



The Nutrition Experts



THE FOOD PROBLEM

RIISING POPULATION VS SHRINKING LAND

Feeding 10 Billion Population by 2050!



Global Food Problem

The global food problem consists of the lack of food provision for the Earth's population. The area under agriculture is shrinking while the mouths to feed is ever increasing. The total number of people suffering from a lack of food is over one billion people worldwide. The fact is that population growth outpaces agricultural production and the development of agricultural technologies. Given population growth and rising incomes, it is estimated that the demand for food will rise by 70 to 100 percent by 2050. To meet this need, the United Nations estimates that production in developing countries will need to almost double.



Area Under Agriculture

Infrastructure development is taking up the land under agriculture rapidly. Industries, rails, roads, construction on agricultural land has led to a major reduction in average land holding than previous years. It is estimated that every year 30,000 hectares of agriculture land is utilized for infrastructure development. To mitigate climate change, open pasture land will be converted into forests to create Carbon Sink which will further reduce available land under agriculture. With diminishing area under agriculture, doubling food productivity is a major challenge.



Climate Change

The changes in climate variability have a direct implication on food-production system stability. Increased frequency and intensity of

extreme events such as drought and flood would be a great threat to stability, whether the impact is domestic or through the global food market. Food production will increasingly be impacted by climate change, in particular from the increased frequency of storms, droughts and other extreme weather events.



Unsustainable Farming

The problem of food security is compounded by our increasing tendency to depend on a narrow mix of food crops. Thus, the food production systems have become vulnerable to biotic and abiotic stresses. With sustainable agronomic practices like shifting cultivation, mixed cropping, crop rotations becoming obsolete. Unsustainable food production threatens food security, for example from over-cultivation, soil erosion or water shortages.



Profitability in Agriculture

The economics of agriculture is rapidly declining. With rising input costs, unavailability for high efficacy inputs and lower productivity has affected the profitability of agriculture. Choosing farming as an occupation is a remote choice for the next generation. People are moving away from agriculture profession to other means of profitable income. Thereby limiting the workforce available for agricultural production.



THE SOLUTION: HIGHER YIELDS WITH HIGH EFFICACY PRODUCTS

The Future is Green – The Future is Nano!



Nanotechnology

Nanotechnology has shown the promise to increase food productivity to meet the needs of the ever-increasing population. Nanoagriculture focuses currently on target farming that involves the use of nanosized particles with unique properties to boost crop productivity. Nanotechnology has the potential to protect plants, promote plant growth, and increase global food production with enhanced food quality while reducing waste for "sustainable intensification". In 2016 the fertilizer usage was 180 million tonnes and pesticide usage were 6 million tonnes. About 60% to 90% of these chemicals were left in environment as plants cannot uptake everything that is applied. The leaves have a small cuticle size and plants cell wall pore size is around 5 to 20 nano meters. This limits the uptake and absorption of chemicals into the plant system, creating more pollution while marginally benefiting the plants. With Nano-Technology more than 90% of the actives are utilised by the plants and negligible run off.



Increasing productivity

At Newchem Sunraysia we expertise in developing nanoparticles, nano emulsions, and nano formulations with multiple actives. These products can boost agricultural production, through nano nutrition and nano crop protection chemicals. Nanotechnology has a tremendous potential to revolutionize agriculture. Our Nano fertilizers increase agricultural productivity by enhancing the availability of essential nutrients to the plant and Nano emulsions protect the crops while significantly increasing Yields!



Resistance to Abiotic Stress

With climate change, agriculture will be subjected to extreme changes in weather conditions. Fertilizers based on nanotechnology have the potential to surpass conventional fertilizers. Engineered mineral nanoparticles are useful for mitigating

the chronic problem of moisture retention in arid soils & enhancing crop production by increasing the availability of nutrients in the rhizosphere. Nano fertilizers can significantly improve tolerance to draught, wet weather, extreme temperatures & salinity stress. This will help the plants to cope up with the changes in weather conditions & still deliver higher yields!



Modern Agriculture

Modern agriculture needs precision agriculture & new methods of application to increase food productivity. Our nano formulations available in effervescent tablets & ampoules offer the benefit of providing uniform & precise dosing required for precision agriculture. The ultra-low volume application rate of 10 ml / Acre can be mixed with minimum quantity of water and applied through drones. Being nano emulsions, they do not clog the spraying equipment and deliver uniform coverage on the crops.



Profitable Agriculture

Nanotechnology offers high profitability for the farmers. Nano products are required 50 to 100 times less than conventional products. Thereby reducing the storage, handling & transportation costs by more than 90%. Being in small packing the products for several acres can be couriered or delivered to farmers in small packages, making the right products available for immediate use. Nano products have unique features like ultrahigh absorption, increase in production, increased efficiency of the elements, reduction in frequency of application & increase in marketable produce. Reduced input costs, availability of right products, Increase in Yields with higher quality produce helps in increasing the profitability of agriculture. It helps in retaining and attracting farmers to do what they do best – Farming!



WHY US ?

THE NANO-TECHNOLOGY EXPERTS

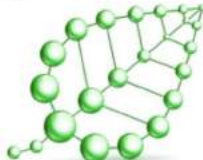


Global Technology Assimilation

Headquartered in Singapore, we are right in the heart of nanotechnology research. Singapore is known for its technology assimilation. Our Singapore office collaborates across Asia and Pacific's Innovators, Manufacturers and Researchers to bring in new chemistries to the market. From innovation to production and delivering the finished product is only possible with the synergies created by the global team in Singapore.

The Nano-Technology Experts

From early on we had the philosophy of making innovations that would help "Change the World" We identify the problems and develop breakthrough solutions which are 10X better than current options. We identified four critical problems in Agriculture.



- 1) Farmers have a tendency to under dose or overdose a molecule causing variation in results also under dosing causes pests to develop resistance.
- 2) The impact of Transportation and storage costs will be critical in product pricing, with ecommerce playing an important role in distribution.
- 3) With Nanotechnology, it will be necessary to find new formulations and packaging to deliver the active ingredient in smaller packaging that are user friendly.
- 4) Increasing food production at reduced input costs and making plants stronger to sustain extreme weather conditions due to climate change.

At Newchem we are the first to develop Effervescent tablets for use in agriculture by integrating Nanotechnology, Biomimetics, Co-factors and Co-enzymes. The effervescent tablets offer uniform dosing, reduced transport costs and are easy to use. The combination of different technologies and molecules helps multiply yields while plants can sustain extreme weathers and draught.

Research & Development



At Newchem R&D is not a department its our culture and that reflects in our every product and the way we do our business. We understand that products or technology becomes obsolete every 3 to 5 years because of pests developing resistance, climate change or modernization. Our effort is to continuously innovate and develop new products and chemistries that are ready to replace the non-performing molecules.

Quality First

Delivering the best quality to farmers in at the core of our production strategy. Our products not only carry our brand name but also the farmers faith in Nanotechnology and we take that fact very seriously. We deploy world class manufacturing processes and machinery to make superior quality products as every particle makes difference when its Nanotechnology. We take utmost care that every product manufactured will benefit the farmers and bring him prosperity.



The Future is Green The Future is Nano!

Our Achievements

Newchem Sunraysia is recognized by Indian Government as one of the top 500 Start-ups in India that drives innovation to change the World. We are recommended by the Inter-ministerial Board for many innovations and patents that we hold. We are the only company to manufacture and Supply "Effervescent tablets for use in Agriculture" for which we hold a Valid Patent to deliver actives of fertilizers, pesticides, growth regulators and bio-stimulants through effervescent tablets. We are bestowed with "Krushi Samman" award for developing Nano-technology molecules and delivering them through our unique Patented packaging Ampoules.



Ministry of Home Affairs
(Government of India)



Become our channel partner

With the right kind of products and technology back-up you can help increase the yields of your customers. Our technologies are based on increasing the profitability of the farmers "If the farmers survive, then the complete Agri-system and world survives". If you are committed to be a part of the new nanotechnology revolution backed by strong R&D and digital support, then you can be our channel partner. Email us at Dia@Sunraysia.in or call +91-7350001705.



Reaching Out to Farmers Globally

We want to ensure that our products reach to the remotest location and every farmer, so that we can help to alleviate the food crises by increasing the yields. At Newchem Sunraysia we are looking for the right channel partners to deliver these products in their respective markets. We understand that local knowledge is and relations are equally important to correctly offer this new technology.



By Integrating ecommerce with Agro dealer channel we are creating a synergy to offer digital support while utilize the local knowledge of the dealers. Our Strategy is to appoint country level and state level distributors who further can choose their preferred Distributors and Dealers based on their experience.

The Future of Agriculture:



The land under agriculture is shrinking and the mouths to feed are ever increasing. Using Nanotechnology and biomimetic materials we have developed Nanogels that can grow plants in Soil less medium. We are looking at the Sea for cultivating plants. With 71% of Earth covered with Sea, we can conduct agriculture on the sea with these nano nutrition gels. Our current range of effervescent tablets and ampoules are well suited for conducting agriculture on the Sea. Our commitment to increasing food productivity drives us to innovate solutions that are 10X better and resolve multiple problems.

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PESTS CONTROLLED WITH DIFFERENT PRODUCTS

PESTS	AUSTRA	CRUSADE	POWERSHOT	ENZO	COBRA ADVANCE
Thrips	★★★★★	★★★★	o	★★	o
Spider Mites	★★★★★	o	o	o	o
Red Mites	★★★★★	o	o	o	o
Leaf miner	★★★★	★★★	o	★★★	★★★★
Aphids	★★★	★★★★	★★★★★	o	o
Jassids	★★★	★★★★★	★★★★	o	o
White Flies	★★	★★★	★★★★★	o	o
Brown Plant Hoppers	★★★★	★★★★★	o	o	o
Leaf Hoppers	★★★★	★★★★	o	o	o
Mealybugs	★★	★★★★★	o	o	o
Tea Mosquito Bugs	★★	★★★★★	o	o	o
Stem Borer	o	★★★★	o	★	★★★★★
Corn Borer	o	★★★★	o	★★	★★★★★
Semi Looper	o	★★★★	o	★★★	★★★★★
Fruit Borer	o	★★★★	o	★★	★★★★★
Shoot Borer	o	★★★	o	★★	★★★★★
Fruit Moth	★★	★★★★	★★	★★	★★
Leaf folders	o	★★	o	★★★★	★★★★★
Army worms	o	★★★★	o	★★★★★	★★★★★
Root Worms	o	★★★★	o	★★★★	★★★★★
Corn Ear Worm	o	★★★★	o	★★★	★★★★★
Pink Ball Worm	★	★★★★★	o	★★	★★★★
Diamond Back Moth	★	★★★	o	★★★★★	★★★★★
Cabbage Looper	★	★★	o	★★★★★	★★★★★
Ticks & Flea	★★★★	★★★★	o	o	o
Termites	★★★★	★★★	o	o	o
Fire Ants	★★★★	★★★	o	o	o
Cockroaches	★★★★★	★★	o	o	o
Beetles	★★★	★★	o	★★★★	★★
White Grubs	★★	★★★★★	o	★★★	★★
Nematodes	★★★★★	★★★★	o	★★★	★★★★
Heliothis	o	★★	o	★★★★★	★★★★★
Spodoptera	o	★★★	o	★★★★★	★★★★★
Lepidoptera	o	★★	o	★★★★★	★★★★★
Helicoverpa	o	★★	o	★★★★★	★★★★★



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BREAKER

Seed and Bud Dormancy Breaker

BEST QUALITY HARVEST BEGINS WITH BEST QUALITY NUTRITION TO SEEDS AND BUDS!

Description

Seed Treatment: Breaker is a Seed Priming Fertilizer that provides optimum levels of seed nutrient required by the seed in a single application. Seed priming is another pathway to more nutrient uptake. This practice aims to build a more vigorous root system. During priming, nutrients are taken up by the seed. When sown, the elevated nutrients help early germination of the growing embryo through nutrient mobilisation. Roots emerging from germinating seed already have its share of applied nutrients and promotes healthier seedlings. Breaker is easy to apply and is fast becoming the new world standard for modern farming practices, where fertilising the seed is every bit as important as fertilising the plant. Breaker contains Major Nutrient Phosphorous and Micronutrient Zinc that proves to be beneficial in soils deficient with Zinc and Phosphorous. The product formulation helps in adhesion of these nutrients to Seeds and deliver nutrients directly into the seed. The seed embryo then has higher access to nutrients to help germination and build vigorous growth towards maximum yield!

Bud Treatment:

Many different chemicals are available for breaking the bud dormancy for achieving uniform Bud Break. Breaker can be mixed with other bud dormancy breaking chemicals and applied to the plant buds. Breaker provides essential nutrients and helps in achieving uniform bud break. Zinc is essential for budbreak and subsequent meristematic growth. Most fruit crops are sensitive to Zn deficiency, and in many fruit orchards, especially in areas with calcareous and saline soils, Zn deficiency results in severe annual yield losses and deterioration of fruit quality. Application of Breaker during Bud Break helps in providing nutrition at an early stage and avoid abortion in the later stages. The Unique PEG technology ensures absorption of nutrients in the bud resulting in excellent growth following Bud Burst.

Direction for Use

For Seed Soaking: Breaker can be diluted with water for a more uniform coverage onto the seed. Dilution improves the dry down time. Dilute 10 ml in 1 Litres of Water and Soak Vegetable Seeds for 3 to 4 hours. Sun Dry the Seeds and Sow.

For Seed Dressing

Use Breaker 10ml for 4 to 5 Kgs of seed. Apply Breaker directly on the seeds and let it soak the nutrients. Dry the seeds in early morning sun and Sow them.

For Field Crops

Dilute 10 ml Breaker in 200 ml water and directly apply on for 50 to 100 Kgs of Seeds.

Bud Dormancy

For Uniform Bud Break use 10 ml / Acre. Mix with Bud Breaking Chemicals for application in Grapes and Apples. For other Fruiting Crops directly apply.

Storage

Store in a cool and dry place away from direct sunlight and heat. Precautions: Keep away from children.

Recommended use for seed priming in soils that are

- ✓ Deficient in Zinc and Phosphorous
- ✓ Sandy and light-textured soils.
- ✓ Heavy manured land.
- ✓ Cold and wet conditions
- ✓ When seeding into a dry soil.
- ✓ Soil with a history of high Nitrogen application.
- ✓ Heavy textured soil with high Magnesium content.
- ✓ Soil borne/seed-borne diseases thriving under wet conditions.
- ✓ High and Low pH soils

Whats Unique?

Breaker contains unique PEG Primer technology that helps with seed adhesion and drying out. This helps absorption of nutrients into the seeds and also makes a coat on the seeds which helps in protecting the seeds. The nutrients also help in stimulating Plant Enzymes for root structure and nodulation which helps seedling to absorb nutrition from the soil. The formulation is Rhizobia friendly and does not harm the soil ecology, making it a suitable for use with other bacterial products.

Contents:

Composition	% w/w
Total Phosphorous (as P ₂ O ₅) min	14%
Available Phosphorous (as P ₂ O ₅) min	3%
Total Zinc (as Zn) min	17.5%
Lead (as Pb) max	0.003%
Solvent and Emulsifier	Q.S
pH (5% Solution) – 8+/- 1	

Recommended use for Bud Dormancy:

- ✓ Avoiding abortion of Fruit Bunch
- ✓ Ensures Uniform Bud Break
- ✓ Provides strengths to the shoots
- ✓ Vigorous growth of new Shoots
- ✓ Provides essential Zinc to plants



- Uniform Bud Break
- Vigorous shoot growth
- Increased Seedling Vigour
- Increased Stress Tolerance
- Increased Seed Germination
- Avoids abortion of Fruit Bunches

Benefits:

Seed Primer

As a Seed primer all the nutrients are absorbed in the Seed and it is available to the embryo. At an early stage the plant has all the essential nutrients required for a healthy and vigorous growth without worrying about the deficiencies.

Seed Protector

PEG Primer Technology helps in coating Nutrients on the Seed. This coat helps in protecting the seed from many soil borne diseases, changes in weather conditions and extreme changes in soil humidity.

Reduced Consumption

When Nutrients are applied to the Seeds, they are available to the Seedling during the growing stages. A small application of Nutrients to the Seeds considerably reduces the application of Fertilizers at the later Stages.

Bud Dormancy

Provides essential nutrients and ensures uniform bud break when used in conjunction with dormancy breaking chemicals. Helps in providing nutrition for growth of the stems and avoids abortion of fruit bunches.

Packaging : 10 ml





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Growth & Branching

Vertical & Lateral Growth

World's Only Zinc Effervescent Tablet for Growth, Shoots and Branches!

Description

Boss Advance combines the latest innovations in formulation technology to deliver a product that contains Zinc 12% EDTA and Sunraysia's proprietary co-factors in effervescent form. This unique combination helps in boosting plant growth during the growth and branching stages. It activates enzymes that are responsible for protein synthesis and increases the conversion of food. It helps in formation of Chlorophyll, carbohydrates and conversion of Starch to Sugars. It helps plants to withstand Cold temperatures. It Boosts Auxin production that is responsible for Growth regulation and Stem Elongation. It increases the internode distance and also increases Branching. It is highly recommended for use during the growing stages of Vegetables and Horticulture Crops.

Whats Unique ?

Boss Advance is the only Zinc effervescent tablet available for agriculture. It combines special co-factors that help in various plant functions. With 1 tablet per pump dose, you can never go wrong with measuring and applying the right amount of nutrient. Being compact it is easy to carry, easy to use and cost effective. One product does all – Increases growth, number of buds, leaf size, branches, new shoots, stem strength and food production capacity.

Benefits

Growth Promotion:

Helps in vigorous growth of plants. Increases auxin production and develops new shoots. Increases leaf size and canopy that helps in higher food production. It also helps in stem elongation and strengthens it. Plants become sturdy and green.

New Shoots:

Helps in bud formation and development of new shoots. The shoots grow rapidly adding more leaves to the plants. It increases the internode distance in plants making it taller and bushier.

Branching:

Promotes lateral growth of Plants thereby increasing the width of the plant. More branches lead to more buds which can have more shoots, more leaves, more flowers and fruits. Makes the branches strong and sturdy that helps in translocation of nutrients to different parts.

- Increases Leaf Size
- Increases Branching
- Promotes vigorous growth
- Increases Internode Distance
- Helps in Stem elongation and strength
- Increases Bud formation and New Shoots

Packaging :

2.5 grams x 10 Tablets per Tube

Dose and Method of Application:

Dilute 1 Tablet in 15 to 20 litres of water in Knapsack Sprayer. Use 10 Tablets in 150 -200 litres of water and apply in one acre for Vegetable Crops. For Horticulture crops use 20 Tablets per acre in 200 Litres of water.

Storage: Store in a cool and dry place away from direct sunlight and heat. Precautions: Keep away from children. Fix the cap immediately after using single tablets to maintain effervescence.

Composition: Zinc 12% EDTA



Recommended No of Applications: 6

Stage wise Recommended Application

Applications	Stages	Interval in Stage to apply
1 st Application via Foliar Spray	Growth Stage	Growth Stage and Bud Burst
2 nd Application via Foliar Spray	Growth Stage	After 15 days for Shoot Growth
3 rd Application via Foliar Spray	Growth Stage	Stem Elongation
4 th Application via Foliar Spray	Branching Stage	Lateral Meristem initiation
5 th Application via Foliar Spray	Branching Stage	After 15 days of 4th Application
6 th Application via Foliar Spray	Branching Stage	Outgrowth and Leaf Canopy





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BUSHIER PLANTS

Lateral Growth and enhanced reproductive process!

- Improves Branching
- Improves Flowering
- Increases no of Buds
- Makes plants Bushier
- Improves Fruit Setting
- Increases Cell Division

BEST QUALITY HARVEST BEGINS WITH BEST QUALITY NUTRITION TO SEEDS AND BUDS!

Description

Cytocell is a combination of Salicylic Acid and Vitamin B3. This combination helps in promoting the lateral growth of the plants by reducing apical dominance. Cytocell also helps in cell division and increases the plants metabolism to produce more food. This energy is diverted to the more important functions of reproduction thereby increasing flowering, pollen tube formation and conversion to Fruits. Cytocell is recommended to be used during the branching and reproductive stages of the plant's life cycle. Salicylic acid also helps in increasing plants tolerance to wet weather conditions and diseases. When used in conjunction with Formula 1 it enhances the plants flowering and fruit bearing capacity.

Whats Unique ?

Cytocell Formulation is a unique combination that helps in the lateral growth and reproductive process enhancement. There are less known biochemicals that can reduce apical dominance and divert energy for reproduction. Offered in 2 ml glass ampoule it helps in reducing the use of solvents thereby reducing carbon footprint. It also offers a perfectly measured dose so that the results are uniform every time.

Lateral Growth

Cytocell helps in reducing apical dominance and diverting energy towards lateral growth of the plants. More branches make the plant bushier and increases the no of buds that can yield more flowers and fruits.

Enhanced Reproduction

Cytocell helps in diverting energy to the more important function of reproduction. It enhances flowering and pollen tube formation. Higher cell division helps in Yielding more flowers and fruits with reduced dropping.

Immunity Boost:

Salicylic acid helps in boosting the immunity of plants and increase disease resistance capacity. Plants can tolerate abiotic and biotic stress more efficiently with Cytocell thereby reducing damage and increasing yields.

Direction for Use

Use 2 ml in 200 Litres (1: 100000) of water and apply for 1 Acre through foliar application in Vegetable Crops. For Horticulture Crops use 4 ml in 200 Litres of water (1:50000). Depending upon the size of the plants use 200 to 400 Litres of water per acre.

Storage: Store in a cool and dry place away from direct sunlight and heat.
Precautions: Keep away from children. Glass ampoule handle with care.

Contents:

Composition	% w/w
Vitamin B3	3.75%
Salicylic Acid	2%
Emulsifier	10%
Solvent	84.25%
Total	100%

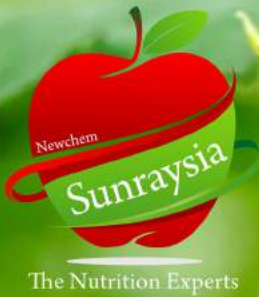
Packaging : 2 ml

Recommended No of Applications: 7

Stage wise Recommended Application

Applications	Stages	Interval in Stage to apply
1 st Application via Foliar Spray	Branching Stage	Bud formation
2 nd Application via Foliar Spray	Branching Stage	Repeat after 15 Days
3 rd Application via Foliar Spray	Flowering Stage	Initiation of Flowering
4 th Application via Foliar Spray	Flowering Stage	Full Bloom
5 th Application via Foliar Spray	Flowering Stage	Pollen Tube Formation
6 th Application via Foliar Spray	Flowering Stage	Initiation of Flowering
7 th Application via Foliar Spray	Fruiting Setting	Initiation of Fruiting





Flowering Booster!

Enhanced Flowering with Reduced Flower Drop!

Increases Flowering & Female Flowering Percentage

Description

Formula 1 combines Phosphorous 12% and Potassium 18% & with Zinc 1% along with Sunraysia's Proprietary co-factors to deliver effervescent tablets that are easy to use. The special blend is recommended for use during the flowering stages of crops lifecycle. Phosphorous and Potassium play an important role during the reproductive stages of the plants. The special blend helps in increasing photosynthesis, hormone biosynthesis, and regenerating other antioxidants. Zinc helps in biosynthesis of hormones that are essential for reproductive processes. With the use of Formula 1, Plants have abundance of female flowering with reduced flower drop.

Whats Unique ?

Formula 1 is a kind of Fertilizer combined with Zinc that is offered in Patented Effervescent Tablet form. It is specially designed to increase the flowering and increase pollen tube and conversion of flowers to fruits. This helps the users to target and drive plant energy towards flowering without diverting it for other purposes. Formula 1 effervescent tablets offers the benefit of measured dose and therefore the dosing can never go wrong with using 1 tablet per pump unlike regular powders. This helps in delivering uniform dosing to get uniform results. Smaller packaging also helps in reducing the cost!

Benefits



Abundant Flowering:

Formula 1 helps in hormone biosynthesis that are necessary for maximum flowering enhancement. The plants have a greater number of female flowers which will be further converted to fruits.



Pollen Tube Elongation:

Formula 1 helps in Formation, development and elongation of pollen tube. This helps in better spread of pollen grains and ovulation in female flowers. The rate of conversion of flowers to fruits is greatly increased.



Reduced Flower Drop:

Formula 1 helps in the generation of anti-oxidants and nutrient mobilization. This helps the plants to recuperate with abiotic and biotic stress and reduce flower drop during the crucial reproductive stage.



- Increases Flowering
- Reduces Flower Drop
- Elongates Pollen Tube
- Reduces Stress
- Improves Fruit Setting

Packaging : 2.5 grams x 10 Tablets per Tube

Recommended No of Applications: 8



Dose and Method of Application:

Use 1 Tablet in 15 Litres water (Knapsack Sprayer) Use minimum 10 Tablets in one Acre through Foliar Application for Vegetables, Flowers and Fruiting Vegetables. For Horticulture Crops use 10 Tablets in 200 Litres of water. Depending upon the size of the plants use 200 to 400 Litres of water per acre.

Contents:

Composition	% w/w
Phosphorous (as P2O5)	12%
Potassium (as K2O)	18%
Zinc (as Zn)	1%



Storage: Store in a cool and dry place away from direct sunlight and heat.

Precautions: Keep away from children. Fix the cap immediately after using single tablets to maintain effervescence.



Stage wise Recommended Application



Applications	Stages	Interval in Stage to apply
1 st Application via Foliar Spray	Flowering Stage	Initiation of Flowering Buds
2 nd Application via Foliar Spray	Flowering Stage	First Open Flower Bud
3 rd Application via Foliar Spray	Flowering Stage	Repeat application after 10 days
4 th Application via Foliar Spray	Flowering Stage	Full Bloom
5 th Application via Foliar Spray	Flowering Stage	Repeat application after 10 days
6 th Application via Foliar Spray	Flowering Stage	Pollen Tube Formation
7 th Application via Foliar Spray	Fruit Setting	Initiation of Fruiting
8 th Application via Foliar Spray	Fruit Setting	Fruit Set Stage



Fruit Sizer

Superior Size and Weight!

- Increases Fruit Size
- Reduces Fruit Drop
- Improves Fruit Shape
- Improves Fruit Setting
- Increases Fruit Weight

New Age Bio Stimulant for New Age Agriculture

Description

Sydney is a new age Bio-Stimulant that combines Vitamin B3 and Salicylic acid for increasing fruit size, shape and weight. Salicylic acid is a plant hormone that regulates various plant functions. Vitamin B3 is essential for various cellular processes. When Salicylic acid is combined with Vitamin B3, it increases cell division and promotes increase in the size and shape of fruits. Salicylic acid helps in stimulating fruit setting and reducing fruit drop. Sydney's unique formulation helps in increasing plants metabolic rate, nucleic acid and amino acid content. Increasing fruit size and weight is directly proportional to increasing Yields!

Whats Unique ?

Sydney's unique combination of Vitamin B3 and Salicylic acid is a breakthrough innovation in increasing Fruit Setting, Size and weight. It naturally increases the produce quantity without putting plants under stress. Salicylic acid also helps in raising immunity of plants against various pathogens, thereby protecting the plants during the crucial fruiting stage. The ultra-low dose of Sydney helps in reducing the Storage, Handling and Transportation Cost.

Benefits

Fruit Setting

Sydney helps in formation of flowers to fruits. The cellular activity helps in improved fruit setting and reduced fruit drop. It also helps increase bunch length in grapes so that enough space is available for berry enlargement.

Increases Size

Sydney boosts production of nucleic and amino acids that help in increasing the Fruit Size. It helps in providing bigger and uniform size fruits that helps to fetch a better market value for produce.

Increases Yield

Through increased supply of nutrients, Sydney helps in increasing the weight of the fruits. Heavier fruits helps in getting greater tonnage output and increases Yield per acre.

Packaging :

10 ml Glass Ampoule

Recommended No of Applications: 4

Direction for Use

For Fruiting Vegetables use 5 ml in 200 Litres of water and apply for 1 Acre through foliar application. For Horticulture Crops use 10 ml in 200 Litres of water. Depending upon the size of the plants use 200 to 400 Litres of water per acre and use Sydney 10 to 20 ml as required per acre.

Storage: Store in a cool and dry place away from direct sunlight and heat.

Precautions: Keep away from children. Glass ampoule handle with care.

Stage wise Recommended Application:

Applications	Stages	Interval in Stage to apply
1 st Application via Foliar Spray	Fruit Setting	On set of Fruit Setting
2 nd Application via Foliar Spray	Fruit Sizing	Once Size begins to increase
3 rd Application via Foliar Spray	Fruit Sizing	Fruits are Medium Sized
4 th Application via Foliar Spray	Fruit Sizing	Repeat application after 10 days

Contents:

Composition	% w/w
Vitamin B3	3.75%
Salicylic Acid	2%
Emulsifier	10%
Solvent	84.25%
Total	100%





Plant Recovery

Faster Recovery from Diseases & Stress!

New Age Bio Stimulant for New Age Agriculture

Description

X5 is formulated using Vitamin B3, a new age Bio stimulant that helps plants recover faster from diseases and environmental stress. Plants infected by pests and diseases lose a lot of vital energy, they need higher metabolism to generate more food so that they can regain their vitality and continue with their physiological functions. The use of Vitamin B3 as a bio-stimulant is a new feature of X5 that is essential in all cells for energy production, metabolism and DNA repairs. Inclusion of Vitamin B3 in X5 shows faster recovery of plants from diseases when applied at onset of the disease. Higher metabolism ensures more plant functions resulting in more yields. Vitamin B3 also helps plants to tolerate Saline Stress and grow in saline soils.

Whats Unique ?

X5 comes in a 10 ml glass ampoule which helps in retaining the purity and efficacy of the active ingredient. The shelf life is also extended. X5 can work as a Booster Bio-Stimulant, Disease recovery agent as well as immunity booster against environmental and Salinity stress. It can be used in all stages of crops life cycle and can be used in all types of crops. It can be mixed with all types of pesticides and fungicides. The ultra-low dose of X5 helps in reducing the Storage, Handling and Transportation Cost.

Benefits

Plant Recovery:

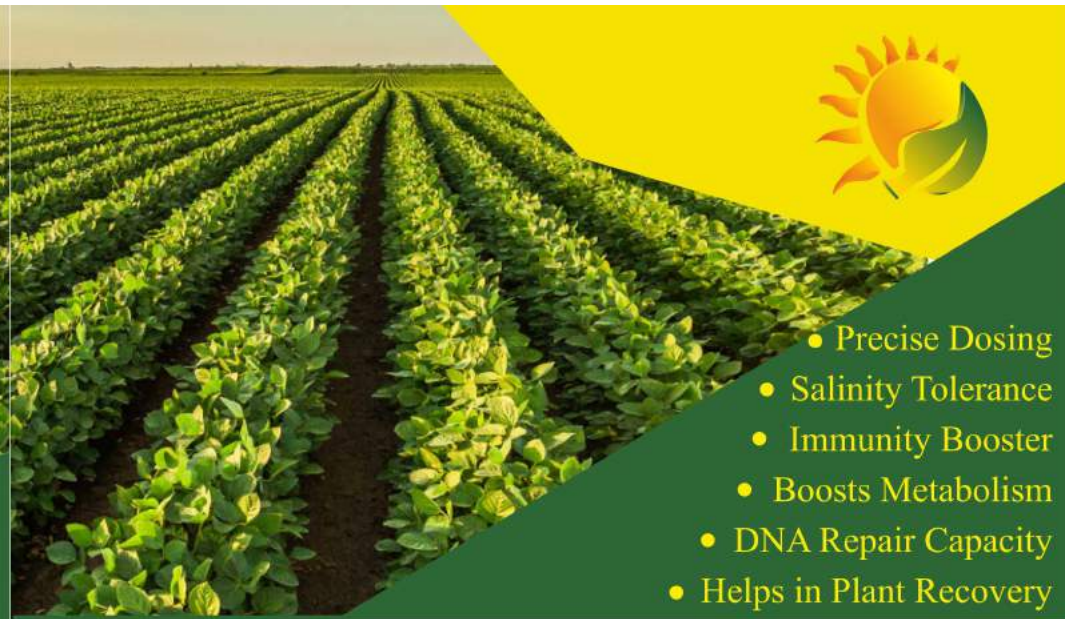
Vitamin B3 is responsible for DNA repair and increase metabolic rate. Plants recover faster with X5 and it revitalizes the plants thereby increasing productivity and Yields!

Booster:

Vitamin B3 is known to boost the performance of crops by increasing energy production. It helps in optimizing all physiological functions at given stage. X5 can be used as a Booster Bio-stimulant to increase productivity!

Saline Stress:

Plants are susceptible to Biotic and Abiotic Stresses. X5 boosts tolerance against Environmental and Water Stress. X5 greatly increases plants absorption and translocation capacity in Saline soils.



- Precise Dosing
- Salinity Tolerance
- Immunity Booster
- Boosts Metabolism
- DNA Repair Capacity
- Helps in Plant Recovery

Packaging :

Packing: 10 ml Glass Ampoule
Recommended No of Applications: 8

Direction for Use

Use 1 ml for 15 to 20 litres of water in Knapsack Sprayer or 10 ml per Acre in 150 -200 litres of water. It is recommended for use in all types of plants and can be tank mixed with all Pesticides, Fungicides and fertilizer to boost the recovery. It is important to make a small batch Jar test before mixing all products in the Tank. Storage: Store in a cool and dry place away from direct sunlight and heat. Precautions: Keep away from children. Glass ampoule handle with care.

Contents:

Composition	% w/w
Vitamin B3	3.25%
Emulsifier	16.25%
Solvent	80%
Total	100%

Stage wise Recommended Application:

Apply along with Pesticides and Fungicides for Faster Plant Recovery. Can be applied alone for Boosting Plant Metabolism and increasing Physiological functions. X5 Can be applied during all stages of the plants life cycle.



Applications	Stages	Interval in Stage to apply
1 st Application via Foliar Spray	Growth Stage	For Stem Strength & Recovery
2 nd Application via Foliar Spray	Branching Stage	New Shoots and Branches
3 rd Application via Foliar Spray	Flowering Stage	Initiation of Flowering
4 th Application via Foliar Spray	Flowering Stage	Pollen Tube Formation
5 th Application via Foliar Spray	Fruit Setting	Initiation of Fruit Setting
6 th Application via Foliar Spray	Fruit Setting	After Fruit Set
7 th Application via Foliar Spray	Fruit Sizing	Size begins to increase
8 th Application via Foliar Spray	Fruit Sizing	15 days after 7 th application



The Nutrition Experts

HEALTHY ROOTS!

Effervescent Tablets

DISEASE FREE & MORE NUTRIENT ABSORPTION!

Description

Black Jack contains Phosphorous, Potassium, Zinc and Sunraysia's Proprietary Co-factors that work synergistically to offer excellent quality and ROOT Health. Being in effervescent tablet form it readily dissolves in water while offering macronutrients and micronutrients to your crops. With Black Jacks measured dose in Tablet form you do not have to measure the nutrients. Tablet ensures that your dose is correct for every application and offers you uniform results and uniform quality produce. Black Jack helps in increasing the ROOT mass of Plants thereby increasing the absorption and nutrition uptake in Plants. Unhealthy ROOT System cannot absorb and translocate nutrients to the plants, they also become susceptible to Nematodes and other soil borne diseases. Phosphorous and Potassium not only provides nutrition to crops but also keeps the ROOTS healthy. Healthy ROOT System ensures faster absorption and translocation of water and nutrients to the plants, thereby increasing the Productivity and Yields! Black Jack also improves the Soil quality and fertility and provides essential Nutrition to Plants.

Whats Unique ?

Being in effervescent tablet form it readily dissolves in water while offering nutrients to your crops. With Black Jacks measured dose in Tablet form you do not have to measure the nutrients. Tablet ensures that your dose is correct for every application and offers you uniform results and uniform quality produce. Black Jack is compact and therefore it considerably reduce the Storage, Handling and Transportation Cost.

Benefits



Healthy Roots

With increased and healthier ROOT Mass, plants capacity to uptake water and nutrients is significantly increased thereby aiding in superior growth and yields.



Increased Resistance:

Plants are susceptible to Soil borne pathogens and fungal diseases. With healthier ROOT System the immunity is significantly increased against such diseases resulting in healthier plants that can produce bumper yields.



Soil Quality:

Improved Soil porosity, aeration, water holding capacity and drainage greatly helps plants to penetrate and spread their ROOTS and uptake water and nutrients. Good Soil quality is also a home for friendly bacteria.



- Higher Yields
- Precise Dosing
- Increased ROOT Mass
- Increased stem strength
- Resistance to Soil Borne Diseases
- Increased Nutrient and Water Uptake



Root Application



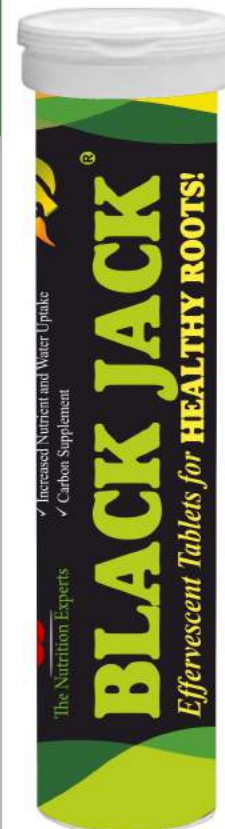
Mix with water



Drip irrigation



Soil Application



Packaging :

Every Tube contains 8 g x 10 Tablets
Recommended No of Applications: 8



Direction for Use

Dissolve 10 Tablets in 200 Litres of water and apply through Drip irrigation or drenching near the ROOT Zone. For Small areas dissolve 1 tablet in 15 to 20 Litres of water.



Stage wise Recommended Application

Applications	Stages	Interval in Stage to apply
1 st Application via Drip/Drenching	Seedling Stage	After Transplanting / Bud Burst
2 nd Application via Drip/Drenching	Growth Stage	Beginning of Shoot Growth
3 rd Application via Drip/Drenching	Branching Stage	New Shoots and Branches
4 th Application via Drip/Drenching	Flowering Stage	Initiation of Flowering
5 th Application via Drip/Drenching	Flowering Stage	Full Bloom Period
6 th Application via Drip/Drenching	Fruit Setting	Fruit Setting begins
7 th Application via Drip/Drenching	Fruit Sizing	Fruits starts enlarging
8 th Application via Drip/Drenching	Fruit Ripening	Colour Begins to appear



PLANT FOOD

Complete Plant Food with all the Nutrients!

HIGHER YIELDS WITH LOW COST

Description

Stimul8 combines the richness of Protein Hydrolysate, Seaweed Extract, Micronutrients, and Gibberellic acid. Protein (hydrolysed) contains many amino acids that are building blocks of life and essential for many plant functions. Stimul8 is one of the most power packed nutrition source. It contains Seaweed Extract which contains Major Nutrients like NPK, Secondary nutrient and Micronutrients along with Amino acids, Proteins, Vitamins and a range of biochemicals. This make Stimul8 a complete plant food for the plants where you can apply all required nutrients in one application. Stimul8 is readily available and easily absorbed and metabolised in the plants. Owing to the richness of this nutrient it can be used right from the seedling stage to Harvest Stage to provide broad spectrum food to the plants. Stimul8 contains Gibberellic acid which is boosts growth, flowering and fruit size in plants.

Whats Unique ?

Stimul8 is a powerhouse of nutrients. One application of Stimul8 provides a broad spectrum of nutrients to the plants. The cost comparison of per nutrient application is significantly low with Stimul8 as compared to applying all nutrients separately. As a Plant Food supplement – Farmers get the choice of using only one product than choosing multitude of nutritional products.

Benefits

Complete Nutrition:

Stimul8 is a power house of nutrients. It offers plants all the nutrients required in one application. This helps the plants to grow to its full potential as there is no deficiency. It also works out to be cheaper to offer all nutrients through one product.

All Stages:

Gibberellic Acid boosts plant functions during all stages of life cycle. Amino acids and Seaweed extract along with micronutrients are a powerhouse of nutrition that are required during all stages. This makes the product a comprehensive plant nutrition supplement for use at any given stage.

Higher Yields:

Trials have demonstrated that regular use of Stimul8 during the plant's life cycles can greatly increase the Yields. By providing complete nutrition it helps plants to perform their physiological functions to their full potential thereby getting a bumper produce that is better in quality – while being Organic!

Direction for Use

For Vegetables use 250 ml for 200 Litres of water (1.25:1000) and apply through foliar application. For Horticulture Crops use 250 ml for 200 Litres of water. Use 200 to 400 Litres of water Depending upon the size of the plants. For soil application Use 500 ml / Acre of Land for Vegetable Crops and 1 Litre / Acre for Horticulture Crops.

Storage: Store in a cool and dry place away from direct sunlight and heat.

Precautions: Keep away from children.

Recommended No of Applications: 9

Packaging : 250 ml



Contents:

Composition	% w/w
Gibberellic Acid	0.001%
Protein (Hydrolysed)	2.5%
Yeast Extract Seaweeds	3%
FeSo4.7H2O (min 95%)	2.3%
MnSo4.3H2O (min 90%)	1.4%
ZnSo4.7H2O (min 95%)	3.9%
MgSo4.7H2O (min 90%)	4.3%
Emulsifier Tween 80	1%
Solvent Water	Q.S
Total	100%

Stage wise Recommended Application:

Applications	Stages	Interval in Stage to apply
1 st Application via Foliar Spray	Seedling Stage	Four Leaf Stage
2 nd Application via Foliar Spray	Growth Stage	Shoot Growth
3 rd Application via Foliar Spray	Branching Stage	New Nodes begin to Form
4 th Application via Foliar Spray	Flowering Stage	Initiation of Flowering
5 th Soil Application - Drip / Drench	Flowering Stage	Full Bloom
6 th Application via Foliar Spray	Fruit Setting	Initiation of Fruiting
7 th Soil Application - Drip / Drench	Fruit Setting	Fruit Setting Stage
8 th Application via Foliar Spray	Fruit Sizing	Fruits are Medium Size
9 th Soil Application - Drip / Drench	Fruit Sizing	After 10 Days

- Increases Yields
- Eco – Friendly Product
- For Organic Agriculture
- Improves quality of produce
- Provides Complete Nutrition
- Cost Effective Nutrition Source



The Nutrition Experts

Mixed Micronutrient Supplement

Special Blend of Micronutrients with Patented Effervescent Technology!

MICRONUTRIENT FOR INCREASING YIELDS!

Description

Sunfert is a special blend of Micronutrients by Sunraysia in a Patented Effervescent technology. It combines B, Cu, Fe, Mn, Zn and Mo which play an eminent role in plant growth and development. Plant metabolism, nutrient regulation, reproductive growth, chlorophyll synthesis, production of carbohydrates, fruit and seed development, etc., are such effective functions performed by micronutrients. Adequate levels of Micronutrients, elevate the healthy growth in plant physiological, biochemical and metabolic characteristics. Micronutrients are involved in various functions like cell protection, gene regulation, signal transduction, intracellular trafficking, as well as primary and secondary metabolite production. Micronutrients promote strong, steady growth of crops that produce higher yields and increase harvest quality — maximizing a plant's genetic potential. In particular, their presence can have a great impact on root development, fruit setting and grain filling, seed viability and plant vigor and health.

Whats Unique ?

While micronutrients are very important for plant functions and sustained growth, the right amount of dosing is also equally important. Higher dose of micronutrients can cause toxicity leading to severe damage to the plants. With Powders and Liquids measuring the exact amount becomes difficult. Sunfert Micronutrient Tablets are based on Patented Effervescent technology. Each Tablet has a uniform weight and the farmer does not have to measure, just drop the tablet in water and spray. This helps in providing a calculated dose of micronutrients to plants without fearing toxicity side effects.

Role Of Micronutrients:

Boron:

One of the most important micronutrients affecting membrane stability, B supports the structural and functional integrity of plant cell membranes.

Copper:

It activates enzymes and catalyses reactions in several plant-growth processes. The presence of copper is closely linked to Vitamin A production, and it helps ensure successful protein synthesis.

Iron:

It is essential for crop growth and food production. Iron is a component of many enzymes associated with energy transfer, nitrogen reduction and fixation, and lignin formation.

Manganese:

It functions primarily as part of enzyme systems in plants. It activates several important metabolic reactions and plays a direct role in photosynthesis. Manganese accelerates germination and maturity while increasing the availability of phosphorus (P) and calcium (Ca).



- Essential for symbiotic fixation of N.
- Plays important roles in redox reactions
- Plays important roles in photosynthesis.
- Enhances the enzyme systems of plants.
- Improves cell division, and seed formation.
- Essential for certain N transformations in plants.
- Essential for the growth of symbiotic microorganisms
- Important for N fixation, Protein synthesis and metabolic processes.

Molybdenum:

It is required for the synthesis and activity of the enzyme nitrate reductase. Molybdenum is vital for the process of symbiotic nitrogen (N) fixation by Rhizobia bacteria in legume root modules.

Zinc:

It is one of the most essential micronutrients for plants and the one most commonly limiting yields. Although Zn is required only in small amounts, high yields are impossible without it. It plays an important role in many plant functions.

Packaging : 7.5 gms x 10 Tablets

Recommended No of Applications: 6

Contents:

Composition	Analysis % w/w	Guaranteed Analysis w/w (Min) Percentage		
		MH Grade 2	GUJ Grade 1	MP Spray Grade
Fe EDTA	2.5	2.5	2	-----
Mn EDTA	1	1	0.5	0.5
Zn EDTA	4	3	4	3
Cu EDTA	1	1	0.3	-----
Boron	0.5	0.5	0.5	0.3
Molybdenum	0.1	0.1	-----	-----

Dose and Method of Application:

For Vegetables use 1 Tablet for 15 Litres of water or 10 Tablets in 200 Litres of water and apply through foliar application. For Horticulture Crops use 10 Tabs for 200 Litres of water. Use 200 to 400 Litres of water Depending upon the size of the plants.

Storage: Store in a cool and dry place away from direct sunlight and heat.

Precautions: Keep away from children.

Stage wise Recommended Application

Applications	Stages	Interval in Stage to apply
1 st Application via Foliar Spray	Seedling Stage	Four Leaf Stage
2 nd Application via Foliar Spray	Growth Stage	Shoot Growth
3 rd Application via Foliar Spray	Branching Stage	New Nodes begin to Form
4 th Application via Foliar Spray	Flowering Stage	Initiation of Flowering
5 th Application via Foliar Spray	Fruit Setting	Initiation of Fruiting
6 th Application via Foliar Spray	Fruit Sizing	Fruits are Medium Size





High Efficacy Zinc Supplement

Patented Zinc Nutrient for Agriculture!

MICRONUTRIENT FOR INCREASING YIELDS!

Description

Zinc Gold contains Zinc 12% EDTA in chelated form delivered in a Patented Effervescent Tablet that is easier to use and offers the benefit of uniform dosing. Zinc activates enzymes that are responsible for the synthesis of certain proteins. It is used in the formation of chlorophyll and some carbohydrates, conversion of starches to sugars and its presence in plant tissue helps the plant to withstand cold temperatures. Zinc is essential in the formation of auxins, which help with growth regulation and stem elongation.

Whats Unique ?

Zinc Gold is the first in world Zinc Micronutrient Effervescent Tablet that is Patented for use in Agriculture. The Unique combination of Zinc EDTA and Sunraysia's proprietary co-factors helps in increasing the absorption and translocation of Zinc. Being in chelated form it can be foliar applied and is required in very less quantity as compared to other sources. The Unique tablet formulation provides farmers with the benefit of uniform dosing and uniform results.

Benefits

Higher Yields:

Deficiency in zinc might result in significant reduction in crop yields and quality. In fact, yield can even be reduced by over 20% before any visual symptoms of the deficiency occur. Zinc Gold Helps farmers achieve higher yields through regular applications!

Boosts Plant Functions:

It is a key component of many proteins and enzymes. It contributes to a number of important plant functions, such as growth hormone production and internode elongation. Its role in chlorophyll formation makes it the most important micronutrient.

Zinc Deficiency Symptoms:

Zinc deficiency is probably the most common micronutrient deficiency in crops worldwide, resulting in substantial losses in crop yields and human nutritional health problems. Zinc deficiency causes a type of leaf discoloration called chlorosis, which causes the tissue between the veins to turn yellow while the veins remain green

Symptoms of zinc deficiency include one or some of the following:

- Stunting – reduced height;
- Intervinal chlorosis;
- Brown spots on upper leaves;
- Distorted leaves.



- Increases Yields
- Increases Nutrient Value
- Increases Stem Elongation
- Improves Enzyme Synthesis
- Helps in Chlorophyll Formation
- Easy to use Effervescent Formula

Packaging : 7.5 gms x 10 Tablets

Dose and Method of Application:

For Vegetables use 1 Tablet in 15 litres of water or 10 Tablets in 200 Litres of water and apply through foliar application. For Horticulture Crops use 10 Tablets for 200 Litres of water. Use 200 to 400 Litres of water Depending upon the size of the plants. For soil application Use 20 Tablets / Acre of Land for Vegetable Crops and 30 Tablets / Acre for Horticulture Crops.

Storage: Store in a cool and dry place away from direct sunlight and heat.
Precautions: Keep away from children.

Composition: Zinc (as Zn Edta) 12%

Recommended No of Applications: 9



Stage wise Recommended Application

Applications	Stages	Interval in Stage to apply
1 st Application via Foliar Spray	Seedling Stage	Four Leaf Stage
2 nd Application via Foliar Spray	Growth Stage	Shoot Growth
3 rd Application via Foliar Spray	Branching Stage	New Nodes begin to Form
4 th Application via Foliar Spray	Flowering Stage	Initiation of Flowering
5 th Application via Foliar Spray	Flowering Stage	Full Bloom
6 th Application via Foliar Spray	Fruit Setting	Initiation of Fruiting
7 th Application via Foliar Spray	Fruit Setting	Fruit Setting Stage
8 th Application via Foliar Spray	Fruit Sizing	Fruits are Medium Size
9 th Application via Foliar Spray	Fruit Sizing	After 10 Days





The Nutrition Experts

BORON GLYCINATE SUPPLEMENT

Enhanced Reproductive Process!

SUPPORTS FRUIT & SEED FORMATION

Description

BIG B is one of its kind Glycinate Boron supplements that has higher rate of absorption and is readily available as compared to other sources of Boron. Boron along with calcium plays an important role in cell wall synthesis and is essential for cell division (creating new plant cells). Adequate Boron supply is needed for mitigation of aluminium toxicity in plants grown in low-pH soils. Boron requirements are much higher for reproductive growth so it helps with pollination, and fruit and seed development. The B requirement is much higher for reproductive growth than for vegetative growth in most plant species. Boron increases flower production and retention, pollen tube elongation and germination, and seed and fruit development. The element is involved in the cell wall and membrane structure and functioning; therefore, it participates in numerous ion, metabolite, and hormone transport reactions. Boron has an extremely narrow range between deficiency and toxicity, and inadequate boron supply exhibits a detrimental effect on the yield of agricultural plants. The deficiency problem can be solved by fertilization and foliar application of BIG B.

Whats Unique ?

There is a very thin line between Boron deficiency and Boron adequacy. High amounts of Boron can cause serious damage to the plants, whereas deficiency can lead to significantly lower yields. Administering the right dose of Boron therefore becomes critical to obtain higher yields. BIG B is made from Boron Glycinate which is chelated form of Boron. Plants convert the required amount of Boron Glycinate to Boric acid as required, without causing damage due to excess Boron. This makes BIG B a preferred choice over other sources of Boron.

Benefits

Big Role:

Boron plays a Big role in a diverse range of plant functions including cell wall formation and stability, maintenance of structural and functional integrity of biological membranes, movement of sugar or energy into growing parts of plants, and pollination and seed set. Adequate B is also required for effective nitrogen fixation and nodulation in legume crops. It helps in transportation of potassium to stomata (which helps regulate internal water balance).

Improves P & K Uptake:

Boron improves root uptake of phosphorus (P) and potassium (K) by maintaining proper function (through ATPase activity) and structure of root cell membranes. Boron has an important role in colonization of roots with mycorrhizal fungi, which contributes to root uptake of P.

Enzyme Regulation:

Boron stimulates, inhibits, or stabilize enzymes; it is involved in the transport of sugars across the membrane, lignin and flavonoid synthesis, and metabolism of auxins, nitrogen compounds, and phenols. With Boron deficiency the Antioxidant enzyme is not sufficiently effective in protection from oxidative damage.



- Uptake of P & K
- Cell wall Strengthening
- Helps in ROOT Elongation
- Enhanced Reproductive process
- Enzyme Synthesis & Regulation
- Helps in Fruit and Seed Formation

Boron Deficiency:

Boron deficiency affects the photosynthetic capacity and the transport of photosynthetic products. Most crops are not able to mobilize B from vegetative tissues to actively growing, meristematic plant tissues such as shoots, root tips, flowers, seeds or fruits. Boron deficiency commonly results in empty pollen grains, poor pollen vitality and a reduced number of flowers per plant. Low B supply can also stunt root growth. Under severe B deficiency, stunted development and death of meristematic growing points are common. Other common reactions include reduced root elongation, failure of flowers to set seeds and fruit abortion. Boron deficiency decreases male fertility by reducing microsporogenesis, germination, and elongation of the pollen tube. After fertilization, the nutrition disorder affects embryogenesis, resulting in seed deterioration or the formation of incomplete or damaged embryos. Low B supply may also adversely affect pollination and seed set, without visible leaf deficiency symptoms.

Packaging : 250 ml



Direction for Use

For Vegetables use 250 ml for 200 Litres of water (1.25:1000) and apply through foliar application. For Horticulture Crops use 250 ml for 200 Litres of water. Use 200 to 400 Litres of water Depending upon the size of the plants. For soil application Use 500 ml / Acre of Land for Vegetable Crops and 1 Litre / Acre for Horticulture Crops.

Storage: Store in a cool and dry place away from direct sunlight and heat.

Precautions: Keep away from children.

Contents:

Composition	% w/w
Boron as (B) (min)	5%
pH (1% Distilled water) 8 – 9	
Specific gravity 1.10 – 1.23	

Recommended No of Applications: 6

Stage wise Recommended Application:

Applications	Stages	Interval in Stage to apply
1 st Application via Foliar Spray	Flowering Stage	Initiation of Flowering
2 nd Soil Application - Drip / Drench	Flowering Stage	Full Bloom
3 rd Application via Foliar Spray	Flowering Stage	Pollen Tube Formation
4 th Soil Application - Drip / Drench	Fruit Setting	Initiation of Fruiting
5 th Application via Foliar Spray	Fruit Sizing	Fruits begin to Enlarge
6 th Soil Application - Drip / Drench	Fruit Ripening	Color begins to appear



The Nutrition Experts



SECONDARY NUTRIENT

Improves Soil, Cells And Fruits!

HIGHEST CONTENT OF LIQUID CALCIUM

Description

Calcimax is a combination of Calcium, Magnesium and Nitrogen. Calcium is a secondary nutrient that is critical to crop development. It is needed in large amounts by all plants for the formation of cell walls and cell membranes, and it plays a vital role in soil structure. Due to the immobility of calcium in the soil and plant tissues, a continuous supply must be present for plants to access. Calcium is only xylem mobile, meaning it can only move up the plant, and once in place, it cannot be remobilized and moved to new developing tissues. Calcium plays an extremely important role in producing plant tissues and enabling plants to grow better. Calcium is key to normal root system development. Calcium deficiency results in poor root growth and the root tips die. Shortage of Calcium makes the crop vulnerable to diseases. These diseases can include blossom end rot in tomatoes, tip burn in cabbage and black heart in celery. The external application of calcium has been reported to be beneficial for resistance of plants against pathogens. Another early study revealed the correlation between high calcium supply and the induction of defence gene expression. Magnesium is also a critical Secondary nutrient for plant growth and health. It is a key element of the chlorophyll molecule – essential for photosynthesis. Magnesium gives leaves their green hue and activates most plant enzymes needed for growth while contributing to protein synthesis.

Whats Unique ?

Calcimax is a unique combination of Calcium, Nitrogen and Magnesium. Calcium can interfere in uptake of other nutrients, therefore the combination percentages are specially designed to ensure uptake of all nutrients and translocation of the same. Its unique combination of Nitrogen and Magnesium ensure optimum food production and formation of chlorophyll while Calcium helps in increasing the elasticity of fruits and strengthening the Cell walls. This helps in increasing the fruit size without cracking. This combination also helps in improving the Soil quality and structure while replenishing much needed Nitrogen in the Soil.

Benefits:



Signalling:

It is crucial in activating certain enzymes and to send signals that coordinate certain cellular activities. It serves as a second messenger in a variety of processes ranging from root or pollen tube growth and fertilization to responses to abiotic as well as biotic stress. Transient, sustained, or oscillatory rises in the cytosolic Ca²⁺ concentration thereby serve as a signal, which is decoded into downstream responses



Chlorophyll Formation:

Many enzymes in plant cells require magnesium in order to perform properly. However, the most important role of magnesium is as the central atom in the chlorophyll molecule. Chlorophyll is the pigment that gives plants their green color and carries out the process of photosynthesis. It also aids in the activation of many plant enzymes needed for growth and contributes to protein synthesis.



Soil Structure:

The calcium that is adsorbed to soil particles helps in stabilizing the soil structure. Adsorbed sodium might cause the soil to crack when dry and swell up when wet. Calcium replaces the adsorbed sodium and prevents damages to soil structure. Soils with adequate amounts of calcium tend to be more friable and have better water infiltration properties. This is because calcium displaces sodium in the soil, and with adequate leaching irrigations, it can help improve overall soil quality.

- Improves fruit quality
- Strengthen cell wall structure
- Increases disease resistance Capacity
- Promotes proper plant cell elongation
- Has a role in the regulation of the stomata
- Participates in enzymatic and hormonal processes
- Participates in metabolic processes of other nutrients uptake



Direction for Use

For Vegetables use 250 ml / 200 Litres of water and apply minimum 200 Litres of water through foliar application per acre. For Application through Drip Irrigation: Use 500 ml in sufficient amounts of water and apply per acre. For Foliar application in Horticulture crops use 500 ml / 400 Litres of water and apply minimum 400 Litres of water / Acre. For Application through Drip Irrigation: Use 1 Litre in sufficient amounts of water and apply per acre.

Storage: Store in a cool and dry place away from direct sunlight and heat.

Precautions: Keep away from children.

Recommended No of Applications: 6

Packaging : 250 ml

Contents:

Composition	% w/w
Total Nitrogen (as N) (min)	10%
Nitrate Nitrogen (min)	8.5%
Calcium (as CaO) (min)	15%
Magnesium (as MgO) (min)	2%
Total Chloride as (Cl) (max)	2.5%
pH (1% Solution)	8 to 9



Stage wise Recommended Application

Applications	Stages	Interval in Stage to apply
1 st Application via Drip Irrigation	Branching Stage	New Branches begin
2 nd Application via Foliar Spray	Flowering Stage	Flowering initiation
3 rd Application via Drip Irrigation	Flowering Stage	Pollen Tube Elongation
4 th Application via Foliar Spray	Fruiting Stage	Fruit Setting
5 th Application via Foliar Spray	Fruiting Stage	Fruit Size enlargement
6 th Application via Drip Irrigation	Fruiting Stage	Fruit Maturity



INCREASES OIL CONTENT AND YIELDS!

Non-corrosive & Non-Hazardous Sulphur Nutrient!

COMBINATION OF THE TWO MOST ESSENTIAL SECONDARY NUTRIENTS SULPHUR AND CALCIUM

Description

Sulfcal combines the two most essential secondary nutrients Sulphur and Calcium. Both these elements are essential for the growth and development of all crops. Sulphur helps in formation of chlorophyll that permits photosynthesis through which plants produce starch, sugars, oils, fats, vitamins and other compounds. It is associated with special metabolisms in plant and the structural characteristics of protoplasm. While Calcium is important for Cell wall Strengthening, Sulphur is critical to the development of healthy, nutritious crops but it also contributes to the efficiency of other nutrients. Proper sulphur levels are critical to the efficiency of other nutrients being applied. Sulphur is of great significance for the structure of proteins and functioning of enzymes and it plays an important role in the defense of plants against stresses and pests. Sulphur metabolites such as glutathione provide protection of plants against oxidative stress, heavy metals and xenobiotics. Sulfcal improves crop quality, nutritive value of produce and protein and oil percentage in seeds. It helps in increasing the crop yields and improves produce quality, both of which are important to fetch good market price for the produce.

Whats Unique ?

Sulfcal is made from Calcium thiosulphate. Unlike other Sulphur Fertilizers it offers the benefit of being noncorrosive and non-hazardous to handle; It is also are well adapted to the methods used to apply fertilizer solutions. This liquid fertilizer is suitable for direct applications or blending, offering versatility to farmers. Combined with Calcium, it offers the benefit of applying two secondary nutrients in one application.

Benefits

Protein Production:

Sulphur is a constituent of three S-containing amino acids (cysteine, cystine and methionine), which are the building blocks of protein. About 90% of plant S is present in these amino acids.

Crop Quality & Yield:

Sulphur deficiency can affect both the yield and quality of crops. Sulfcal can increase crop yields and quality and result in significant economic returns to producers. Use of Sulfcal demonstrates positive impact on yield, oil content, protein percentage, starch & nutritive value.

Synergist:

Sulphur and Calcium interacts synergistically with other nutrients, their deficiency is just as detrimental as a deficiency in nitrogen, phosphorus or potassium. There is a significant balance between nitrogen and Sulphur. Without enough Sulphur, plants cannot efficiently use nitrogen and other nutrients to reach their full potential. Sulphur acts synergistically with magnesium and boron to increase kernel and oil yield.



- Helps in Activation of enzymes
- Improves crop yield and quality
- Increases starch content of tubers
- Increases the oil content of seeds.
- Improves uptake of other Nutrients
- Increases Nutritive Value of produce

Recommended No of Applications: 6

Sulphur Deficiency Symptoms:

Young leaves show chlorosis. Yellowing between the veins along the entire length of the leaves is seen especially in younger, upper leaves. Plants are smaller and lighter green in color than normal. Yellowing may occur in various plant parts. Growth is retarded and small fruits are produced. Stems become thin and woody. Plants have a bushy appearance. There is premature drying and withering of young leaves. Plants remain stunted with short internodes. The entire foliage appears pale green. Growth is poor and yield is low. Flowers are drastically reduced and pods have shrunken seeds. Nodulation and pod formation is restricted and maturity of seeds is delayed.

Packaging : 250 ml



Direction for Use

For Vegetables use 250 ml for 200 Litres of water (1.25:1000) and apply through foliar application. For Horticulture Crops use 250 ml for 200 Litres of water. Use 200 to 400 Litres of water Depending upon the size of the plants. For soil application Use 500 ml / Acre of Land for Vegetable Crops and 1 Litre / Acre for Horticulture Crops.

Storage: Store in a cool and dry place away from direct sunlight and heat.

Precautions: Keep away from children.

Contents:

Composition	% w/w
Sulphur as (S) min	10%
Calcium as (Ca) min	6%
Lead as (Pb) max	0.001%
Arsenic as (As) max	0.001%
Density at 25° Celsius 1.22 – 1.26	
Clear, Colorless liquid Solution	

Stage wise Recommended Application:

Applications	Stages	Interval in Stage to apply
1 st Application via Foliar Spray	Growth Stage	Shoot Growth
2 nd Application via Foliar Spray	Branching Stage	New Nodes begin to Form
3 rd Soil Application - Drip / Drench	Branching Stage	Lateral Growth
4 th Application via Foliar Spray	Flowering Stage	Initiation of Flowering
5 th Soil Application - Drip / Drench	Flowering Stage	Full Bloom
6 th Application via Foliar Spray	Fruit Setting	Initiation of Fruiting



GROW MAX

Maximum Growth for Maximum Yields!

GROWTH BOOSTER: SHOOT GROWTH & ROOT GROWTH NUTRITION

Description

Agrigold GROW MAX Fertilizer combines NPK and Zinc in a highly soluble Powder form. The Unique combination of 15:30:05 + Zinc is specially formulated to deliver a product that is most suitable for the growing stages of the crop's life cycle. Plants require copious amounts of NPK during their growing stages. During the growing stages Nitrogen(N) 15% is Responsible for the growth of leaves, Phosphorus 30%: Promotes root growth and increases plant stem strength, Potassium 5%: Strengthens the overall functions of the plants and keeps plants healthier with increased immunity, Zinc 1%: promotes production of enzymes that regulate the production of proteins, carbohydrates and chlorophyll. It also increases plant vigour and is responsible for achieving higher yields. It can be used in horticulture crops post bud burst to promote vigorous growth of the shoots.

Whats Unique?

Grow Max is a Highly Soluble water-soluble Fertilizer which is required 1/4th in comparison to the other powder forms of fertilizers owing to higher solubility and absorption rate. This means the cost of Handling, Storage and transport is reduced by almost 75% when you choose Grow Max. Its unique bespoke grade is also specially made for the growing stages of the plants which means that it delivers what is actually required. This helps in reducing nutrient loss and leaching out in water bodies, thus conserving the environment.

Benefits

Bespoke Nutrition

Grow Max provides NPK 15:30:5 + Zn1% This is specially customized to meet the specific nutritional requirement of the plants during the growing stages which means that plants will perform to their optimum genetic potential.

Apical Dominance

With application of Nitrogen the shoot growth is faster and plants grow in height rapidly. In Horticulture crops also post bud break the shoots grow faster in length. While phosphorous helps in increasing the Stem strength.

Added Zinc

Grow Max's contains 1% Zinc EDTA which is a highly available source of Zinc. Zinc is necessary for producing enzymes that help in food production and plant growth. Other plain water-soluble fertilizers lack the benefits of Zinc.



- Healthier Plants
- Increased Vigour
- Rapid Shoot Growth
- Improves Stem Strength
- Increases Chlorophyll content
- Increases Food Production Capacity

Contents:

Composition	% w/w
Moisture (max)	0.5
Total Nitrogen (Ammonical + Urea) (min)	15%
Nitrogen (in Ammonical form) (min)	10%
Nitrogen (in Urea form) (min)	5%
Phosphorous as (P2O) (min)	30%
Potassium as (K2O) (min)	5%
Zinc as Zn EDTA (min)	1%
Total Chloride (max)	1.5%
Matter insoluble in water (max)	0.5%
Sodium as NaCl (max)	0.5%
Lead (as Pb) (max)	0.003%
Cadmium (as Cd) (max)	0.0025%
Arsenic (as As) (max)	0.01%

Direction for Use

For Vegetables use 250 gms / 200 Litres of water and apply through foliar application per acre. For Foliar application in Horticulture crops use 500 gms / 400 Litres of water and apply in one Acre.

Storage

Storage: Store in a cool and dry place away from direct sunlight and heat.

Precautions: Keep away from children.

Packaging : 250 gms

Recommended No of Applications: 5



Stage wise Recommended Application:

Applications	Stages	Interval in Stage to apply
1 st Application via Foliar Spray	Growth Stage	1 Week after Transplanting / Bud Burst
2 nd Application via Foliar Spray	Growth Stage	4 Days after 1 st application
3 rd Application via Foliar Spray	Growth Stage	4 Days after 2 nd application
4 th Application via Foliar Spray	Growth Stage	4 Days after 3 rd application
5 th Application via Foliar Spray	Growth Stage	After 4 days (only for Horticulture)



The Nutrition Experts

BRANCH OUT

More Branches for More Flowers & Fruits!

LATERAL GROWTH AND BUSHIER PLANTS WITH MORE LEAVES AND BUDS

Description

Branch Out is a highly water soluble NPK Fertilizer that contain NPK 10:40:00 along with Zinc 1%. Branch out is specially formulated for use during the branching stage of the plant's life cycle. Plants require high amounts of nutrition to reduce apical dominance and divert energy for developing the branches. Branch Out's formula helps in achieving lateral growth and develop bushier plants with more leaves and buds. More productive branches help in providing more buds for flowers and fruits while more leaves help in increasing plants food production capacity. Branch out can be used in vegetables as well as horticulture crops. Application after stem elongation helps in generating more branches that will hold the flowers and fruits. Branch out contains Zinc that is essential for formation of auxins, which will help in growth regulation and increasing the Branch length. It also helps in formation of enzymes that are responsible for movement of Sugar and energy to the growing parts of the plants, thereby diverting much needed nutrition to new branches and their development. The product is highly soluble and has higher absorption and translocation rate due to its unique formulation.

Whats Unique?

Branch Out is a specially formulated NPK Fertilizer that combines Zinc micronutrient. Regular NPK fertilizers are stand alone Fertilizers without the inclusion of Micronutrients. Plants need a steady supply of perfectly measured macro and micro nutrients during different stages of their life cycle and especially Zinc during the growing stages. Branch out is a bespoke customized nutrient formulation that is perfectly suited for the branching stage that provides Macro and Micronutrients in the same application. Branch Out's water-soluble powder formulation is easy to apply and helps in faster uptake and absorption in the plant system making it instantaneously available.

Benefits

Lateral Growth

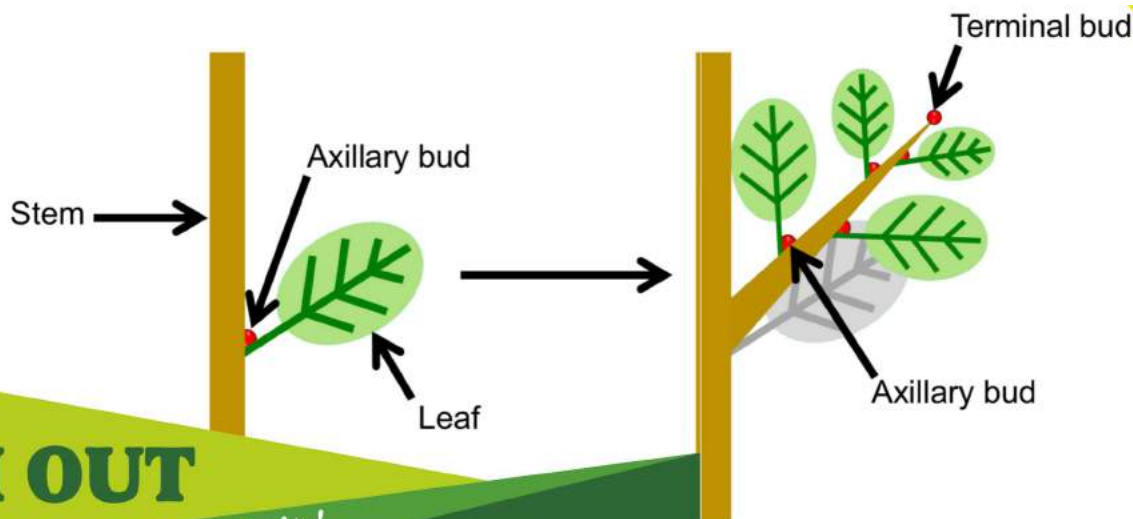
Branch out's use during the branching stage helps in producing a greater number of Branches while offering them strength and energy for complete development. More no of branches increases the plants capacity to bear more flowers and fruits.

More Leaves

Bushier plants with more leaves help in increasing the plants food production capacity through chlorophyll synthesis. Leaves also protects the fruits (especially grapes) from sunburns by forming a dense canopy.

Internode Distance

Maintains the Internode distance and strengthens the Stems with supply of nutrients. Even the plants are taller they maintain a thicker and well-developed stem that can supply food to all parts of the plants.



- Promotes Lateral Growth
- Promotes ROOTS Growth
- Increases Cell wall thickness
- Increases Number of Leaves
- Increased Nutrient Assimilation
- Increases Food Production Capacity

Contents:

Composition	% w/w
Moisture (max)	0.5
Total Nitrogen (Ammonical) (min)	10%
Phosphorous as (P2O) (min)	40%
Zinc as Zn EDTA (min)	1%
Total Chloride (max)	1.5%
Matter insoluble in water (max)	0.5%
Sodium as NaCl (max)	0.5%
Lead (as Pb) (max)	0.003%
Cadmium (as Cd) (max)	0.0025%
Arsenic (as As) (max)	0.01%

Packaging : 250 gms

Recommended No of Applications: 5

Stage wise Recommended Application:

Applications	Stages	Interval in Stage to apply
1 st Application via Foliar Spray	Branching Stage	New Branches begin
2 nd Application via Foliar Spray	Branching Stage	4 Days after 1 st application
3 rd Application via Foliar Spray	Branching Stage	4 Days after 2 nd application
4 th Application via Foliar Spray	Branching Stage	4 Days after 3 rd application
5 th Application via Foliar Spray	Branching Stage	Repeat after 4 Days in Horticulture

Direction for Use

For Vegetables use 250 gms / 200 Litres of water and apply minimum 200 Litres of water through foliar application per acre. For Foliar application in Horticulture crops use 500 gms / 400 Litres of water and apply minimum 400 Litres of water / Acre.

Storage

Storage: Store in a cool and dry place away from direct sunlight and heat.

Precautions: Keep away from children.





Newchem
Sunraysia
The Nutrition Experts

FLOWER BOOST

Nutrition for initiation of Flowering!

FLOWER BOOSTING FERTILIZER

Description

Flower Boost Fertilizer is a 08-08-30 Formula that combines Zinc 1%. The product is specially formulated for faster solubility and absorption. It combines just enough Nitrogen and phosphorous as they are constituents of proteins and nucleic acids, which are important components of plant tissue. Nitrogen is essential for increasing Seedling growth, Metabolism and creation of chlorophyll. Phosphorus supports the transfer of energy in plants, it promotes root growth, flowering and setting seed. Potassium (K) is an essential macronutrient for sustainable crop production in intensive agriculture. Potassium is involved in several vital physiological processes and is known to influence various aspects of product quality. Potassium plays fundamental roles in plant water management and osmoregulation and is thought to be important for plant stress tolerance to abiotic stress causing factors including drought, salinity, and radiation. Severe K deficiencies can lead to leaf chlorosis, necrosis, defoliation and flower drop. A steady supply of Potassium during this stage helps in developing good quality of flowers without flower drop. Formula 1 is specially designed for use during the flowering initiation in Vegetable and Horticultural Crops.

Whats Unique?

Most Fertilizers used during the flowering stages are high on Phosphorus. However, research suggests that equivalent amounts of Nitrogen and Phosphorous combined with elevated levels of Potassium encourages early flowering and results in higher no of flower buds. Formula 1 is a bespoke fertilizer grade specially developed for use during initiation of flowering. It specifically targets the Flowering initiation stage with unique NPK combination along with Zinc to achieve unparalleled results.

Benefits

Flower Induction

Trials suggest that application of Potassium after Branching Stage results in early flowering in crops. Therefore Flower Boost Combines high amount of Potassium that can lead to early flowering in Plants.

Stress Tolerance

Plant flowering is initiated by an extremely complex network of regulatory processes, which is controlled by the interplay between endogenous and environmental factors. Potassium regulates the stress levels in plants and helps trigger flowering without environmental factors having an adverse effect.

More Flower Buds

Trials have shown that proportionately adequate amounts of NPK combined with Zinc have shown to increase the number of flower buds in plants. More Flower Buds Naturally through Nutrient supplementation paves the road for achieving higher yields!



- Early Flowering
- More Flower Buds
- Strengthens Cell Walls
- Increases Stress Tolerance
- Provides Essential Nutrients
- Reduces Drop of Flower Buds

Contents:

Composition	% w/w
Moisture (max)	0.5
Total Nitrogen (Urea) (min)	8%
Phosphorous as (P2O) (min)	8%
Potassium as (K2O) (min)	30%
Zinc as Zn EDTA (min)	1%
Total Chloride (max)	1.5%
Matter insoluble in water (max)	0.5%
Sodium as NaCl (max)	0.5%
Lead (as Pb) (max)	0.003%
Cadmium (as Cd) (max)	0.0025%
Arsenic (as As) (max)	0.01%

Direction for Use

For Vegetables use 250 gms / 200 Litres of water and apply minimum 200 Litres of water through foliar application per acre. For Foliar application in Horticulture crops use 500 gms / 400 Litres of water and apply minimum 400 Litres of water / Acre.

Storage

Storage: Store in a cool and dry place away from direct sunlight and heat.

Precautions: Keep away from children.



Recommended No of Applications: 5

Stage wise Recommended Application:

Applications	Stages	Interval in Stage to apply
1 st Application via Foliar Spray	Flowering Initiation	First flowers appear
2 nd Application via Foliar Spray	Flowering Initiation	4 Days after 1 st application
3 rd Application via Foliar Spray	Flowering Initiation	4 Days after 2 nd application
4 th Application via Foliar Spray	Flowering Initiation	4 Days after 3 rd application
5 th Application via Foliar Spray	Flowering Initiation	After 4 Days in Horticulture

Packaging : 250 gms



The Nutrition Experts

FLOWER MAX

Max Nutrients – Full Bloom Booster!

FERTILIZER FOR ENHANCED REPRODUCTION

Description

Flower Max Fertilizer is a 00-42-32 Formula with High amounts of Phosphorous and Potassium. Once your plants have started to produce buds or blooms you have a plant that is matured and is ready for the production of your crop. This is where we change from higher nitrogen to a higher PHOSPHATE product. The idea being not to allow your fruit coming from the blossoms to grow too fast with high nitrogen. You want to be more concerned at this stage to form a fruit that contains higher pound solids and more body. Phosphate will supply the cells that are being formed at this stage to fill in with body, giving more weight and mineral value. Too much nitrogen at this stage will just make the cells grow and not form the body or mineral content, making the produce sour and shortening the shelf life.

Flower Max is specifically formulated for flower bud and bloom development. It contains higher levels of phosphorus as it is a vital nutrient involved in stimulating and enhancing bud development and set, seed formation and blooming. It can help quicken a plant's maturity, as well. Phosphorus is also vital in photosynthesis and respiration. Potassium, on the other hand, is vital to several areas of plant growth, including drought tolerance, disease resistance, stem strength, improved texture, color and flavor of fruits, and photosynthesis. Potassium is important during the reproductive stage to help elongation of pollen tube and provide energy for reproductive processes to the plants.

Whats Unique?

Flower Max is a unique combination of Phosphorous and Potassium where P helps in boosting the flowers to blossom while K helps in pollen tube elongation and enhancing the reproductive process. This bespoke nutrient formula is fortified with Sunraysia's proprietary co-factors that helps in enhancing cell division, increased metabolism and providing energy for the reproductive processes. The formula is highly concentrated with high absorbable nutrition making it highly effective while being cost effective.

Benefits



Right Concentration

At this stage, right concentration of Phosphorus and Potassium is required to develop Pollen tube and supplement energy for the reproductive processes. Flower Max through its unique 42:32 formula provides the perfect combination of nutrients at this stage.



Bloom Booster

Phosphorus is one of the important nutrients for flowering and fruit production. Flower Max contains high amounts of P and this makes it especially important for flowers, fruit trees and vegetables. It is the most important nutrient that encourages flowering plants to produce blossoms.



Pollen Tube

Potassium ion channels in pollen tube play an important role in mediation of pollen germination and pollen tube growth. Potassium flux in pollen tubes has an important role in Plants reproduction. Flower Max provides adequate potassium for the reproductive process of the plants that helps in pollen tube elongation and conversion of flowers to fruits.



- Reduces Flower Drop
- Helps in Maturity of PT
- Large number of Flowers
- Increases Pollen Tube Size
- Provides Energy for Reproduction
- Energy for Conversion of Flower to Fruits

Contents:

Composition	% w/w
Moisture (max)	0.5
Phosphorous as (P2O) (min)	42%
Potassium as (K2O) (min)	32%
Total Chloride (max)	1.5%
Matter insoluble in water (max)	0.5%
Sodium as NaCl (max)	0.5%
Lead (as Pb) (max)	0.003%
Cadmium (as Cd) (max)	0.0025%
Arsenic (as As) (max)	0.01%

Packaging : 250 gms

Recommended No of Applications: 5



Stage wise Recommended Application:

Applications	Stages	Interval in Stage to apply
1 st Application via Foliar Spray	Full Bloom	On set of Anthesis (Flowers open)
2 nd Application via Foliar Spray	Full Bloom	4 Days after 1 st application
3 rd Application via Foliar Spray	Full Bloom	4 Days after 2 nd application
4 th Application via Foliar Spray	Full Bloom	4 Days after 3 rd application
5 th Application via Foliar Spray	Full Bloom	After 4 Days in Horticulture



Direction for Use

For Vegetables use 250 gms / 200 Litres of water and apply minimum 200 Litres of water through foliar application per acre. For Foliar application in Horticulture crops use 500 gms / 400 Litres of water and apply minimum 400 Litres of water / Acre.



Storage

Storage: Store in a cool and dry place away from direct sunlight and heat.

Precautions: Keep away from children.





The Nutrition Experts

FRUITEX

Macro Nutrition for Fruit Setting to Sizing!

FERTILIZER FOR FRUIT SETTING TO SIZING

Description

Fruitex Fertilizer is a 00-50-10 Formula with High amounts of Phosphorous followed by Potassium. Plants grown for their seeds and fruits benefit from phosphorus, and the nutrient helps establish healthy root systems in young plants. High levels of phosphorus occur in seeds and fruit, and plants low in phosphorus have a small fruit set. Other signs of phosphorus deficiency include delayed maturity and reduced growth. Phosphorus is a vital component of Adenosine 5'-triphosphate or ATP. It is the principal molecule for storing and transferring energy in cells. They are "energy units" of plants that are formed during photosynthesis and has phosphorus in its structure. ATP can be used to store energy for future reactions or be withdrawn to pay for reactions when energy is required by the cell. Therefore high amounts of Phosphorous is necessary to produce higher number of ATP's that can be utilised for energy required during the Fruiting periods of Plants Life Cycle. The copious amount of energy required for fruiting stages can be obtained from ATP's and Phosphorous is critical for the same. Therefore, supplying the plants with high amounts of Phosphorous during this stage makes a big difference in productivity and yields!

Whats Unique?

Commercially available WSF grades containing high amounts of Phosphorous either contain Nitrogen or high amounts of Potassium. However, Fruitex is a special water-soluble fertilizer that contains high amounts of Phosphorous with no nitrogen and only 10% Potassium as compared to 50% Phosphorus. This unique combination without Nitrogen content at that stage is very crucial for obtaining high quality fruit bunches. Fruitex delivers highly soluble Phosphorus to plants that is easily absorbed and available to the plants. This phosphorous is translocated into fruiting areas of plants where high energy requirements are needed for formation of seeds and fruits. It is combined with Sunraysia's proprietary co-factors to deliver unparalleled results while having a application rate of only 25% as compared to other WSF.

Benefits



Fruit Setting

Phosphorous is an essential macronutrient for plant reproduction, which may significantly impact fruit setting and reduce fruit drop. Fruitex provides essential P to plants to enable fruit setting and reduce drop.



Stops Fruit Bunch Abortion

Fruitex Combines High amounts of Phosphorous with low amounts of Potassium. This combination helps in bunch elongation and ad maintaining bunch health. It also helps in utilising ATP's for diverting energy for reproductive processes and avoiding bunch abortion.



Fruit Size

Fruitex helps in creating and stabilizing fruit cell walls. Phosphorous plays an important role in Fruit and Seed development in plants. With high concentrations of phosphorous plants are able to metabolise and generate adequate energy for increasing the fruit size naturally.



- Increase Fruit Size
- Improved Fruit Set
- Reduced Fruit Drop
- Increases Fruit Weight
- Keeps Fruit Skin Elastic
- Stops Abortion of Fruit Bunch

Contents:

Composition	% w/w
Moisture (max)	0.5
Phosphorous as (P2O) (min)	50%
Potassium as (K2O) (min)	10%
Total Chloride (max)	1.5%
Matter insoluble in water (max)	0.5%
Sodium as NaCl (max)	0.5%
Lead (as Pb) (max)	0.003%
Cadmium (as Cd) (max)	0.0025%
Arsenic (as As) (max)	0.01%

Packaging : 250 gms

Recommended No of Applications: 5



Stage wise Recommended Application:

Applications	Stages	Interval in Stage to apply
1 st Application via Foliar Spray	Fruit Setting to Sizing	Fruit Setting Begins
2 nd Application via Foliar Spray	Fruit Setting to Sizing	4 Days after 1 st application
3 rd Application via Foliar Spray	Fruit Setting to Sizing	4 Days after 2 nd application
4 th Application via Foliar Spray	Fruit Setting to Sizing	4 Days after 3 rd application
5 th Application via Foliar Spray	Fruit Setting to Sizing	After 4 Days in Horticulture



Direction for Use

For Vegetables use 250 gms / 200 Litres of water and apply minimum 200 Litres of water through foliar application per acre. For Foliar application in Horticulture crops use 500 gms / 400 Litres of water and apply minimum 400 Litres of water / Acre.



Storage

Storage: Store in a cool and dry place away from direct sunlight and heat.

Precautions: Keep away from children.





The Nutrition F

FRUITMAX

Nutrition for Best quality Produce!

FERTILIZER FOR BEST QUALITY FRUITS

Description

Fruitmax Fertilizer is a 00-12-45 Formula with High amounts of Potassium. In terms of water and nutrient balance in plants, potassium has two major functions. It plays biochemical role in activation of enzymes for production of proteins and sugars, while it also plays biophysical function in maintaining turgor of cell and thus protecting water content in plant. Potassium is a crucial macronutrient and main electrolytes in plants. Its requirement is higher than other mineral nutrients except for nitrogen, but some crops at their specific stages demand more potassium than nitrogen. Therefore, adequate potassium fertilization is necessary for enhanced and improved yield and qualities of agricultural produce. This monovalent cation interacts both antagonistically and synergistically with other nutrients. Trials in tomato crops suggest, high levels of potassium have shown to increase fruit dry matter, total soluble solid content, and lycopene concentration of tomato. Potassium is the only nutrient that is not a constituent of organic plant compounds, but is of great importance in regulating the osmosis process and enzyme activity in plants. Potassium has a key role in improving the fruit quality and nutritional value of the produce. Fruits that receive good supply of potassium tend to have better colour, firmness and shelf life.

Whats Unique?

Fruit Max is made from Food grade sources of Potassium and Phosphorous. It has a Neutral pH and high absorption rate and nutritive value as compared to other chemical sources of water-soluble fertilizers. Fruit Max has such a high absorption rate that it is required only 1/4th in the quantity as compared to other WSF products. As it is required only in 1/4th of the quantity as other WSF it has considerably savings in the cost per application. Fortified with Sunraysia's proprietary Co-factors, Fruit Max is a complete Nutrition package for Healthy, Nutritive Fruits that can fetch a more marketable value with its Colour, Shine and weight.

Benefits



Neutral pH

Most NPK fertilizers are acidic in nature causing harm to the soil microbes and bacteria and quality of Soil. Fruit Max has a neutral pH which is safe for spraying on the fruits and it does not cause scorching on the produce. With a neutral pH the nutrients are made available to the plants without any side effects. Even with prolonged use it does not affect the soil or fruit quality or structure.



Nutritive Value

Fruit max has highly absorbable Potassium and phosphorous that improves Nutritive value of fruits. It increases Total soluble solids content, ascorbic acid concentrations, Total Sugar content (Brix), fruit colour, shelf life, and shipping quality of many horticultural crops.



Higher Yields

Most of the researchers suggested that adequate potassium nutrition increased yields and yield attributes especially size, shape and weight of fruits. With application of FruitMax the fruit weight is increased which is directly proportional to increase in yield per Acre.



- Increased Fruit Size
- Increased Shelf Life
- Higher Nutritional Value
- Increased Sugar Content
- Uniform Quality Produce
- Natural Colour and Shine

Contents:

Composition	% w/w
Moisture (max)	0.5
Phosphorous as (P2O) (min)	12%
Potassium as (K2O) (min)	45%
Total Chloride (max)	1.5%
Matter insoluble in water (max)	0.5%
Sodium as NaCl (max)	0.5%
Lead (as Pb) (max)	0.003%
Cadmium (as Cd) (max)	0.0025%
Arsenic (as As) (max)	0.01%

Packaging : 250 gms

Recommended No of Applications: 5



Stage wise Recommended Application:

Applications	Stages	Interval in Stage to apply
1 st Application via Foliar Spray	Fruit Sizing to Harvest	Fruit Size is Medium
2 nd Application via Foliar Spray	Fruit Sizing to Harvest	4 Days after 1 st application
3 rd Application via Foliar Spray	Fruit Sizing to Harvest	4 Days after 2 nd application
4 th Application via Foliar Spray	Fruit Sizing to Harvest	4 Days after 3 rd application
5 th Application via Foliar Spray	Fruit Sizing to Harvest	After 4 Days in Horticulture



Direction for Use

For Vegetables use 250 gms / 200 Litres of water and apply minimum 200 Litres of water through foliar application per acre. For Foliar application in Horticulture crops use 500 gms / 400 Litres of water and apply minimum 400 Litres of water / Acre.



Storage

Storage: Store in a cool and dry place away from direct sunlight and heat.

Precautions: Keep away from children.





The Nutrition Experts



AGRIGOLD SERIES OF LIQUID NPK WITH ORGANIC MANURE

Organic Liquid NPK with Organic Carbon and Trace elements!

FROM GROWTH TO HARVEST: SUPERIOR YIELDS ORGANICALLY

Description

The Agrigold series of Liquid Organic Manure contains high amounts of Naturally and organically derived nutrients that are not only safe for the environment but have a multitude of benefits in increasing productivity organically. The Liquid fermented organic manure is made from fermenting farm waste, animal waste and other Organic and biodegradable wastes. This makes the product very rich in the content of nutrients. It has a high percentage of Carbon content along with Organic NPK and other micro elements that prove to be a superior fertilizer for soil application. Organic Manures, far from being purified and simplified chemicals, are complex compounds that add numerous primary secondary and micro-nutrients beyond the one or two for which they are best known. Studies show that a combination of organic and inorganic fertilizers can create well-maintained soil conditions so as to increase plant productivity and efficiency in fertilizer use. Organic fertilizers are generally thought to be an effective way to sustain soil fertility and plant growth. It significantly increases the nutrient contents and alters the soil's functional microbial community at the rhizosphere level. It increases the content of organic matter and nutrients in the soil that can meet the needs of plant growth and development. The liquid organic fertilizer contains large amounts of soluble nutrients and are more quickly available to plants. The use of organic fertilizers is safe for humans and the environment because it does not cause residues and are produced using organic sources. They do the job of returning back organic materials and nutrients back to the Soil.

Whats Unique?

Many Organic Manure Fertilizers are available in powder or granulated form and are required in very higher doses of application (100 to 200 Kgs / Acre). With liquid fermentation of the Organic waste, all the nutrients are absorbed and concentrated in smaller volume. Making the dilution ratio of 2 to 10 Litres / Acre. In comparison to bulkier Organic Fertilisers, Agrigold is required only 5 to 10% of the volume, making it highly cost-effective in storing, transportation and handling. It also offers the user Ease of Use as they have to carry and measure a 1 Litre bottle instead of a 50 Kg Bag. With Sunraysia's UAA Technology the product absorbs all the nutrients present in the organic materials at ultra-high concentration levels, making it a product not just for organic manure supplementation but also for NPK supplementation.

Content

Composition	Content
Moisture (max)	90-97 % w/w
Total Organic Carbon (On dry basis) (min)	14 % w/w
Total N, P2O5, K2O (On dry basis) (min)	1.2% w/w
C:N < 20 (min)	<20
Zinc as Zn (on dry basis) (min)	1000 mg/kg
pH	6.5 to 8
Conductivity (as DSM-1)	< 4
Chromium (as Cr) (on dry basis)	50 mg/kg
Copper (as Cu) (on dry basis)	300 mg/kg
Cadmium (as Cd) (on dry basis)	5 mg/kg
Arsenic (as As2O3) (on dry basis)	10 mg/kg
Mercury (as Hg) (on dry basis)	0.15 mg/kg
Lead (as Pb) 50 (on dry basis)	50 mg/kg

- Neutral pH – Doesn't affect Soil pH
- Adds Carbon and Organic Matter to Soil
- Environment Friendly – Microbe Friendly
- Faster Absorption and Ease of Application
- Improve soil texture, aeration, and drainage
- Contains important secondary and trace nutrients

Benefits

Comprehensive Nutrition

Being made from liquid fermentation of many organic and biodegradable waste sources, it contains many secondary nutrients, micronutrients, organic acids, natural plant hormones, vitamins, proteins, amino acids making it a comprehensive nutrition supplement for your plants.

Neutral pH

Agrigold has a Neutral pH which means it is perfectly suited for application in soil. It doesn't disturb the soil ecology and helps maintaining the bio-diversity of the soil micro-organisms. It provides complete nutrition at a neutral pH without harming any constituents of the farm ecology.

Organic Agriculture

Made from all natural organic sources and with a broad range of naturally occurring nutrients, Agrigold is one of the most important fertilizer supplements for Organic agriculture. It can be used in certified Organic farms for organic food production.

Direction for Use

For Vegetables: use 1 Litres in 200 Litres of water for Foliar application. Use 2 Litres per Acre for Drip irrigation or soil drenching in sufficient amount of water. Repeat application at an interval of 4 to 5 days and apply minimum 10 litres at one stage. For Horticulture Crops: Use 2 – 5 Litres / Acre via Drip irrigation/drenching near ROOT Zone. Repeat application at an interval of 4 to 5 days and apply minimum 20 litres at one stage.

Storage: Store in a cool and dry place away from direct sunlight and heat.
Precautions: Keep away from children.

Organic Carbon

Agrigold contains high amounts of Organic Carbon with a very high C:N Ratio. Organic Carbon is one of the most important elements responsible for increasing yields. Trials suggest that with other parameters constant, soils with higher organic carbon have higher productivity.

Soil Quality

Agrigold is very rich in Organic matter and is made from Organic and biodegradable sources. It contains all the natural elements necessary to improve the soil structure, water holding capacity, soil texture and porosity of Soil. This formula can be used to support beneficial soil biology in the rhizosphere, increasing production of substances known to benefit plant growth.

Complete Series

Agrigold Organic NPK has 6 different variants containing different concentrations of NPK and microelements required for Plants at different stages. These 6 different combinations can be used from Seedling Stage to Harvest Stage as per the recommended doses of applications.



AGRIGOLD SERIES OF LIQUID NPK WITH ORGANIC MANURE

Organic Liquid NPK with Organic Carbon and Trace elements!

Available Packing: 1 Litre & 5 Litres

Stage wise Recommended Application for Agrigold- 19

Agrigold-19 (2-5 Litres)	Stages	Interval in Stage to apply
1 st Application via Drip	Seedling Stage	1 st Week After Transplanting / Bud Burst
2 nd Application via Drip	Growth Stage	1 st Week - Beginning of Shoot Growth
3 rd Application via Drip	Branching Stage	4 th Week in Horticulture Crops
4 th Application via Drip	Flowering Stage	1 st Week Initiation of Flowering

Stage wise Recommended Application for Agrigold - 52

Agrigold-52 (2-5 Litres)	Stages	Interval in Stage to apply
1 st Application via Drip	Seedling Stage	2 nd Week After Transplanting / Bud Burst
2 nd Application via Drip	Flowering Bloom	1 st Week of Full Bloom
3 rd Application via Drip	Flowering Bloom	Repeat application after 4-5 days
4 th Application via Drip	Flowering Bloom	Repeat application after 4-5 days
5 th Application via Drip	Fruit Setting	2 nd Week - after Agrigold - 61
6 th Application via Drip	Fruit Setting	4-5 Days after 5 th Application
7 th Application via Drip	Fruit Setting	3 rd Week of Fruit Setting to Sizing

Stage wise Recommended Application for Agrigold - 61

Agrigold-61 (2-5 Litres)	Stages	Interval in Stage to apply
1 st Application via Drip	Growth Stage	2 nd Week - Beginning of Shoot Growth
2 nd Application via Drip	Flowering Stage	4-5 Days after Agrigold - 19
3 rd Application via Drip	Flowering Stage	4-5 Days after 2 nd Application
4 th Application via Drip	Fruit Setting	1 st Week - 4 days after Agrigold-50
5 th Application via Drip	Fruit Sizing	4 days after 7 th Application of Agrigold-52

Stage wise Recommended Application for Agrigold- 46

Agrigold-46 (2-5 Litres)	Stages	Interval in Stage to apply
1 st Application via Drip	Seedling Stage	3 rd Week After Transplanting / Bud Burst
2 nd Application via Drip	Growth Stage	3 rd Week - Beginning of Shoot Growth
3 rd Application via Drip	Flowering Stage	3 rd Week of Flowering after Agrigold - 61
4 th Application via Drip	Flowering Stage	After 4-5 days in Horticulture crops

Stage wise Recommended Application for Agrigold- 40

Agrigold-40 (2-5 Litres)	Stages	Interval in Stage to apply
1 st Application via Drip	Branching Stage	1 st Week New Shoots and Branches
2 nd Application via Drip	Branching Stage	After 4 - 5 Days of 1 st Application
3 rd Application via Drip	Branching Stage	After 4 - 5 Days of 2 nd Application
4 th Application via Drip	Flowering Stage	4-5 Days after Agrigold - 52 in Horticulture

Stage wise Recommended Application for Agrigold - 50

Agrigold-50 (2-5 Litres)	Stages	Interval in Stage to apply
1 st Application via Drip	Fruit Setting Stage	1 st Week Initiation of Fruit Setting
2 nd Application via Drip	Fruit Sizing to Harvest	Fruits are of Medium Size
3 rd Application via Drip	Fruit Sizing to Harvest	Repeat application after 4-5 days
4 th Application via Drip	Fruit Sizing to Harvest	Repeat application after 4-5 days
5 th Application via Drip	Fruit Sizing to Harvest	Repeat application after 4-5 days
6 th Application via Drip	Fruit Sizing to Harvest	Repeat application after 4-5 days
7 th Application via Drip	Fruit Sizing to Harvest	Repeat application after 4-5 days

- Neutral pH – Doesn't affect Soil pH
- Adds Carbon and Organic Matter to Soil
- Environment Friendly – Microbe Friendly
- Faster Absorption and Ease of Application
- Improve soil texture, aeration, and drainage
- Contains important secondary and trace nutrients



The Nutrition Experts

PLANT PROTECTOR

Anti-transpirant, Anti-Stress Anti-Pest!

PROTECTION FROM DISEASES AND SALINE STRESS

Description

Silicon is now officially designated as a plant beneficial substance by the Association of American Plant Food Control Officials (AAPFCO). Silicon is known to affect plant growth, quality, photosynthesis, transpiration and enhance plant resistance to stresses such as drought. Plant assimilates silicon through roots as silicic acid. Inside plant, it travels to active growing points, where it complexes with an organic compound in the cell walls and make them stronger. Silicon enhances growth and yield of all annual and vegetable crops, promotes upright growth, prevents lodging, promotes favourable exposure of leaves to light, provides resistance to bacterial and fungal diseases and decrease some abiotic stress as temperatures, salinity, heavy metal and aluminium toxicity. Silicon has positive effect on the biomass yield under deficit irrigation. Plants subjected to draught, treated with silicon, maintained higher stomatal conductivity, relative water content and water potential. It helps leaves become larger and thicker, thus limiting the loss of water through transpiration and reduces water consumption. Silicon shows great influence on the development of plant roots, thus allowing better root resistance in dry soils and its faster growth. Silicon deposition increases abrasiveness of plant tissues and thus reduces palatability and digestibility for herbivores. This makes Silix an all-round plant protector and yield enhancer.

Whats Unique ?

Silix is made from sodium silicate which is more commonly used for horticultural or greenhouse crop applications. Being soluble it can be added to nutrient solutions or used as foliar sprays. This makes it useful for both soil and foliar feeding. With micronized particle size, Silix is easily soluble, absorbed and translocated with the plants.

Direction for Use

For Vegetables use 500 ml for 200 Litres of water (2.5:1000) and apply through foliar application. For Horticulture Crops use 500ml for 200 Litres of water. Use 200 to 400 Litres of water Depending upon the size of the plants. For soil application Use 1 Litre / Acre of Land for Vegetable Crops and 2 Litres / Acre for Horticulture Crops.

Not recommended to mix soluble forms with fertilizer solutions as the resulting high pH will likely cause precipitation of nutrients. Plants benefit more from soil rather foliar applications of silicon. For disease suppression supply of silicon must be continuous near the root zone.

Main Target Crops: Rice, Sugarcane, Cucurbits, grasses, grains

Storage: Store in a cool and dry place away from direct sunlight and heat.

Precautions: Keep away from children.

Contents:

Composition	% w/w
Silicon as (SiO ₂) min	23.8%
Sodium as (Na)	6%
Specific Gravity 1.3	



Benefits

Anti-transpirant

Silix helps to increase drought resistance and increase flower diameter. This is achieved by reduction in water lost by plants through evapotranspiration. Reduction of transpiration rate on stomatal conductance and leaf resistance increases with a high rate of sodium silicate foliar sprays. Sodium silicate foliar spray applications can act as a film-forming anti-transpirant that increases leaf resistance.

Saline Soils

The hydrophilic nature of Si can decrease the poisonous levels of saline ions and reduce the osmotic effect of salt stress on the absorption and storage of water by plants. Additionally, Si treatment in plants results in enlarged leaf cells via cell wall expansion, which helps the plants to hold more water. Silicon can decrease lipid peroxidation in plants exposed to salinity stress by enhancing the enzymatic and nonenzymatic activities of antioxidants. Silicon is able to increase soluble protein content of plants' leaves, which helps plants to overcome salt stress by replacing the lost soluble protein content under salinity stress.

Stage wise Recommended Application

Applications	Stages	Interval in Stage to apply
1 st Soil Application - Drip / Drench	Growth Stage	Shoot Growth
2 nd Application via Foliar Spray	Branching Stage	Lateral Growth
3 rd Soil Application - Drip / Drench	Flowering Stage	Initiation of Flowering
4 th Application via Foliar Spray	Flowering Stage	Full Bloom
5 th Soil Application - Drip / Drench	Fruit Setting	Initiation of Fruiting
6 th Application via Foliar Spray	Fruit Sizing	Fruits are Medium Size
7 th Soil Application - Drip / Drench	Fruit Sizing	Fruits begin to Ripen

- Accelerates flowering
- Enhances P, K & Ca uptake
- Alleviates Cd, As, Al toxicity
- Increase flower and stem size
- Improves resistance to stresses
- Increases Disease & Pest Resistance

Plant Protection

One of the main functions of Si is improving the plants growth and yield especially in stress condition. Si accumulates in the epidermal tissues, and a layer of cellulose membrane-Si is created when Ca and pectin ions are present, which provides protection to the plant. In plants, Si allows the activation at the biochemical level of defence genes, enzymes and phytoalexins, and at the same time allows anatomical changes in the structure of cells, providing mechanical resistance to tissues. It increases plant's resistance to many plant diseases and insect pests. It minimizes toxicity of As, Al, and Cd, increases the availability of P, and enhances drought, salt and extreme weather stress tolerance and in plants through the formation of silicified tissues in plants.

Disease Resitance

Si serves as a mechanical barrier that prevents infection by pathogens and allows tolerance to attack by phytophagous insects. Si is able to decrease the susceptibility of rice against sheath blight diseases. Silicon leads to increase the sheath blight resistance through creating a physical hindrance and reduce the intensity of disease. Silicon can reduce the intensity of blast disease in the leaf and the panicle during different growth stages. It has also been reported to be an effective suppressor of powdery mildew. It also has prohibitive effect on rice green leafhoppers, leaf spiders, brown plant hoppers, white-backed planthoppers, mites and brown plant hopper. Si is able to increase the tolerance of sorghum to anthracnose.

Recommended No of Applications: 7
Packing: 500 ml



The Nutrition Experts

CARBON SUPPLEMENT FOR HIGHER YIELDS!

Concentrated Carbon supplement – Replace Bulky Organic Manures

SOIL AGGREGATION – SOIL BIOTA – MORE NUTRIENTS

Description

Soil carbon has declined significantly in many soils since they were cultivated for cropping - consequently these soils may be less able to supply nutrients to meet plant demand. The production of food affects the amount of carbon in the soil as harvesting plants removes carbon from the soil. High levels of organic carbon help to maintain agricultural production through its positive role in maintaining soil health, raising fertility, reducing erosion and encouraging soil biota. Soils with higher SOC levels are generally more fertile, more productive and easier to manage. Soil organic carbon is the basis of sustainable agriculture. Soil organic carbon is believed to play a crucial role for many soil functions and ecosystem services. All living things are carbon based. Carbon atoms bond with other atoms to form chains such as proteins, fats and carbohydrates, which in turn provides other living things with nourishment. Amending soil with organic carbon not only facilitates healthier plant life, but it also drains well, prevents water pollution, is beneficial to useful microbes and insects and eliminates the need for using synthetic fertilizers, which are derived from fossil fuels. Carbon Maestro has high organic carbon content, which have been developed as a food source for plants and beneficial soil micro-organisms and to increase soil carbon levels.

Whats Unique ?

Carbon Maestro rapidly accelerates the microbial activity in soils, provides soil carbon and reduces nutrient lock up. A healthy soil system supports nutrient uptake, assisting root growth and crop disease suppression. Carbon Maestro increases crop yields in high-input commercial agriculture. It also provides Organic NPK and Zinc to the plants that are in readily available form. It is formulated in a liquid concentrate to reduce the handling and storage cost of bulky organic manures.

Benefits

Soil Porosity

Organic Carbon improves soil aggregate and structural stability which, together with porosity, are important for soil aeration and the infiltration of water into soil. Porosity determines the capacity of the soil to retain water and controls transmission of water through the soil. The water stored in soil serves as the source for 90 per cent of the world's agricultural production.

Biodiversity

Soil Organic Carbon determines the number and activity of soil biota that interact with plant roots. Therefore, the soil microbial community structure is influenced largely by the quality and quantity of Soil Organic Carbon. Biodiversity ensures soil ecosystem functioning; it has a fundamental role in supporting soil functions. Microorganisms combined with SOC, shape the life supporting capacity of soils and is believed to play a crucial role in increasing food production and soil resilience to change.

Higher Yields

Soil Organic Carbon plays an equally important role in ensuring food security. This is achieved by enhancing soil productivity and maintaining consistently high yields, particularly by increasing water and nutrient holding capacity and improved soil structure, thus improving plant growth conditions. It improves Soil fertility which helps in making nitrogen, phosphorous, sulphur, and other nutrients available for plant uptake.

- Improves Soil Biota
- Increases Crop Yields
- Increases Soil Fertility
- Helps in Nutrient Uptake
- Improves Soil aggregation
- Reduces Nutrient Leaching

Contents:

Composition	Content
Moisture (max)	90-97 % w/w
Total Organic Carbon (On dry basis) (min)	14 % w/w
Total N, P2O5, K2O (On dry basis) (min)	1.2% w/w
C:N < 20 (min)	<20
Zinc as Zn (on dry basis) (min)	1000 mg/kg
pH	6.5 to 8
Conductivity (as DSM-1)	< 4
Chromium (as Cr) (on dry basis)	50 mg/kg
Copper (as Cu) (on dry basis)	300 mg/kg
Cadmium (as Cd) (on dry basis)	5 mg/kg
Arsenic (as As2O3) (on dry basis)	10 mg/kg
Mercury (as Hg) (on dry basis)	0.15 mg/kg
Lead (as Pb) 50 (on dry basis)	50g/kg

Direction for Use

For Vegetables: use 1 Litres in 200 Litres of water for Foliar application. Use 5 Litres per Acre for Drip irrigation or soil drenching in sufficient amount of water. Repeat application at an interval of 10 to 15 days.
For Horticulture Crops: Use 5 Litres / Acre via Drip irrigation/drenching near ROOT Zone. Repeat application at an interval of 7 to 8 days

Storage: Store in a cool and dry place away from direct sunlight and heat.

Precautions: Keep away from children.

Recommended No of Applications: 9

Available Packing: 1 Litre & 5 Litres

Stage wise Recommended Application

Applications	Stages	Interval in Stage to apply
1 st Soil Application - Drip / Drench	Seedling Stage	Four Leaf Stage
2 nd Soil Application - Drip / Drench	Growth Stage	Shoot Growth
3 rd Soil Application - Drip / Drench	Branching Stage	New Nodes begin to Form
4 th Soil Application - Drip / Drench	Flowering Stage	Initiation of Flowering
5 th Soil Application - Drip / Drench	Flowering Stage	Full Bloom
6 th Soil Application - Drip / Drench	Fruit Setting	Initiation of Fruiting
7 th Soil Application - Drip / Drench	Fruit Setting	Fruit Setting Stage
8 th Soil Application - Drip / Drench	Fruit Sizing	Fruits are Medium Size
9 th Soil Application - Drip / Drench	Fruit Sizing	After 10 Days





BROAD SPECTRUM INSECTICIDE

Immediate Control for Thrips & Mites



ACTIVE INGREDIENT: FIPRONIL 2.92% EC

Description

Austra is a new age Insecticide made from Fipronil. It has a broad-spectrum activity against various insects. The product has shown excellent efficacy against hard to control Thrips and Mites. Mites generally live on the undersides of leaves of plants, where they may spin protective silk webs, and they can cause damage by puncturing the plant cells to feed. Austra's unique emulsion ensures penetration of the insecticide within the Silk webs made by spider mites. This offers control against difficult to control mites like spider mites, two spotted mites, red mites, yellow mites. It offers a good control period and broad control against complete life stages of the insect population. Crop damages due to mites result in heavy losses for the farmers. Austra's unique emulsion technology combined with Fipronil offers unparalleled protection by saving crops from the devastating insect and helping farmers save their crops!

Additional Use

Austra can also be used in Construction Industry for control of Termites. It has excellent effect on control of Cockroaches in home and hotel industry. Below are the Pests that Austra can control with varying efficacy

Excellent Control	Moderate Control	House Hold Pests
Thrips	Brown Plant Hopper	Ticks & Fleas on Pets
Mites	Aphids	Termites
Nematodes	Jassids	Cockroaches
Leaf Miners	Beetles	Fire Ants

Dilution

250 ml of Austra shall be diluted in 150 – 200 Litres of water and applied per acre in vegetable crops. For ultra-low volume sprayers use minimum of 250 ml / Acre in 50 litres of water. For Horticulture crops use 500 ml per acre in 400 Litres o water. (Dilution 1:1000)

Benefits:

- ✓ Broad Spectrum Activity
- ✓ Immediate Control
- ✓ Long-Lasting control
- ✓ Targets entire population
- ✓ Penetrates through Silk web

Packaging: 250 ml



NEW AGE INSECTICIDE

Broad Spectrum & Knockdown Control



ACTIVE INGREDIENT:

THIAMETHOXAM 12.6% + LAMBDA CYHALOTHRIN 9.5% ZC

Description

There are many insects which have developed resistance to old insecticides and have become difficult to control. Pink Ball worm in cotton has become a serious pest with many insecticides showing no efficacy. Similarly, Tea Mosquito Bug in Tea and Mealybug in horticulture crops have developed resistance to many pesticides in the market. Crusade combines two different molecules that have different mechanisms of action. Thiamethoxam and Lambda – cyhalothrin combination offers knockdown control of hard to control pests. The product also has residual effect offering long lasting control of the pests.

Crops and Uses

Crusade can be used in various crops to control many insects with one application. It offers a broad spectrum and long-lasting control of many pests. Most importantly it controls the below mentioned insects.

Excellent Control	Moderate Control
Cotton: Pink Ball Worm	Thrips
Tea: Tea Mosquito Bug	Aphids
Grapes: Mealy Bug	Corn Ear Worm
Jassids	Semi Looper
Rice: Brown Plant hopper	Nematodes
White Grubs	Ticks & Flea
Army worm	Fruit Moth
Corn Ear Worm	Stem Borer

Dilution

250 ml of Crusade shall be diluted in 150 – 200 Litres of water and applied per acre in vegetable crops. For ultra-low volume sprayers use minimum of 250 ml / Acre in 50 litres of water. For Horticulture crops use 500 ml per acre in 400 Litres of water. (Dilution 1:1000)

Benefits:

- ✓ New Age Insecticide
- ✓ Dual mode of action
- ✓ Knock down control
- ✓ Residual control
- ✓ Broad Spectrum control

Packaging: 250 ml





LONG LASTING CONTROL FOR WHITEFLIES

Controls Whiteflies, Aphids & Jassids



ACTIVE INGREDIENT: PYRIPROXYFEN 10% EC

Description

Whiteflies have become a big nuisance pest in agriculture. It is difficult to control the insect with any kind of a contact poison. Whiteflies and Jassids tend to fly away with pesticide application and therefore controlling them with a normal insecticide becomes difficult. Pyriproxyfen is a new age insecticide that works as a selective Insect growth regulator having Stomach, Contact and Translaminar action. Powershot acts on multipoint of the Insect life cycle, preventing Whitefly emergence from egg and interferes with Whitefly development and reproduction. It also makes female sterile thereby stopping the development of new pests. With the use of Powershot the damage made by Whiteflies, Aphids and Jassids can be reduced and farmers can protect their crops and have bumper yields.

Additional Use

Whiteflies, Aphids and Jassids are a major pest in many vegetable and horticultural crops. Powershot can be safely used to control all the 3 major insects that are difficult to control with regular pesticides.

Excellent Control
White Fly
Green Jassids
Aphids

Dilution

250 ml of Powershot shall be diluted in 150–200 Litres of water and applied per acre in vegetable crops. For ultra-low volume sprayers use minimum of 250 ml / Acre in 50 litres of water. For Horticulture crops use 500 ml per acre in 400 Litres water. (Dilution 1:1000)

Benefits:

- ✓ Makes Female Sterile
- ✓ 3 Way Action
- ✓ Long Lasting Control
- ✓ Acts on all life Stages
- ✓ Protects and Increases Yields

Packaging: 250 ml



BIO-INSECTICIDE FOR LARVAE CONTROL

Heliiothis, Lepidoptera, Spodoptera, Helicoverpa



ACTIVE INGREDIENT: AZADIRACHTIN 1500 PPM

Description

Crop damage from caterpillars is a worldwide problem. Larvae pests like loopers, lepidoptera, Heliiothis, Spodoptera chew on the plants leaves and flowers damaging the agricultural produce. Agriculture crop productivity has been severely affected by various these pests causing financial losses to the farmers. Enzo combines the best-known bio-insecticide Azadirachtin, that is environmentally friendly botanical pesticide and has been used as an antifeedant and pest growth regulator in integrated pest management for decades. Azadirachtin causes alterations in the larvae which affects the digestion and absorption of nutrients and eventually lead to the growth inhibition of larvae. Its primary mode of action is as an anti-feedant, but it also disrupts normal insect growth/molting, repels larvae and adults, sterilizes adults and deters egg laying. Alternating Azadirachtin applications with other insecticides provides variable control with less risk of insects developing resistance. Enzo's unique micro emulsion and unique formulation technology ensure uniform spread of the insecticide on crops offering maximum coverage and protection from Larvae pests. Being eco-friendly it can be used by farmers practicing organic agriculture.

Crops and Uses

Caterpillars affect Vegetables and Horticulture crops. Enzo can be used in all the crops for control of various types of Larvae mentioned below.

Benefits:

- ✓ Bio-Insecticide for Organic Agriculture
- ✓ Anti-feedant Action
- ✓ Long-term Control
- ✓ Controls different types of Larvae
- ✓ High Spreading formula
- ✓ Ensure Complete coverage

Dilution

250 ml of Enzo shall be diluted in 150–200 Litres of water and applied per acre in vegetable crops. For ultra-low volume sprayers use minimum of 250 ml / Acre in 50 litres of water. For Horticulture crops use 500 ml per acre in 400 Litres of water. (Dilution 1:1000)

Excellent Control	Moderate Control
Heliothis	Leaf Miner
Spodoptera	Leaf Folder
Lepidoptera	Corn Borer
Armyworm	Fruit Borer
Diamond Back Moth	Shoot Borer
Cabbage Looper	Root Worms
Helicoverpa Armigera	White Grubs

Packaging: 250 ml





EXCELLENT BORER CONTROL

Fruit Borer, Shoot Borer, Stem Borer



ACTIVE INGREDIENT: EMAMECTIN BENZOATE 1.9% EC

Description

Sugarcane, Rice and Fruiting vegetables are the ones most affected by Borers. Stem borers can destroy rice at any stage of the plant from seedling to maturity. They feed upon tillers and causes deadhearts or drying of the central tiller, during vegetative stage; and causes whiteheads at reproductive stage. Sugarcane stem borer caterpillars kill the plant growing points and cause "dead hearts" (the youngest still unfolded leaves wilt and die), they cause broken sugarcane stalks and reduced sugar contents in infested sugarcane crops. Emamectin benzoate has a new mechanism of action and a strong activity against Borers as well as with a high selectivity on useful organisms. This molecule acts if swallowed and has some contact action. It penetrates leaf tissues (translaminar activity) and forms a reservoir within the leaf. The mechanism of action is unique in the panorama of insecticides. It inhibits muscle contraction, causing a continuous flow of chlorine ions in the GABA and H-Glutamate receptor sites. Emamectin has also shown promising applications in the eradication of fish lice and in fish farming. Cobra Advance has shown excellent control of Fruit borers in Brinjals, tomatoes and Cardamom.

Crops and Uses

Borers cause Serious damage to Sugarcane, Rice and Fruiting Crops. If not treated early the plants die due to infestation causing serious damage and losses to farmers. Cobra Advance completely eradicated this pest with its triple action and residual toxicity to the pest.

Benefits:

- ✓Residual and Long-lasting Control
- ✓Complete Borer Control
- ✓High Efficacy Insecticide
- ✓New Mode of Action
- ✓Increases Yields
- ✓Ensure Complete coverage

Dilution

250 ml of Cobra Advance shall be diluted in 150 – 200 Litres of water and applied per acre in vegetable crops. For ultra-low volume sprayers use minimum of 250 ml / Acre in 50 litres of water. For Horticulture crops use 500 ml per acre in 400 Litres of water. (Dilution 1:1000)

Cobra Advance: Excellent control on these Pests

Fruit Borer	Leaf Miner
Stem Borer	Helicoverpa Armigera
Shoot Borer	Army worm
Corn Borer	Corn Ear worms
Diamond Back Moth	Nematodes
Cabbage Looper	Root Worms
Leaf Folder	Heliiothis
Spodoptera	Lepidoptera

Packaging: 250 ml



SUCKING, CHEWING, FUNGUS AND BACTERIA CONTROL

Bio Pesticide



ACTIVE INGREDIENT: AZADIRACHTIN 3000 PPM

Description

Neem Spread contains Azadirachtin 3000 ppm. Azadirachtin is most potent tetranotriterpenoid isolated from neem seed. It is one of the most successful botanical pesticide in agricultural use worldwide. It is a powerful antifeedant and insect growth disruptor with exceptional low residual power and low toxicity to biocontrol agents, predators, and parasitoids. It is known to affect over 200 species of insect. It is biodegradable and shows very low toxicity to mammals. Neem Spread mainly affects chewing and sucking insects.

It mainly affects chewing and sucking insects. It is effective in controlling black spot, powdery mildew, anthracnose and rust fungi. It is also effective against Mealybug, Beet armyworm, Aphids, Cabbage worm, Thrips, Whiteflies, Mites, Fungus gnats, Beetles, Moth larvae, Mushroom flies, Leafminers, Caterpillars, Locust, Nematodes and the Japanese beetle. It can be used as a household pesticide for ant, bedbug, cockroach, housefly, sand fly, snail, termite and mosquitoes both as repellent and larvicide.

Crops and Uses

Neem Spread being Organic and Bio-pesticide can be used on all types of crops, vegetables, horticulture, ornamentals and home gardening. It can even be used in home for controlling pests in kitchen. It is nontoxic to mammals and controls all types of pests and funguses. There are more than 200 pests that Azadirachtin is known to control.

Dilution

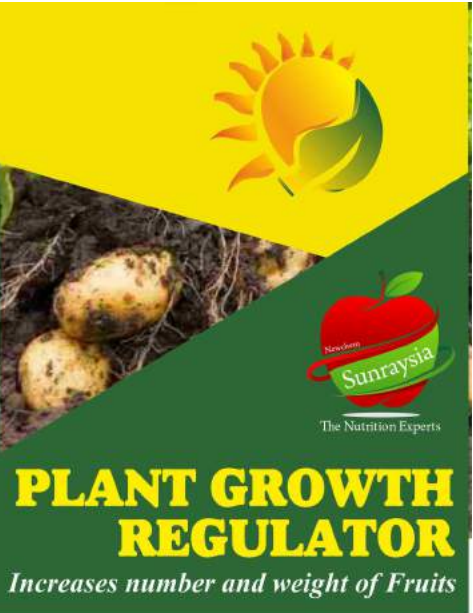
Dilution: 250 ml of Neem Spread shall be diluted in 150 – 200 Litres of water and applied per acre in vegetable crops. For ultra-low volume sprayers use minimum of 250 ml / Acre in 50 litres of water. For Horticulture crops use 500 ml per acre in 400 Litres of water. (Dilution 1:1000)

Benefits:

- ✓ Biological Control
- ✓ Sucking & Chewing Pest Control
- ✓ Fungus & Bacteria Control
- ✓ Excellent for Household pests
- ✓ Anti-feedant & repellent action
- ✓ Non-Toxic to humans

Packaging: 250 ml





BROAD SPECTRUM DISEASE CONTROL

Mildews, Blights, Rot & Spot



The Nutrition Experts

ACTIVE INGREDIENT:

AZOXYSTROBIN 18.2% W/W & DIFENOCONAZOLE 11.4% W/W SC

Description

FBV-100 is a new generation combination fungicide containing Azoxystrobin & Difenoconazole. The Azoxystrobin in FBV-100 is a strobilurin fungicide with protectant, curative, eradicated and anti-spore actions that work very effectively against fungal pathogens. It combines two molecules with systemic action that inhibits spore germination at the early stage of fungal development. Thus, safe guarding plants from fungal diseases early on. FBV-100 is rapidly absorbed by the plants and acts on the fungal pathogen during penetration and haustoria formation. It stops the development of fungi by interfering with the biosynthesis of sterols in the cell membrane and provides long term protection. This makes FBV-100 a broad-spectrum fungicide with protective and curative action. It not only protects plants from fungal diseases but also improves crop health, produce quality and yield. FBV-100 controls both phycomycetes and deuteromycetes class of fungus like Powdery mildew and Downy mildew. With its dual mode of action FBV-100 can cure hard to control fungal disease as compared to conventional fungicides. Due to its broad spectrum of disease control FBV-100 can control multiple diseases at the same time thus saving money, time and labour for the farmers.

Additional Use

FBV-100's advanced chemistry of two molecules have multisite action. Translaminar and acropetal movement help in quicker and even dispersion in plant system. It's an excellent tool for resistance management. With its longer duration control on below mentioned diseases.

Benefits:

- ✓Dual mode of Action
- ✓Preventive & Curative
- ✓Longer residual control
- ✓Rapid absorption & Translocation
- ✓Control multiple diseases

Dilution

200 ml of FBV-100 shall be diluted in 150 – 200 Litres of water and applied per acre in vegetable crops. For ultra-low volume sprayers use minimum of 200 ml / Acre in 50 litres of water. For Horticulture crops use 200 ml – 400 ml per acre depending upon the size and water required. (Dilution 1:1000)

FBV-100's Control of Diseases	
Downy Mildew	Powdery Mildew
Early Blight	Late Blight
Sheath Blight	Blast
Anthraxnose	Rust
Fruit Rot	Leaf & Fruit Spot

Packaging: 200 ml



ACTIVE INGREDIENT: PACLOBUTRAZOLE 40% SC

Description

Paclobutrazol is a plant growth retardant and triazole fungicide. It is a known antagonist of the plant hormone gibberellin. When gibberellin synthesis is inhibited, more precursors in the terpenoid pathway accumulate and that result in production of abscisic acid. It acts by inhibiting gibberellin biosynthesis, reducing internodal growth to give stouter stems, increasing root growth, causing early fruitset and increasing seedset in fruiting plants. It further reduces evapo-transpiration and decreases plant moisture stress by enhancing the relative water content of leaf area and develops resistance in the plants against biotic and abiotic stresses. In addition, it acts as highly active systemic fungicide and used against several economically important fungal diseases. Provide is important in reducing plant height to prevent lodging and in increasing number and weight of fruits per tree, in improving the fruit quality in terms of increases in carbohydrates. Provide can also be used to reduce shoot growth and has been shown to have additional positive effects on trees and shrubs. Provide has added advantage of improved resistance to drought stress, darker green leaves, higher resistance against fungi and bacteria, and enhanced development of roots.

Benefits:

- ✓Controls foliage Growth
- ✓Increases Flowering
- ✓Early Fruit Set
- ✓Increases Resistance Capacity
- ✓Enhanced fruit Color & Size
- ✓Increases Yields

Dilution

Provide should be normally applied to the soil to be taken up by the roots and transported via the xylem to the upper parts of the plant. Paclobutrazol assists mango crops to achieve full blossom potential by making a balance between foliar and fruit growth.

Dosage of Provide varies for different age of Mango tree: 7 to 15 Years use 8 to 9 ml, 16 to 25 Years use 11 to 12 ml, for 25 Years use 17 to 18 ml.

For Onion, Potato, Garlic and Ground nut use 30 to 40 ml per acre. For other crops use 30 to 80 ml / Acre depending upon the Size.

Packaging: 50 ml & 500 ml



The Nutrition Experts

PLANT GROWTH REGULATOR

Increases number and weight of Fruits



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