
- Apply 1spike per 2 to 3cm of trunk diameter equally spaced at least 1m apart.
- Place plastic cap on the top of spike when you hammer it.
- Apply spike at least 4 to 6cm below the soil surface.





Dosage	Trunk diameter (cm)								
	less than 10	10 to 20	20 to 30	30	40	over 50			
No. of spikes	1 to 2	2 to 3	3 to 4	4 to 5	6 to 7	8 to 9			



## Jumbo Tabs

SRF for trees, shrubs, and landscape





- Contains every nutrient for tree, shrub, and vine for healthy growth and produce high quality fruits.
- Very easy to use on horticultural or garden pots.
- Nutrients are slowly released around the root zone for about 6 months: Save labor cost.
- Each tablet weighs approximately 27

## Formula(%)

Crop	N	P <sub>2</sub> 0 <sub>5</sub>	K20	MgO (Mg)	Etc.
Chilli, grape vine, shrubs, horticultural crop	13	7	7	5 (3.0)	Micro elements
Durian, Apple, Mango, Palm Oil, Fruit tree	13	11	22	5 (3.0)	MICIO EleTTETICS

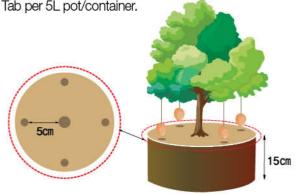
## Application - Container, Tree and shrub

- Vines, Trees, and Shrubs
- Dig a 15cm deep hole, 5 cm away from the trunk. 5 Tabs per 1.5 meter plant height.
- Indoor / Outdoor Pots

Dig a 10 cm hole and insert tabs. Fill hole with soil thereafter. 1 Tab per 5L pot/container.

#### ■ Newly-transplanted Trees and Shrubs

- Dig holes and place tablets 5 cm away from the root tip.
- Fill the holes 4 with soil. 1 Tab per 30 cm plant height.

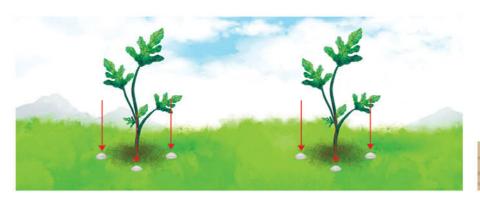




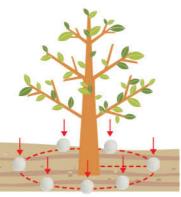
## Application per year

Cro	Crop		Method
	Chilli	1	Put 1 tablet 15-20cm near to the trunk
	Watermelon	2	
Horticultural Crass	Pumpkin	2	
Horticultural Crop	Oriental melon	2	Put tablets 10cm away from the trunk
	Cucumber	2	
	Eggplant	2	
	Apple	10 to 12	
Fruit Tree	Grape	10 to 12	Put tablets 20-30cm away from the trunk
	Tropical fruit	20 to 25	

### ■ Watermelon(Vine)

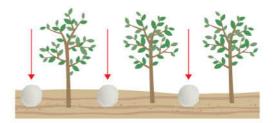


### ■ Apple(Fruit Tree)



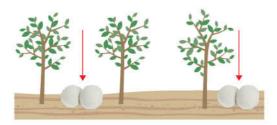
#### ■ Chilli(Upright habit)

Between Plants: 1 tablet



- Place nugget(s) in between the plants.
- Digging hole is recommended on often flooding area or hill.

■ Between Plants : 2 tablets



- Dig about 5 10 cm deep holes.
- Avoid direct fertilizer contact with roots.



## One-Time

Only one-time fertilizer application until harvest







### Properties

### **Effects**

- · Contains NPK & humic acid to maintain the effects of basal fertilizer until the harvest.
- Supports growth & development of crop and bearing more panicles, and increases grain filing rate.

## Punctional Advantage

- Organic matter promotes soil aggregation.
- NPS promotes growth & development of roots to enhance rootage, so tolerance to poor condition gets increased.
- Contains exact amount of P, so there is no algal growth.

## **03** Specialty

- Only 1 time base fertilizer until harvest: No additional fertilizer is necessary.
- Farmer can decrease over 50% of fertilizer quantity and save labor time.





material: Sŏil incorporation is

possible

Excellent early growth & Development



N	P <sub>2</sub> O <sub>5</sub>	K20	MgO (Mg)	Etc.
29	4	6	2 (1.2)	NPS, Organic Matter

## Application & Dosage

Rice: 150 – 300 kg/ha (60.7 – 121.4 kg/acre)

Horticulture: 300 – 700 kg/ha (121.4 – 283.3 kg/acre)









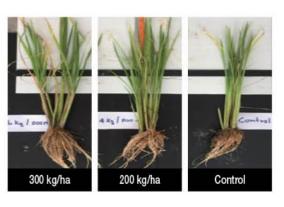
## Field test result (in Bangkok, Thailand)

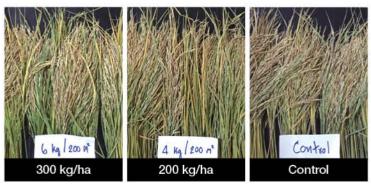
■ Crop: Rice

• Test report in direct-seeded rice

		1	Application Dosage						
Group Me		Application Method & time	Product	Application dosage (kg / ha)	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> 0	N P K Total	Yield (ton/ha)
	Top dressing		Compound Fertilizer[16-8-8]	250	40	20	20	80	
	36 DAS	Urea[46-0-0]	50	23	-	-	23		
Contro	Control	Top dressing	Compound Fertilizer[16-20-8]	250	40	50	20	110	
	57 DAS		Potassium chloride[0-0-60]	100	( <b>4</b> )	<u>.</u>	60	60	
		Sum		650	103	70	100	273	3.7
One-Time Paddy		Mixing with soil by harrowing	200 (31 %)**	58 (56%)	8 (11%)	12 (12%)	78 (28%)	4.5 (122%)	
(29-4-6)	ТЗ		Before transplanting	300 (46%)	87 (84%)	12 (17%)	18 (18%)	117 (43%)	5.8 (158%)

\*\* : Rate of fertilizer = (One-Time ÷ control) x 100





- Conclusion
- Smaller dosage of One-Time still increased the yield of rice.
- 200 kg/ha of One-Time has increase of yield over 25%.
- 300 kg/ha of One-Time has increase of yield over 55%.



# Ultramax Micro

Multi micro elements fertilizer with high Ca and Mg



## Properties

- Promotes crop to have much fresher and higher quality of fruit or vegetable.
- Improves fruit quality such as sugar content, coloring by ideal crop physiology.
- Promotes balanced growth in crops and prevents overgrowth.
- Increases tolerance to environmental stresses such as high & low temperature damages.
- Promotes root formation and development in early growth stage.
- Prolongs post-harvest shelf life in crops.
- Ca makes cell wall thinker to minimize cracking of fruit or vegetable and penetration of disease and/or pest.
- Mg promotes the photosynthesis so yield is increased.
- Mono-type(homogenous) granule contains 8 different essential nutrients to have high quality crops.
- Only 1-time application supply enough micro elements that crop needs.
- Can be mixed with other fertilizers such as DAP, SSP, TSP, NP or Urea.

## Formula(%)

CaO (Ca)	S	MgO (Mg)	Zn	Fe	MnO (Mn)	B <sub>2</sub> O <sub>3</sub> (B)	Cu
14 (10.0)	5	10 (6.0)	3	2	1.9 (1.5)	3.2 (1.0)	0.3

## Application

Сгор	Application	Dosage
Cereals and top dressing during flowering	Top dressing	20-30 kg/ha (8.09-12.14 kg/acre)
Leaf Vegetable		100-200 kg/ha (40.47-80.94 kg/acre)
Fruit Vegetable	Descri	100-150 kg/ha (40.47-60.70 kg/acre)
Root Vegetable	Basal	150 kg/ha (60.70 kg/acre)
Fruit Tree		70-100 kg/ha (28.33-40.47 kg/acre)



## Nutri Bank

Multi micro elements fertilizer with high Mg, S and B



- Promotes crop to have much fresher and higher quality of fruit or vegetable.
- Improves fruit quality such as sugar content, coloring by ideal crop physiology.
- Promotes balanced growth in crops and prevents overgrowth.
- Increases tolerance to environmental stresses such as high & low temperature damages.
- Promotes root formation and development in early growth stage.
- Prolongs post-harvest shelf life in crops.
- Mg promotes photosynthesis so yield is increased.
- S acts as a soil conditioner and reduces the sodium content of soils. S promotes palatability in crops.
- B increases seed setting rate so it increases no. of fruit.
- Mono-type(homogenous) granule contains 8 different essential nutrients to have high quality crops.
- Only 1 time application supply enough micro elements that crop needs.
- Can be mixed with other fertilizers such as DAP, SSP, TSP, NP or Urea.

## Formula(%)

CaO (Ca)	S	MgO (Mg)	Zn	Fe	MnO (Mn)	B <sub>2</sub> O <sub>3</sub> (B)	Cu
1.4 (1.0)	5.5	25.0 (15.0)	1.5	2.0	1.5 (1.1)	5.0 (1.5)	0.2

<sup>\*\*</sup> Due to its high content of Mg & B, Nutri Bank can replace Mg and Boron only fertilizer.

## Application

Crop	Crop Application	
Cereals, Fruit & Vegetable	Soil Incorporation and Top dressing during flowering	20-30 kg/ha (8.09-12.14 kg/acre)



## Si, Ca, Mg Granular Fertilizer

Granular form of soil conditioner fertilizer









Ultramax CalMag



Ultramax SilCalMag

## Properties Properties

- These soil conditioner fertilizers produce higher yield and better quality in crops.
- The highest SiO<sub>2</sub> content out of all fertilizer in the market.
- Applicable for All kinds of crop.
- One time application as basal is enough.
- SiO<sub>2</sub> creates Silicon barrier between outer tissue and inner cell.
- Ca, Mg help crop have stronger & healthier cells.
- Increases resistance to diseases and insects.
- Makes leaves thicker which enhances photosynthesis and metabolism to produce higher quality and yield.
- Prevents lodging.
- Controls absorption of N to avoid over growth.
- Improves tolerance to environmental stresses; drought, frost, or salty condition.
- Improves acidic and/or heavy metal-contaminated soil.
- Protects paddy rice from blast (Magnaporthe grisea).



## Formula(%)

	SiO <sub>2</sub> (Si)	CaO (Ca)	MgO (Mg)
Ultramax Silicate	25 (11.6)	35 (25.0)	2 (1.2)
Ultramax CallMag	2 (0.9)	30 (21.4)	18 (10.8)
Ultramax SilCalMag	20 (9.3)	35 (25.0)	8 (4.8)



Crop	Application	Dosage	Frequency
All Crops	Basal Fertilizer	150 - 300 kg/ha (60.7 – 121.4 kg/acre)	One time as basal

<sup>\*</sup> Soil Incorporation recommended

Ultramax Soil Conditioner series are being sold and tested in over 30 countries with great satisfaction from farmers!



Ecofriendly N-guano containing organic NPK fertilizer





	Usage	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	MgO (Mg)	Organic Matter
Organic Max	1 ton/ha	9	1	2	1.0 (0.6)	70%
Chicken Manure	3 ton/ha	3.2	2	1.5	None	60%

#### ■ 67% Fertilizer Usage saving compared to Chicken Manure: Cost saving

- Organic Max contains highly purified N: Great effects even with small dosage.
- Save Labor Cost.

#### ■ Fast Release Effects and the Effects last until Harvest

- Great effects on Initial Growth & Development Stage.
- 70% Organic Matter keeps the Effects until Harvest.

### ■ Fully Fermented and Decomposed : NO Gas Damage

You may apply 7 DAS or 7 DAT like other chemical fertilizer.

#### ■ No P Accumulation Issue thanks to Small % of P

• P Accumulation increases Osmotic pressure of soil which draws water from Crop.

## Application





Crop	Application	Dosage
All Crops	Basal Fertilizer (Soil Incorporation recommended)	1/2 or 1/3 of chicken manure usage



## Green Light

Photosynthesis promoter 100% water soluble fertilizer(WSF)



- Functional material promotes photosynthesis in crops for healthy growth & development.
- Promotes photosynthetic capacity even in shaded area, such as cloudy area or green house.
- Increases osmotic pressure in plants, so it helps water and nutrients retention inside crop tissues.
- Promotes the control of stomas which helps growth & development of plants in poor condition such as drought or rainy season.
- Enhances metabolism of carbohydrates & glucose, so the fruit quality is enhanced.
- 100% water soluble without any residue or foreign material, so plants intake the nutrients quickly.

## Formula(%)

K <sub>2</sub> O (K)	MgO (Mg)	Fe	B <sub>2</sub> O <sub>3</sub> (B)
14 (11.6)	13.0 (7.8)	0.1	0.05 (0.01)

## **Application**

Crop	Foliar Spray	Irrigation	Top Dressing
Fruit Vegetable			
Fruit Tree	1:250-1:500 dilution rate, Apply every 3 weeks	5-10kg/ha (2-4kg/acre), Apply every 10 days	30grams per plant
Leaf Vegetable			



Water keeping agent & root developer



## Recent Drought Damages in world

#### ■ Global Average Temperature will Increase annually

- Drought and heatwave damage will continue so many farmers will suffer loss in crop production.
- Heat & drought withdraw water from storage of plants rapidly.





- The functional substance(NPS) and the osmotic pressure regulator(OPR) help plant tolerate drought, freeze, chlorine (salty soil) and/or heat injuries.
- Supports Seedling stand: Prevents any damage from Transplanting.
- Promotes the plant cell to increase its turgor pressure, so the plant could endure environmental stresses.
- promotes rootlet growth and CEC, so plants could absorb more nutrients.
- Farmer can save the amount of water usage.
- Recommended field: Irrigation, Foliar Spray, Turf grow, water culture(hydroponic farm)

#### Drought test

		The effects of drought [	Survival rate (%)]	
	Aff	er 13 days	Afte	r 24 days
	Sun	Survival rate (%)		val rate (%)
Control	0		0	
Other Product	8		11	
Stress Hunter	90	學學學是數	95	

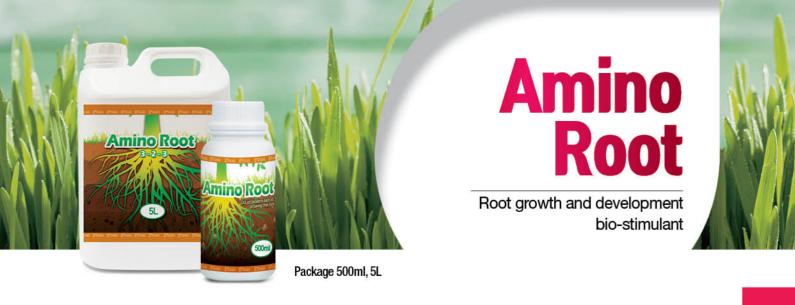


## Formula(%)

NPS (%)	OPR (Osmotic Pressure Regulator, %		
O.F.	00	K₂O	MgO (Mg)
25	20	5.5	2.5 (1.5)



	Dosage	Frequency
Foliar	1:250-500 dilution rate	Every 3 weeks
Fertigation	10L/ha (4.05L/acre)	Every 4 weeks
Analiantina Tima	Transplant	Right after transplant
Application Time	Sowing	Right after leaf come out





- Promotes root growth & development.
- Biostimulating effect.
- Contains chelated micro-elements (Fe, Zn, Mn).
- Helps crops tolerate stresses such as heat and cold stress, humid stress.
- Prevents stress caused by repeated cultivation and salinity.

## Formula(%)

Amino acid	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Fe-EDDHA	Mn-EDTA	Zn-EDTA	Мо
4.6	3	2	3	0.036	0.07	0.07	0.1

## **Application**

Crop	Method	Dosage
All	Foliar	1:500-1000 dilution ratio
All	Top Dressing	5L/ha (2L/acre)

#### ■ Chelated micro-nutrients



 No soil fixing, No reaction with different fertilizers, 100% elements uptake.

#### ■ Pepper Growth & Development Test



 Compared with the control plot, the treated plot showed better growth & development of Root.



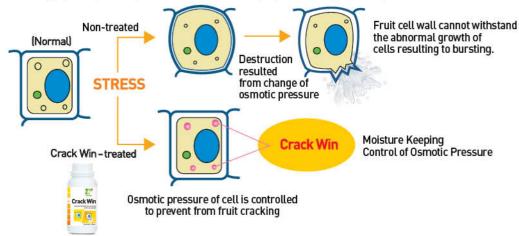




- Controls the unbalanced osmotic pressure in plants caused by poor environmental stresses (high temperature, drought, etc) to maintain the functions of cell.
- Prevents fruits from cracking, crooking, and sun scale during periods of high temperature and drought so
  it ensures high quality of harvest.
- By foliar application, the nutrients are absorbed quickly.
- Safe and harmless to all crops.



[High Temperature, Failure in Moisture Control] [Fruit Cracking Occurred]





N	CaO (Ca)	Fe	B <sub>2</sub> O <sub>3</sub> (B)	etc.	
2.5	9 (6.5)	0.05	0.03 (0.01)	Amino Acid	



Application	Crop	Timing	Dosage	Frequency	
Foliar	Foliar All Fruits & Vegetables		1:1000 dilution ratio	Every 2 weeks	



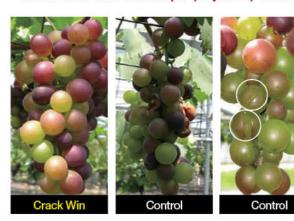
#### ■ Crack Win Trial on Cherry Tomato according to period of preservation after harvest(34 DAT)

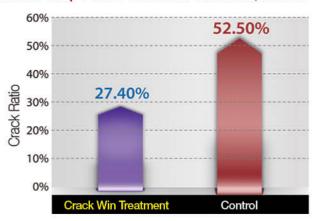




Treatment	Rate of overripe tomato after harvest(%)						
	2 days	3 days	5 days	10 days		17 days	20 days
Control	0	5	10	10	15	40	65
Crack Win	0	0	0	0	0	0	5

#### ■ Crack Win Trial on Grape (Fujimori) Crack at National Grape R&D Center in Okcheon, Korea





#### ■ Trial on Hot Pepper drought resistance





#### Application

- Treatment after 1,000 dilution rate (add 1 L of Crack Win to 1,000 L of water)
- Stop watering for 21 days after transplanting

#### Trial Result

- No damage in Crack Win treatment
- Compared to control

#### Conclusion

- Trial shows no damage from drought and high temperature in Crack Win Treatment.
- Crack Win proves to be very effective in preventing damage caused by Drought and High Temperature.





### NPS(Nousbo Plant Synergist)?

- New functional material invented by Nousbo.
- Made of biodegradable water-soluble polymer, plant bioactive material, and organic acid.



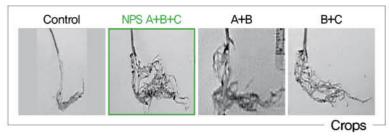
#### Features of NPS

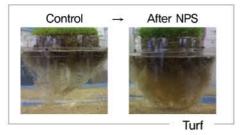
- Activates root growth, nutrients absorption speed increase
- Maximizes CEC in soil to minimize the loss of nutrients
- Increases turf immunity against stress
- Increases of environmental adaptability
- Increases of bioactivity of turf

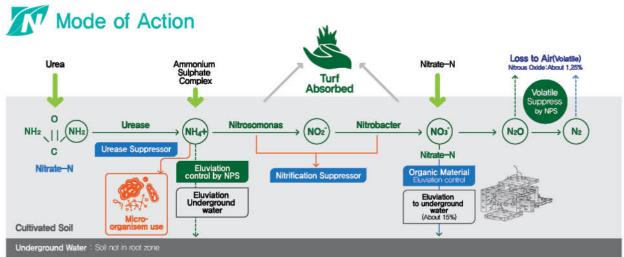




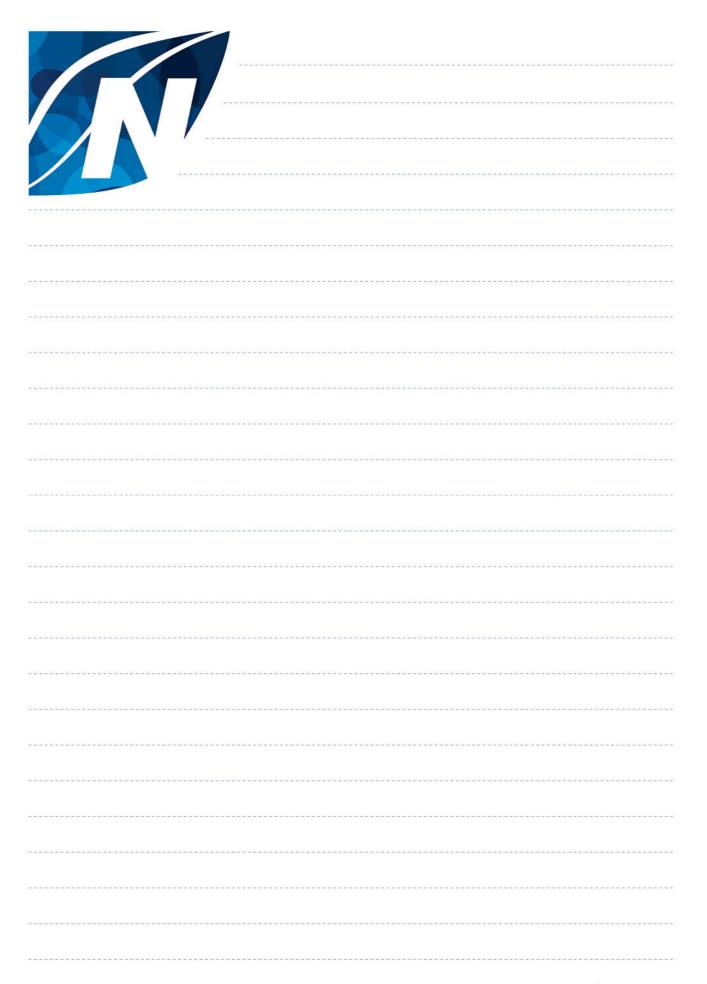
## Picture of Root after NPS treatment



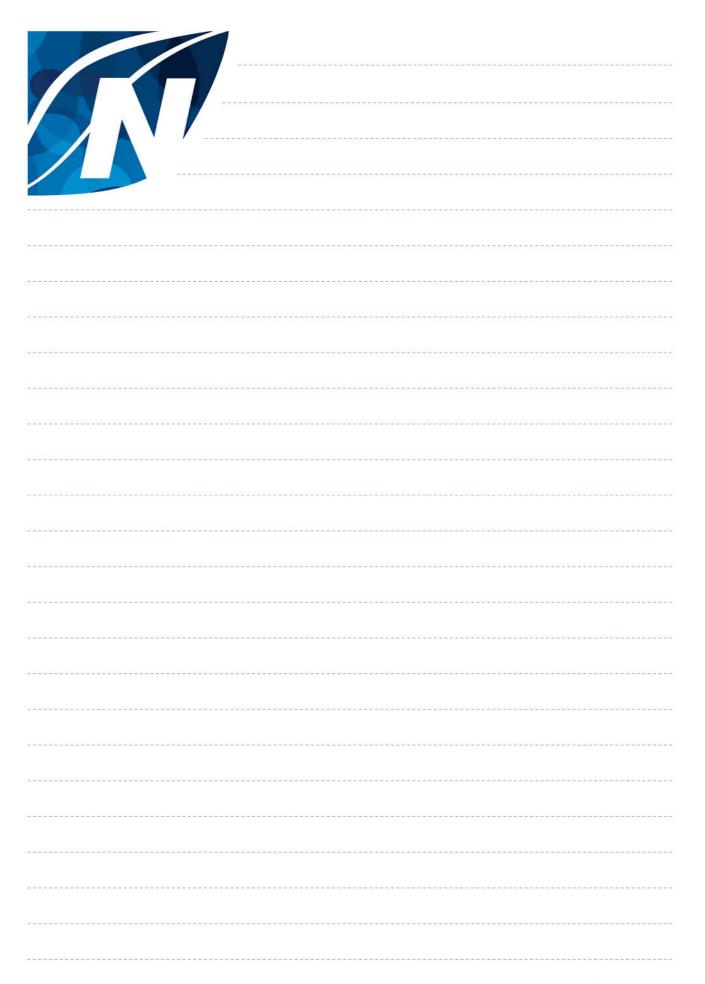




- Urease Suppressor: Suppress urease and delay the transformation to Nitrate-N.
- Nitrification Suppressor : Delay the transformation to Nitrate-N by suppress Nitrosomonas and Nitrobacter→Decrease the loss from Eluviation and Denitrification.
- NPS Fertilizer: NPS helps ammonium nitrogen to attach to soil better to decrease reaching to underground water, leakage of additional fertilizer, and volatility of nitrogen oxide and Nitrogen, Also decreases eluviation and volatility of Organic materials.









#### **Effervescent Fertilizers**



Silica Bubble



Nutri Bubble



Soluble Bubble



Foliar Bubble - Slow Release

#### **Controlled Release Fertilizer (CRF)**



Nousbo Coat

#### Slow Release Fertilizers



Forchid Spike



Jumbo Tabs



ONE Time Paddy

#### **Micro-Element Fertilizers**



Ultramax Micro



Nutri Bank



Ultramax Silicate (Granule) Special Fertilizers

#### **Special Fertilizers**



Ultramax CalMag



Ultramax SilCalMag



Water Keeper



Amino Root



Crack Win



Organic Max



Green Light

