



# CROP PROTECTION OFFERINGS

An advanced tool towards global food security



**Plant Smiles... Grow Laughter... Harvest Love!**

**We Keep Crop Healthy, to Keep Farmer Wealthy**



Front



## Corporate overview

SWAL Corporation Limited (formerly known as Shaw Wallace Agrochemicals Limited) is one of the pioneers in the Indian Agrochemical Industry. Committed to the progress of Indian farmers for more than nine decades, our core competency lies in marketing of pesticides and fertilizer mixtures. We are a major player in the industry, enjoying a leadership position in branded sales of Acephate (Starthene) and Ethion (MIT 505). We also have the highest market share in Organic Fertilizer segment in major consuming states of Kerala and Maharashtra with brand name Sterameal.

Our People to Farmer (P2F) team encompasses an All-India sales and distribution network comprising of 150 Plus expert technocrats in the field. Apart from marketing our products, the field force demonstrates their right usage by interacting with the farmers on all aspects of farming technology.

We have a well orchestrated distribution network spanning 24 stock points and about 4000 dealer outlets ensuring availability of our products at the right time and the right place. Together we ensure that farmers get quality product at a most competitive price.

## Our Mission

Swal Corporation Limited promotes Integrated Pest Management as a mean of improving of farmer's livelihood by increasing the productivity and quality of the produce, while sustaining the environment and natural resources for future generation.

- ✓ To propel the growth of the agrochemical market through world class products
- ✓ To anticipate and meet the changing needs of our demanding customers
- ✓ To nurture, develop and empower our people and vendors
- ✓ To maintain meticulous standards in quality, cost and distribution
- ✓ To imbibe a work culture conducive to performance through networking

## Our Vision

Swal Corporation Limited aims at promoting the best possible combination of measure –Chemical, biological and cultural – to deliver cost effective, environmentally sound and socially acceptable methods of increasing productivity, managing insects, disease and weeds. We thrive on current and new business opportunity while leveraging our core competences of human capita, quality and integrity.

## Future Thrust

SWAL Corporation is committed to customer delight by providing high quality products and best service at competitive price. We shall strive to do this by regularly enhancing our product portfolio through:

- ✓ Continuous updating of technology and resources.
- ✓ Recognizing and deploying talent through empowerment of people.
- ✓ Capturing market information and Knowledge Management.
- ✓ Using efficient supply chain measures to meet the market requirements.



## VALUE CHAIN OFFERINGS

Soil health and  
Crop nutrition

Adjacent  
Technologies

Seed  
Treatment

Crop Protection  
Insecticide  
Fungicide  
Herbicide

Plant Nutrition  
Management

Post Harvest  
Solutions

Value Chain



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# LAND PREPARATION & SOIL HEALTH

## Land Preparation & Soil Health

Helps in replenishing soil quality,  
increasing crop vigor, crop quality & yield



### STERAMEAL

**Technical details:** Concentrated organic manure blended with animal origin

**Mode of Use:** Basal Soil Application

**Major Crops:** Grapes, Apple, Pomegranate, Cashew, Mango, Black Pepper, Banana, Coconut, Sugarcane, Rubber, Coffee, Cardamum, Paddy, Vegetables, Chillies & all crops

**Benefits:**

1. Availability of Plant nutrients (N:P:K) for a longer time
2. Improves quality, quantity and keeping quality of fruits
3. Enhances microbial activity, humus content, water holding capacity and aeration of soil

**Dose/acre:**

For Field crops & Vegetables: 200-250 Kg

For Fruits & Plantation: 800-1000 Kg



### SOILSTAR

**Technical details:** Unique granular biostimulant which prompts the growth of plants in the early stage of Crop cycle. It consists Silica Solubilizing micro-organism, Prebiotics, Probiotics & Vitamins, Ferment derivative of Marine Algae, Humic & Fulvic substances and Amino Acids.

**Mode of Use:** Soilstar should be used by mixing with Fertilizers / Biofertilizers / Micronutrients / Cakes / Compost manure

**Major Crops:** Suitable for All crops

**Features:**

1. Helps in better absorption and use of Silica present in the soil
2. Helps in growth and development of beneficial microorganisms found in the soil
3. Helps in the better absorption of nutrients and the better establishment of the crops in the early stage

**Benefits:**

1. It helps in the development of strong root system and the plant develops capacity to fight diseases and drought
2. Microorganisms present in the soil can work better
3. Superior quality & yield

**Dose/acre:** 3-6 Kg in all the applications

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# ADJACENT TECHNOLOGIES (UPDT)

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### Revolutionary technology which helps withstand crop for longer duration in drought times



#### UPDT

**Technical details:** Natural Cellulose based biodegradable Super Adsorbent technology which is made up from Natural Corn Starch

**Mode of Action:**

1. Greater water absorption capacity
2. “Loose” hydrogen bond, providing superior “water release”

**Major Crops:** Suitable with all crops

**Features:**

1. Increases soil porosity and structure
2. Absorbs more than 500 times its weight in water, and releases upto 95% of held moisture back to the plant. Will hydrate and re-hydrate over and over throughout a growing season (subject to soil type, temperature, moisture)

**Benefits:**

1. Improves Water & Nutrient Efficiency
  - a. Increases soil moisture content, retention and supply to vegetation
  - b. Increases Soil porosity for improved passing water and oxygen
  - c. Keeps plants cooler, increasing photosynthesis rate
  - d. Helps plant to protect leaching effect of nutrients thereby increasing nutrient uptake
2. Increases Crop Yield
  - a. Increases plant quality and yields
  - b. Improves plant survival rate during critical development periods
  - c. Greatly improves rate of seed germination and emergence
  - d. Eliminates moisture stress in plants, creating larger plant biomass
  - e. Creates more rigorous root development
  - f. Improves plant survival rate during transplanting
3. Environmentally, Socially, Economic responsible
  - a. Biodegradable and safe for all plants and vegetables

**Dose/acre:** 5 Kg

## SEED TREATMENT

# SEED TREATMENT

Protect seeds & seedlings  
from diseases & to fight pests



### BATTALION FS

**Technical Name :** Thiamethoxam 30% FS

**Mode of Action :** Systemic Insecticide

**Major Crops :** Cotton, Sorghum, Okra, Maize, Wheat, Rice, Sunflower, Chilli, Soybean,

**Target Pests :** Jassid, Aphids, Whitefly, Shoot fly, Termites, Thrips, Stem Fly, Whorl Maggot

**Dose for Seed Treatment :** 3 ml / Kg of seeds



### QUICKPER

**Technical Name :** Carbendazim 12% + Mancozeb 63% WS

**Mode of Action :** Systemic and Contact Fungicide

**Major Crops :** Groundnut

**Target Disease :** Collar rot, Dry Root rot, Tikka leaf spot

**Dose for Seed Treatment :** 2.5 g / Kg of seeds



### SEED TEC

**Technical Name :** Tebuconazole 2% DS

**Mode of Action :** Systemic Fungicide

**Major Crops :** Wheat, Groundnut

**Target Disease :** Loose smut, Flag smut, Collar rot, Root rot, Stem rot

**Dose for Seed Treatment :** 1 g / Kg of seeds

# HERBICIDE

## HERBICIDE

**Enable farmer to produce more yield  
with minimal losses from Weeds**



### PATELA

**Technical Name :** Sodium Acifluorfen 16.5% + Clodinafop-Propargyl 8% EC

**Type:** Selective post emergence Herbicide

**Mode of Action :** Selective contact

**Major Crops :** Soybean

**Target Weeds :** *Echinochloa spp.*, *Eleusine indica*, *Digitaria sanguinalis*, *Dactyloctenium aegyptium*, *Acalypha indica*, *Digeria arvensis*, *Euphorbia spp.*

**Dose/acre :** 400 ml



### SWACHH

**Technical Name :** Pretilachlor 6% + Pyrazosulfuron-ethyl 0.15% GR

**Type:** Selective pre-emergence Herbicide

**Mode of Action :** Inhibition of acetolactate synthase

**Major Crops :** Transplanted Paddy

**Target Weeds :** *Echinochloa crusgalli*, *Echinochloa colonum*, *Eclipta alba*, *Cyperus iria*, *Cyperus difformis*, *Fimbristylis miliacea*

**Dose/acre :** 4 kg



### TEFU

**Technical Name :** Quizalofop-p-tefuryl 4.41% EC

**Type:** Selective Post emergence

**Mode of Action :** Systemic

**Major Crops :** Soybean, Cotton

**Target Weeds :** *Echinochloa spp.*, *Dinebra arabica*, *Digitaria sanguinalis*, *Cynodon dactylon*, *Hemarthria compressa*, *Elusine indica*.

**Dose/acre :** 400 ml



### AUDI

**Technical Name :** Pyrazosulfuron Ethyl 10% WP

**Type :** Selective and pre-emergence Herbicide

**Mode of Action :** Systemic

**Major Crops :** Paddy

**Target Weeds :** *Cyperus iria*, *Cyperus difformis*, *Fimbristylis miliacea*, *Monochoria Vaginalis*, *Ludwigia parviflora*

**Dose/acre :** Main field - 80 g, Nursery - 20 g/Kanal\*  
\*1 Kanal= 505.85 m<sup>2</sup> or 1/8th of acre



### INSTANT

**Technical Name :** Chlorimuron Ethyl 25% WP

**Type:** Selective Post emergence

**Mode of Action :** Systemic

**Major Crops :** Rice, Soybean

**Target Weeds : Rice (Transplanted):** *Echinochloa crusgali*, *Eclipta alba*, *Commelina benghalensis*, *Chenopodium album*, *Cyperus rotundus*. **Soybean:** *Phyllanthus niruri*, *Celosia argentic*, *Cyperus rotundus*, *Digeria arvensis*, *Cucumis trigonus*, *Cyperusiria*, *Parthenium hysterophorus*, *Acalypha indica*, *Trianthem aprotulacastrum*, *Commelina benghalensis*, *Caesulia axillaris*

**Dose/acre :** 15 gm



### RICEBAC

**Technical Name :** Bispyribac Sodium 10% SC

**Type:** Broad Spectrum Systemic, Post Emergent Herbicide

**Mode of Action:** Inhibits essential amino acid synthesis

**Major Crops:** Rice

**Target Weeds:** Major grasses, sedges and broad leaf weeds of rice

**Dose/acre:** 80 ml

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### SANDESH

**Technical Name :** Clodinafop propargyl 15%+  
Metsulfuron methyl 1% WP

**Type:** Broad spectrum selective  
(Post emergent) Herbicide

**Mode of Action :** Inhibition of amino acid and  
lipids production

**Major Crops :** Wheat

**Target Weeds :** *Phalaris minor*, *Chenopodium Spp.*,  
*Medicago denticulata*, *Coronopus dedymus*, *Rumex*  
*spp.*, *Melilotus alba*, *Anagallis arvensis*.

**Dose/acre :** 160 g (Sandesh) +  
500 ml (Surfactant)



### TOPPLE

**Technical Name :** Clodinafop propargyl 15% WP

**Type:** Selective post-emergent Herbicide

**Mode of Action :** Systemic-Lipid  
biosynthesis blocker

**Major Crops :** Wheat

**Target Weeds :** *Phalaris minor*

**Dose/acre :** 160 g



### SATASAT

**Technical Name :** Sulfosulfuron 75%+ Metsulfuron  
methyl 5% WG

**Type:** Post emergent, selective Herbicide

**Mode of Action :** Amino acid biosynthesis inhibitor

**Major Crops :** Wheat

**Target Weeds :** *Phalaris minor*, *Rumex spp.*,  
*Chenopodium spp.*, *Medicago denticulata*, *Coronopus*  
*dedymus*, *Melilotus alba*, *Anagallis arvensis*

**Dose/acre :** 16 g (Satasat) +  
500 ml (Surfactant)



### PANDORA

**Technical Name :** Pendimethalin 38.7% CS

**Type:** Selective & Pre-plant incorporation  
Herbicide

**Mode of Action :** Cell division inhibitor

**Major Crops:** Soybean, Cotton, Chilli, Onion

**Target Weeds :** *Echinochloa colonum*,  
*Digitaria sanguinalis*, *Dactyloctenium aegyptium*,  
*Amaranthus viridis*, *Euphorbia geniculata*

**Dose/acre :** 600-700 ml



### CLOMET

**Technical Name:** Metribuzin 42%+ Clodinafop-  
propargyl 12 % WG

**Type:** Post emergence, selective Herbicide

**Mode of Action:** Lipid formation inhibitor &  
Photosynthesis inhibitor

**Major Crops:** Wheat

**Target Weeds:** *Phalaris minor*, *Rumex spp*, *Avena Spp*,  
*Chenopodium album*, *Melilotus Spp*, *Medicago*  
*denticulate*, *Anagallis arvensis*

**Dose/acre:** 200 g (Clomet) + 500 ml (Surfactant)



### SWAL PENDI

**Technical Name :** Pendimethalin 30 % EC

**Type:** Pre-emergence and Selective Herbicide

**Mode of Action :** Cell division inhibitor

**Major Crops :** Soybean, Cotton, Paddy, Wheat

**Target Weeds :** *Echinochloa spp.*, *Euphorbia spp.*,  
*Amaranthus viridis*, *Portulaca oleracea*,  
*Trianthema Spp.*, *Eleusine indica*

**Dose/acre :** 1-1.6 l

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### WEEDSTAR AMINE

**Technical Name :** 2, 4 - D Amine Salt 58% SL  
**Type:** Selective, Post emergence Herbicide  
**Mode of Action :** Systemic  
**Major Crops :** Sugarcane, Wheat, Maize, Potato, Sorghum  
**Target Weeds :** *Commelina bengalensis*, *Cyperusiria*, *Chenopodium album*, *Melilotus alba*, *Polygonum spp.*, *Digitaria Spp.*  
**Dose/acre :** 500-1000 ml



### FERIO

**Technical Name:** Glufosinate ammonium 13.5% SL  
**Type:** Non Selective post emergent Herbicide  
**Mode of Action :** Contact  
**Major Crops :** Cotton, Tea  
**Target Weeds :** Cotton- *Echinochloa sp.*, *Cynodon dactylon*, *Cyperusrotundus*, *Digitariamarginata*, *Dactylote neumaegyptium*, *Tea-Imperatacylindrica*, *Panicumrepens*, *Commelina benghalensis*, *Ageratum conyzoides*, *Eleusine indica*, *Paspalum conjugatum*  
**Dose/acre :** 1-1.32 ltr



### METRISTAR

**Technical Name :** Metribuzin 70% WP  
**Type:** Selective herbicide  
**Mode of Action :** Systemic  
**Major Crops :** Soybean, Wheat, Sugarcane, Tomato, Potato  
**Target Weeds :** *Digitaria spp.*, *Phalaris minor*, *Chenopodium album*, *Melilotusspp*, *Cyperus esculentus*, *C. campestris*, *Borreriasp*, *Eragrostis spp.*  
**Dose/acre :** 100-300 g



### PERAGO

**Technical Name :** Pendimethalin 38.4% + Pyrazosulfuron ethyl 0.85% ZC  
**Type:** Selective Post emergence  
**Mode of Action :** Systemic  
**Major Crops :** Transplanted Rice  
**Target Weeds :** *Echinochloa colona* (Wild rice), *Echinochloa crusgalli* (Banyard grass), *Panicum repens* (Bullet grass), *Eleusine indica* (Indian goosegrass), *Marsilea quadrifolia* (Common water clover), *Eclipta alba* (False daisy), *Ludwigia parviflora* (Water crest), *Alternanthera philoxeroides* (Alligatorweed), *Alternanthera sessalis* (Dwarf copper leaf), *Ammania baccifera* (Monarch redstem), *Monochoria vaginalis* (Pickerel weed), *Leptochloa chinensis* (Red sprangle top), *Cyperus difformis* (Common sedge), *Cyperus iria* (Umbrella sedge), *Fimbristylis miliacea* (Hoorah grass), *Cyperus spp.*  
**Dose/acre :** 800 ml



### STARWIN

**Technical Name :** Imazethapyr 10% SL  
**Type:** Selective, Post emergence Herbicide  
**Mode of Action :** Systemic-Acetolactate synthase (ALS) inhibitor  
**Major Crops :** Soybean & Groundnut  
**Target Weeds :** *Echinochloa spp.*, *Euphorbia hirta*, *Digeria arvensis*, *Cyperus difformis*  
**Dose/acre :** 400-600 ml



# FUNGICIDES

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**Enable farmer to produce more yield  
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## DELMA

**Technical Name:** Azoxystrobin 8.3% + Mancozeb 66.7% WG  
**Mode of Action:** Contact and Systemic Fungicide with Multisite action and Raincoat technology  
**Major Crops:** Chilli, Grapes  
**Target Diseases:** Leaf Spot, Downey Mildew, Anthracnose, Powdery Mildew  
**Dose/acre:** 600 gm or 3gm/Ltr water



## STARGEM PLUS

**Technical name:** Mancozeb 75% WDG  
**Mode of Action:** Contact  
**Major Crops:** Potato, Tomato, Apple  
**Target Diseases:** Potato-Late Blight, Tomato-Early Blight, Apple-Scab, Premature Leaf fall, Alternaria spot/blight, sooty blotch  
**Dose/acre:** 400 g



## DEVONA

**Technical Name:** Copper Sulphate 47.15% + Mancozeb 30% WDG  
**Mode of Action:** Broad spectrum protectant fungicide and bactericide.  
**Major Crops:** Grapes  
**Target Diseases:** Anthracnose, Powdery Mildew, Downey mildew  
**Dose/acre:** 2 Kg



## TURF

**Technical Name :** Carbendazim 12 % + Mancozeb 63 % WP  
**Mode of Action :** Systemic and Contact  
**Major Crops :** Rice, Groundnut, Potato, Tea, Grape, Mango  
**Target Disease :** Blast, Blight, Blackscurf, Die back, Black rot, Downey mildew, Powdery mildew, Anthracnose and Leaf spot  
**Dose/Acre :** Foliar spray : 200-600 g  
 Seed Treatment : 2.5 g/kg of seeds



## STARGEM 45

**Technical Name :** Mancozeb 75% WP  
**Mode of Action :** Contact  
**Major Crops :** Wheat, Maize, Paddy, Chilli, Potato, Tomato, Groundnut, Graps, Banana, Apple & Cumin.  
**Target Diseases :** Rust, Blight, Downy mildew, Blast and Leaf spot  
**Dose/acre :** Foliar spray: 600-800 g  
 Seed Treatment : 3 g/Kg of seeds



## RADOSTAR

**Technical name:** Tebuconazole 10% + Sulphur 65% WG  
**Mode of Action:** Systemic & Contact  
**Major Crops:** Chilli, Soybean  
**Target Pests:** Powdery mildew, Fruit rot, Leaf spot & Pod blight  
**Dose/acre:** 500 g



# FUNGICIDES

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## NAUTEC

**Technical Name :** Zineb 75% WP

**Mode of Action :** Contact

**Major Crops :** Paddy, Wheat, Onion, Potato, Tomato, Chillies, Brinjal, cumin, Apple, Citrus, Grapes and Guava

**Target Diseases :** Blast, Rust, Blight, Downy mildew, Fruit rot, Leaf spot, Anthracnose and Scab

**Dose/acre :** 600-800 g



## FAIDA

**Technical Name:** Captan 70% + Hexaconazole 5% WP

**Mode of Action:** Contact and Systemic

**Major Crops:** Potato, Chilli

**Target Disease:** Early Blight and Late Blight, Fruit Rot(Anthracnose)

**Dose/acre:** 200-400 gm



## STARCOP

**Technical Name:** Captan 50% WP

**Mode of Action:** Non Systemic-Contact

**Major Crops:** Grapes, Potato, Cherry, Tomato, Apple

**Target Diseases:** Downey Mildew, Late Blight, Early Blight, Brown Rot, Apple Scab

**Dose/acre:** 1 Kg



## STARBENZ

**Technical Name :** Carbendazim 50 % WP

**Mode of Action :** Systemic and Protective

**Major Crops :** Paddy, Wheat, Maize, Cotton, Chilli, Apple and Grapes

**Target Disease :** Blast, Sheath blight, Loose smut, Powdery mildew, Anthracnose, Scab, Damping off

**Dose/acre :** Foliar spray 100-120 g  
Seed Treatment : 2g / Kg of seeds



## VANDEX

**Technical Name:** Validamycin 3% L

**Type:** Antibiotic

**Mode of Action:** Non-systemic antibiotic with fungistatic action

**Major Crops:** Paddy

**Target Disease:** Sheath Blight

**Dose/acre:** 800 ml



## STARSULF

**Technical Name :** Sulphur 80 % WG

**Mode of Action :** Contact

**Major Crops :** Apple, Grape, Mango, Pulses, Cumin

**Target Diseases :** Powdery mildew

**Dose/acre :** Foliar Spray - 500-1000 g  
Soil application - 3 to 5 Kg



## TRISTAR

**Technical Name :** Tricyclazole 75 % WP

**Mode of Action :** Systemic

**Major Crops :** Rice

**Target Diseases :** Blast

**Dose/acre :** 120-160 g

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# INSECTICIDES

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**Enable farmer to produce more yield  
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### STARTHENE

**Technical Name :** Acephate 75% SP  
**Mode of Action :** Contact and Stomach action  
**Major Crops :** Cotton, Paddy, Vegetables  
**Target Pests :** Aphids, Jassids, Mealy bug, BPH, GLH, Stem borer, Leaf folder, Bollworm  
**Dose/acre :** 350-500 g



### STARTHENE SUPER

**Technical Name:** Acephate 95% SG  
**Mode of Action:** Inhibition of Enzyme Acetylcholinesterase in Nervous System  
**Major Crops:** Paddy, Cotton, Chilli, Vegetable  
**Target Pests:** Aphids, Jassids, Thrips  
**Dose/acre:** 330 gm



### MONOSTAR

**Technical Name :** Monocrotophos 36% SL  
**Mode of Action :** Contact & Stomach  
**Major Crops :** Paddy, Maize, Cotton, Tea, Pulses, Mustard, Citrus, Mango  
**Target Pests :** BPH, GLH, Yellow Stem borer, Leaf roller/folder, Aphids, Thrips, Whitefly  
**Dose/acre :** 350 ml



### ACENTHRIN

**Technical name:** Acenthrin 50% + Bifenthrin 10% WDG  
**Mode of Action:** Systemic & Contact  
**Major Crops:** Cotton  
**Target Pests:** Leaf Hopper, Aphid, Thrips, American Bollworm, Pink Bollworm  
**Dose/acre:** 320 g



### STARTHENE POWER

**Technical Name :** Acephate 50% + Imidacloprid 1.8% SP  
**Mode of Action :** Systemic, Contact and Stomach action  
**Major Crops :** Cotton, Paddy, Vegetables  
**Target Pests :** Jassids, Aphids, Thrips, Whitefly, Leaf minor, Mealy bug, BPH  
**Dose/acre :** 500 g



### HAMOR

**Technical name:** Novaluron 5.25% + Emamectin benzoate 0.9% SC  
**Mode of Action:** Broad Spectrum Contact & Stomach insecticide  
**Major Crops:** Red Gram, Rice, Cabbage, Chilli  
**Target Pests:** Gram pod borers, Stem borer, Diamond back moth, Tobacco caterpillars  
**Dose/acre:** 350-600 ml



### PANAMA

**Technical Name :** Flonicamid 50% WG  
**Mode of Action :** Systemic and stomach  
**Major Crops :** Cotton, Paddy  
**Target Pests :** Aphids, Jassids, Whitefly, BPH, WBPH, GLH  
**Dose/acre :** 80 g



### NOVACODE

**Technical name:** Novaluron 5.25% + Indoxacarb 4.5% SC  
**Mode of Action:** Broad Spectrum Contact & Stomach insecticide  
**Major Crops:** Tomato  
**Target Pests:** Fruit Borer and Leaf eating caterpillar  
**Dose/acre:** 330-350 ml

# INSECTICIDES

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### STARCLAIM

**Technical Name :** Emamectin benzoate 5% SG  
**Mode of Action :** Contact & Stomach  
**Major Crops :** Cotton, Chilli, Tomato, Pulses, Okra, Brinjal, Cabbage, Grapes  
**Target Pests :** Heliothis, Spodoptera, DBM, Thrips  
**Dose/acre :** 100 g



### STARMITE

**Technical name:** Bifenazate 22.6% SC  
**Mode of Action:** Contact  
**Major Crops:** Rose & grape  
**Target Pests:** Two Spotted Mite, Mite  
**Dose/acre:** 200 ml



### DSP-99

**Technical Name:** Clorfluazuron 5.4% EC  
**Mode of Action:** Inhibition of Chitin Synthesis (IGR)  
**Major Crops:** Cabbage, Cotton  
**Target Pests:** DBM, Heliothis, Spodoptera,  
**Dose/acre:** 800 ml



### PROPAMITE

**Technical name:** Propargite 57% EC  
**Mode of Action:** Contact  
**Major Crops:** Tea, Chillies, Apple & Brinjal  
**Target Pests:** Red Spider Mite, Pink Mite, Purple Mite, Scarlet Mite, Mite, European Red Mite, Two spotted Red Mite  
**Dose/acre:** 300-600 ml  
5-10 ml/Apple tree



### RELAY 101

**Technical Name :** Cypermethrin 3% + Quinalphos 20% EC  
**Mode of Action :** Contact & Stomach  
**Major Crops :** Brinjal, Cotton  
**Target Pests :** Shoot & fruit borer, American bollworm, Spotted bollworm, Jassid  
**Dose/acre :** 250-500 ml



### MIT PLUS

**Technical Name :** Ethion 40%+ Cypermethrin 5% EC  
**Mode of Action :** Stomach and contact  
**Major Crops :** Cotton, Chilli, Pulses, Tea  
**Target Pests :** Mites, Thrips, Whitefly, Pod borer, American Bollworms, Heliothis & Spodoptera  
**Dose/acre :** 400-500 ml



### HECTASTAR

**Technical Name :** Bifenthrin 10 % EC  
**Mode of Action :** Contact & Stomach  
**Major Crops :** Cotton, Rice  
**Target Pests :** Bollworm, Whitefly, GLH, Leaf folder  
**Dose/acre :** 350 ml



### MIT 505

**Technical Name :** Ethion 50 % EC  
**Mode of Action :** Contact insecticide  
**Major Crops :** Cotton, Chilli, Gram, Tea, Soybean  
**Target Pests :** Mites, Thrips, Whitefly, Pod borer, Bollworms  
**Dose/acre :** 500 ml

# INSECTICIDES

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### KABUKEY

**Technical Name:** Flubendiamide 20% WG  
**Mode of Action:** Muscle contraction with contact and stomach action  
**Major Crops:** Cotton, Tomato, Red Gram, Paddy, Cabbage & Pulses  
**Target Pests:** American bollworm, Fruit borer, Pod borer, Stem borer Leaf folder, DBM  
**Dose/acre:** 80-100 g



### DOUBLE STAR

**Technical Name :** Chlorpyrifos 50% + Cypermethrin 5% EC  
**Mode of Action :** Contact and Stomach  
**Major Crops :** Cotton, Paddy,  
**Target Pests :** Aphids, Whitefly, Jassids, Thrips, Spodoptera, Spotted, American, Pink Bollworm, Stem borer, Leaf folder,  
**Dose/acre :** 300-400 ml



### BATTALION

**Technical Name :** Thiamethoxam 25% WG  
**Mode of Action :** Systemic, Stomach and Contact  
**Major Crops :** Cotton, Paddy, Okra, Tomato, Brinjal, Wheat, Mustard, Potato, Mango, Tea, Citrus  
**Target Pests :** Jassids, Aphids, Whitefly, BPH, WBPH  
**Dose/acre :** 100 g



### STARBAN 10 G

**Technical name:** Chlorpyrifos 10% GR  
**Mode of Action:** Contact and Stomach poison  
**Major Crops:** Rice  
**Target Pests:** Stem Borer, Leaf Roller, Gall Midge  
**Dose/acre:** 4 Kg



### IMIDASTAR

**Technical Name :** Imidacloprid 17.8 % SL  
**Mode of Action :** Stomach and Contact  
**Major Crops :** Cotton, Paddy, Vegetables, Sugarcane, Groundnut, Mango, Grape, Citrus  
**Target Pests :** Jassids, Aphids, BPH, GLH, Termites (Soil drenching)  
**Dose/acre :** 100 ml



### STARTOP

**Technical Name :** Cartap Hydrochloride 4% GR  
**Mode of Action :** Systemic, Contact and Stomach action  
**Target Crop :** Rice  
**Target Pests:** Stem borer, Leaf folder and Whorl maggot  
**Dose/acre :** 8 Kg



### REMOSTAR

**Technical Name :** Novaluron 10% EC  
**Mode of Action :** Stomach and Contact  
**Major Crops :** Cotton, Cabbage, Tomato, Chilli, Bengalgram  
**Target Pests :** American Bollworm, Fruit-Pod Borer, Diamond Back Moth, Tobacco Caterpillar  
**Dose/acre :** 300 ml

**We Keep Crop Healthy, to Keep Farmer Wealthy**

## NUTRITION & BIOLOGICAL

### NUTRITION & BIOLOGICAL

#### Essential for plant growth in critical stages & also play an important role in balanced crop nutrition

Foliar fertilization involves the application of soluble fertilizer to the foliage of crop plants, in the form of a diluted aqueous spray. From the applied solution, the plant takes up the nutrients in ionic form, through the leaves and other aerial organs. Supplying plants with adequate nutrition is an important aspect of maintaining their health and performance, and foliar sprays have been used for a long time as a source of the necessary nutrients. Foliar sprays can give your crops a nutritional boost that results in increased yields higher quality, improved resistance to pest attack, and enhanced drought tolerance.



#### **WUXAL<sup>®</sup> MACROMIX**

**Technical details:** The suspension with the well-balanced NPK 16-16-12 ratio (percent w/v) on a high level and a complete supply of micronutrients (B – 1%, Chelated Zn – 1%, Chelated Co – 0.0008%, Chelated Cu – 0.0212%, Chelated Fe – 0.0437%, Chelated Mn – 0.0367% & Mo – 0.0028%)

**Mode of Use:** Foliar

**Major crops:** Field crops, vegetable crops, pulse crops, oilseeds crop, fodder crops, fruit crops, spices crop, flower crops and medicinal crops.

**Benefits:**

1. High and well-balanced macro & micro nutrient supply matching the demand of crops during critical growth stages
2. Applications independent of the weather conditions due to plant-compatible additives
3. Super chelation reduces the water hardness of the spray solution
4. Fully EDTA chelated cationic micronutrients
5. Excellent coverage of leaves, good adhesiveness and regulates pH of the spray solution
6. Ensures excellent nutrient penetration
7. Compatible with most commonly used pesticides
8. Boost and retain flowering, reduce flower dropping
9. Helps in breaking dormancy (eg- mango )
10. If it used after harvest, then it helps to overcome alternate bearing

**Dose/acre:**

For field crops, vegetable crops, pulse crops, oilseeds crop, and fodder crops @ 500 - 750 ml/acre.

For fruit crops, spices crop and flower crops @ 5 - 7 ml/Ltr water.



# NUTRITION & BIOLOGICAL

## NUTRITION & BIOLOGICAL

### Essential for plant growth in critical stages & also play an important role in balanced crop nutrition



#### **WUXAL® CALCIUM**

**Technical details:** Well balanced, highly effective and safe Calcium supply for foliar nutrition of top fruits and vegetables, significantly enhancing shelf life and fruit quality (N-10%, CaO – 15%, MgO- 2% + B – 0.05%, Chelated Cu – 0.04%, Chelated Fe – 0.05%, Chelated Mn – 0.1%, Mo – 0.001% & Chelated Zn – 0.02%).

**Mode of Use:** Foliar

**Target Crops:** Field crops, vegetable crops, pulse crops, oilseeds crop, fruit crops, spices crop and flower crops.

**Benefits:**

1. Bio-effective additives for weather-independent uptake of calcium and all other nutrients
2. Calcium supply plus foliar nutrition with nitrogen, magnesium and a high micronutrient content
3. Significantly higher calcium efficiency than traditional single calcium salt sprays
4. Has none of the disadvantages of common calcium sprays such as phytotoxicity at certain stages of growth, temperatures, or unsatisfactory compatibility with pesticides
5. Fully chelated cationic micronutrients for excellent
6. Absorption and translocation in the plants
7. Compatible with most commonly used pesticides
8. Helps in fruit retention & improve fruit quality with uniform fruit size (top to bottom of plant)

**Dose/acre:**

- For field crops, pulse crops, oilseeds crop, and vegetable crops @ 500 – 750 ml/acre
- For fruit crops, spices crop and flower crops @ 5-7 ml/Ltr water



#### **WUXAL® POTASSIUM**

**Technical details:** The well balanced and high efficient potassium suspension for all crops (N– 6%, K<sub>2</sub>O – 18%, CaO – 5%, MgO - 2% + B – 1.0%, Chelated Cu – 0.05%, Chelated Fe – 0.1%, Chelated Mn – 0.05%, Mo – 0.001% & Chelated Zn – 0.05%).

**Mode of Use:** Foliar

**Major Crops:** Field crops, vegetable crops, pulse crops, oilseeds crop, fruit crops, spices crop and flower crops.

**Benefits:**

1. High potassium content improves inner and outer quality of specialty crops with high K-requirements
2. Optimal wetting and rain fastness
3. No powder - fluid product
4. Super chelation improves the quality of the spray solution
5. Nutrients readily available to plants
6. Fully chelated cationic micronutrients
7. Improves resistance of flowers to frost
8. Improve sugar content of the fruits.
9. Improves disease resistance
10. Particularly indicated for sandy and K-fixating soils as well as during dry spells
11. Compatible with most commonly used pesticides
12. Helps in fruit retention, improve fruit keeping quality (shape, shine & color) with uniform fruit size (top to bottom of plant)

**Dose/acre:**

- For field crops, pulse crops, oilseeds crop, and vegetable crops @ 500 – 750 ml/acre
- For fruit crops, spices crop and flower crops @ 5 – 7 ml/acre



# NUTRITION & BIOLOGICAL

## NUTRITION & BIOLOGICAL

**Essential for plant growth in critical stages & also play an important role in balanced crop nutrition**



### PLANTONIK

**Technical details:** Seaweed Filtrate with :  
Weight (w/w %) Ascophyllum nodosum : 96.22%

**Mode of Use:** Foliar

**Major Crops:** Suitable for all crops

**Benefits:**

1. Influence fruit setting and differentiation fruit and limit flower drop.
2. It Increases uniformity due to better reproduction physiology.
3. Activates plant nutrition pathways resulting in more effective uptake of nutrients and water from the soil.
4. Activates endogenous polyamines synthesis in generative parts of plant

**Dose/acre:** 240 ml



### STARWET GOLD

**Technical details:** Trisiloxane Alkoxylates

**Mode of Use:** Should be used as tank mix with Pesticides, PGR's & Nutrients.

**Major Crops:** Suitable for all crops

**Benefits:**

1. The ideal tank-mix partner for pesticides, PGRs and nutrients.
2. Excellent spreading and coverage of treated plants promote higher efficacy and reduce spray volumes.
3. Economically favourable ratio of performance/cost

**Dose/acre:** 50 ml



### K-FOL

**Technical Details:** NPK 00: 20: 55, Nitrogen: 0.0%, Phosphate as P2O5: 20%, Potash K2O: 55%

**Mode of Use:** Foliar & Drip

**Major Crops:** Tomato, Chilli, Rice, Cucurbits, Eggplant, Potato, Soya, Cereals and Fruits Trees

**Benefits:**

1. It helps to recover the deficiency of potash, its first appears as a yellowing of the older leaves' sides and tips, young leaves are last to show these symptoms.
2. It is compatible with most of fungicides, herbicides, insecticides and other foliar fertilizers
3. Ensures good fruit size, quality & regularity
4. Helps in regulation of Transpiration
5. Increases Plant resistance to diseases

**Dose/acre:** Foliar 0.4-0.8 Kg, Drip 1.6-2 Kg



### RAIZAL

**Technical details:** NPK 09: 45: 11, Nitrogen: 9.0%, Phosphate as P2O5: 45.0%, Potash K2O: 11.0%

**Mode of Use:** Foliar & Drip

**Major Crops:** Tomato, Chilli, Onion, Rice, Cucurbits, Beans, Pea, Groundnut, Eggplant, Wheat, Corn, Potato, Sugarcane, Grapes and Fruits Trees, Flowers

**Benefits:**

1. It enhances root development and faster more vigorous growth.
2. It also helps seedlings/nursery overcome transplant shock

**Dose/acre:** Foliar 0.4-0.8 Kg, Drip 1.6-2 Kg

## POST-HARVEST SOLUTIONS

# POST-HARVEST SOLUTIONS

### Prevent post-harvest losses from store grain pests



#### **SAFESILO**

**Technical Name :** Aluminium Phosphide  
15% Tablet

**Mode of Action :** Fumigant

**Target Pests :** Stored Grain pests

**Dose :** 12 gm tablet / 250 kg of  
stored grains



#### **RAT FREE**

**Technical Name :** Zinc Phosphide 80%

**Mode of Action :** Anti-coagulant

**Target Pests :** Rodents

**Dose :** 10 g / 1 Kg of grain bait



#### **SAFESILO PLUS**

**Technical Name:** Aluminium Phosphide 56% (F)

**Mode Of Action:** Fumigant

**Major Crops:** Stored Grains

**Target Pests:** Stored Grain Pests

**Dose:** 10 Gram per 1 Quintal Seed

# SAFE USE OF PESTICIDES



Do not transport pesticides along with food stuff



Store under lock and key



Keep out of reach of children



Buy pesticides in original packing



Read leaflet and Label before use



Wear protective clothing



Measure recommended quantity



Mix thoroughly in water using stick



Use funnel and fill without spillage



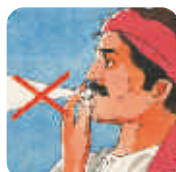
Do not use pesticide containers for food or water



Spray along the wind



Do not smoke, drink or eat while spraying



Do not blow with your mouth to clean the nozzle



Do not use leaky OR damaged sprayer



In case of contamination wash thoroughly the clothes and body



Do not allow the children to spray



Do not keep the food stuff near the site of application



Wash hands and mouth before eating, drinking or smoking



Give first aid in case of accidental poisoning



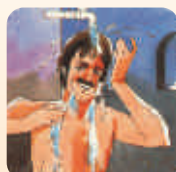
Show leaflet and container to the doctor



Get immediate expert treatment



Destroy and bury empty containers



Take bath and wash clothes



Avoid environmental contamination

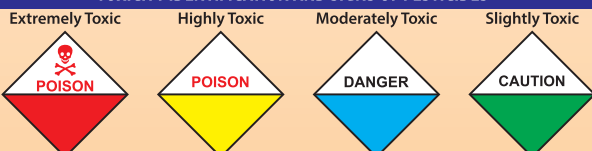


Put up warning board in treated area

## Precautions to be taken while spraying:

- Never ever by mistake use pump for spraying herbicide to spray Insecticides.
- Essentially use protective clothing, boot, hand-gloves and face-mask while spraying.
- The content of a container on which a red coloured kite shape is marked, is extremely toxic, followed by a series of Yellow, Blue and Green colours. All these signs are used to explain to illiterate people. This means that, pesticide with Green coloured mark is slightly toxic.

## TOXICITY IDENTIFICATION AND SIGNS OF PESTICIDES



For more information, contact specialist of an Agricultural Universities, Agricultural Officer OR Officer of the Company and Medical Officer/Doctor


## Precautions must be ensured with the following individual:

- If pesticide is ingested or falls on skin, in eyes or is inhaled, it may cause hazard.
- If any person is toxically affected he must be removed away from the place incident and his clothes must be changed.
- Immediately wash body/limbs with soap and clean water and dry up with a towel.
- If pesticide is ingested, immediately strive to make the patient vomit it out.
- If the patient is profusely sweating, dry it up with a dry towel.
- If the patient experiences cold, wrap a sheet around his body.
- If breathing of the patient has turned abnormal or has stopped, initiate mouth to mouth resuscitation.
- If the patient has spasm, push a soft thin cloth between his teeth.
- If the patient is unconscious, make efforts to bring him to senses.
- Do not try to give anything to eat to an unconscious patient.
- Immediately refer the patient to a doctor along with the label / leaflet of the pesticide or get him admitted in a hospital and get him treated under the supervision of a doctor.



# SWAL - SERVING THE NATION



 DEPOT    CORPORATE OFFICE    ZONAL OFFICE

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