





SRIKAR BIOTECH PRIVATE LIMITED

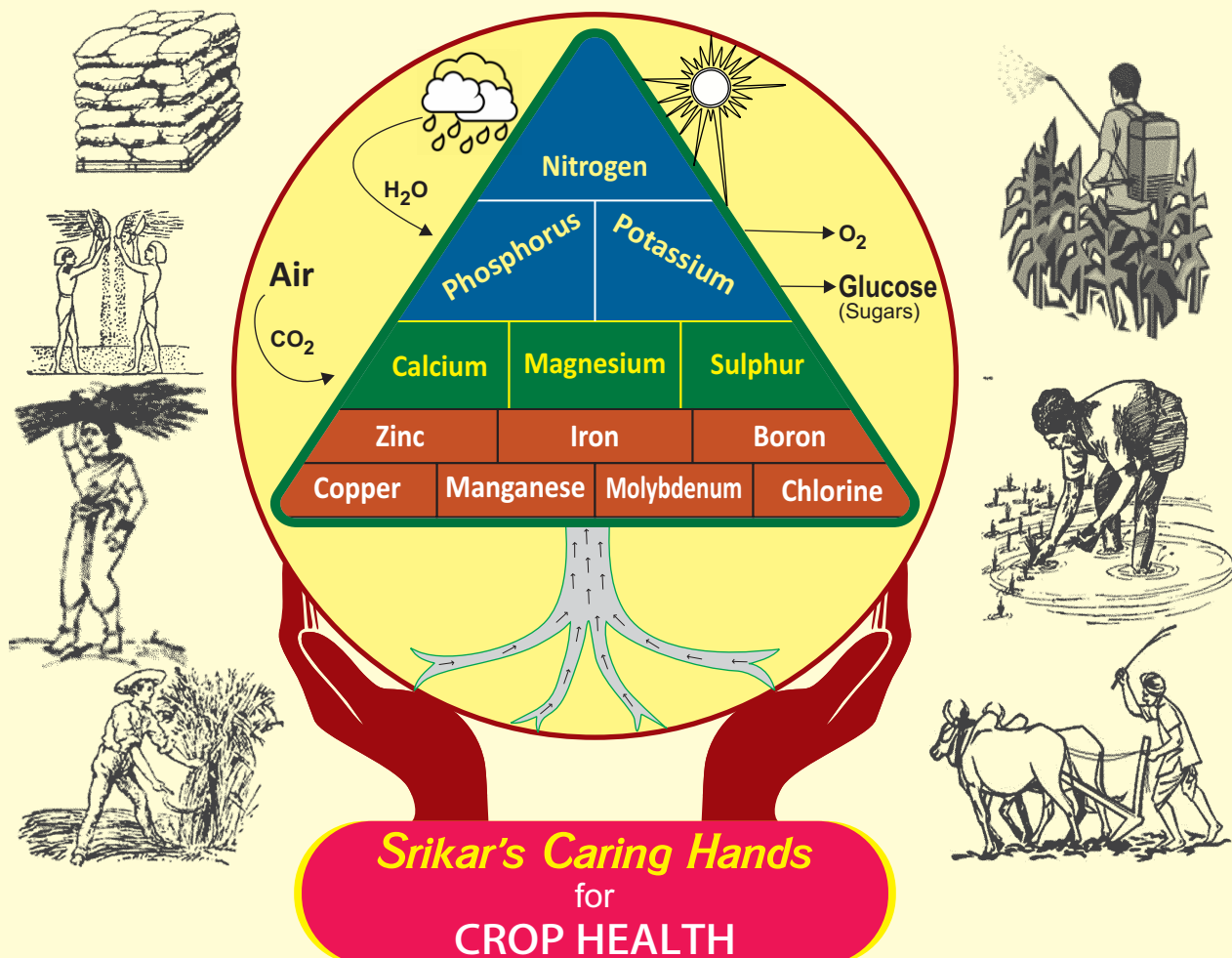
AN ISO 9001:2008 CERTIFIED COMPANY

Srikar's Plant Essential Nutrient Products

★ Assured Quality

★ Trusted by Farmers

★ Healthy Crop & Higher yield



Srikar's Products - A Symbol of Quality



Dr. Linga Srinivasa Rao

M.Sc. (Ag), Ph.D (IARI)

Chairman & Managing Director
SRIKAR GROUP OF COMPANIES



Mrs. Usha Rani P.

M.Sc., M.Phil

Director
SRIKAR GROUP OF COMPANIES

Srikar Biotech Pvt. Ltd. was Established in the Year-2008 at Hyderabad, India. The company has been awarded with ISO9001:2008 Certificate for its quality standards. SBPL is one of the leading manufacturers and suppliers of pesticides, bio pesticides, bio fertilizers, bio fungicides, plant growth promoters, micro & macro nutrients, organic fertilisers and other bio-products. The main vision of the company is to make available the pest effective and quality products to the farming community at affordable prices. Our products are used in field and horticultural crops. The Company is equipped with state of the art facilities and equipment for production of different products. We also use the finest grade of ingredients to effectively control different kinds of insects, diseases & to correct the deficiency of nutrients.

Srikar Biotech Pvt. Ltd. has a well experienced and dedicated R & D team, which keep abreast with the latest trends and technologies in the field of modern agriculture. With their support and knowledge, SBPL is able to produce and market products that meet the future requirements . We conduct various standard quality analysis tests in the state of the art laboratory. Tests are also conducted at the field level with the help of special customized kits to evaluate the performance of our products at the field level. With a goal of international quality standards, affordable price and customer satisfaction, SBPL has created a vast network of more than 3000 dealers spread across the country. The company is driven by its core values of integrity, quality, commitment and innovation.

OUR PREMISES IN LARGE AREA



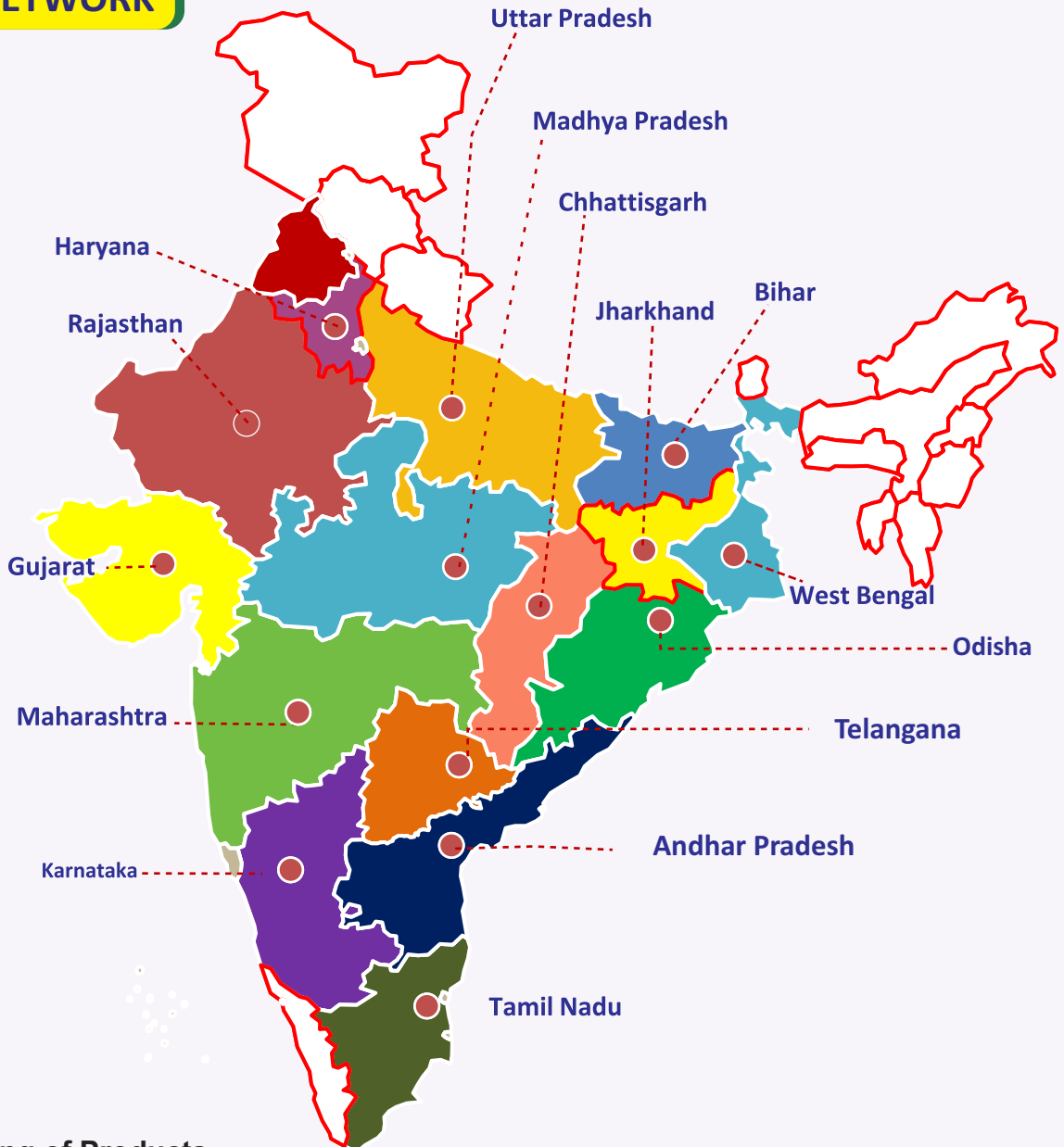
Quality Control (QC) laboratory equipped with most advanced analytical facilities & instruments



AGRI BUSINESS SUMMIT & AGRI AWARDS 2019
Received Best Emerging Company Award



OUR NETWORK



Marketing of Products

- Seeds
- Pesticides
- Micro Nutrients & Water Soluble Fertilizers
- Bio Products

Total States : 15

Total Dealers / Distributors: > 3000

Total Farmers : > 3,50,000

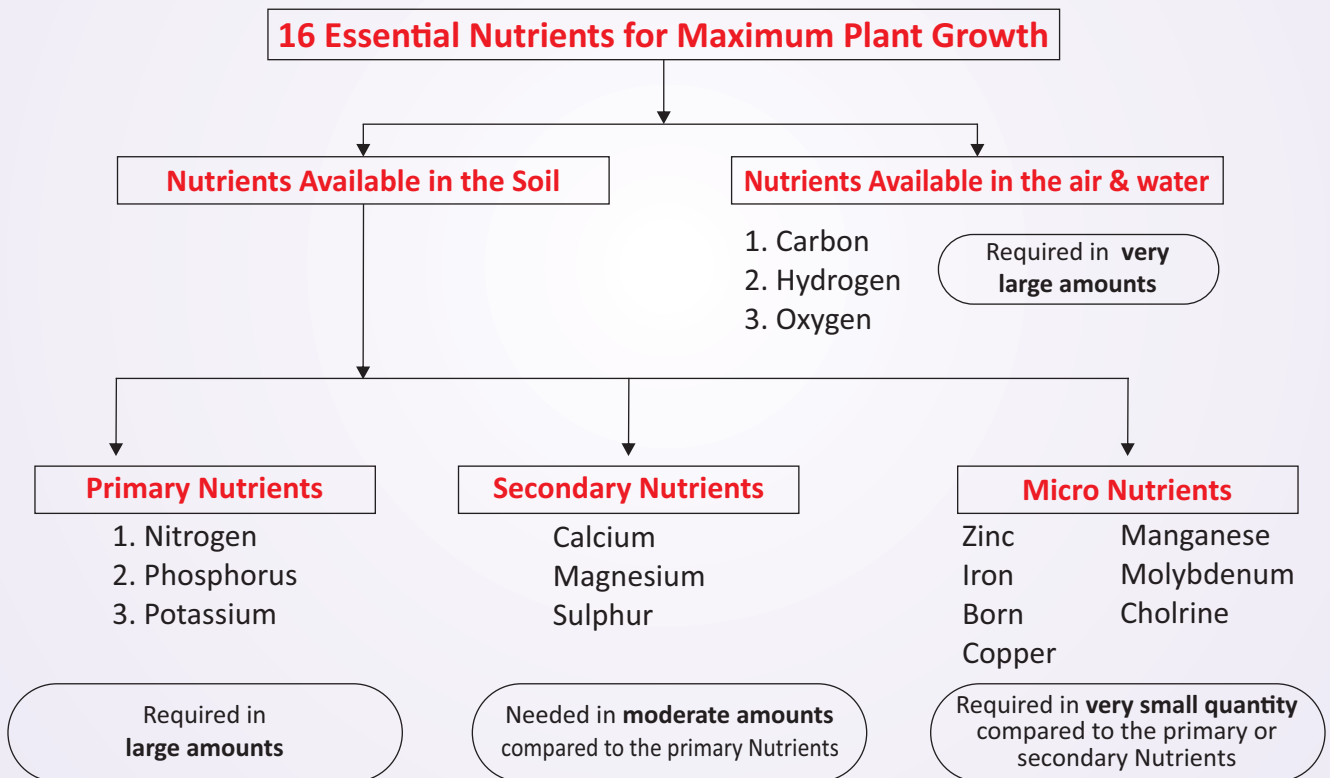
Plant Essential Nutrients

Essential Nutrient is one whose absence prevents a plant from completing its life cycle.

Due to the lack of essential nutrients in the plants life cycle

- ✓ The seed may not germinate
- ✓ Plant may not be able to develop roots, stems, leaves or flowers properly.
- ✓ Plant may not be able to produce seeds to create new plants
- ✓ often plant may die

Scientists have identified 16 essential nutrients and grouped them according to the relative amount of each that plant need.



A brief information is provided on the role of each essential element, key symptoms of their deficiency and the effect of their deficiency on plant growth and development.

NITROGEN (Essential Primary Nutrient)

Role of Nitrogen in Plants

- It is a major component of chlorophyll by which sugars are made for rapid vegetative growth.
- It is a component of proteins which are stored in the grain, fruits and seeds of plants.
- It is an important part of plant tissue that regulates plants growth and development.
- It also stimulates the root growth for uptake of nutrients and water into the plants.

Key Symptoms of Nitrogen Deficiency

- Yellowing of lower and older leaves (bottom of plant) and the rest of the plant is often light green.

Effect of Nitrogen Deficiency

- Growth of the plants is usually stunted.
- Reduction in fruiting branches and poor fruit setting in Plants.

Visible Symptoms of Nitrogen Deficiency in plants



Paddy



Chilli



Grape



Banana



Sweet Potato



wheat

PHOSPHORUS (Essential Primary Nutrient)

Role of Phosphorus in Plants

- Phosphorus has an essential role in photosynthesis for storage and transportation of the nutrients throughout in the plant.
- It is very important in cell division and growth of new tissues in plants.
- It stimulates early and extensive root development to absorb nutrients and water from the soil
- It is an essential component of the genetic material (DNA & RNA) that allows plants to grow & reproduce.
- It promotes crop maturity at the right time.

Key Symptoms of Phosphorus Deficiency

- Reddish- Purple color of older leaves.

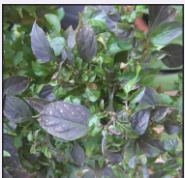
Effect of Phosphorus Deficiency

- Poor root growth.
- Stunted growth in plants.
- Plants take too long time to mature.
- Early fruit drop.

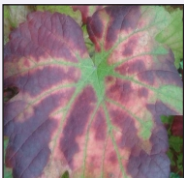
Visible Symptoms of Phosphorus Deficiency in plants



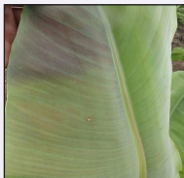
Okra



Chilli



Grape



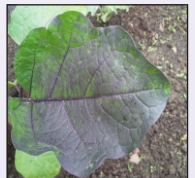
Banana



Maize



Tomato



Brinjal

POTASSIUM (Essential Primary Nutrient)

Role of Potassium in Plants

- Potassium plays a vital role in the translocation of essential nutrients, water & other substances from the roots through stem to the leaves.
- It regulates the opening and closing of stomata in leaves which enhances the photosynthesis activity in plant
- It increases the plant vigor.
- It is essential in sugar and starch formation.
- It promotes healthy root system.
- It increases resistance to diseases and low temperatures

Key Symptoms of Potassium Deficiency

- Curling of leaf tips as well as yellowing between leaf veins.
- Older leaves may look scorched around the edges.

Effect of Potassium Deficiency

- Poor development of roots and stems which lead to stunted growth.
- Plants become susceptible to drought and plant pathogens.

Visible Symptoms of Potassium Deficiency in plants



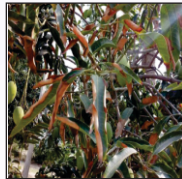
Pomegranate



Black Gram



Grape



Mango



Maize



Cotton



Citrus

CALCIUM (Essential Secondary Nutrient)

Role of Calcium in Plants

- It strengthens cell wall structure which gives stability to cell wall and binds cells together.
- It promotes proper cell elongation in plants.
- It activates a number of plant growth regulating enzyme systems.
- It improves the absorption of other nutrients by roots and their translocation within the plant.
- It increases resistance to diseases.
- It helps in protecting the plant against heat stress.

Key Symptoms of Calcium Deficiency

- Necrosis at the tips and margins of young leaves.
- Deformation of affected leaves with interveinal chlorosis.

Effect of Calcium Deficiency

- Stunted plant growth.
- Premature shedding of blossoms and buds.
- Shelf life of fruits and vegetables reduced significantly.
- Plants become susceptible to heat stress.

Visible Symptoms of Calcium Deficiency in plants



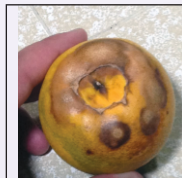
Maize



Melons



Chilli



Citrus



Cucurbits



Tomato



Guava

MAGNESIUM (Essential Secondary Nutrient)

Role of Magnesium in Plants

- It is a structural component of chlorophyll thus it gives green color to leaves.
- It helps in uptake and transportation of phosphorus through the plant.
- It is necessary for the synthesis of proteins, fatty acids and oils.
- It is an activator of enzyme in carbohydrate metabolism.
- It helps in transformation of sugar and starch in the plants.
- It regulates the uptake of other nutrients.
- It provides resistance to unfavorable factors like drought.

Key Symptoms of Magnesium Deficiency

- Older leaves show interveinal chlorosis (Dark green veins with yellow areas between them) especially on the outer edges of the leaves.
- New leaves may be yellow with dark spots.

Effect of Magnesium Deficiency

- Plant growth becomes slow and reduction in formation of oils, fats and proteins in storage organs like grain, fruits and seeds.

Visible Symptoms of Magnesium Deficiency in plants



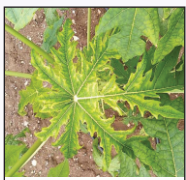
Orange



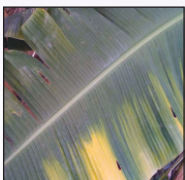
Grape



Cotton



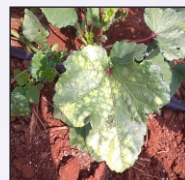
Papaya



Banana



Pepper



Okra

SULPHUR (Essential Secondary Nutrient)

Role of Sulphur in Plants

- It is required to produce good protein content in plants.
- It helps plants to incorporate nitrogen into proteins.
- It is required for the production of chlorophyll and a number of enzymes.
- It is essential for the synthesis of oils in oil seed crops.
- It improves winter hardiness in crops.

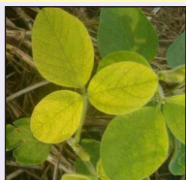
Key Symptoms of Sulphur Deficiency

- New leaves turn pale yellow, older leaves stay green.
- Leaf veins light color than surrounding areas.

Effect of Sulphur Deficiency

- Plants are small and their growth is stunted.
- Formation of less oil content in oil seed crops.
- Original flavor and odor of Mustard, Garlic and Onion is degraded.

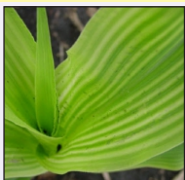
Visible Symptoms of Sulphur Deficiency in plants



Soybean



Cotton



Maize



Tomato



Groundnut



Citrus



Banana

Water Soluble Fertilizers

Special benefits of water soluble Fertilizers

- ★ Essential nutrients can be applied uniformly to each and every plant on daily basis.
- ★ They are very suitable for foliar application, fertigation and soil application depending on requirement.
- ★ Wastage of fertilizer can be reduced by using water soluble fertilizers.
- ★ Reduces the accumulation of salts in the soil.
- ★ Quickly absorbed by plants after application.
- ★ Wide range of nutrient grades are available.

Srikar has started to supply high quality water soluble fertilizers to serve the farmers across the India. Srikar products guarantee the optimal mineral contents. These are quickly and easily absorbed by plants and delivers superior yields with improved quality and increases the profitability.

Srikar's Water Soluble Fertilizer Products

1.	Donar NK	13:00:45	Potassium Nitrate
2.	Donar PK	00:52:34	Mono Potassium Phosphate
3.	Donar NP	12:61:00	Mono Ammonium Phosphate
4.	Champ Potash	00:00:50	Sulphate of Potash
5.	Champ Nite	K ₂ O:25%, MgO:11%	Potassium Schoenite
6.	Triple Power	19:19:19	Customised Primary Nutrient Grade
7.	High Power	13:40:13	Customised Primary Nutrient Grade
8.	Srikar Calci	Ca:18.5%, N:15.5%	Calcium Nitrate
9.	Srikar Mag	Mg:9.6%	Magnesium Sulphate

PROPERTIES AND BENEFITS OF SRIKAR'S WATER SOLUBLE FERTILIZER PRODUCTS

Donar NK (13:00:45) (Potassium Nitrate)

1. **Donar NK** is a fully water soluble fertilizer contains 13% Nitrogen and 45% Potassium. Total nitrogen is present in nitrate form which is quickly available to the plants.
2. **Donar NK** Prevents and corrects the Nitrogen & Potassium deficiency symptoms in plants.
3. **Donar NK** increases the uptake of calcium & magnesium nutrients.
4. **Donar NK** imparts resistance to pest, diseases and low temperatures.
5. **Donar NK** Prevents dropping of immature & developing fruits under unfavorable conditions.
6. **Donar NK** increases shape and size of fruits and seeds with shining appearance.
7. **Donar NK** is Non Volatile, easy to apply with no nitrogen losses to the atmosphere.
8. **Donar NK** can be mixed with all types of fertilizers and mostly used agrochemicals.

Recommended crops :- All crops

Dosage :- Foliar Spray : Dissolve 5 - 10 gr of **Donar NK** in one liter of water .

Fertigation : Apply 2-3 Kg of **Donar NK** per acre per day.

Donar NK can be applied at fruit development stages for better results.

Donar NK don't mix with fertilizers containing calcium and magnesium elements

Available packings : 1Kg , 10Kg and 25 Kg



Donar PK (00:52:34) (Mono Potassium Phosphate)

1. **Donar PK** is 100% Water soluble fertilizer which contains essential nutrients, Phosphorus (52%) and Potassium (34%) on high percentages.
2. **Donar PK** is more useful fertilizer for correcting the phosphorus and potassium deficiency symptoms in plants .
3. **Donar PK** has very low salt content hence clogging of drip system not happens.
4. **Donar PK** is compatible with most commonly used pesticides and fertilizers.
5. **Donar PK** Improves resistance to adverse weather conditions and pests.
6. **Donar PK** Increases the sugar content in sugar rich fruit crops and improves the quality of fruits and seeds of crops.
7. **Donar PK** is a special product to use in alkaline soils also to get best results.

Recommended crops :- All crops

Dosage :- Foliar Spray : Dissolve 5 - 10gr of **Donar PK** in one liter of water .

Fertigation : Apply 2-3 Kg of **Donar PK** per acre per day.

Donar PK can be applied at reproductive stage for the development of fruits and seeds.

Donar PK don't mix with fertilizers containing calcium and magnesium elements

Available packings : 1Kg , 10Kg and 25 Kg



Donar NP (12:61:00) (Mono Ammonium Phosphate)

1. **Donar NP** is a completely water soluble fertilizer containing two essential plant nutrients nitrogen (12%) and phosphorus (61%).
2. **Donar NP** is free of sodium, chloride and other detrimental elements to plants.
3. **Donar NP** prevents salt deposition near root zone.
4. **Donar NP** improves the uptake of other nutrients from the root system.
5. **Donar NP** has very low salt content, hence it is a good product for drip system. Clogging of drip nozzles is not happened.
6. **Donar NP** helps for fast and healthy vegetative growth and induces more number of flowers in plants and improves shelf life of produce.
7. **Donar NP** is highly efficient fertilizer for correction of nitrogen and phosphorus deficiency symptoms in all crops.

Recommended crops :- All crops

Dosage :- Foliar Spray : Dissolve 5 - 10gr of **Donar NP** in one liter of water

Fertigation : Apply 2-3 Kg of **Donar NP** per acre per day

Donar NP can be applied at initial stages of crop for the development of proper root system and for vigorous vegetative growth

Donar NP don't mix with fertilizers containing calcium and magnesium elements

Available packings : 1Kg, 10Kg and 25Kg



Champ Potash (00:00:50) (Sulphate of Potash)

1. **Champ Potash** is a fully water soluble fertilizer containing two essential nutrients potash (50%) and sulphur (17.5%)
2. **Champ Potash** is an effective fertilizer to prevent and correct the potassium deficiency symptoms in crops.
3. **Champ Potash** is a chloride free potash source hence it is most effective source of fertilizer to chloride sensitive crops like fruits, vines, tobacco, potato and vegetables.
4. **Champ Potash** provides better resistance to drought, frost and pathogens .
5. **Champ potash** increases the shelf life of crop produce.

Recommended crops :- All crops

Dosage :- Foliar Spray : Dissolve 5 - 10gr of **Champ Potash** in one liter of water

Fertigation : Apply 2-3 Kg of **Champ Potash** per acre per day

Champ Potash can be applied during final development stages of the plants

Champ Potash don't mix with fertilizers containing calcium and magnesium elements

Available packings : 1Kg , 10Kg and 25Kg



Champ Nite $\left[\begin{array}{cccccc} \text{N} & \text{P} & \text{K} & \text{Mg} & \text{S} \\ 00 & 00 & 23 & 11 & 15 \end{array} \right]$ Potassium Schoenite

Double sulphate of potash & magnesium ($\text{K}_2\text{SO}_4 \cdot \text{MgSO}_4 \cdot 6\text{H}_2\text{O}$)

1. **Champ Nite** is a natural potassic fertilizer contains three essential nutrients (Potassium(23%), Magnesium (11%) and Sulphur(15%)) in fully water soluble form.
2. **Champ Nite** has low salt index and is virtually chloride free hence it is good source of fertilizer for chloride and salt sensitive crops such as fruits, vegetables, gape vines, potato, sunflowers, tobacco and sugarcane etc.
3. **Champ Nite** is a Natural salt, doesn't change the soil pH after application hence it is effective on all types of soils.
4. **Champ Nite** is a fully water soluble fertilizer but dissolves slowly and resisting the rapid leaching from the soils.
5. **Champ Nite** increases the Grain fill, color, weight, firmness, size & general appearance that increases the value of any given crop and improves the resistance in plants against diseases, insects & adverse weather conditions.
6. **Champ Nite** is compatible with other water soluble fertilizers and micro nutrients.

Recommended crops :- All crops

Dosage :- **Foliar Spray** : Dissolve 5 - 10gr of **Champ Nite** in one liter of water

Fertigation : Apply 25 Kg of **Champ Nite** per acre in split doses

Champ Nite can be applied at reproductive stage for the development of fruits & seeds

Available packings : 1Kg, 10Kg and 25Kg



Triple Power (19:19:19) (Customized Primary Nutrient Grade)

1. **Triple Power** is 100% Water soluble fertilizer contains three essential nutrients in equal proportion (Nitrogen (19%), Phosphorus (19%) and potash (19%)
2. **Triple Power** has free flowing material, easy to handle and acidic in nature so helps in removing of salt deposition and prevents the clogging of drip system.
3. **Triple Power** is best source of fertilizer for correcting the nitrogen, phosphorus & potash deficiency symptoms in plants.
4. **Triple Power** enhances the nutrient use efficiency.
5. **Triple Power** is compatible with many of pesticides for foliar spray.

Recommended crops :- All crops

Dosage :- **Foliar Spray** : Dissolve 5 - 10gr of **Triple Power** in one liter of water

Fertigation : Apply 2-3 Kg of **Triple Power** per acre per day

Triple Power can be applied in all stages of crop growth

Triple Power don't mix with fertilizers containing calcium and magnesium elements

Available packings : 1Kg, 10Kg and 25Kg



High Power (13:40:13) (Customized Primary Nutrient Grade)

1. **High Power** is a completely water soluble customized fertilizer grade containing three essential nutrients (Nitrogen (13%) , Phosphorus (40%) and Potash (13%)) for plant growth
2. **High power** is best fertilizer to prevent and correct the nitrogen, phosphorus and potash nutrients deficiencies in plants
3. **High power** is in acidic nature so it prevents clogging of drippers in drip system.
4. **High power** is very suitable for foliar spray and fertigation.
5. **High power** enhances the root growth, vegetative growth and increases branching and flowering in plants.

Recommended crops :- All crops

Dosage :- Foliar Spray : Dissolve 5 - 10gr of **High Power** in one liter of water

Fertigation : Apply 2 to 3 Kg of **High Power** per acre per day

High power can be applied at vegetative stage and at fruit setting & fruit development stages

Available packings : 1Kg , 10Kg and 25Kg



Srikar Calci (Ca:18.5%, N:15.5%) (Calcium Nitrate)

1. **Srikar Calci** contains two essential nutrients in 100% water soluble form (Calcium (18.8%) & Nitrogen (15.5%))
2. **Srikar Calci** prevents and corrects the calcium disorders in soil & plants most effectively.
3. **Srikar Calci** contains nitrogen in nitrate (NO_3^-) form which quickly absorbed by the plant and improves the efficiency of calcium uptake.
4. **Srikar Calci** enhances the quality harvest and improves shelf life of vegetables, fruits & flowers.
5. **Srikar Calci** makes the plants healthy and more tolerant to diseases and moisture stress.
6. **Srikar Calci** reduces the cracking and rotting of fruits and vegetables.

Recommended crops :- All crops

Dosage & Method of application :- Foliar Spray : Dissolve 5 - 10gr of **Srikar Calci** in one liter of water. Spray the **Srikar calci** atleast 2-3 times during the cropping season. Use sufficient water and spray thoroughly on both sides of leaves.

Fertigation : Apply 2 to 3 Kg of **Srikar Calci** per acre per day. Dosage and number of applications depends on type of soil, crop & its growth stage.

Srikar Calci can be applied at seedling stage, vegetative stage, reproductive stage & ripening stage.

Srikar Calci don't mix with Phosphate and sulphate containing fertilizers.

Available packings : 1Kg , 10 Kg, 25Kg.



Srikar Mag (Mg:9.6%) (Magnesium Sulphate)

1. **Srikar Mag** is a fully water soluble fertilizer contains sulphate sulphur (12%) and magnesium fertilizer containing 9.5% of Magnesium and 12% of sulphur.
2. **Srikar Mag** is free flowing, fine crystalline powder which is free of chlorine. Sodium and heavy metals.
3. **Srikar Mag** is good source of magnesium fertilizer to prevent and correct the magnesium deficiency symptoms.
4. **Srikar Mag** can be mixed with all soluble fertilizers and mostly used agrochemicals .
5. **Srikar Mag** increases greenness of the crop and there by more photosynthesis takes place and ultimately results into higher yield and more crop quality.
6. **Srikar Mag** Increases the Iron utilization in plants.

Recommended crops :- All crops

Dosage & Method of application :- Foliar Spray : Dissolve 4 - 5gr **Srikar Mag** in one liter of water. First spray at 25 to 30 days after sowing / transplantation. Repeat the spray for two times with same dosage with an interval of 15 days during the crop season. In case of cotton three sprays are required in control of read leaf disease.

Fertigation : Apply 2 to 3.5 Kg of **Srikar Mag** per acre per day. Dosage and number of applications depends on type of soil, crop & its growth stage.

Soli Application : For field crops and oil seed crops apply 20-25 Kg of **Srikar Mag** per acre

Srikar Mag can be applied at vegetative and reproductive stages to take better benifit.

Srikar Calci don't mix with Phosphate and sulphate containing fertilizers.

Available packings : 1Kg , 10 Kg, 25 Kg.



ESSENTIAL MICRO NUTRIENTS FOR PLANTS

Micro Nutrients are essential plant nutrients taken up and consumed by the plant in relatively lesser amount compared to primary and secondary nutrients. They play an eminent role in plant growth, development, plant metabolism and quality of crop produce.

For better understanding, a brief information is given on the role of each micro nutrient in plant life, key symptoms of each micro nutrient deficiency and the effect of their deficiency on plant growth and development.

-: List of Micro Nutrients :-

- 1) Zinc
- 2) Iron
- 3) Boron
- 4) Copper
- 5) Magnanese
- 6) Molybdenum

ZINC (Essential Micro Nutrient)

Role of Zinc in Plants

- It activates some enzymes for the synthesis of certain proteins.
- It is vital in the formation of chlorophyll in the leaves.
- It plays a major role in conversion of starch to sugars.
- It's presence in plant tissue helps the plant to withstand cold temperatures.
- It is essential in the formation of Auxins, which help in growth regulation and stem elongation.
- Zinc is required for better pollination activity.

Key Symptoms of Zinc Deficiency

- Yellow color of the new leaves (often between the leaves veins)
- New leaves are smaller in size and often cupped upward or distorted.
- The inter nodes are shorten and given the plant a rosette appearance.

Effect of Zinc Deficiency

- Plant growth is stunted.
- Reduced flowering and branching.
- Delayed maturity.
- Plants become susceptible to cold temperatures.

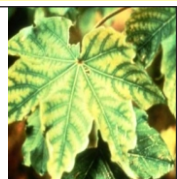
Visible Symptoms of Zinc Deficiency in plants



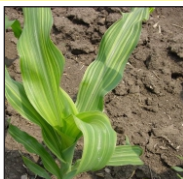
Orange



Mango



Cotton



Maize



Black Gram



Paddy



Pepper

IRON (Essential Micro Nutrient)

Role of Iron in Plants

- It plays critical role in metabolic processes such as DNA synthesis, respiration and photosynthesis.
- It is vital component of many enzymes those play in physiological and biochemical processes of plants.
- It is very important in chlorophyll formation.
- It assists in protein synthesis.
- It participates in nitrogen fixation.
- It transports oxygen and also carries electrons through out the plant.

Key Symptoms of Iron Deficiency

- The youngest leaves exhibit yellow to whitish color between the leaf veins and veins are remain in green color.

Effect of Iron Deficiency

- Stunted shoots.
- Poor Yields and reduced nutritional quality.

Visible Symptoms of Iron Deficiency in plants



Citrus



Grape



Maize



Groundnut



Wheat



Orange



Paddy

BORON (Essential Micro Nutrient)

Role of Boron in Plants

- It facilitates sugar translocation and synthesis of nucleic acids and plant hormones.
- It is essential for germination of pollen grains and growth of pollen tubes.
- It is essential for seed and cell wall formation.
- It promotes even ripening of fruits and vegetables.
- It ensures good calcium supply to the fruits at fruit filling stage.

Key Symptoms of Boron Deficiency

- Brittle, discolored younger leaves gives rosette appearance.
- Depression of growing points. (Root tip, bud, flower and young leaf)
- Deformity of organs (roots, shoot, leaf and fruit).

Effect of Boron Deficiency

- Bushy shunted growth.
- Reduction in lateral root development.
- Formation of less number of flowers per plant.
- Poor pollination of flowers.
- Poor seed & fruit set.

Visible Symptoms of Boron Deficiency in plants



Black Gram



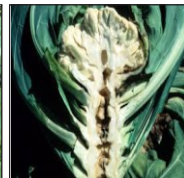
Brinjal



Sugarcane



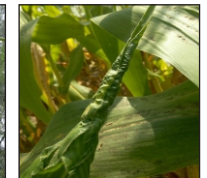
Tamato



Cauliflower



Papaya



Maize

COPPER (Essential Micro Nutrient)

Role of Copper in Plants

- It is essential for the production of key enzymes which are responsible for photosynthesis.
- It is essential for plant respiration and assists in metabolism of carbohydrates and proteins.
- It is essential element for fruits and grain setting and filling.
- It is essential in production of Lignin in stems and roots which leads to reduced lodging and enhancing resistance to nematodes and diseases.
- It serves to intensify flavor and color in vegetables, flowers and fruits.

Key Symptoms of Copper Deficiency

- Cupping and a slight yellowing of whole leaf or between the veins of the new leaves.

Effect of Copper Deficiency

- Reduction in flavor and color of flowers, vegetables and fruits.
- Reduction in the storage ability and sugar contents of fruits.

Visible Symptoms of Copper Deficiency in plants



Cotton



Maize



Wheat



Groundnut



Tomato



Mango



Lemon

Manganese (Essential Micro Nutrient)

Role of Manganese in Plants

- It helps in chlorophyll synthesis which is essential for the production of carbohydrates and proteins
- It increases the availability of phosphorus to the plants
- It is necessary for respiration, nitrogen metabolism and nitrogen assimilation.
- It is also involved in pollen germination and pollen tube growth.
- It provides resistance to root pathogens.

Key Symptoms of Manganese Deficiency

- Young leaves turn yellow or undergo inter veinal Chlorosis

Effect of Manganese Deficiency

- Decreased resistance to lower temperatures
- Reduction of new lateral roots
- Inhibited nitrate metabolism
- Delayed maturity

Visible Symptoms of Manganese Deficiency in plants



Cotton



Maize



Soybean



Groundnut



Tomato



Chilli



Cucurbit

PROPERTIES AND BENEFITS OF SRIKAR'S MICRO NUTRIENT FERTILIZER PRODUCTS

1. Srikar Sentry-Zn	Zinc 12% EDTA
2. Srikar Jack Plus	Zinc Sulphate monohydrate 33%
3. Srikar Ferari-Fe	Iron 12% EDTA
4. Srikar FS	Ferrous Sulphate 19%
5. Srikar Boro	Boran 20% (Di sodium octa borate tetra hydrate)
6. Srikar Cop-Cu	Copper Sulphate 24%
7. Srikar Manga-Mn	Manganese Sulphate 30.5%
8. All Max	State wise micro nutrient mixtures

1. Srikar Sentry-Zn (Zinc 12% EDTA)

1. **Srikar Sentry-Zn** is an essential micro nutrient fertilizer containing Zinc 12% in **EDTA** form (Ethylene diamine tetra Acetic Acid) and used to control Zinc deficiency symptoms in plants.
2. The EDTA is an organic molecule which work as the chelating agent to bind zinc ion and keep the Zinc ion in soluble & stable form till the zinc nutrient is absorbed by the plant system.
3. **Srikar Sentry-Zn** increases phosphorus uptake from the soil and also increases the content of phosphorus in the shoots of plants.
4. **Srikar Sentry-Zn** improves disease resistance, promotes seed production and hastens the maturity in plants.
5. **Srikar Sentry-Zn** can be mixed with NPK fertilizers for foliar spray, soil application and fertigation.
6. **Srikar Sentry -Zn** doesn't scorch the leaves but helps in better utilization of other nutrients.
7. **Srikar Sentry-Zn** is compatible with mostly used agrochemicals.

Recommended crops :- All crops

Dosage :- Foliar Spray : Dissolve 100gr of **Srikar Sentry-Zn** in 150 to 200 liters of water and spray on both side of leaves over one acre of standing crop.

Soil Application : -500gm of **Srikar Sentry -Zn** is to be thoroughly mixed with 10Kg dry soil or sand or with any fertilizer and apply uniformly on one acre area.

Fertigation : Apply 500gm Srikar Sentry-Zn per acre and can be mixed with water soluble fertilizers in its application.

Srikar Sentry-Zn can be applied during initial developmental stage and vegetative growth stage for better results.

Available packings : 100gm, 250gm and 500gm

Note : Foliar spray should be done preferably in the morning or in the evening since **EDTA** is sensitive to sunlight exposure.



2. Srikar Jack Plus (Zinc Sulphate Monohydrate 33%)

1. **Srikar Jack Plus** contains 33% Zinc and 15% sulphur which are readily soluble in water and immediately available to crops.
2. **Srikar Jack Plus** is efficient micro nutrient fertilizer to correct the Zinc deficiency in plant.
3. **Srikar Jack Plus** is suitable for foliar application and soil application.
4. **Srikar Jack Plus** releases Zinc and sulphur slowly in soil after application hence which available for long period and also loss due to leaching is least.
5. **Srikar Jack Plus** Promotes better development of root and shoot system.
6. **Srikar Jack Plus** imparts greater resistance to pest, diseases and stress conditions.

Recommended crops :- All crops

Dosage :- Foliar Spray : Dissolve 2 to 3.5 gr of **Srikar Jack Plus** in one liter of water and spray on both surfaces of leaves. First spray is given at 25 to 30 days after sowing/transplantation. Repeat the second spray 15 days after first spray.

Soil Application :- Apply 5kg of srikar Jack Plus (Soil grade) per acre before sowing/transplantation or during last ploughing by spreading in the field.

Srikar Jack Plus can be applied by foliar spray during the initial developmental stage and vegetative growth stage for better results.

For direct use don't mix with DAP fertilizer



Available packings : For foliar spray : 250gm, 500gm and 1Kg. For Soil application : 5Kg and 10 Kg

3. Srikar Ferari-Fe (Iron 12% EDTA)

1. **Srikar Ferari-Fe** is EDTA chelated essential micro nutrient fertilizer containing 12% Iron.
2. **Srikar Ferari-Fe** is free flowing, light yellow color powder which dissolve rapidly in water and quickly absorbed by roots and leaves of plants.
3. **Srikar Ferari-Fe** doesn't form any type of clogging in spray nozzles & drip nozzles and formation of sediments in tanks.
4. **Srikar Ferari-Fe** has high efficacy at low dose rates. and compatible with most used fertilizers and agrochemicals
5. **Srikar Ferari-Fe** helps to prevent and correct the iron deficiency at different growth stages of crop and enhances the chlorophyll content in leaves and also improves the photosynthetic process and protein synthesis in plants.
6. **Srikar Ferari-Fe** induces resistance to pests and diseases and boosts the growth rate of plants.

Recommended crops :- All crops

Dosage :- Foliar Spray : Dissolve 100gr of **Srikar Ferari-Fe** in 200 liters of water and spray on both surfaces of leaves.

Soil Application :- 500gm of **Srikar Ferari-Fe** mix with dry soil or sand or with any fertilizer and apply uniformly on one acre area.

Srikar Ferari-Fe can be applied during initial developmental stage, vegetative growth stage and flowering & fruit setting stage for better results.

Available packings : 100gm, 250gm and 500gm.

Note : Foliar spray should be done preferably in the morning or in the evening since EDTA is sensitive to sunlight exposure



4. Srikar FS (Ferrous Sulphate 19%)

1. **Srikar FS** is an essential nutrient fertilizer contains 19% Iron & 10.5% Sulphur
2. **Srikar FS** formulated with water soluble powder which is used to correct the Iron chlorosis (yellowing of leaves) in plants
3. **Srikar FS** plays vital role in photosynthesis and breakdown of carbohydrates. Ensures normal growth of crops with high quality yields.
4. Since presence of sulphur, **Srikar FS** fight against pest and fungal diseases which attack plants.
5. **Srikar FS** brings the soil pH neutral by its acidic nature. At neutral pH other nutrients are come into available form to absorb by the plants.
6. **Srikar FS** is compatible with all agrochemicals.

Recommended crops :- All crops

Dosage :- Foliar Spray : Dissolve 2 to 3gr of **Srikar FS** in one liter of water and spray on both surfaces of leaves. Use spreading agent for better spreading and absorption of sprayed solution.

Soil Application :- Apply 10 to 15kg of **Srikar FS** per acre based on crop requirement

Srikar FS can be applied during initial developmental stage, vegetative growth stage and flowering & fruit setting and development stage for better results.

Available packings : 1Kg



5. Srikar Boro (Boron 20%) (Di Sodium Octa Borate Tetra Hydrate)

1. **Srikar Boro** is a fully water soluble essential micro nutrient fertilizer contains 20% Boron, technically called Di sodium octa borate tetra hydrate ($\text{Na}_2\text{B}_8\text{O}_{13} \cdot 4\text{H}_2\text{O}$).
2. **Srikar Boro** is highly soluble and maximum dispersible in water which facilitate quick absorption by plants through roots and leaves.
3. **Srikar Boro** effectively prevents and corrects the boron deficiency symptoms in plants.
4. **Srikar Boro** is present in the form of powder which is highly suitable for foliar application and fertigation.
5. **Srikar Boro** promotes uptake of calcium into the plant.
6. **Srikar Boro** is compatible with fertilizers and pesticides used for foliar spray and drip irrigation.
7. **Srikar Boro** enhances resistance to fungal diseases.
8. **Srikar Boro** helps to induce more flowers and prevents flower drop.
9. **Srikar Boro** improves pollination, fertilization and fruit setting and and also avoid the fruit cracking.

Recommended crops :- All crops

Dosage :- Foliar Spray : Dissolve 1.5 to 2.5 gr of **Srikar Boro** in one liter of water. use sufficient water and spray properly on both surfaces of leaves.

Fertigation : Apply 1 to 2 Kg **Srikar Boro** per acre per one application. Repeat it depending on crop and its growth stage.

Srikar Boro can be applied during vegetative growth stage, reproduction stage and maturity stage for better results.

Available packings : 250gm, 500gm, 1Kg, 5Kg and 10 Kg



6. Srikar Cop-Cu (Copper Sulphate 24%)

1. **Srikar Cop -Cu** is an essential micro nutrient fertilizer contains 24% copper and 12% sulphur. Technically called it as copper sulphate ($\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$).
2. **Srikar Cop-Cu** Containing free flowing blue color powder and fully soluble in water.
3. **Srikar Cop-Cu** is acts both as essential fertilizer and a fungicide for the improvement of crop health.
4. **Srikar Cop-Cu** prevents and corrects the copper deficiency symptoms in plants and also control many fungal diseases.
5. **Srikar Cop-Cu** supplies copper which plays an essential role in chlorophyll formation, helps in seed development process and improves the flavor of fruits and vegetables.
6. Srikar Cop-Cu can be used for preparation of Bordeaux mixture by mixing with quick lime in equal ratio (1:1)

Recommended crops :- All crops

Dosage :- Foliar Spray : Dissolve 2 to 3gr of **Srikar Cop-Cu** in one liter of water and spray thoroughly on both surfaces of leaves. Use sufficient water to cover entire area .

Soil Application :- Apply 20 Kg **Srikar Cop-Cu** in one acre area before sowing.

Soli application has an added advantage that it has a residual effect for more than 10 years. The foliar application has to be given annually to each crop

Srikar Cop- Cu can be applied during vegetative growth stage and maturity stage for better results.

Available packings : 250gm, 500gm and 1Kg.



7. Srikar Manga-Mn (Manganese Sulphate 30.5%)

1. **Srikar Manga-Mn** contains two essential nutrients 30.5% manganese and 17% Sulphur.
2. **Srikar Manga-Mn** is fine powder which is soluble in water useful for correction of manganese deficiency symptoms in plants.
3. **Srikar Manga-Mn** increases the availability of phosphorus and calcium to the plants.
4. **Srikar Manga-Mn** helps in chlorophyll synthesis, breakdown of carbohydrates and nitrogen metabolism in plants.
5. **Srikar Manga-Mn** induces resistance to diseases, boost the growth of plants and improves the seed quality.
6. **Srikar Manga-Mn** is compatible with mostly used agrochemicals.

Recommended crops :- All crops

Dosage :- Foliar Spray : Dissolve 2.5 gm of **Srikar Manga-Mn** in one liter of water. use sufficient water and spray properly on both surfaces of leaves. First spray should be 30 days after sowing/ transplantation. Repeat the spray at 20 days after first spray.

Soil Application :- Apply 10 kg of **Srikar Manga-Mn** per acre.

Srikar Manga-Mn be applied during initial development stage and vegetative growth stage for better results.

Available packings : 500gm and 1Kg.



8. All Max (Chelated Multi-Micro nutrient mixture)

(Enriched with Amino acids, Potassium, Magnesium and Sulphur)

1. **All Max** is a Chelated multi micro nutrient mixture which is enriched with amino acids, potassium, magnesium and sulphur for better crop growth and yield.
2. **All Max** is 100% water soluble powder which contains Zinc, Iron, Boron, Manganese, Copper and Molybdenum. They are fully absorbed by roots and foliage hence **All Max** is suitable for foliar spray and fertigation.
3. Each state fertilizer committee has developed their own micro nutrient fertilizer grades/mixtures based on type of soil and crops existed in their states.
4. **All Max** brand provides required micro nutrient mixtures for each state.
5. **All Max** helps the crops to become more tolerant to diseases and drought conditions.
6. **All Max** provides better support for fruit setting and enhance the both yield and quality of produce.
7. **All Max** is compatible with all kinds of fertilizers.

Recommended crops :- All crops

Dosage :- Foliar Spray : Dissolve 2 to 2.5gm of **Srikar All Max** in one liter of water. use sufficient water and spray properly on both surfaces of leaves.

Fertigation :- Apply 0.5 to 1 Kg of **Srikar All Max** per acre.

Srikar All Max can be applied during all stages of crop life for the better crop growth and yield and quality of produce.

Available packings : 250gm, 500gm, 1Kg, 5Kg (Bucket) and 10Kg Bag



Precautions to be followed while handling of fertilizers

- * Store fertilizers in a safe place away from children and pets. Storage place should be cool and dry .
- * Before applying any fertilizers, take into account the stage of plant development and the soil type & condition.
- * Use the correct dosage of the fertilizer and at correct time intervals.
- * For better results spraying should be done in the morning or evening hours.
- * Spraying should be done in windward direction only not against the wind direction.
- * High concentration / dose tends to burn plants.
- * The effect of fertilizers will be reduced if used before rain or during rains.
- * Small trials are recommended before regular application.
- * Partly used bags/packets should be closed.
- * Avoid exposure to direct sun light .

FUNCTIONS OF ZAMEEN GOLD FERTILIZER AT 8 KEY STAGES OF PLANT GROWTH

- 1. Nursery period:** Avoids damping off and other diseases in this period. Keeps uniform strong seedlings without over growth.
- 2. After transplanting :** Recovers quickly from shock after transplanting, no dead seedlings, avoid soil-borne diseases.
- 3. Vegetative period :** Encourages short internodes, thick strong stems, thick leaves, balanced vigor, disease resistance.
- 4. Flowering period:** Improves early flowering, good bud differentiation, big and bright flowers, high flowering ratio, less falling off flowers.
- 5. Fruit Setting Period:** promotes high fruit setting rate and prevents malformed fruits.
- 6. Fruit Expanding Period :** Fast expanding, uniform fruit size, high organic content, uniform maturity.
- 7. Color transfer period:** Bring uniform and bright color, good taste, prevents sunburn and abnormal fruit.
- 8. Harvest period :** More yield with better sugar content, big single size, late aging, stores well.



SRIKAR GROUP OF COMPANIES

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 - ▶ Srikar Pesticides
 - ▶ Srikar Micronutrients
 - ▶ Srikar Bio Products
2. Eldorado Agritech Pvt. Ltd.
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4. Srikar Organics India Limited
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Srikar Biotech Pvt. Ltd.

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