

## 2,4-D (2,4-Dichlorophenoxyacetic acid)

### Herbicide

A systemic herbicide used in the control of broadleaf weeds. Salts are readily absorbed by the roots, whilst esters are readily absorbed by the foliage. Post-emergence control of annual and perennial broad-leaved weeds in cereals, maize, rice, sorghum, sugarcane, grassland, established turf, grass seed crops, orchards (pome fruit and stone fruit), cranberries, asparagus, forestry, and on non-crop land (including areas adjacent to water).

Recommended dosage: 0.3-2.3 kg a.i./ha



Maize weeds



Rice Weeds



Sugarcane Weeds



Grassland

Technical: 98% TC

FORMULATION: 860 g/L SL, 720 g/L SL (salt); 900 g/L EC, 72% EC (ester) Mixture products:

- 2, 4-D + Nicosulfuron 40% OD
- 2, 4-D + Florasulam 459 g/L SE
- 2, 4-D + Glyphosate 32% SL
- 2, 4-D + Picloram 27% SL
- 2, 4-D + Dicamba 41% SL

# Atrazine

## Herbicide

A selective systemic herbicide, absorbed by the roots and the foliage, with translocation acropetally in the xylem and accumulation in the apical meristems and leaves. Pre-emergence and post-emergence control of annual broad-leaved weeds and annual grasses in maize, sorghum, sugarcane, pineapples, chemical fallow, grassland, macadamia nuts, conifers, and industrial weed control. In Europe, use is concentrated in maize and sorghum.

Also used in combinations with many other herbicides as well.

Recommended dosage: 1.0-3.8 kg a.i./ha



Maize



Sorghum



Sugarcane



Tea garden

Technical: 97% TC

**FORMULATION:** 90% WDG, 80% WP, 50% SC Mixture products:

- Atrazine + Nicosulfuron + Mesotrione 28% OD
- Atrazine + MCPA + Nicosulfuron 64% WDG
- Atrazine + Rimsulfuron 25% OD
- Atrazine + Propisochlor 40% SE
- Atrazine + Mesotrione 25% OD

# Diquat

## Herbicide

A fast acting herbicide that works by disrupting cell membranes and interfering with photosynthesis. Pre-harvest desiccation of rice, cereals, maize, cotton, flax, alfalfa, soya beans, peas, beans, clover, lupins, oilseed rape, poppies, sunflowers, sugar beet, and other seed crops; destruction of potato haulms; and stripping of hops.

Control of annual weeds in vines, pome fruit, stone fruit, bush fruit, strawberries, citrus fruit, olives, hops, vegetables, ornamental plants and shrubs, and other crops. Also control of runners.

Control of emergent and submerged aquatic weeds. Weed control on non-crop land. Weed control and tassel inhibition in sugar cane.

Recommended dosage: 400-1000 g a.i./ha



Cotton desiccation



Oilseed rape desiccation



Citrus garden



Non-crop land

Technical: 40% TK

**FORMULATION:** 25% SL, 20% SL, 15% SL

# Diuron

## Herbicide

Systemic herbicide absorbed principally by the roots, with translocation acropetally in the xylem. Control of a wide variety of annual and perennial broadleaf weeds and grasses, mosses in many crops, including cotton, sugarcane, cereals, maize, sorghum, asparagus, tree fruit, bush fruit, citrus fruit, bananas, vines, olives, pineapples, peppermint, alfalfa, forage legumes, and perennial grass-seed crops, and non-crop land.

Recommended dosage: 0.6-4.8 kg a.i./ha for crop land; 10~30 kg a.i./ha for non-crop areas.



Sugarcane



Cotton



Banana



Irrigation channels

Technical: 97% TC

**FORMULATION:** 80% WDG, 80% WP, 80% SC Mixture products:

- Diuron + Thidiazuron + Ethephon 65% SC
- Diuron + Ametryn + MCPA 72% WP
- Diuron + Thidiazuron 540 g/L SC
- Diuron + Hexazinone 60% WDG
- Diuron + Ametryn 500 g/L SC

# Glufosinate Ammonium

## Herbicide

A non-selective contact herbicide with some systemic action. Translocation occurs only within leaves, predominantly from the leaf base to the leaf tip. Control of a wide range of annual and perennial broad-leaved weeds and grasses in fruit orchards, vineyards, rubber and oil palm plantations, ornamental trees and bushes, non-crop land, and pre-emergence in vegetables. Also used as a desiccant in potatoes, sunflowers, etc. For control of annual and perennial weeds and grasses in glufosinate tolerant crops (oilseed rape, maize, soya beans, sugar beet) developed through gene technology.

Recommended dosage: 0.4~1.5 kg a.i./ha



Broad-leaved weeds



Grasses



Sedges



Bushes

Technical: 95% TC, 50% TK

**FORMULATION:** 200 g/L SL, 150 g/L SL Mixture products:

- Glufosinate-ammonium + Fluoroglycofen-ethyl 20% OD
- Glufosinate-ammonium + Oxyfluorfen 32% WP
- Glufosinate-ammonium + Oxyfluorfen 17% ME

# Glyphosate

## Herbicide

A non-selective systemic herbicide absorbed by the foliage, with rapid translocation throughout the plant and inactivated on contact with soil. Control of annual and perennial grasses and broad-leaved weeds, pre-harvest, in cereals, peas, beans, oilseed rape, flax, mustard, stubble and post-planting/pre-emergence of many crops; as a directed spray in vines, olives, orchards, pasture, forestry and industrial weed control.

Recommended dosage: 1.5-4.5 kg a.i./ha



Before



After



Glyphosate used



Glyphosate not used

Technical: 95% TC, 62% TK

**FORMULATION:** 88.8% WSG, 80% SP, 68% WSG,

*Mixture products:*

- Glyphosate + Fluoroglycofen-ethyl 80% WP
- Glyphosate + Bensulfuron-methyl 75% WP
- Glyphosate + Oxyfluorfen 80% WDG
- Glyphosate + Oicamba 70% SP
- Glyphosate + 2, 4-D 32% SL

# Halosulfuron-methyl

## Herbicide

A systemic herbicide, absorbed by the root system and/or leaf surface, and translocated to meristem tissues. Halosulfuron-methyl has demonstrated activity for the control of annual broad-leaved weeds and nut sedge species, in rice, wheat, maize, sorghum, sugarcane, tomato, nuts and turf. Efficacy has been observed with post-emergence applications.

Recommended dosage: 18~35 g a.i./ha



Rice



Sugarcane



Broad-leaved weeds



Nut sedge species

Technical: 98% TC

**FORMULATION:** 75% WDG Mixture products:

- Halosulfuron-methyl + Florasulam 75% WDG
- Halosulfuron-methyl + Flucarbazone-Na 60% WDG

# Nicosulfuron

## Herbicide

A selective systemic herbicide, absorbed by the foliage and roots, with rapid translocation in xylem and phloem to the meristematic tissues. Selective post-emergence control in maize of annual grass weeds, including *Setaria*, *Echinochloa*, *Digitaria*, *Panicum*, *Lolium*, and *Avena* spp., broad-leaved weeds, including *Amaranthus* spp. And Cruciferae, and perennials such as *Sorghum halepense* and *Agropyron repens*.

Recommended dosage: 35-70 g a.i./ha



Barnyard grass  
Redroot pigweed



Green bristle grass



Wild oat

Technical: 95% TC

**FORMULATION:** 75% WDG, 40 g/L OD Mixture products:

- Nicosulfuron + Fluroxypyr-meptyl + Mesotrione 50% WDG
- Nicosulfuron + Atrazine + Acetochlor 52% OD
- Nicosulfuron + Mesotrione 25% OD
- Nicosulfuron + Dicamba 40% WP
- Nicosulfuron + Atrazine 24% OD



# Propanil

## Herbicide

A selective contact herbicide with a short duration of activity. Post-emergence in rice to control broad-leaved and grass weeds, including *Amaranthus retroflexus*, *Digitaria* spp., *Echinochloa* spp., *Panicum* spp. and *Setaria* spp. Also used, in mixture with MCPA, in wheat. A mixture with Carbaryl is used in citrus crops grown in sod culture.

Recommended dosage: 2.5~5.0 kg a.i./ha



Barnyard grass



Before



After 3 days



After 7 days

Technical: 97% TC

**FORMULATION:** 80% WDG, 480 g/L EC, 360 g/L EC (34% EC)

*Mixture products:*

- Propanil + Benthiocarb 450 g/L EC
- Propanil + Triclopyr 432 g/L EC
- Propanil + Butachlor 700 g/L EC
- Propanil + Clomazone 39% EC
- Propanil + 2,4-D 56% EC

# Azoxystrobin

## Fungicide

An innovation in plant disease control originally inspired by a species of forest-dwelling mushroom, which produced its own natural fungicide. Azoxystrobin acts by inhibiting mitochondrial respiration in fungi, stopping their energy supply along with protectant, curative, eradicant, translaminar and systemic properties. Widely used to control and yield enhancement in cereals such as wheat and barley as well as in vines, fruits, vegetables, bananas, rice, soybeans, corn, turf and ornamentals.

Recommended dosage: 100~375 g a.i./ha



Wheat powdery mildew



Coffee rust



Rice sheath blight



Lawn brown spot

Technical: 97% TC

**FORMULATION:** 50% WDG, 250 g/L SC

*Mixture products:*

- Azoxystrobin + Difenconazole 325 g/L SC
- Azoxystrobin + Oligosaccharins 23% SC
- Azoxystrobin + Epoxiconazole 32% SC
- Azoxystrobin + Thifluzamide 30% SC
- Azoxystrobin + Flutolanil 20% WDG

# Chlorothalonil

## Fungicide

A non-systemic foliar fungicide with protective action. Control of many fungal diseases in a wide range of crops, including pome fruit, stone fruit, citrus fruit, bush and cane fruit, cranberries, strawberries, pawpaws, bananas, mangoes, coconut palms, oil palms, rubber, pepper, vines, hops, vegetables, cucurbits, tobacco, coffee, tea, rice, maize, soya beans, peanuts, potatoes, sugar beet, cotton, ornamentals, mushrooms and turf.

Recommended dosage: 1.0-2.5 kg a.i./ha.



Tomato early blight



Cucumber downy mildew



Pepper anthracnose



Peanut leaf spot

Technical: 98% TC

**FORMULATION:** 75% WP, 720 g/L SC, 500 g/L SC

*Mixture products:*

- Chlorothalonil + Carbendazim + Thiram 75% WP
- Chlorothalonil + Fosetyl-aluminium 75% WP
- Chlorothalonil + Dimethomorph 47% SC
- Chlorothalonil + Tebuconazole 48% SC
- Chlorothalonil + Azoxystrobin 56% SC
- Chlorothalonil + Cymoxanil 36% WP

# Cymoxanil

## Fungicide

A foliar fungicide with protective and curative action. Has contact and local systemic activity, and also inhibits sporulation. Control of Peronosporales, especially Peronospora, Phytophthora, and Plasmopara spp. Normally used in combination with protectant fungicides (to improve residual activity) on a range of crops, including vines, hops, potatoes, and tomatoes.

Recommended dosage: 200-250 g a.i./ha.



Lettuce downy mildew



Grape downy mildew



Pepper blight



Potato blight

Technical: 98% TC

**FORMULATION:** 45% WDG, 20% SC

### *Mixture products:*

- Cymoxanil + Copper oxychloride 40% WP
- Cymoxanil + Famoxadone 52.5% WDG
- Cymoxanil + Dimethomorph 70% WDG
- Cymoxanil + Azoxystrobin 60% WDG
- Cymoxanil + Mancozeb 72%WP

# Copper Oxychloride

## Fungicide

A foliar fungicide with preventive action. Control of various fungus and bacterial diseases such as early and late blight, leaf spot, leaf scorch, downy mildews, canker and scab, melanose, anthracnose and blister blight in pome, citrus, stone fruits, vines, passionfruit, bananas, tomatoes and other fruit and vegetable crops and ornamentals.

Recommended dosage: 2~4 kg a.i./ha or 300-400 g a.i./100 L per application.



Tomato late blight



Citrus canker



Apple anthracnose



Rose leaf spot

Technical: 97% TC

**FORMULATION:** 70% WP

### *Mixture products:*

- Copper oxychloride + Thiophanate-methyl + Sulphur 50% WP
- Copper oxychloride + Dimethomorph 46% WP
- Copper oxychloride + Kasugamycin 50% WP
- Copper oxychloride + Metalaxyl-M 45% WP
- Copper oxychloride + Cymoxanil 40% WP
- Copper oxychloride + Zineb 52% WP

# Iprodione

## Fungicide

A contact fungicide with protective and curative action. Inhibits germination of spores and growth of fungal mycelium. Control of *Botrytis*, *Monilia*, *Sclerotinia*, *Alternaria*, *Corticium*, *Fusarium*, *Helminthosporium*, *Phoma*, *Rhizoctonia*, *Typhula* spp., etc. Used mainly on sunflowers, cereals, fruit trees, berry fruit, oilseed rape, rice, cotton, vegetables, and vines as a foliar spray. Can also be used as a post-harvest dip, as a seed treatment, or as a dip or spray at planting.

Recommended dosage: 0.5-1.0 kg a.i./ha on crops and 3-12 kg a.i./ha on turf



Paper gray mold



Lettuce stem rot



Tomato early blight



Tabaco brown spot

Technical: 96% TC

**FORMULATION:** 50% WP, 500 g/L SC, 255 g/L SC

*Mixture products:*

- Iprodione + Mancozeb + Carbendazim 75% WP
- Iprodione + Thiophanate-methyl 60% WP
- Iprodione + Carbendazim 52.5% WP
- Iprodione + Pyrimethanil 60% WDG
- Iprodione + Propineb 80% WP

For more information & other products contact us via [info@xyten.com](mailto:info@xyten.com)

# Kresoxim-methyl

## Fungicide

Fungicide with protective, curative, eradicated and long residual disease control; acts by inhibiting spore germination. Redistribution via the vapour phase contributes to activity. Control of scab in apples and pears (*Venturia* spp.); powdery mildew on apples (*Podosphaera leucotricha*), vines (*Uncinula necator*), cucurbits (*Sphaerotheca fuliginea*) and sugar beet (*Erysiphe betae*); mildew (*Erysiphe graminif*), scald (*Rhynchosporium secalitf*), net blotch (*Pyrenophora teretf*) and glume blotch (*Septoria nodorum*) on cereals; mildew on vegetables (*Leveillula taurica*, *Erysiphe* spp., *Alternaria* spp.).

**Recommended dosage: 120~400 g a.i./ha**



Strawberry powdery



Mildew Pear scab



Grape powdery mildew



Apple leaf spot

Technical: 98% TC

**FORMULATION:** 50% WDG, 30% SC

### Mixture products:

- Kresoxim-methyl + Thiophanate-methyl 50% WP
- Kresoxim-methyl + Difenconazole 325 g/L SC
- Kresoxim-methyl + Dimethomorph 80% WDG
- Kresoxim-methyl + Tebuconazole 70% WDG
- Kresoxim-methyl + Hexaconazole 40% SC

# Mancozeb

## Fungicide

Fungicide with protective action. Control of many fungal diseases in a wide range of field crops, fruit, nuts, vegetables, ornamentals, etc. More frequent uses include control of early and late blights (*Phytophthora infestans* and *Alternaria solana*) of potatoes and tomatoes; downy mildew (*Plasmopara viticola*) and black rot (*Guignardia bidwellii*) of vines; downy mildew (*Pseudoperonospora cubensis*) of cucurbits; scab (*Venturia inaequalis*) of apples; Sigatoka (*Mycosphaerella* spp.) of bananas and melanose (*Diaporthe citri*) of citrus.

Recommended dosage: 1.5~2.5 kg a.i./ha



Banana leaf spot



Grape bunch rot



Potato blight



Citrus melanose

Technical: 90% TC

**FORMULATION:** 80% WP, 75% WDG, 30% SC

### Mixture products:

- Mancozeb + Dimethomorph 69% WDG
- Mancozeb + Difenconazole 55% WP
- Mancozeb + Diniconazole 32.5% WP
- Mancozeb + Cymoxanil 72% WP
- Mancozeb + Metalaxyl 72% WP



# Propiconazole

## Fungicide

Systemic foliar fungicide with protective and curative action, with translocation acropetally in the xylem. Used on grasses grown for seed, mushrooms, Corn, wild rice, peanuts, almonds, sorghum, oats, pecans, apricots, peaches, nectarines, plums and prunes. On cereals controls diseases caused by *Erysiphe graminis*, *Leptosphaeria nodorum*, *Pseudocerosporella herpotrichoides*, *Puccinia* spp., *Pyrenophora teres*, *Rhynchosporium secalis*, and *Septoria* spp..

Recommended dosage: 100~150 g a.i./ha



Wheat powdery mildew



Banana leaf spot



Rice Sheath blight



Coffee rust

Technical: 95% TC

**FORMULATION:** 50% EC, 50% EW, 50% ME, 25% EC

### *Mixture products:*

- Propiconazole + Difenconazole 50% EC
- Propiconazole + Tebuconazole 45% SC
- Propiconazole + Tricyclazole 52.5% SE
- Propiconazole + Azoxystrobin 32% SC
- Propiconazole + Carbendazim 35% SE

# Pyraclostrobin

## Fungicide

*Fungicide with protectant, curative, and translaminar properties. Under development for control of major plant pathogens, such as Septoria tritici, Puccinia spp., Drechslera tritici-repentis and Pyrenophora teres in cereals, Mycosphaerella spp. in peanuts, Septoria glycines, Cercospora kikuchii and Phakopsora pachyrhizi in soya beans, Plasmopara viticola and Uncinula necator in grapes, Phytophthora infestans and Alternaria solani in potatoes and tomatoes, Mycosphaerella fijiensis in bananas, Elsinoe fawcettii and Guignardia citricarpa in citrus, and Rhizoctonia solani and Pythium aphanidermatum in turf.*

Recommended dosage:

50-250 g a.i./ha for food crops and 280-560 g a.i./ha for turf per application.



Watermelon anthracnose



Corn northern leaf blight



Banana freckle



Chinese cabbage soft rot

Technical: 98% TC

**FORMULATION:** 250 g/L EC, 240 g/L SC

*Mixture products:*

- Pyraclostrobin + Thiophanate-methyl 30% SC
- Pyraclostrobin + Dimethomorph 45% SC
- Pyraclostrobin + Tebuconazole 40% SC
- Pyraclostrobin + Thifluzamide 20% SC
- Pyraclostrobin + Zineb 60% WDG

# Abamectin

## Insecticide & Acaricide

Insecticide and acaricide with contact and stomach action. Has limited plant systemic activity, but exhibits translaminar movement. Control of motile stages of mites, leaf miners, suckers, beetles, etc. on ornamentals, cotton, citrus fruit, pome fruit, nut crops, vegetables, potatoes, and other crops. Also used for control of fire ants.

Recommended dosage:

5.6-28 g a.i./ha for mite control, 11 -22 g a.i./ha for leaf miners control.



Cotton mite



Citrus leafminer



Cabbage worm



Colorado potato beetle

Technical: 95% TC

**FORMULATION:** 5% EC, 5% EW, 1.8% EC, 0.5% GR

### *Mixture products:*

- Abamectin + Methoxyfenozide 10% SC
- Abamectin + Fenbutatin oxide 21 % SC
- Abamectin + Spirodiclofen 20% SC
- Abamectin + Chlorpyrifos 15% EC
- Abamectin + Indoxacarb 10% SC

# Acetamiprid

## Insecticide

Systemic insecticide with translaminar activity and with contact and stomach action. Control of Hemiptera, especially aphids, Thysanoptera and Lepidoptera, by soil and foliar application, on a wide range of crops, especially vegetables, fruit and tea.

Recommended dosage:

Applied at 75~300 g a.i./ha on vegetables, 100-700 g a.i./ha in orchards.



Cotton aphids



Cucumber thrips



Tomato whiteflies



Cabbage aphids

Technical: 98% TC

**FORMULATION:** 70% WDG, 70% WP, 20% SP, 5% EC

### *Mixture products:*

- Acetamiprid + Alpha-cypermethrin 25% WDG
- Acetamiprid + Lambda-cyhalothrin 26% WDG
- Acetamiprid + Chlorpyrifos 41.5% EC
- Acetamiprid + Abamectin 4% EC
- Acetamiprid + Bifenthrin 5% EC

# Ethephon

## Plant growth regulator

Plant growth regulator with systemic properties. In order to promote pre-harvest ripening and maturation of apples, bananas, blackberries, blueberries, cranberries, cherries, citrus fruit, figs, tomatoes, sugar beet and fodder beet seed crops, coffee, capsicums, etc.; To facilitate harvesting, increase flower bud development of the fruits; To prevent lodging in cereals, maize, and flax; To induce flowering and regulate ripening of Bromeliads; To stimulate lateral branching in azaleas, geraniums, and roses; To shorten the stem length in forced daffodils; To accelerate boll opening in cotton; To modify sex expression in cucumbers and squash; To hasten the yellowing of mature tobacco leaves; To stimulate latex flow in rubber trees, and resin flow in pine trees; to stimulate early uniform hull split in walnuts; etc.

Recommended dosage:

Maximum application rate per season 2.18 kg/ha for cotton, 0.72 kg/ha for cereals, 1.44 kg/ha for fruit



Vegetables & Fruit



Rice



Cotton



Rubber

Technical: 90% TC

**FORMULATION:** 720 g/L SL, 480 g/L SL, 5% Paste

### *Mixture products:*

- Ethephon + Diethyl aminoethyl hexanoate 20% SL
- Ethephon + Diuron + Thidiazuron 65% SC
- Ethephon + 1-Naphthyl acetic acid 10% SL
- Ethephon + Uniconazole 10% SL
- Ethephon + Brassinolide 30% SL

# Gibberellic acid

## Plant growth regulator

Acts as a plant growth regulator on account of its physiological and morphological effects in extremely low concentrations. Used to improve fruit setting, to increase yield, to loosen and elongate clusters, to reduce rind stain and retard rind ageing, to break dormancy and stimulate sprouting, to extend the picking season, to increase the malting quality.

Recommended dosage: Up to 80 g a.i./ha per application, depending on desired effect.



Technical: 90% TC

**FORMULATION:** 20% SP, 20% TB, 10% SP, 10% TB, 4% EC

### *Mixture products:*

- Gibberellic acid + Diethyl aminoethyl hexanoate 10% SG
- Gibberellic acid A4, A7 + 6-benzylamino-purine 3.6% EC
- Gibberellic acid + Paclobutrazol 3.2% WP
- Gibberellic acid + Forchlorfenuron 0.3% SL
- Gibberellic acid + Brassinolide 0.4% SL

# S-Abscisic acid (S-ABA)

## Plant growth regulator

S-Abscisic acid (S-ABA) is plant hormone which regulates many agronomical important aspects of plant development, including the synthesis of seed storage proteins and **lipids**, the promotion of seed desiccation tolerance and dormancy, and the inhibition of the phase transitions from embryonic to germinated growth and from vegetative to reproductive growth. In addition, ABA mediates some aspects of physiological responses to environmental stresses such as drought- or osmotica-induced stomatal closure, the induction of tolerance of water, salt, hypoxic, and cold stress, and wound or pathogen response, etc.

Recommended dosage:

2.5-10 mg a.i/vkg for spraying and 0.3-0.4 mg a.i/kg for seed soaking.



Tobacco



Vegetables



Cotton



Rice

Technical: 98% TC

**FORMULATION:** 10% SP, 5% WSG/SI, 1.5% WP, 0.03% SL

**Mixture products:** S-ABA ♦ Indolebutyric acid 1 % WP

# Brodifacoum

## Rodenticide

*Indirect anticoagulant. Controls most rodent pests, including Rattus norvegicus, R. rattus, Mus musculus and M. domesticus, Cricetus cricetus, Mesocricetus auratus, Microtus pennsylvanicus. M. pinetorum, R. argentiventer, R. rattus mindanensis and rodents, such as hamsters.*

Recommended dosage:

- Application rates from 10-30 g/15 m\* in room
- 2250-3000 g/ha in field (Base on Brodifacoum 0.005% Bait)



Brown Rat



Hamster



Vole

Technical: 95% TC, 0.5% TK

**FORMULATION:** 0.005% Bait



# Bromadiolone

## Rodenticide

Second-generation anticoagulant rodenticide which also blocks prothrombin **formation**  
Control of rats and mice (including those resistant to warfarin) in areas containing stored products, household use, industrial buildings, and other situations.

Recommended dosage:

- Application rates from 10-20 g/10m<sup>2</sup> in room.
- 300-450 **heap/ha** and 2-5 g/heap in field (Base on Bromadiolone 0.005% Bait)



Brown rat



Hamster



Vole

Technical: 98% TC, 0.5% TK

**FORMULATION:** 0.02% Bait, 0.01% Bait, 0.005% Bait