



ROYAL
For Agricultural Development

Foliar **Fertilizer & Natural** Pesticides



Scientific WAY is **Always** our WAY



ROYAL
For Agricultural Development

About Us

Royal For agriculture development is a leading Egyptian manufacture of natural pesticides, plant growth stimulators and fertilizers.

Since the establishment of Royal in 2006, we have been engaged in scientific researches and technology cooperation with international agriculture institutes to deliver innovative and practical crops protection solutions. Our R&D team consists of PhDs and highly qualified agriculture engineers in the fields of natural pesticide and plant disease control. They have been dedicated to provide environmental friendly products that helped our producers and growers to increase yield quantities, improve quality and induce plant tolerance against infection of plant pathogens and biotic stress of salinity, heat, drought etc.

Royal products are covering Egypt, African and Arab countries through a large network of authorized distributors and wholesalers and our products have proven to be the best choice for growers who are concerned about producing healthy crops free of pesticides residues.

We are very proud of our customers' satisfaction and we are obliged to maintain our credibility and abide with our principle of producing environmental friendly products.



Intro

Products

Our products are improving biological process in plants through enhancement of yield quantities, fruit quality and induction of plant resistance against biotic stress (plant diseases) and environmental stresses including heat, cold stress, salinity and drought. Our products are including four categories, Natural pesticides, plant growth stimulators, fertilizers and crop protection.

Natural Pesticides:

Our R&D department developed a wide range of non toxic natural pesticides. Our natural pesticides are effective to control plant diseases without any chemical residues in fruits. Royal natural pesticides are environmental friendly compounds and can be used in organic farming. We have natural pesticides for plant parasitic nematodes, soil born diseases, fungal diseases, acarose, red spiders, aphides, drosophila and white fly.

Plant Growth Stimulators:

Royal is manufacturing a wide range of plant growth promoters including amino acids products, humate products, and compatible solutes based products. Royal growth stimulators help growers to activate their plant vegetative and generative growth. Our growth stimulators activate fruit development, rooting and plant growth. Also, Royal stimulators improve plants performance especially under stress conditions.

Fertilizers:

Our fertilizers are including a wide range of fertilizers providing balanced plant nutrition. Royal fertilizers are including NPK suspension fertilizers, Liquid NPK fertilizer, Macro nutrients fertilizer, and chelated micronutrients. Our fertilizers used for foliar application and fertilization with irrigation water. All products are water soluble and have high uptake efficiency.

Crop protection:

We present products for plant protection against unsuitable environmental conditions. Crop protection products including plastic film from IMECE, Turkey.

- Solar sterilization plastic film for disinfection of soil against harmful pathogens.
- Plastic mulch and cover film for greenhouse vegetables production.
- Sun screen bags for fruit protection against sun burning and insects.



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Biocure Natural Fungicide

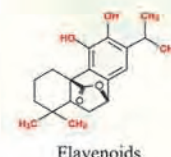
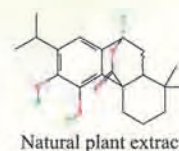
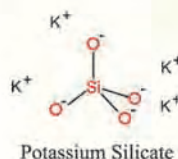


Biocure is a curative and preventive natural fungicide.

Biocure is a highly active fungicide against powdery mildew, downy mildew, early blight, late blight, fruit rot.

Active ingredients:

Potassium metasilicate	52%
Flavenoids	10%
Natural polyphenols	10%



Fungicidal mode of action of Biocure:

Biocure is a natural fungicide that has a wide range of plant fungal pathogene.

Biocure contains a natural antifungal compounds able to inhibit fungal spore germination and fungal growth.

Biocure is able to protect many plant species against a wide range of plant fungal pathogens including Ascomycetes, Oomycetes, Duetromycetes, and Basidomycetes.

Biocure induce the biosynthesis of several plant pathogenesis related proteins which inhibit the fungal penetration to plant tissues.

Biocure inhibits the fungal DNA agryase and terminate fungal cell division.

Biocure stimulates lignin biosynthesis and increase plant cell wall strength.

Biocure increase the level of glucose in the plant tissues and prevents fungal infection.

Biocure has no toxic effect on plants, animal and human.

Biocure is environmentally safe compounds and can be used in organic farming protocols as well as in IPM programs.

Dosage and applications:

Foliar application 500 mL / acer i.e 250 mL / 200 liter water for many plant and crops.

Packing: 250 ml - 500 ml - 1 Litre



Late blight in tomato



Powdery mildew in grape fruit



Dawny mildew in grape

Temasterol Natural Nematicide



Composition of Temasterol:

Chitinase	1,200,000 IU	Saponine Glycoside	12%
B 1,3 Glucanase	200,000 IU	Flavenoids	5 %
Cytokinines like compounds	200 ppm	Turmaric acid	5 %

Characteristics of Temasterol

Temasterol destroys eggs and larva of all nematode species.

Temasterol hydrolyzes the chitin layer of nematode eggs and larva.

Temasterol inhibits cholesterol biosynthesis in nematode and prevents egg hatching.

Temasterol inhibits the nematode development in soil and plant roots.

Temasterol is very effective against all pathogenic nematode especially root knot nematode (*Meladogina* spp.).

Temasterol has a fungicidal effects against root rot fungi.

Temasterol stimulates root growth and enhances root hair formation.

Nematicidal mode of action of Temasterol:

Saponines inhibit cholesterol biosynthesis and prevents nematode egg hatchability and molting. Turmaric acids is a nematicidal active compounds against 1st and 2nd generations of nematode larva.

Flavenoids prevent nematode penetrations into plant root tissues and induce plant resistance against nematode and fungi.

Chitinase and b 1,3 glucanase hydrolyze chitin and destroy the cell wall of nematode eggs and larva.

Cytokinin like compounds stimulate root growth and root hair formation

Dosage and Application of Temasterol:

Temasterol is used through water of irrigation 5 liter/ 1 acer.

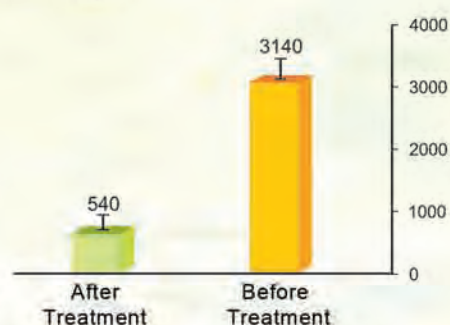
In case of higher level of nematode infection,

Temasterol treatments has to be repeated after 10-15 days.

In condense cultivation such as vegetable and under green houses conditions),

Temasterol used with water irrigation by 3-5 cm³/m²

Packing: 5 Litre - 25 Litre



Mite Green Natural Accaricide



Composition:

<i>p</i> -ansialdhyde	48%
Garlic oil	10%
Capsicum oil	1%
Surfactants	25%

Characteristics of Mite Green:

Mite Green is a natural accarocide a gainst acarose, mites and red spiders.

Mite Green denaturates the proteins of spider eggs and whole animals.

Mite Green works by contact.

Mite Green is environmentally safe compounds.

Mite Green has no toxic effect on human and animals.

Mite Green destroys cutin and caused water loss from acarose and spider mites.

Dosage and application of Mite Green:

50 cm³ / 100 Liter water for foliar applications, according to the following Table:

Crop	Case of uses	Concentration
Green beans Cucumber pepper , strawberry	Red spider Acaros Mites	0.5 ml / liter of water
Apple , peach , apricot pomegranate	Red spider	0.5 ml / liter of water
Citrus, Mango	Red spider Citrus rust Acaros	1 ml / liter water
Grape	Red spider Powdery bugs	1 ml / liter
Potato , Onion Garlic , Sugar beats	Red spider	0.5 ml / liter of water

Packing: 100 ml - 250 ml - 500 ml



Mite in capsicum plant



Red spiders in strawberry



Red spiders in green beans



Red spiders in cucumber

Royal fly X Natural Insecticide



Composition:

Potassium Oxide (Potassium meta silicate).	10%
Natural insecticidal compounds (Allicine, Diallyl trisulfide, Azedrichtine)	10%
Surfactant	2%

Royal fly x mode of action:

Royal fly X reduces the population of insects in leaves and fruits.

Royal fly X is a highly active natural insecticide against white fly (*Bemisia Tabaci*), aphides (*Aphis pomi*) and *Acyrtosiphon pisum*, fruit fly (*Drosophila melanogaste*) and red spider.

Royal fly X destructs cuticle of insects and caused insects dehydration which leads to their death.

Royal fly X contains a insecticidal active natural compounds able to kill insect and their eggs such as allicine, diallyl trisulfide and azedrichtine.

Royal fly X is a repellent for many insectal pests

Royal fly X prevents insects to lay their eggs on the surface of plant leaves.

Royal fly X contains insects antifeedant compounds.

Royal fly X causes a mechanical distraction of insects and their eggs.

Royal fly X isolates plant tissues from insects.

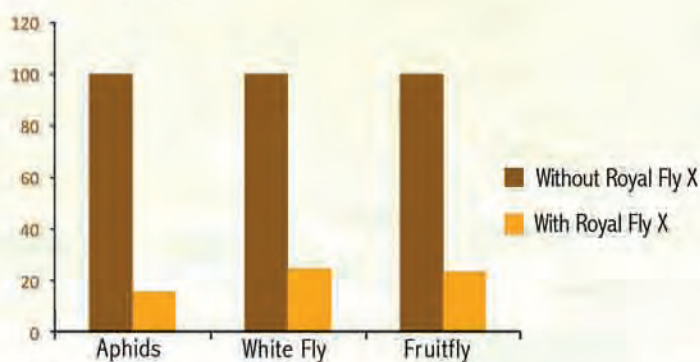
Royal fly X has not any toxic or harmful effects on human, animals and plants.

Royal fly X is recommended as natural insecticide in IPM programs.

Dosage and Uses:

For foliar treatment 2-5 ml/liter of water.

Packing: 500 ml - 1Litre - 5Litre



Egyxide

Water soluble natural oils
Natural Insecticide & Fungicide



Composition:

Natural emulsified vegetable oils	10%	K ₂ O	10%
Glue Substances	2%		

Egyx characteristics:

Egyxide is a natural emulsified mixture of vegetable oils separate plant tissues from insect infection and prevent plant insect diseases.

Egyxide prevents plant diseases in summer and winter.

Egyxide is effective potassium soap clean plants and trees from dusts, insect eggs and fungal spores.

Egyxide increases plant leaves viability and enhance photosynthesis.

Egyxide absorbs the UV harmful radiation and prevent fruits sun burn.

Egyxide mixing with insecticide improves their insecticidal efficiency.

Egyxide is highly efficient when mixed with low dosage of insecticide and reduces the protection costs.

Egyxide is environmentally friendly compound, safe and effective.

Dosage & Uses:

Egyxide used for fruit trees, vegetable plants, ornamental plants, indoor plants and outdoor plants as foliar application 5 - 10 ml / Liter.

Egyxide effectively reduced insect and acarose population on plant leaves.

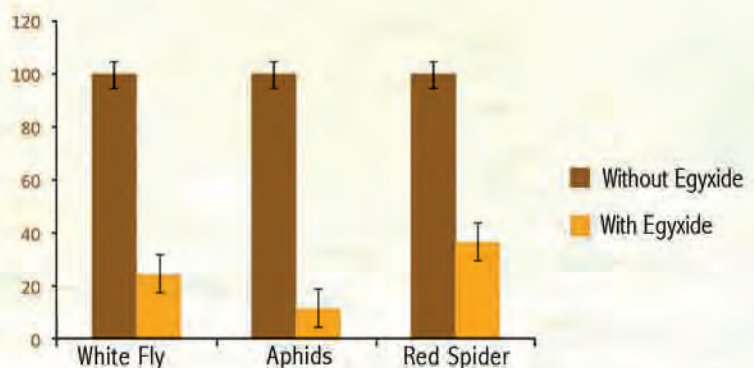
Packing: 1 Litre - 3 Litre - 12 Litre -100 Litre



After Treatment



Before Treatment



Concept protect

Soluble Potassium Silicate 21%
Natural Protector against fungal diseases and insects



Characteristics of Concept protect:

Concept Protect is a natural fungicide containing soluble silicon in the form of potassium silicate.

Concept Protect isolate plant tissues from fungal spores and insect eggs and prevent disease development.

Concept Protect induces plant resistance against fungal diseases such as powdery mildew, downy mildew and early & late blights.

Concept Protect strengthens plant cellular walls and makes them more tolerant to fungal penetrations.

Concept Protect activates the formation of leaves and stem hairs and increases their length to prevent fungal spore growth on the leaves or stem epidermis.

Concept Protect prevents fungal rust in wheat and rice plants.

Concept Protect reduces the infection of solanaceae crops with Alternaria blight especially in tomato and potato.

Concept Protect enhances plant resistance against powdery mildew and downy mildew especially in vegetable plants and fruit trees.

Concept Protect is an environment friend product does not contain any toxic substance to human, animals or plants.

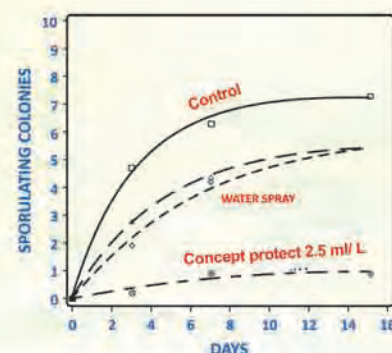
Concept Protect has no residue in plant tissues or fruits PHI= zero day.

Concept Protect is recommended for plant protection and can be mixed with other natural fungicides in case of high level of disease incidence.

Dosage and application:

Concept Protect for foliar application with dilution of 2.5 ml / 1 Liter of water.

Packing: 500 ml - 1 Litre



Concept protect inhibits powdery mildew development on grape leaves (Bowen et al 1992).

Royal Furan

Natural Nematicide & Fungicide



Active ingredient

5-Hydroxy methyl furural	8%
Crude extract of Melia azadreacha	20%
Root Growth Stimulator	10%

Characteristics of Royal Furan:

Royal Furan is an extremely effective natural nematicide against turf nematodes.

Royal Furan does not contain any toxic substances to human, animals and plants.

Royal Furan has relatively lower toxicity and can be handled easily.

Royal Furan works by contact to nematode whereas it destructs cutin layer and leads to loss of their function in respiration and maintaining of water.

Royal Furan is a water soluble nematicide and can be used through irrigation.

Royal Furan is effective against all plant-parasitic nematode especially root knot nematodes.

Royal Furan is as effective as existing nematicides yet is not phytotoxic and stimulates the growth of beneficial organisms in the soil.

Furan R controls root rot and inhibits soil born pathogenes such as fusarium, rhizoctenia, and pethium.

Royal Furan a healthy root system resulting in improved nutrient and water uptake.

Dosage and Applications:

1. Fruit trees (Grape – peach – pomegranate – citrus etc.)
Use Royal Furan 5 L/ feddan and repeated 2-3 times after 21 days.
2. Vegetable (Tomato – cucumber – melon – egg plants – Pepperetc.)
Use Royal Furan 10 L/ feddan and repeated 2-3 times after 21 days.
3. Field crops (Wheat – chick pea = beansetc.)
Use Royal Furan 7 L/ feddan and repeated 2-3 times after 21 days.
Royal Furan was used through drip irrigation system or by spraying root zone with dilution 1:100 before start irrigation.

Packing: 5 Litre - 25 Litre



Royal Furan & Nematode in potato



Root knot nematode

Cuprol

Effective copper fungicide



Composition:

Copper 5%

Potassium (K_2O)

Sulfur 5.92%

Supper fine powder

Cuprol characteristics:

Cuprol contains copper and sulfur which prevent plant infection by wide range of fungal pathogens.

Cuprol increases plant cellular sugars through increasing carbohydrate synthesis and sugars formation.

Cuprol induces plant resistance against fungal diseases.

Cuprol Prevents fungal spores germination and prevents fungal infection

Dosage and Uses:

Crop	uses	Dosage
Tomato - Potato	Early blight – Late Blight	250-300 g/100 liter water
Cucurbitaceae: Cucumber – Squash – melon- watermelon.	Downy mildew - Powdery mildew	250 g/100 liter water
Green beans	Leaf spots	250 g/100 liter water
Pea	Anthraxnose	250-400 g/100 liter water
Onion	Downy mildew –Purple blotch	250 g/100 liter water
Garlic	Rust	250 g/100 liter water
Grape	Downy mildew	250 g/100 liter water
Peach –Pomgranate - Apricot	Lichens - Leaf curl -necrosis	250 - 300 g/100 liter water mix with oil
Mango	Anthraxnose – Lichens –Die back – Flower blights	250 - 300 g/100 liter water mix with oil
Citrus	Lichens - sooty mould	250 - 300 g/100 liter water mix with oil
Pear - Apple	scab	
Bean	Brown Spots	

Packing: 500 g - 1 kg - 5 kg - 25 kg

Wilt Green

Natural Fungicide for soil born diseases
For Pathogen free soil



Active ingredientst

Copper glucanate 10%

Potassium permanganate 5%

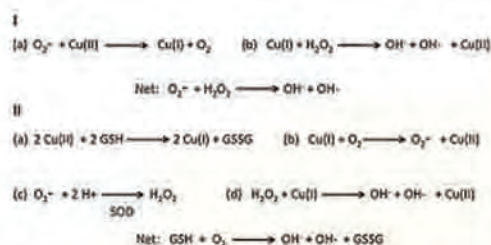
Characteristics :

Wilt green is a fungicide protects plants against Fusarium oxysporum, Verticillium sp., Pythium, Phytophthora, Rhizoctonia, Sclerotium rolfsii.

Wilt green reduces damping off diseases

Wilt green can be integrated with soil solar sterilization.

Wilt green is effective in reducing wilt diseases.



Wilt Green oxidizes harmful pathogens in soil

Dosage and dilution:

Wilt green used by 5 -10 liter / hektar.

Dilution 2ml / liter water.

The pH of irrigation solution must be acidic

In soil sterilization used by 10 litre / hektar

Packing: 1 Litre - 5 Litre - 25 Litre



Rhizoctenia wilt



Fusarium wilt



Bacterial wilt



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Plant growth stimulator

Royal is manufacturing a wide range of plant growth promoters including amino acids products, humate products, and compatible solutes based products. Royal growth stimulators help growers to activate their plant vegetative and generative growth. Our growth stimulators activate fruit development, rooting and plant growth. Also, Royal stimulators improve plants performance especially under stress conditions.

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Royal Grow Amino acids & Nutrients



Characteristics of Royal Grow:

Royal Grow is a natural plant growth stimulator containing alpha L amino acids works as precursor of plant growth promoting compounds such as auxines and cytokinines.

Royal Grow increases the level of plant resistance against biotic and abiotic stresses eg. Heat stress, chilling stress, salinity stress, and drought.

Royal Grow contains Indoles which act as precursor of IAA and activate the root growth and prevent seedlings wilt.

Royal Grow helps seedling producers to produce homogenous seedlings with high root: shoot ratio.

Royal Grow is used during the critical stages of plant growth such as seedling transformation, flowering, fruit setting, after insect and fungal infection.

Royal Grow increases the rate of DNA replication and enhances the activities of many enzymes and hormones and increase the yield quantity and quality.

Royal Grow increases the cereal yields by 10% and increase the yield of vegetable by 15%.

Composition:

Chelated Zinc	6000 ppm	Boron	3000 ppm
Chelated Iron	6000 ppm	Chelated copper	3000 ppm
Chelated manganese	6000 ppm	Betaine	5000 ppm
Chelated Magnesium	10000 ppm	Amino acids	100000 ppm
Chelated copper	3000 ppm	Vitamins and PGPs	10000 ppm



Dosage and Applications:

Royal Grow used for foliar application according to the following table:

Crop	Time of uses	Dosage
Vegetable: Tomato, strawberry, pepper,	Foliar application during vegetative and generative growth one time per week	2 Cm ³ /liter of water
Fruit trees: Citrus, mango, Olive	1 st during flowering - 2 nd after fruit setting - 3 rd during fruit development	1.5 Cm ³ /liter of water
Grape	1 st during buds activation - 2 nd after fruit setting and shuttering - 3 rd during fruit development	2 Cm ³ /liter of water
Legumes: Pea, Green beans, beans	1 st at beginning of flowering - 2 nd after fruit setting	1 Cm ³ /liter of water
Peach, Apricot, Pear	1 st at beginning of flowering - 2 nd after fruit setting - 3 rd during fruit development	2 Cm ³ /liter of water
Potato, Onion, Garlic	1 st 15 days after cultivation - 2 nd during tuber formation	1.5 Cm ³ /liter of water

Royal Grow used for soil fertigation by 2 Litre / Acer

Packing: 125 ml - 250 ml - 500 ml - 1 Litre - 5 Litre

Onic 1 For water and soil salinity



Characteristics of Onic 1:

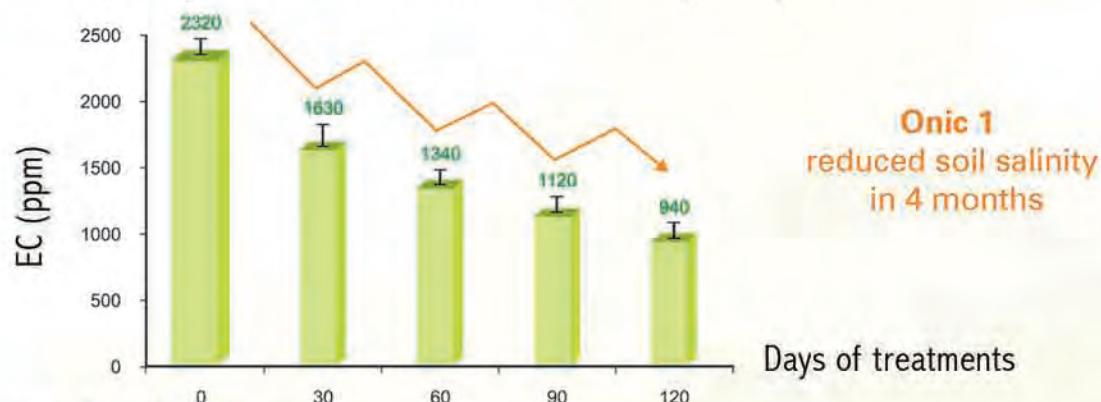
Onic 1 increases sodium wash from soil

Onic 1 increases osmotic pressure of plant root tissues and induce plant resistance against salinity.

Onic 1 replaces sodium ions by calcium ions in soil

Onic 1 reduces alkaline pH of soil.

Onic 1 chelates many micronutrient and increase their availability to the plants.



Dosage and applications:

Onic 1 is used by concentrations depending on the level of salinity and sodium absorption ratio (SAR) according to the following table:

Recommended concentrations of Onic 1 ml/m³ water of irrigation

SAR					Soil / Water EC (ppm)
10	8	6	4	2	
250 ml	200 ml	150 ml	100 ml	50 ml	200-600
300 ml	250 ml	200 ml	150 ml	100 ml	600-1200
360 ml	300 ml	240 ml	180 ml	120 ml	1200-1800
600 ml	500 ml	250 ml	250 ml	150 ml	1800-2500
1000 ml	800 ml	600 ml	400 ml	250 ml	2500-3200
1500 ml	1200 ml	900 ml	600 ml	350 ml	3200-3800

Packing: 5Litre - 10 Litre - 25 Litre

Selanol

Anti stress agents for better plant growth under environmental stress conditions



Composition:

Selanomethionine	0.05%	Chelated manganese	3%
Vitamins	5%	Chelated copper	0.5%
Chelated zinc	4%	Chelated magnesium	1%
Chelated iron	4%	Boron	0.2%

Characteristics of Selanol

Selanol is an antistress agent and microelement fertilizes.

Selanol improves plant vegetative and generative growth especially under stress condition.

Selanol contains selamonethionene which activates antistress defensive system in plant cells.

Selanol prevents heat shock injury in plants.

Selanol enhances plant tolerance against biotic and a biotic stress.

Selanol improves yield quality and quantities.



Selanol improves plant vegetative & generative growth

Dosage and Application:

Selanol used as foliar according to the following table

Crop	Time of uses	Concentration of foliar application
Vegetable: Tomato, cucumber, strawberry, lettuce, pepper	Every 15 from appearance of second leaf	2.5 g/ liter
Fruit trees: Citrus, Mango, olive	During floweing and fruit settings	500 g/ 100 liter
Grape	After buds activation and after harvest	300 g/ 100 liter
cereals	After 30-40 days of cultivation	200 g/ 100 liter
Ornamental plants	Once every week	500 g/ 100 liter
Land scape	Once every week	500 g/ 100 liter

Packing: 500 g - 1kg

Egyxamine Fe 7% liquid chelated Iron + amino acids



Composition

Chelated iron 7%

free amino acids 8%

Egyxamine Fe Characteristics

Egyxamine Fe increases the rate of mitochondrial respiration and energy production.

Egyxamine Fe contains a natural chelated iron supplies fruit and vegetable plants with extremely high availability.

Egyxamine Fe contains a highly biologically active amino acids such as L- Methionine and L- Lysine.

Egyxamine Fe improves photosynthetic activity of all plant species.

Egyxamine Fe induces plant resistance against physical stresses such as heat, chilling, salinity and drought.

Egyxamine Fe improves nutrients utilization and increase fertilization efficiency.

Egyxamine Fe plays important role in chlorophyll biosynthesis in plants.

Egyxamine Fe contains a precursor of plant growth promoting hormones such as auxins.

Dosage and Applications

Crop	Time of uses	Concentration of separation solution
Grape – Peach – Apricot – pomegranate	February – May once every two weeks.	2 Cm ³ / liter
Citrus	February – May once every two weeks	1.5 Cm ³ / liter
Vegetable - Capsicum – Tomato Cucumber – Eggplants – Green beans	After two weeks of cultivation once every 15 days	1.5 Cm ³ / liter
Banana	After 3 weeks of cultivation once a month	1.5 Cm ³ / liter
Tuber crops - Potato – Onion – Garlic sugar beat	After two weeks of cultivation once every 15 days	1.5 Cm ³ / liter
Field crops - Wheat – Maize - Rice	After one month of cultivation & after 30 day of first treatment	1 Cm ³ / liter
Ornamental plants and landscape	Once every 15 days	2 Cm ³ / liter

Packing: 500 ml - 1Litre



Egyxamine Mg 5% liquid chelated Magnesium + natural amino acids



Composition

Chelated Magnesium 5%

Free Amino acids 8%

Egyxamine Mg Characteristics

Egyxamine Mg increases the chlorophyll and photosynthetic activity.

Egyxamine Mg supplies the plants with magnesium in biologically active forms.

Egyxamine Mg prevents magnesium deficiency symptoms in fruit plants, vegetable and ornamental plants.

Egyxamine Mg contains a chelate magnesium in a form bounded to highly active amino acids such as L-glutamic acid and glycine.

Egyxamine Mg induces plant tolerance against environmental stress conditions such as salinity, chilling, and heat stress.

Egyxamine Mg improves the nutrient uptake and utilization especially nitrogen, phosphate and iron

Egyxamine Mg plays an important role in energy metabolism and biosynthesis of energy enriched compounds such as ATP.

Dosage and Applications

Crop	Time of uses	Concentration of separation solution
Grape – Peach – Apricot – pomegranate	February – May once every two weeks.	2 Cm ³ / liter
Citrus – Mango – Olive – Banana	February – May once every two weeks	1.5 Cm ³ / liter
Vegetable Capsicum – Tomato – Cucumber – Eggplants – Green beans	After two weeks of cultivation once every 15 days	1.5 Cm ³ / liter
Banana	After 3 weeks of cultivation once a month	1.5 Cm ³ / liter
Tuber crops Potato – Onion – Garlic – sugar beat	After two weeks of cultivation once every 15 days	1.5 Cm ³ / liter
Field crops Wheat – Maize – Rice	After one month of cultivation & after 30 day of first treatment	1 Cm ³ / liter
Ornamental plants and landscape	Once every 15 days	2 Cm ³ / liter

Packing: 500 ml - 1Litre



Egyxamine Zn 5% Liquid Chelated Zinc + Natural Amino Acids



Composition

Chelated Zinc 5%

Free Amino Acids 8%

Characteristics Egyxamine Zn

Egyxamine Zn promotes plant growth and increases the rate of cell division.

Egyxamine Zn Supplies vegetable plants and fruit trees with Zn in highly absorbable form.

Egyxamine Zn reduces zinc deficiency symptoms in all plant species.

Egyxamine Zn improves the fertility of Cucurbitaceae (increase the number of female flowers).

Egyxamine Zn induces the biosynthesis of antigibbrillin.

Egyxamine Zn enhances the fertility of trees such as grape and pear.

Egyxamine Zn activates the plant growth through a biologically active amino acids such as L- Methionine, L-Lysine and Proline.

Egyxamine Zn enhances the plant resistance against environmental stresses such as salinity, chilling, heat and drought.

Egyxamine Zn promotes the biosynthesis of plant growth hormones.

Dosage and Applications

Crop	Time of uses	Concentration of separation solution
Grape – Peach – Apricot – pomegranate - Apple	From May to September once every two weeks	2 Cm ³ / Liter
Citrus – Mango – Olive	From February to April once every 15 days.	1.5 Cm ³ / Liter
Vegetable : Capsicum – Tomato – Egg plant	After two weeks of cultivation once 15 days.	1.5 Cm ³ / Liter
Cucurbitaceae Cucumber – Squash – water melon	After appearance of 2 nd leaves once 7-10days.	1.5 Cm ³ / Liter
Potato – Onion – Garlic – Sugar Beet.	After two weeks of cultivation once 15 days.	1.5 Cm ³ / Liter
Field Crop Wheat – maize - Rice	After one month of cultivation and repeat spraying after the first treatments.	1 Cm ³ / Liter
Ornamental plants and landscape.	Once 15 days	2 Cm ³ / Liter

Packing: 500 ml - 1Litre

Egyxamine Ca 9%

Liquid Chelate Calcium
+ Boron + natural amino acids



Composition

Chelated Calcium 9%

Boron 2%

Free amino acids 10%

Characteristics of egyxamine Ca

Egyxamine Ca improves fruit formation and fruit quality.

Egyxamine Ca supplies fruit and vegetable plants with calcium and boron in an absorbable form.

Egyxamine Ca improves pollination and fertilization processes.

Egyxamine Ca prevents calcium deficiency symptoms.

Egyxamine Ca contains a mixture of amino acids which promote plant growth and induce plant resistance against abiotic stress.

Egyxamine Ca prevents flower and fruit fall.

Egyxamine Ca induce the formation of plant growth promoting hormones.

Egyxamine Ca contains a biologically active amino acids e.g. L- Methionine, L-Lysine, Proline and glycine.

Dosage and Applications

Crop	Time of uses	Concentration of separation solution
Grape – Peach – Apricot – pomegranate - Apple	1 st application: During flowering - 2 nd application after fruit settings.	2 Cm ³ / Liter
Citrus – Mango – Olive	1 st application: During flowering - 2 nd application after fruit settings once every two weeks	1.5 Cm ³ / Liter
Vegetable : Cucurbitacea Capsicum – Tomato – Egg plant- Cucumber – Squash – water melon	During flowering once every two weeks.	1.5 Cm ³ / Liter
Potato – Onion – Garlic – Sugar Beet.	During vegetative growth once every 15 days. During tuber formation once every 15 days.	1.5 Cm ³ / Liter
Ornamental plants and landscape.	Once every 15 days.	2 Cm ³ / Liter

Packing: 500 ml - 1Litre



Egyxamine Mn 9% Liquid Chelated Manganese + Natural Amino Acids+



■ Composition

Chelated Manganese 9%

Free Amino Acids 8%

■ Egyxamine Mn Characteristics

Egyxamine Mn improves Respiratory activity and energy production in plant cells.

Egyxamine Mn supplies fruit and vegetable plants with manganese in an utilizable form.

Egyxamine Mn improves photosynthetic activity and chlorophyll biosynthesis.

Egyxamine Mn prevents manganese deficiency symptoms.

Egyxamine Mn contains a mixture of amino acids which promote plant growth and induce plant resistance against abiotic stress.

Egyxamine Mn induces the formation of plant growth promoting hormones.

■ Dosage and Applications

Crop	Time of uses	Concentration of separation solution
Grape – Peach – Apricot – pomegranate - Apple	1 st application: During flowering - 2 nd application after fruit settings.	2 Cm ³ / Liter
Citrus – Mango – Olive	1 st application: During flowering - 2 nd application after fruit settings once every two weeks	1.5 Cm ³ / Liter
Vegetable : Capsicum – Tomato – Egg plant- Cucumber Squash – water melon and melon.	During flowering ,and after start of fruit setting once every two weeks.	1.5 Cm ³ / Liter
Potato – Onion – Garlic – Sugar Beet.	During vegetative growth once every 15 days. During tuber formation once every 15 days.	1.5 Cm ³ / Liter
Ornamental plants and landscape.	Once every 15 days.	2 Cm ³ / Liter

■ Packing: 500 ml - 1Litre

Egyxamine Micro-Mix 9%

chelated micronutrients + Natural free amino Acids



■ Composition

Chelated Iron	1.5%	Boron	0.05%
Chelated Zinc	1%	Chelated Magnesium	1%
Chelated Manganese	1%	Free Amino Acids	8%
Molybdenum	0.02%		

■ Egyxamine MICRO – Mix Characteristics

Egyxamine Micro – Mix is a balanced mixture of chelated micronutrients.

Egyxamine Micro – Mix is a completely soluble and can be absorbed by plant roots and shoots.

Egyxamine Micro – Mix improves the flowering and fruit settings in vegetable and fruits.

Egyxamine Micro – Mix induces the plant resistance against environmental stress conditions.

Egyxamine Micro – Mix contains a plant growth stimulating amino acids such as L- methionine, L- Lysine, and L- Glutamic acid.

Egyxamine Micro – Mix promotes the biosynthesis of plant growth hormones like IAA and cytokinines

■ Dosage and Applications

Crop	Time of uses	Concentration of separation solution
Vegetable: (Tomato-Cucumber-Strawberry-melon-lettuce and capsicum)	From appearance of the fifth leaf once every 15 days. Repeat spraying in case of occurrence of micronutrient deficiency.	150 mL/100 Liter water
Citrus-Mango-Olive	During flowering After fruit settings	200 mL/100 Liter water
Grape	1 st After buds growth - 2 nd After fruit harvest	200 mL/100 Liter water
Field Crops: (Wheat-Rice-Maize-Cotton)	After 21 days of cultivation	200 mL/100 Liter water
Peach-Apricot-Pear	1 st After buds growth - 2 nd After 21 days of the first spray	200 mL/100 Liter water
Potato-Onion-Garlic-Sugar Beat	After 4-6 th leaf formation once every 15 days	200 mL/100 Liter water

■ Packing: 500 ml - 1Liter

Concept Root

Root growth stimulator



Composition

Chelated Iron	1.3%
Chelated zinc	1 %
Chelated Manganese	1 %
Chelated Magnesium	1 %
Plant growth promoters	0.05%

Boron	0.5 %
Free Amino acids	5 %
Humic and Fulvic acid	10 %
Vitamines	0.05%



Concept Root Characteristics

Concept Root is a root growth stimulator contains complementary groups of micro- nutrients, amino acids, vitamins and growth promoters.

Concept Root activates root cell division and enhances root hair formation during 48 – 72 hours of root treatments.

Concept Root contains a high portion of amino acids which stimulate root growth.

Concept Root activates root growth through formation of endogenous indoles such as IAA.

Concept Root induces plant resistance against abiotic stresses such as cold, heat stress, salinity and drought.

Concept Root prevents the infection with soil born diseases and activates root growth after infection.

Concept Root increase the uptake and utilization of macro and micro nutrients

Dosage and Applications

Crop	Application and Time of Uses
Grape – Peach – Apricot – pomegranate – Apple	Use as fertigation in February and March with dosage of 3 Liter / feddan
Citrus – Mango – Olive	Added 2 Liter / feddan with irrigation water in December and January Also can be used during stress conditions
Banana	Added 3 Liter / feddan with irrigation water in December and January Also can be used during stress conditions
Strawberry – Capsicum – Tomato – Egg plant	For seedlings 2 ml/ Liter water And used fertigation by 5 Liter / feddan
Cucumber – Squash – water melon and melon	For seedlings 2 ml/ Liter water And used fertigation by 5 Liter / feddan
Potato – Onion – Garlic – Sugar Beet	Used with irrigation water with dosage of 2-3 liter / feddan after transplanting and repeated monthly
Ornamental plants and landscape	For seedlings 2 ml/ Liter water And used fertigation by 5 Liter / feddan

Packing: 1 Litre - 5 Litre

Concept - Mix

chelated micronutrients + Natural alcohol sugars



Composition

Chelated Iron	1.3%	Boron	0.05%
Chelated Zinc	1%	Chelated Magnesium	1.2%
Chelated Manganese	1%	alcohol sugars	12%

Concept Mix Characteristics

Concept Mix is a balanced chelated micro nutrients.

Concept Mix contains polyol alcohol sugars which enhance nutrient uptake and utilization.

Concept Mix activates flowering and fruit settings especially under stress conditions such as heat stress, cold, and water or soil salinity



Figure 1

Concept Mix has osmoregulatory effects on plant cells

Dosage and Applications

Crop	Time of application	Spray solution concentration
Vegetable: (Tomato-Cucumber-Strawberry-melon-lettuce and capsicum)	From appearance of the fifth leaf once every 15 days Repeat spraying in case of occurrence of micronutrient deficiency.	150 mL/100 Liter water
Fruits: Citrus-Mango-Olive	During flowering After fruit settings	200 mL/100 Liter water
Grape	1 st After buds growth - 2 nd After fruit harvest	200 mL/100 Liter water
Field Crops: (Wheat-Rice-Maize-Cotton)	After 21 days of cultivation	200 mL/100 Liter water
Peach-Apricot-Pear	1 st After buds growth - 2 nd After 21 days of the first spray	200 mL/100 Liter water
Potato-Onion-Garlic-Sugar Beet	After 4-6 th leaf formation once every 15 days	200 mL/100 Liter water

Packing: 250 ml - 500 ml - 1 Litre

Alto green For plant greening



Composition

Nitrogen 11%

P205 3.1%

Humic & Fulvic acids 10%

Fe 1.5%

Mg 1%

Alto Green Characteristics

Alto Green is special fertilizer for chlorophyll biosynthesis in plants.

Alto Green activates root growth through its content of humic and fulvic acids.

Alto Green stimulates the growth of plant growth promoting bacteria in soils.

Alto Green improves soil environment and increases the availability of nutrient in the rhizosphere.

Alto Green activates photosynthesis through supplying plants with magnesium, nitrogen, iron, phosphate and humic acids.

Alto Green improves both generative and vegetative growth in all plant species.

Alto Green enhances plant growth especially under stress condition such as salinity, drought, heat stress and chilling stress.

Alto Green improves respiration processes through its contents of phosphates, magnesium and iron.

Dosage and Applications

Crop	Time of Application	Dosage
(Tomato – cucumber – Strawberry – lettuce – pepper)	Once every 15 days from formation of third leaf	2-3 liter feddan
Citrus- Mango - olive	1 st application during flowering 2nd application after fruit settings	2 liter feddan
Grape	After bud formation - After fruit setting	2 liter feddan
Wheat – Rice – Maize – Cotton)	After 21 days of cultivation	2 liter feddan
(Peach – Apricot – pear)	During bud formation and after 21 days of first application	2 liter feddan
Potato – onion – Garlic – sugar beat	After formation of 4 to 6 leaves once every 15 days	2 liter feddan

Packing: 1 Litre - 5 Litre

Concept A - Z Integration of Plant Nutrition



Composition

Fe	1.5%	Mo	0.03%
Zn	1%	Mg	1.9%
Mn	1%	Amino acids	5%

Concept AZ Characteristics

Concept AZ is a special macro and a micro nutrients foliar fertilizer depends on integration of nutrients in fruits and vegetable nutrition.

Concept AZ is completely soluble foliar fertilizer and highly uptake by shoots and roots.

Concept AZ improves vegetative and generative growth in all vegetables, fruits, field crops, and ornamental plants.

Concept AZ induces plant resistance against environmentally unsuitable conditions.

Concept AZ contains plant growth promoting amino acids such as methionine and lysine.

Concept AZ promotes the biosynthesis of natural plant stimulator such as IAA and cytokinines.

Dosage and Applications

Crop	Time of application	Concentration of spraying solution
(Tomato – cucumber – Strawberry – lettuce – pepper)	Once every 15 days from formation of third leaf	150 g / 100 Liter water
Citrus- Mango - olive	1 st a tpplication during flowering - 2 nd application after fruit settings	200 g / 100 Liter water
Grape	After bud formation - After harvesting	200 g / 100 Liter water
Wheat – Rice – Maize – Cotton)	After 21 days of cultivation	100 g / 100 Liter water
(Peach – Apricot – pear)	During bud formation and after 21 days of first application	200 g / 100 Liter water
Potato – onion – Garlic – sugar beat	After formation of 4 to 6 leaves once every 15 days	200 g / 100 Liter water

Packing: 500 g - 1 kg - 5 kg

Master feed

Chelated Nutrients & Plant growth stimulators
For Foliar application and Fertigation



Composition

Chelated Iron	3.2%	Boron	1%
Chelated Zinc	2.4%	K ₂ O	10%
Chelated Manganese	1.8%	Magnesium	3%
Chelated copper	1%	Free Amino Acids	10%

Other additives of sea weed and algae extracts, Humic acid and Fulvic potassium salts

Physiological effects of Master feed on plants

Master feed is a balanced macro and micronutrients chelated on humates in an absorbable form by roots and shoots.

Master feed contains sea weed and green blue algae extracts containing natural growth promoting compounds such as cytokinins and auxins.

Master feed stimulates shoot and root growth.

Master feed counteracts biotic and abiotic stress.

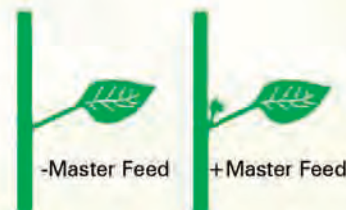
Master feed improves photosynthesis through its ability to improve chlorophyll biosynthesis and to activate photosynthetic enzymes.

Master feed enhance respiration and energy production processes.

Master feed activates buds formation, flowering and fruit setting.

Master feed increases fruit weight and fruit quality.

Master feed increase tuber formation and tuber weight.



Master Feed stimulates plant branching

Dosage and Uses

Crop	Time of Application	Concentration of spraying solution
Vegetable: (Tomato- capsicum – egg plant- Strawberry)	After one week of cultivation once every 15 days. Repeat spraying in case of occurrence of micronutrient deficiency.	1mL/1 Liter water
Cucumber – melon – watermelon - squash	After one week of cultivation once every 15 days. Repeat spraying in case of occurrence of micronutrient deficiency.	1mL/1 Liter water
Potato-Onion-Garlic-Sugar Beet	After 4 th leaf formation once every 15 days	200 mL/100 Liter water
Fruits: Citrus-Mango-Olive	During flowering - After fruit settings	200 mL/100 Liter water
Grape	1 st After buds growth - 2 nd After fruit harvest	200 mL/100 Liter water
Field Crops: (Wheat-Rice-Maize-Cotton)	After 21 days of cultivation	200 mL/100 Liter water
Peach-Apricot-Pear	1 st After buds growth - 2 nd After 21 days of the first spray	200 mL/100 Liter water

Packing: 500 ml - 1 Litre - 5 Litre



Master Phose

High phosphorous and potassium liquid fertilizer and growth enhancer Composition



■ Composition

P205	50%	Mg	04%
K20	18%	Amino Acids and growth stimulators	10%

Potassium polyphosphate & plant growth promoting foliar fertilizers

■ Physiological effects of Master phose on plants

Master phose is a high phosphate, potassium and magnesium liquid fertilizer in form of potassium magnesium poly phosphate used as nutrient and plant growth stimulator.

Master phose activates plant rooting, flowering and fruit setting.

Master phose supplies plants with high energy compounds which activate physiological processes in plants.

Master phose contains a biologically active amino acids and combatable solutes which enhance the utilization of phosphorous, potassium and magnesium.

Master phose increases chlorophyll biosynthesis and improve the activity of photosynthetic enzymes.

Master phose improves the respiration processes and energy production which lead to acceleration of plant growth.

Master phose increase potato yield through increment of tuber production and tuber filling with carbohydrate.

■ Dosage and Uses

Crop	Time of use	Concentration
Potato - Sugarbeet	During tuber formation and repeat after 21 days.	2.5 Cm ³ /Liter water
Vegetables: Tomato- cucumber - strawberry	Two weeks after cultivation once every 15 days and during flowering.	3 Cm ³ /Liter water.
Onion - Garlic	After appearance of 6th leaf once every 15 days.	2 Cm ³ / Liter water.
Fruits: Citrus - Mango- Olive	1 st application: During flowering - 2 nd application after completion of fruit settings.	2 Cm ³ / Liter water.
Grape	1 st application: During flowering - 2 nd application after completion of fruit settings.	2 Cm ³ / Liter water.
Field crops: (Rice -Wheat- maize- cotton)	After 45 days of cultivation. During fruit formation	1 Cm ³ / Liter water.
Peach - Apricor - Pear Pomegranate	From flowering once every two weeks.	2 Cm ³ / Liter water.
Banana	During growing season once every 15 days.	2 LITER / ACER

■ Packing: 1 Litre - 5 Litre



Master CaB Calcium Boron liquid fertilizer on a keto acids



Composition

CaO	22%
Boron	4%
keto acids	10%

Physiological effects of Master CaB on plants

Master CaB is a liquid fertilizer enriched with calcium and boron in a form of keto acids.

Master CaB supplies all plants with energy compounds through metabolic changes of keto acids to acetyl co A and ATP.

Master CaB improve pollination and fruit setting and increase pollen production.

Master CaB counteracts the adverse effect of environmental stress conditions on the plants.

Master CaB improves the fruit formations during biotic and abiotic stress e.g. cold stress, heat stress, salinity and drought.

Master CaB increases the photosynthetic activity through the ability of keto acids to binds to CO₂ and transfers it to chloroplast.

Master CaB is a absorbable calcium boron fertilizer and has a high utilization of calcium.

Master CaB leads to increase the pollen number on the stigma of flowers in fruit and vegetable flowers.

Master CaB induces plant resistance against fungal diseases especially in grapes, citrus, and Mango.

Master CaB prevents embryo death in many plant species especially in winter time.

Master CaB improves fruits development and yield quality.

Dosage and Uses

Crop	Time of Application	Concentration of spraying solution
Tubers: (Potato – sugar beets)	During tuber formation and repeated after 21 days of first application.	1mL/1 Liter water
Vegetables: Tomato – cucumber – strawberry – eggplants	After two weeks of cultivation once every 15 days and during flowering	3mL/1 Liter water
Onion – Garlic	After 6 th leaf-formation once every 15 days	200 mL/100 Liter water
Fruits: Citrus-Mango-Olive	During flowering – After fruit settings	200 mL/100 Liter water
Grape	1 st After complete fruit setting – 2 nd During fruit development	200 mL/100 Liter water
Field Crops: (Wheat-Rice-Maize-Cotton)	After 45 days of cultivation – after grain formation	200 mL/100 Liter water
Peach-Apricot-Pear	From flowering once every 15 days.	200 mL/100 Liter water
Banana	From spring once every two weeks.	200 mL/100 Liter water

Packing: 1 Litre – 5 Litre

Phospho Top

Energy producer For flowering and fruit settings



Composition

Nitrogen	4.6%	Boron	4%
P ₂ O ₅	24%	Sulfur	4%
K ₂ O	18%		

NPK & plant growth promoting foliar fertilizers

Physiological effects of Phospho Top on plants

Phospho Top is a NPK foliar fertilizers enriched with phosphate and potassium in addition to natural plant growth promoting compounds.

Phospho Top activates root growth, flowering, and fruit setting.

Phospho Top supplies the plant cells with high energy compounds which activates all the physiological process in plant cells.

Phospho Top contains amino acids, organic acids which maximize the utilization of phosphate, potassium and Boron.

Phospho Top improves respiration and energy production in plant tissues.

Phospho Top supplies plants with NPK and boron in available forms through fertigation or foliar application.

Phospho Top activates flowering and prevent parthenocarbic setting through its content of NAA.

Phospho Top improves both vegetative and generative growth.

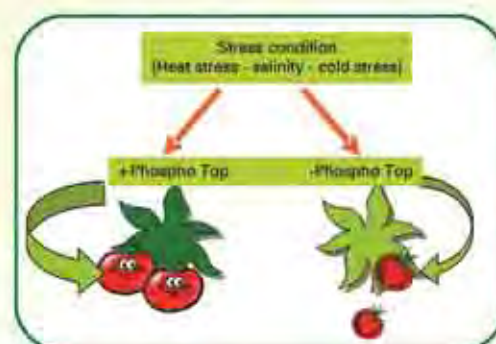
Phospho Top induces plant resistance against soil born diseases.

Phospho Top maximize carbohydrate transformation from photosynthetic cells to tubers and fruits.

Dosage and applications:

- foliar fertilizers with concentration of 1.5 - 3 g/ Liter
- Root fertilization 2 - 4 Kg / acer.

Packing: 500 g - 1 kg



Phospho Top enhances fruit setting under stress conditions

Orchard K

For Fruit Development



Composition

Potassium Oxide	36.5%
Sulfur	24.2 %
Amino Acids	3%
Prassinoloids	50 ppm

Characteristics of Orchard K:

Orchard K prevents improves fruit quality, fertilization and seeds formation.

Orchard K increases phloem thickness in trees and increase the branches fertility.

Orchard K enhance the sexual ratio in all plant species especially in cucurbitaceae such as squash, melon and water melon.

Orchard K increase fruit color development through its content of antigibberilic plant natural hormone brassinosteroid.

Orchard K improves fruits weight in all vegetable and trees such as grape, peach, apricot, pear, and citrus.

Orchard K contains amino acids and increases fruit development and leads to early harvest time.

Orchard K increases grain weight in cereals and increase yield quantity and quality.

Orchard K increases tuber formation and increase the yield of sugar beat in increase prix.

Orchard K increases sugar contents in fruits through the action of potassium and sulfur.

Orchard K enhances carbohydrate transportation from leaves to grains and fruits.

Dosage and applications:

Crop	Time of Application	Concentration of spraying solution
Field crops:	Spraying during grains formation - After 10-15 days 1 st spraying.	2 g / Liter water
Potato- sugar beat - onion	During tuber formation after 60 to 70 days of plantation. 2 nd spray after 10 to 15 days of 1 st spray.	1.5 g / Liter water
Tomato - egg plants - cucumber - squash	Foliar application from flowering once every 10 to 15 days.	1.5 g / Liter water
Grape	Three times every season: 1 st application after fruit setting , 2 nd after 10 to 15 days of 1 st application. - 3 rd after harvest and summer pruning.	2 g / Liter water
Leguims; chick pea - green beans- beans- pea.	Tow times application 1 st at flowering 2 nd after 10 to 15 days of 1 st application.	2 g / Liter water
Peach - Apricot - pear:	Tow times application 1 st after fruit setting 2 nd after 10 to 15 days of 1 st application.	2 g / Liter water
Citrus - Olive - Mango	Tow times application 1 st after fruit setting 2 nd after 21 days of 1 st application.	2 g / Liter water

Packing: 500 g - 1 kg

Pro-Mag

For ideal Vegetative growth



Composition

Fe	6%
Mg	7%
Sulfur	12.65%

For foliar application and root fertigation

Pro Mag Characteristics

Pro-Mag is a specific fertilizer containing iron and magnesium in highly absorbed form through foliar application or fertigation.

Pro-Mag contains biological compounds in addition to iron and magnesium activates vegetative growth.

Pro-Mag improves chlorophyll biosynthesis in fruits, vegetables, field crops, ornamental plants and landscapes.

Pro-Mag increases chlorophyll biosynthesis chloroplasts in plant photosynthetic cells.

Pro-Mag improves respiration and energy production in mitochondria of plant cells.

Pro-Mag increase the yield of C4 plants like maize and C3 plants like wheat through its ability to enhance CO2 assimilation.

Pro-Mag increase the tuber weights of potato and increases the yield of sugar beet.

Pro-Mag induces grape resistance to black stem disease.

Pro-Mag inhibits soil born disease development through its ability to inhibit pectinase enzyme activity.

Pro-Mag promotes plant growth under abiotic stress conditions like salinity, high temperature, cold and drought.

Pro-Mag activates antioxidant enzymes which enhance plant resistance against fungal diseases.

Pro-Mag accelaerate carbohydrate and sugar formation in grape, sugar beat.

Packing: 1 kg - 5 kg

MORAL

Micro Nutrients & Magnesium and plant growth stimulator



Composition

Zn	3 %
Fe	3.4 %
Mn	2.5 %
Mg	0.6%

Moral Characteristics:

Moral is a foliar fertilizer containing an integrated mixture of micronutrient , magnesium and plant growth promoters.

Moral prevents the appearance of deficiency symptoms of zinc, iron, manganese or magnesium in plants.

Moral contains micronutrient and Magnesium in a highly absorbable form through foliar applications.

Moral enhances chlorophyll biosynthesis and improves photosynthesis processes in vegetables, fruits and field crops.

Moral contains a natural compounds glycine betain which counteracts the effects of environmental stresses and biotic stress caused by fungal, insect and viral diseases.

Moral improves plant growth under stress condition such as salinity, drought, cold and heat stress.

Moral protects thylakoid membranes and improves photosynthetic efficiency and yield quantity and quality.

Moral increases the yield of cereals and grains by 15% in case of application during branching and flowering.

Moral activates antioxidant enzymes and improves plant performance under stress conditions.

Dosage and applications:

Crop	Time of Application	Concentration
Vegetable: (Tomato – Pepper – eggplants – strawberry)	After two weeks of plantation and during stress conditions	1g/ Liter
Cucurbitaceae: (Cucumber – Squash – melon –watermelon)	After one week of transplantation once a week and in case of stress conditions.	1.5 g/ Liter
Legumes: (Beans – Pea –green beans)	15 days after cultivation and repeated once two weeks	1 g/ Liter
Garlic – Onion – s	15 days after cultivation and repeated once two weeks	1 g/ Liter
Tubers: (Potato – Sugar beat- sweet potato)	15 days after cultivation and repeated once two weeks and during tubers formation	1 g/ Liter
Fruit trees: Citrus- Mango - Olive	Three applications per year in February, March and September.	1.5 g/ Liter
Grape	During bud formation	1.5 g/ Liter
Peach – Apricot – Pear – Pomegranate)	After bud formation	1.5 g/ Liter
Field crops: (w heat – rice – maize – cotton)	After 21 days of cultivation	1 g/ Liter
Landscape and ornamental plants	Once a month	1.5 g/ Liter

Packing: 1kg - 5 kg



Royal potafeed

Potassium thiosulfate + Boron + plant growth regulators



Composition

Potassium oxide K_2O	36.5%
Sulfur S	25%
Amino acids	5%
Boron	4%
Brassinosteroids	10 ppm

Characteristics of royal potafeed:

Royal potafeed contains brassinosteroids which improve the pollen formation in vegetable and fruits.

Royal potafeed enhances fruit quality in vegetable, fruits and field crops.

Royal potafeed increase the number and weight of grains in cereal crops.

Royal potafeed increases the sugar contents and the rate of sugar biosynthesis in vegetable and fruits.

Royal potafeed activates tuber formation in potato, sugar beat and carrot

Royal potafeed accelerates fruit ripening especially in colored fruits.

Dosage and Application:

Crop	Time of Application	Concentration	Dosage / acer
Cereals: Wheat, Rice, maize, cotton	During flowering and 15 days after grain formation	1 Cm^3 /liter	400-500 Cm^3 / acer
Potato, Sugar beat, Sweet potato.	During tuber formation (65-75 days after cultivation, 15 days after first application)	1.5 Cm^3 /liter	1 liter/ acer
Vegetable: Tomato, Egg plants, Cucumber, Squash	During flowering stage once every two weeks.	1.5 Cm^3 /liter	1 Cm^3 / acer
Grape	After fruit setting and 15 days after 1 st application.	2 Cm^3 /liter	1 liter/ acer
Legumes	During flowering and 15 days after 1 st application.	2 Cm^3 /liter	1.5 liter / acer
Citrus, Mango, Olive.	After 15 days of fruit setting and 15 days after 1 st application.	2 Cm^3 /liter	
Peach, Apricot, Pear and pomegranate	After fruit setting and 15 days after 1 st application	2 Cm^3 /liter	1 liter/ acer

Packing: 1 Litre - 5 Litre



ROYAL
For Agricultural Development

Fertilizers

Our fertilizers are including a wide range of fertilizers providing balanced plant nutrition. Royal fertilizers are including NPK suspension fertilizers, Liquid NPK fertilizer, Macro nutrients fertilizer, and chelated micronutrients. Our fertilizers used for foliar application and fertilization with irrigation water. All products are water soluble and have high uptake efficiency.

www.royalagri.com

Nutriland

Calcium Boron + Chelated micronutrient



Composition:

Nitrogen	8%	Chelated Iron	1.2%
Chelated calcium	4%	Chelated cobalt	50 ppm
Chelated zinc	1%	Boron	40 ppm
Vitamines	2%	Amino Acids	2%

Nutriland Characteristics:

Nutriland contains calcium, Boron and nitrogen in addition to micronutrients.

Nutriland plays an important role in cell wall formation and increase cell wall strength.

Nutriland induces calcium pectate biosynthesis and improves fruit shelf life.

Nutriland is antistress agents and induce plant resistance against abiotic stress (heat stress, chilling, salinity and drought)

Nutriland improves fruit setting due to through integrated role of calcium and boron.

Nutriland protect plant against fungal diseases and fruit deformation.

Nutriland improves pollen formation and enhance fertilization and prevent flower fall and parthenocarpic fruit settings.

Dosages and applications :

Crop	uses	Dosage
Vegetable: Tomato, cucumber, pepper, strawberry, water melon and melon	Foliar application once per week	2 Cm ³ / liter water
Mango, Citrus and olive	During flowering, after fruit setting and before harvesting.	1,5 Cm ³ / liter water
Grape	After bud formation, after fruit setting and before harvesting.	2 Cm ³ / liter water
Legumes	During flowering stage, after fruit setting	1 Cm ³ / liter water
Peach, Apricot, and Pear	During flowering, after fruit settings, one week before harvest.	2 Cm ³ / liter water
Potato, Onion, Garlic and sweet potato	During vegetative growth once every 15 days and before harvest	1.5 Cm ³ / liter water
Landscape and ornamental plants	Foliar application once every 15-21 days	2 Cm ³ / liter water

Packing: 5Liter - 1 Liter – 500 ml – 250 ml



Isogreen

Liquid NPK+ micronutrient chelated on natural amino acids



Composition:

Nitrogen	8%	Chelated Iron	150 ppm
K ₂ O	7%	Chelated cobalt	100 ppm
P ₂ O ₅	5%	Chelated manganese	200 ppm
Amino acids	5%	Boron	50 ppm

Isogreen characteristics:

Isogreen is a liquid NPK fertilizer has a low EC and low pH.

Isogreen contains amino acid like tryptophan which acts as precursor of IAA.

Isogreen contains proline which acts as combatable solute and antistress agent.

Isogreen contains L- methionine which accelerates protein biosynthesis and improve plant vegetative and generative growth.

Isogreen contains a balanced ratio of macro and micro nutrients.

Isogreen can be used in fertigation and foliar applications for many plant species.

Isogreen increases the yield of vegetable such as tomato, cucumber and pepper.

Isogreen enhances potato tuber formation and improve the yield quality and quantity of fruits and field crops.

Dosages and recommendations

Crop	uses	Dosage
Cereals: Wheat, maize and rice	Foliar application during	1 Cm ³ / liter water
Vegetable: Tomato, cucumber, pepper, strawberry, water melon and melon	Foliar application once per week	2 Cm ³ / liter water
Mango, Citrus and olive	During vegetative growth and during flowering	1.5 Cm ³ / liter water
Grape	After bud formation, after fruit setting and before harvesting.	2 Cm ³ / liter water
Legumes	During flowering stage, after fruit setting	1 Cm ³ / liter water
Peach, Apricot, and Pear	During flowering, after fruit settings, one week before harvest.	2 Cm ³ / liter water
Potato, Onion, Garlic and sweet potato	During vegetative growth once every 15 days and before harvest	1.5 Cm ³ / liter water
Landscape and ornamental plants	Foliar application once every 15-21 days	2 Cm ³ / liter water

Packing: 25 Liter -5Liter - 1 Liter – 500 ml – 250 ml

Royal Phosphamine

NPK 12-50-12 + micronutrients



Composition:

Nutrient	Source	%	Total
Nitrogen	Urea phosphate	5	12%
	MAP	5	
	Amonium nitrate	2	
Phosphate	MAP	25	50%
	MKP	10	
	Urea phosphate	15	
Potassium	MKP	7	12%
	KTS	3	
	Potassium sulfate	2	
Micronutrients	Chelated by amino acids	1	1%

Royal Phosphamine Characteristics:

Royal phosphamine activates rooting and root hair formation.

Royal phosphamine improves nutrient uptake by roots.

Royal phosphamine increase the stem diameter in vegetable and improve nutrient transportation.

Royal phosphamine increases flowering potential of vegetable and fruits especially under stress conditions.

Royal phosphamine enhance nitrogen fixation in legumes.

Royal phosphamine provides plants with a pure phosphates which are necessary to produce energy and enhance plant metabolism.

Packing: 25 Kg -20 Kg – 10 Kg – 5Kg -1 Kg

Nutrix NPK 20-20-20 + micronutrients



Composition:

Nutrient	Source	%	Total
Nitrogen	Organic nitrogen	15.8	20%
	Nitrate	1.5	
	Ammonical nitrogen	2.7	
Phosphate	Urea phosphate	15.8	20%
	MAP	1.5	
	MKP	2.8	
Potassium	KTS	10.6	20%
	MKP	6	
	Potassium sulfate	3.4	
Micronutrients	Chelated by amino acids	1	1%

Nutrix characteristics:

Nutrix is suspension NPK fertilizer contains a balanced amount of NPK.

Nutrix has low EC and low pH.

Nutrix is fully soluble and has a high bio availability for nutrients.

Nutrix improves vegetative growth of fruits and vegetables.

Nutrix has no toxic element and increase the leaf area in vegetable and improves photosynthesis.

Nutrix enhance plant vegetative and generative growth.

Nutrix provides plants with a pure NPK which are necessary to increase the total yield.

Packing: 25 Kg - 20 Kg - 10 Kg - 5 Kg - 1 Kg

Royal Potamine NPK 6-6-40 + micronutrients



Composition:

Nutrient	Source	%	Total
Nitrogen	Potassium nitrate	2.7	6%
	Ammonium nitrate	3.3	
Phosphate	MKP	6	6%
Potassium	Potassium nitrate	9.67	40%
	MKP	9.17	
	Potassium sulfate	21.15	
Micronutrients	Chelated on amino acids		1%

Royal Potamine Characteristics:

Royal Potamine supplements plants with a highly uptake potassium.

Royal Potamine activates fruit development in vegetable and fruits.

Royal Potamine improves nutrient uptake by roots.

Royal Potamine increases the carbohydrate transformation from leaves to fruits and tubers.

Royal Potamine enhances flowering potential of vegetable and fruits especially under stress conditions.

Royal Potamine accelerates fruit production and improves fruit quality.

Royal Potamine provides plants with a pure potash which are necessary to many physiological processes.

Packing: 25 Kg - 20 Kg - 10 Kg - 5 Kg - 1 Kg

Concept K Liquid potassium and amino acids



Composition:

Potassium Oxide	36.5%
Sulfur	24.2%
Amino Acids	3%

Characteristics of Concept K:

Concept K improves fruits weight in all vegetable and trees such as grape, peach, apricot, pear, and citrus.

Concept K contains amino acids and increases fruit development and leads to early harvest time.

Concept K prevents parathinocarpic setting and improves fruit quality fertilization and seeds formation.

Concept K increases grain weight in cereals and increase yield quantity and quality.

Concept K increases tuber formation and increase the yield of sugar beat in increase prix.

Concept K increases sugar contents in fruits through the action of potassium and sulfur.

Concept K contains highly absorbable potassium by foliar application.

Concept K increase fruit pigmentation through activation of antigibrillines.

Concept K enhances carbohydrate transportation from leaves to grains and fruits.

Dosages and applications :

Crop	Time of use	Concentration of spraying
Field crops:	Spraying during grains formation After 10 -15 days 1 st spraying.	2 ml / Liter water
Potato -suger beat - onion	During tuber formation after 65 to 75 days of plantation. 2 nd spray after 10 to 15 days of 1 st spray.	1.5 ml / Liter water
Tomato – egg plants – cucumber – squash.	Foliar application from flowering once every 10 to 15 days.	1.5 ml / Liter water
Grape	Tow times application 1 st after fruit setting 2 nd after 10 to 15 days of 1 st application.	2 ml / Liter water
Leguims: chick pea – green beans- beans- pea.	Tow times application 1 st at flowering 2 nd after 10 to 15 days of 1 st application.	2 ml / Liter water
Peach – Apricot – pear.	Tow times application 1 st after fruit setting 2 nd after 10 to 15 days of 1 st application.	2 ml / Liter water
Citrus – Olive - Mango	Tow times application 1 st after fruit setting 2 nd after 21 days of 1 st application.	2 ml / Liter water

Packing: 25 Liter -5Liter - 1 Liter – 500 ml – 250 ml



Royal pH 5

Buffer regulator for better nutrient uptake



Composition:

Weak organic acids	2 M
Conjugated base	2 M
Surfactants	5%

Royal pH 5 Characteristics:

Royal pH 5 regulates pH values of foliar spraying solution.

Royal pH 5 improves nutrient and organic molecules absorption through the epidermis of plant leaves.

Royal pH 5 increase the utilization efficiency of macro and micro nutrients, amino acids and plant growth regulators.

Royal pH 5 increase the efficiency of both contact and systemic pesticides.

Royal pH 5 resists the pH changes in the spraying solution.

Dosage and applications:

The dosage of pH5 depends upon the pH value of spraying solution estimated dosage is presented in the following table:

ml/L	pH	ml/L	pH	ml/L	pH
1.7	8.4	1.35	7.7	1	7
1.9	8.5	1.35	7.8	1.1	7.1
2	8.6	1.4	7.9	1.2	7.2
2.2	8.7	1.4	8	1.25	7.3
2.3	8.8	1.5	8.1	1.25	7.4
2.4	8.9	1.5	8.2	1.3	7.5
2.5	9	1.6	8.3	1.3	7.6

Packing: 1 Liter – 500 ml – 250 ml

Royal CaB

Calcium Boron and nitrogen Liquid fertilizer



Composition:

Calcium	15%
Nitrogen	8%
Boron	1%

Characteristics of Royal CaB:

Royal CaB is a calcium liquid fertilizer used for foliar application.

Royal CaB increases cell division and cell wall strength.

Royal CaB improves potato tuber weight.

Royal CaB enhances fruit quality.

Royal CaB increases shelf life of fruits and vegetables.

Royal CaB prevents fruit rot.

Royal CaB prevents fruits deformation.

Royal CaB increases nutrient transportation.

Royal CaB improves cellular metabolism and plant tolerance against salinity, drought and plant diseases.

Dosages and applications :

Crop	Time of use	Concentration of spraying
Grape – Peach – Apricot – pomegranate – Apple	1 st application: During flowering, 2 nd application after fruit settings.	2 Cm ³ / Liter
Citrus – Mango – Olive	1 st application: During flowering, 2 nd application after fruit settings once every two weeks	1.5 Cm ³ / Liter
Vegetable: Cucurbitacea: Capsicum – Tomato – Egg plant- Cucumber – Squash – water melon	During flowering once every two weeks.	1.5 Cm ³ / Liter
Potato – Onion – Garlic – Sugar Beet.	During vegetative growth once every 15 days., During tuber formation once every 15 days.	1.5 Cm ³ / Liter
Ornamental plants and landscape.	Once every 15 days.	2 Cm ³ / Liter

Packing: 25 Liter - 5 Liter - 1 Liter – 500 ml – 250 ml

Royal Ferton

6% Chelated iron on amino acid



■ Composition:

Chelated Iron	6%
Amino acids	20%

■ Royal Ferton Characteristics:

Royal Ferton increases the rate of mitochondrial respiration and energy production.

Royal Ferton contains a natural chelated iron supplies fruit and vegetable plants with extremely high availability.

Royal Ferton contains high biologically active amino acids such as L- Methionine and L- Lysine.

Royal Ferton improves photosynthetic activity of all plant species through enhancing the biosynthesis of amino acids and propherine ring which participate in chlorophyll biosynthesis.

Royal Ferton supplies plants with iron which used in the active site of glutamyl-tRNA- reductase, an enzyme needed for the formation of 5- Aminolevulinic acid which acts as precursor of heme and chlorophyll.

Royal Ferton induces plant resistance against physical stresses such as heat, chilling, salinity and drought.

Royal Ferton improves iron utilization and increase its effects on plants.

Royal Ferton enhances chlorophyll biosynthesis in plants.

Royal Ferton contains a precursor of plant growth promoting hormones such as auxins.

Royal Ferton is stable in fertigation for soil pH from 3 to 7.

■ Dosage and applications:

TFor Foliar application: 1.5-3 g / Liter water.

For soil fertigation: 1-2 Kg / acer

Royal Ferton is recommended in organic farming as well as conventional plant production.

Royal Ferton can be mixed with most of other fertilizers and pesticides.

■ Packing: 5 Kg - 1 Kg - 500 g - 250 g -100 g

Royal Zincal

15% Zn-EDTA & Amino Acids



Composition:

Chelated Zinc 15%

Amino acids 10%

Characteristics of Royal Zinkal

Royal Zinkal promotes plant growth and increases the rate of cell division.

Royal Zinkal Supplies vegetable plants and fruit trees with Zn in highly absorbable form.

Royal Zinkal reduces zinc deficiency symptoms in all plant species.

Royal Zinkal improves the fertility of Cucurbitaceae (increase the number of female flowers).

Royal Zinkal induces the biosynthesis of antigibberlin.

Royal Zinkal enhances the fertility of trees such as grape and pear.

Royal Zinkal activates the plant growth through biologically active amino acids such as L- Methionine, L-Lysine and Prolin.

Royal Zinkal enhances the plant resistance against environmental stresses such as salinity, chilling, heat and drought.

Royal Zinkal promotes the biosynthesis of plant growth hormones.

Royal Zinkal is stable in fertigation for soil pH from 3 to 10.

Dosages and applications :

For Foliar application: 1.5 - 3 g / Liter water.

For soil fertigation: 1 - 2 Kg / acer

Royal Zinkal is recommended in organic farming as well as conventional plant production.

Royal Zinkal can be mixed with most of other fertilizers and pesticides.

Packing: 5 Kg – 1 Kg -500 g -250 g -100 g

Royal Mangafed 15% Mn-EDTA & Amino Acids



■ Composition:

Chelated Mn	13%
Amino acids	10%

■ Characteristics of Royal Mangafed:

Royal Mangafed contains a highly active Mn-EDTA

Royal Mangafed activates CO₂ Fixation in all plant species.

Royal Mangafed increases chlorophyll synthesis in chloroplasts.

Royal Mangafed enhances photosynthesis efficiency.

Royal Mangafed increases nitrogen fertilizers utilization in vegetables, fruits and field crops.

Royal Mangafed increases oil biosynthesis in oil crops such as chick pea, sesame, soya beans and olive.

Royal Mangafed induces formation of antioxidants in plant cells such as ascorbic acids, Riboflavenes, carotens and some amino acids.

Royal Mangafed treatments leads to disappearance of Mn deficiency symptoms in all plant species.

Royal Mangafed induces plant resistance against abiotic stress such as heat stress, cold stress, and salinity stress.

Royal Mangafed is stable in pH 3-10 and can be used in fertigation.



■ Dosage and applications:

For Foliar application: 1.5 - 3 g / Liter water.

For soil fertigation: 1 - 2 Kg / acer.

Royal Mangafed is recommended in organic farming as well as conventional plant production.

Royal Mangafed can be mixed with most of other fertilizers and pesticides.

■ Packing: 5 Kg - 1 Kg - 500 g - 250 g - 100 g



ROYAL

For Agricultural Development

Crop protection

We present products for plant protection against unsuitable environmental conditions. Crop protection products including plastic film from IMECE, Turkey.

- Solar sterilization plastic film for disinfection of soil against harmful pathogens.
- Plastic mulch and cover film for greenhouse vegetables production.
- Sun screen bags for fruit protection against sun burning and insects.

www.royalagri.com

Soil solarization plastic film For Efficient soil solarization



■ Soil solarization plastic film from IMECE PLASTIK Turkey.

Plastic film used for soil disinfection of nematodes, soil born diseases, and herbal seeds.

Resistance of some pathogens may be broken by increasing the heat.

In solarisation process higher temperature in the land, results in higher success.

In the case that film selection and application is made correctly in the solarisation process, then higher quality products and savings in the agricultural chemicals will be ensured.

■ Soil Solarization films have the following characteristics:

- High level of solar and UV resistance.
- High level of resistance against chemicals used for chemical sterilization of soil such as Cynamide.
- Trapping IR radiations especially during night time
- Distributes energy and radiation homogenously.
- Direct light transmission is 95%.
- Film thickness is 30 - 40 micron.
- Maximum film width is 7 metres.

Resistance of some pathogens may be broken by increasing the heat.

In solarisation process higher temperature in the land, results in higher success.

In the case that film selection and application is made correctly in the solarisation process, then higher quality products and savings in the agricultural chemicals will be ensured. ettings.

Mulch Plastic Films For efficient mulching



■ Mulch plastic film from IMECE PLASTIK Turkey:

Silver black, Brown Silver.

■ IMECE Mulch advantage:

Increased soil temperature: At a 2 inch depth; 4 to 5 0F under black mulch or 8 to 10 0 F under clear mulch.

Reduced soil compaction: Soil under plastic mulch remains loose, friable and well-aerated. Roots have access to adequate oxygen and microbial activity is excellent.

Reduced fertilizer leaching: Water runs off the impervious mulch resulting in maximum utilization of the fertilizer.

Reduced drowning of crops: Water is shed from the row area and excess water runoff the field thus reducing drowning and other excess soil water stresses.

Reduced evaporation: Soil water does not escape from under plastic mulch. Plant growth on mulch is often at least twice that on bare soil. The resulting larger plants will require more water, so mulching is NOT a substitute for irrigation.

Cleaner product: A mulched crop is cleaner and less subject to rots due to elimination of soil splashing on the plants or fruits. Note: Beds should be firm and tapered away from the row center. Plastic should be tight to promote run-off. There should be no puddles on the mulched beds!

Root pruning eliminated: Cultivation is not necessary except for the area between the mulched strips. Therefore, roots are not pruned.

Reduced weed problems: Black plastic mulch provides good weed control in the row. Clear plastic will require use of a herbicide or fumigation. Often, weeds between mulch strips can be controlled by a herbicide.

Earlier crops: Black plastic mulch can result in 2 to 14 days earlier harvest while clear plastic can result in a 21-day earlier harvest.

Increased growth: Plastic mulch is practically impervious to carbon dioxide (CO₂), a gas that is of prime importance in photosynthesis. Very high levels of CO₂ build up under the plastic, because the film does not allow it to escape. It has to come through the holes made in the plastic for the plants and a "chimney effect" is created, resulting in localized concentrations of abundant CO₂ for the actively growing leaves.

Plastic Cover Films

Thermal plastic films for vegetable production

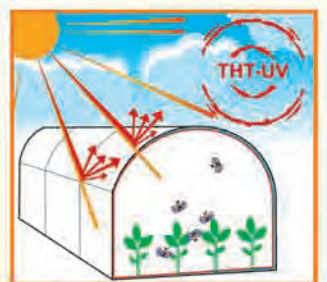


THT- Plastic film Characteristics:

- 1- High resistance to UV and solar radiation.
- 2- High resistance to mechanical damage.
- 3- Reducing differences between day and night temperatures.
- 4- Prevent the transmission of some UV radiation which is necessary for white fly
- 5- Reducing viral transmission to the cultivated plants.
- 6- Early production
- 7- Increasing quality

Thickness: 40-200 micron

Width: 1-10 meter



THT/ IR plastic film Characteristics:

- 1- High resistance to UV and solar radiation.
- 2- High resistance to mechanical damage.
- 3- Reducing differences between day and night temperatures.
- 4- Distribute the light in tunnels or greenhouses.
- 5- Increasing fruit quality.
- 6- Reducing viral transmission to the cultivated plants.
- 7- Early production
- 8- Increasing quality

Thickness: 40-200 micron

Width: 1-10 meter

Sun Screen

Fruit bags against sun burning and insects



SUN SCREEN characteristics:

- Sun ScreenP** bags made of especial polymer to protect the fruits from UV radiations responsible for burning the fruit.
- Sun ScreenP** has high transmission to visible light and Photosynthetic active radiation necessary for fruit ripening and coloring.
- Sun ScreenP** increases the size of the fruits of pomegranate and improves the homogeneity of the colored.
- Sun ScreenP** protects the fruit from mechanical and insectal injury.
- Sun ScreenP** penetrates air and keeps the fruit ventilation rates.
- Sun ScreenP** allow spray solution to reach the fruits.
- Sun ScreenP** increases fruit quality specifications.
- Sun ScreenP** improves the ratio of good fruits for export.
- Sun ScreenP** protects fruits from insect injuries without the use of harmful chemical pesticides.
- Sun ScreenP** helps growers to produce pomegranate free of pesticides.
- Sun ScreenP** easy to use and does not require many labor.
- Sun ScreenP** ensure a bumper harvest of high quality.



ROYAL



**Crop
Protection**



Fertilizers



**Growth
Stimulator**



**Natural
Pesticides**

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