

A broad spectrum pyrethroid insecticide for the control of aphids, caterpillars and a range of other pests in a wide range of agricultural and horticultural crops.

#### MAPP 16160

An oil-in-water emulsion containing 15 g/L (1.50% w/w) deltamethrin.

Bayer CropScience Limited, 230 Cambridge Science Park Milton Road, Cambridge CB4 0WB Telephone: 01223 226500

For 24 hour emergency information contact Bayer CropScience Limited Telephone: 0800 220876

#### SAFETY PRECAUTIONS

#### Operator Protection

Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment:

WEAR SUITABLE PROTECTIVE GLOVES when handling the concentrate.

WEAR SUITABLE PROTECTIVE L GLOVES when applying by broadcast air-assisted equipment.

However, engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.

WASH HANDS AND EXPOSED SKIN before meals and after use.

#### Environmental Protection

Do not contaminate water with the product or its container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads. To protect aquatic organisms respect an unsprayed buffer zone to surface water bodies in line with LERAP requirements.

DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within the distance specified for the crop to the top of the bank of a static or flowing water body, or within 1 m of the top of a ditch which is dry at the time of application. Aim spray away from water.

ALL CROPS WITH A BUFFER ZONE GREATER THAN 5M ARE NOT ELIGIBLE FOR BUFFER ZONE REDUCTION UNDER THE LERAP HORIZONTAL BOOM SPRAYERS SCHEME.

DO NOT ALLOW DIRECT SPRAY from broadcast air-assisted sprayers to fall within 30m of the top of the bank of a static or flowing waterbody when applied to raspberry and 50m when applied to apple and pear, unless a local Environment Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 5m of the top of a ditch which is dry at the time of application. Aim spray away from water.

This product qualifies for inclusion within the Local Environment Risk Assessment for Pesticides (LERAP) scheme. Before each spraying operation from a horizontal boom sprayer or broadcast air assisted sprayer, either a LERAP must be carried out in accordance with CRD's published guidance or the statutory buffer zone as appropriate to the crop must be maintained. NOTE ALL BUFFER ZONES OF MORE THAN 5M VIA HORIZONTAL BOOM SPRAYER ARE NOT REDUCIBLE. The results of the LERAP must be recorded and kept available for three years. RISK TO NON-TARGET INSECTS OR OTHER ARTHROPODS when applied to crops other than cereals. See Directions for use

#### Storage and Disposal

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS. KEEP OUT OF REACH OF CHILDREN.

KEEP IN ORIGINAL CONTAINER, TIGHTLY CLOSED, IN A SAFE PLACE.

RINSE CONTAINER THOROUGHLY by using an integrated pressure rinsing device or manually rinsing 3 times. Add washings to the sprayer at the time of filling and dispose of safely.

Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

#### Safety information Decis Protech

Contains 15 g/L (1.50% w/w) deltamethrin.



#### Warning

Flammable liquid and vapour.

Very toxic to aquatic life with long lasting effects.

Ground/bond container and receiving equipment.

Wear protective gloves/protective clothing/eye protection.

Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

To avoid risks to human health and the environment, comply with the instructions for use.

Contains 1,2-Benzisothiazolin-3-one, 5-Chloro-2methyl-isothiazol-3-one/2-Methyl-isothiazol-3-one, benzyl salicylate and alpha-hexylcinnamaldehyde. May produce an allergic reaction.



To access the **Safety Data Sheet** for this product scan the code or use the link below:

www.bayercropscience.co.uk/decisprotechsds or alternatively contact your supplier GB80895011e rA4a

Bayer

#### IMPORTANT INFORMATION:

FOR USE ONLY AS AN AGRICULTURAL AND HORTICULTURAL INSECTICIDE

Crops:	Maximum individual dose	Maximum total dose	Latest time of application
Broad bean, field bean, combining pea, vining pea	500 ml/ha	1.0 L/ha/crop	7 days before harvest
Cauliflower	500 ml/ha	1.5 L/ha/crop	7 days before harvest
Brussels sprout, cabbage	500 ml/ha	1.0 L/ha/crop	7 days before harvest
Lettuce (outdoor)	420 ml/ha	1.26 L/ha/crop	7 days before harvest
Mustard (spring), oilseed rape (spring)	500 ml/ha	1.5 L/ha/crop	End of flowering (not less than 45 days before harvest)
Mustard (winter), oilseed rape (winter)	500 ml/ha	2.0 L/ha/crop	End of flowering (not less than 45 days before harvest)
Sugar beet, swede, turnip	500 ml/ha	500 ml/ha/crop	30 days before harvest
Wheat (winter), barley (winter) and oats (winter)	420 ml/ha	1.26 L/ha/crop	Up to and including early dough stage (GS 83) (not less than 30 days before harvest)
Wheat (spring) barley (spring), oats (spring)	420 ml/ha	840 ml/ha/crop	Up to and including early dough stage (GS 83) (not less than 30 days before harvest)
Apples and pears	580 ml/ha	1.74 L/ha/crop	7 days before harvest
Raspberries	830 ml/ha	2.49 L/ha/crop	7 days before harvest
Peppers (protected)	83 ml/100 litres water	Maximum number of treatments 3 per crop	7 days before harvest
Amenity vegetation (outdoor)	120 ml/100 litres water	Maximum number of treatments 3 per year	-

## The following Non-Reducible Aquatic Buffer Zones must be observed:

Crops/situations:	Aquatic buffer zone distance (metres):
Amenity vegetation (outdoor), barley (spring), barley (winter), broad bean, Brussels sprout, cabbage, cauliflower, combining pea, field bean, lettuce (outdoor), mustard (spring), mustard (winter), oats (spring), oats (winter), oilseed rape (spring), oilseed rape (winter), sugar beet, swede, turnip, vining pea, wheat (spring), wheat (winter)	7

## Other Specific Restrictions:

When used on crops with a greater than 5m non-reducible aquatic buffer zone this product must not be applied via hand-held equipment.

To protect non-target insects/arthropods when applied to cereals, respect an untreated buffer zone of 5 meters to non-crop land.

READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS.

## **DIRECTIONS FOR USE**

IMPORTANT: This leaflet is approved as part of the label. All instructions on this leaflet and on the label should be read carefully in order to obtain successful results from the use of this product.

#### RESTRICTIONS

DO NOT spray crops suffering from drought or other physical or chemical stress.

DO NOT spray wet crops liable to run-off. Some varieties of ornamentals are particularly sensitive to chemical sprays, so treat a small number of plants first to determine the reaction.

Do not apply this product in tank mixture with a triazole-containing fungicide when bees are likely to be actively foraging in the crop. Consult manufacturer. Can be applied in frosty weather provided foliage is not covered with ice.

When applied at high volume to apple, pear and amenity vegetation (outdoor), the maximum concentrations must not exceed those marked \* in the directions for use.

#### PROTECT FROM FROST.

Avoid spraying within 5 m of the field boundary to reduce effects on non-target insects or other arthropods when applied to the following crops: Amenity vegetation (outdoor), broad bean, Brussels sprout, cabbage, cauliflower, combining pea, field bean, lettuce (outdoor), mustard (spring), mustard (winter), oilseed rape (spring), oilseed rape (winter), sugar beet, swede, turnip and vining pea.

The best available application technique, which minimises off-target drift should be used to reduce effects on non-target insects or other arthropods when applying to apple, pear and raspberry.

#### **PESTS CONTROLLED**

The possible development of pests resistant to decis Protech cannot be excluded or predicted. Where such resistant strains occur, decis Protech is unlikely to give satisfactory control. Since such circumstances are beyond our control, Bayer will be under no liability for any loss or damage whatsoever. *Opomyza* spp. (Yellow cereal fly), Aphids, Whitefly, *Phyllotreta* spp., Brassica flea beetle, Pea and Bean Weevil, Pea Moth, Pollen Beetle, Cabbage Seed Weevil, Brassica Pod Midge, Cabbage Stem Flea Beetle, Rape Winter Stem Weevil, Caterpillars (various), *Psylla* spp. (Apple and Pear Suckers), *Cydia* 

pomonella (Codling Moth), Tortrix moth complex, Capsid Bugs, Scale Insects, Mealy Bugs, Cutworms (Noctuid Iarvae), Thrips, Sawfly, Raspberry Beetle, Pea midge.

#### Qualified minor use recommendation:

Based on limited data control of *Phyllotreta* spp. in spring oilseed rape would also be expected from applications of decis Protech applied in accordance with the Crop Specific Information section.

# CROP SPECIFIC INFORMATION APPLICATION

Sprayers should be THOROUGHLY CLEANED before use and filters and jets checked for damage and blockages.

200-1500 litres of water per hectare depending on crop and pest.

A pressure of 2-3 bar (30-40 psi) is recommended.

Apply as a **MEDIUM** quality spray (as defined by BCPC). decis Protech is not systemic and it is, therefore, important that the amount of water is sufficient to permit good spray coverage of the foliage, particularly in beans, peas, glasshouse crops and ornamentals. Use only nozzles designed and recommended for the volume to be applied.

## Wheat and Barley

For the control of <u>Barley yellow dwarf virus</u> (and some control of *Opomyza*). Where BYDV has been a problem: For crops drilled before mid-September, spray when aphids are first found in the crop or in mid-October. If crop is sprayed before early October, a second spray in early November may be beneficial. For crops drilled mid-September to early October, spray any time from mid-October to early November.

Where BYDV has not been a problem or if drilled after early October: Spray any time from late October to early November if aphids found or on specialist advice.

In mild winters further sprays may be needed.

Dose: 330 ml/ha in 200 litres of water

For the control of <u>Opomyza</u> (yellow cereal fly). Apply at start of egg hatch (normally late January to February) or according to specialist advice. Crops most at risk are those drilled before mid-October in fields with a history of <u>Opomyza</u>.

Dose: 420 ml/ha in at least 200 litres of water

## Wheat, Barley and Oats

For the control of <u>Aphids on ears</u>. Apply when two-thirds or more of heads are infested and numbers increasing (equivalent to 5 aphids per head).

Dose: 420 ml/ha in at least 200 litres of water.

## Brussels sprouts, Cabbage, Cauliflower, Swedes and Turnips Refer to the information box for maximum total dose for each type.

For the control of <u>Caterpillars (and some control of aphids</u> †† <u>and whitefly</u>). For **Non-routine treatment**; apply at the first stage of attack or as a preventative spray.

Dose: 500 ml/ha in at least 400 litres of water

For **pre-harvest clean-up**, a reduced dose may be used when only short persistence of the product is required and applied 7 days prior to harvest.

Dose: 250 ml/ha in at least 400 litres of water

For the control of <u>Brassica flea beetle (*Phyllotreta* spp.)</u>, apply when damage is

first seen.

Repeat at 14-day intervals if necessary. Dose: 500 ml/ha in 200-400 litres of water

## Peas and Bean (broad, and field)

For the control of <u>pea and bean weevil</u>, apply at first signs of adult damage (leaf notching). Repeat after 2-3 weeks if prolonged and heavy attack.

Dose: 500 ml/ha in 200-400 litres of water

<u>Pea midge</u>; Apply sprays when local warnings indicate for control of pea midge and improvement in pod numbers. A second application may be necessary if the risk remains high.

Dose: 420 ml/ha in 200 - 400 litres of water

#### Peas

For the control of <u>Pea moth</u> (and some control of pea aphids). Apply according to the pea moth pheromone trapping system in conjunction with specialist advice.

Dose: 420 ml/ha in at least 400 litres of water

## Sugar Beet

For the control of Flea beetle, apply at the first signs of damage.

Dose: 500 ml/ha in 200-400 litres of water

#### Spring Oilseed Rape and Mustard

For the control of <u>Pollen beetle</u>, Apply at green bud stage: If pollen beetle numbers are at threshold levels. A second application may be necessary if pest attack is prolonged.

Dose: 500 ml/ha in at least 200 litres of water.

For the control of <u>Cabbage seed weevil</u>, <u>brassica pod midge</u>, Apply at green to yellow bud stage if cabbage seed weevil numbers are at threshold levels. Repeat during flowering if pest attack is prolonged. Applications during flowering will also give control of brassica pod midge.

Dose: 500 ml/ha in at least 200 litres of water when applied during flowering.

## Qualified Minor use recommendation:

For the control of Brassica flea beetle (*Phyllotreta* spp.), apply when damage is first seen.

Repeat at 14-day intervals if necessary. Dose: 500 ml/ha in 200-400 litres of water

This recommendation is based on limited effectiveness data.

#### Winter Oilseed Rape

For some control of <u>Beet Western Yellows Virus (BWYV)</u>, Best results will be obtained by spraying at the 2-4 leaf stage, but spraying at 5-10 leaves can give good control.

Dose: 420 ml/ha in 200 litres of water.

For control of <u>cabbage stem flea beetle</u> and useful control, of <u>rape winter stem weevil</u>, Apply when adults are seen to be causing leaf damage, usually late August to October. Spray for flea beetle larvae once they can be found in leaf stalks, usually late October/early November. A second spray may be necessary to control later hatches.

Dose: 420 ml/ha in 200 litres of water

For control of <u>pollen beetle</u>, Apply at green bud stage: If <u>pollen beetle</u> numbers are at threshold levels. A second application may be necessary if pest attack is prolonged.

Dose: 500 ml/ha in at least 200 litres of water.

For control of <u>cabbage seed weevil</u>, <u>brassica pod midge</u>, decis Protech can be applied at any time during the flowering period if cabbage seed weevil numbers are at threshold levels, but best results will be obtained from applications made at the end of flowering on the main raceme (GS 49), usually 75% petal fall. Later applications may not prove effective as decis Protech is

primarily a contact insecticide. There is no spray threshold for brassica pod midge. Treatment decision should be based on previous local experience. Applications for seed weevil will also control brassica pod midge.

Dose: 500 ml/ha in at least 200 litres of water

## Lettuce (outdoor):

For the control of <u>cutworms</u>. Apply when pest first seen.

Use a second spray if necessary.

Dose: 420 ml/ha in at least 1000 litres of water.

## **HORTICULTURAL CROPS**

## Apples:

For the control of <u>caterpillars, apple sucker, apple grass aphid</u>. Apply at green cluster.

For the control of <u>codling and tortrix moth, sawfly, late capsid</u>. Apply at about mid-June or 10-14 days after light or pheromone traps first record a steady emergence of moths. A further application may be applied three weeks later. A third spray may be necessary in late July or early August if tortrix moths are a problem.

Dose: 580 ml/ha in at least 200 litres of water or High Volume: 33 ml per 100 litres of water\*

#### **Pears**

For the control of <u>pear sucker</u># (overwintered adults, eggs and nymphs).

Apply Pre-blossom - At any stage between bud burst and white bud or Post-blossom - At first signs of pest build-up, any time from petal fall onwards. Do not apply during blossom period.

Dose: 580 ml/ha in at least 200 litres of water or High Volume: 33 ml per 100 litres of water\*

## Raspberries:

For the control of <u>raspberry beetle</u>. Apply when about 80% of the blossom is over (usually mid June). (One spray when pink fruit is seen is usually adequate although for high quality dessert fruit two sprays may be applied). A further application may be made when the first fruit is colouring, (usually about 2 weeks later).

Dose: Conventional volume only: 830 ml/ha in 1000 litres of water

## Glasshouse crops :- peppers

For the reduction of <u>caterpillars</u>: apply when pest first seen. Repeat application as required.

Some effect on whitefly‡, scale insects, aphids and mealy bugs may also be seen. Dose: High volume only 83 ml per 100 litres of water\*.

#### Amenity vegetation (outdoor ornamentals, trees and shrubs)

For the control of <a href="whitefly">whitefly</a>†, <a href="scale">scale</a> insects, caterpillars, capsids, thrips, aphids, mealy <a href="bugs">bugs</a>. Apply when pest first seen. For whitefly, thoroughly wet plants, especially leaf under-surface. Repeat as required.

Dose: High volume only 120 ml per 100 litres of water\*

- \* MAXIMUM CONCENTRATION, DO NOT EXCEED
- †† Strains of some aphid species are resistant to many aphicides. Where aphids resistant to products containing pyrethroid insecticides occur, decis Protech is unlikely to give satisfactory control. Repeat treatments are likely to result in lower levels of control.
- ‡ Glasshouse whitefly strains resistant to one or more groups of insecticides are widespread. Where strains resistant to products containing pyrethroid insecticides occur, decis Protech is unlikely to give satisfactory control.

  Note: resistant strains of the tobacco whitefly are also known to occur.
- # Pear suckers resistant to one or more groups of insecticides are widespread. Where strains resistant to products containing pyrethroid insecticides occur, decis Protech is unlikely to give satisfactory control. Where repeat treatments are necessary use different active ingredients.

#### RESISTANCE MANAGEMENT STRATEGY

Total reliance on one pesticide will hasten the development of resistance; pesticides of different chemical types or alternative control measures should be included in a planned programme.

Alternating insecticides with different modes of action is a recognised anti-resistance strategy and decis Protech should always be used in alternation with other insecticides of a different mode of action where available. decis Protech should always be applied at the recommended rate of use and in sufficient water volume to achieve the required spray penetration into the crop and uniform coverage necessary for optimal pest control.

## **MIXING**

Shake well before use. Add the required quantity immediately at the beginning of filling the spray tank with water. Keep the spray agitation in action and add the required quantity of water. Continue agitation until spraying is completed. After spraying, thoroughly wash out the spray tank.

- ® Decis is a Registered Trade Mark of Bayer
- © Bayer CropScience 2015



A broad spectrum pyrethroid insecticide for the control of aphids, caterpillars and a range of other pests in a wide range of agricultural and horticultural crops.

#### MAPP 16160

An oil-in-water emulsion containing 15 g/L (1.50% w/w) deltamethrin.

Bayer CropScience Limited, 230 Cambridge Science Park Milton Road, Cambridge CB4 0WB Telephone: 01223 226500

For 24 hour emergency information contact Bayer CropScience Limited Telephone: 0800 220876

#### SAFETY PRECAUTIONS

#### Operator Protection

Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment:

WEAR SUITABLE PROTECTIVE GLOVES when handling the concentrate

WEAR SUITABLE PROTECTIVE GLOVES when applying by broadcast air-assisted equipment.

However, engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.

WASH HANDS AND EXPOSED SKIN before meals and after use.

#### **Environmental Protection**

Do not contaminate water with the product or its container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads. To protect aquatic organisms respect an unsprayed buffer zone to surface water bodies in line with LERAP requirements.

DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within the distance specified for the crop to the top of the bank of a static or flowing water body, or within 1 m of the top of a ditch which is dry at the time of application. Aim spray away from water.

ALL CROPS WITH A BUFFER ZONE GREATER THAN 5M ARE NOT ELIGIBLE FOR BUFFER ZONE REDUCTION UNDER THE LERAP HORIZONTAL BOOM SPRAYERS SCHEME.

DO NOT ALLOW DIRECT SPRAY from broadcast air-assisted sprayers to fall within 30m of the top of the bank of a static or flowing waterbody when applied to raspberry and 50m when applied to apple and pear, unless a local Environment Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 5m of the top of a ditch which is dry at the time of application. Aim spray away from water.

This product qualifies for inclusion within the Local Environment Risk Assessment for Pesticides (LERAP) scheme. Before each spraying operation from a horizontal boom sprayer or broadcast air assisted sprayer, either a LERAP must be carried out in accordance with CRD's published guidance or the statutory buffer zone as appropriate to the crop must be maintained. NOTE ALL BUFFER ZONES OF MORE THAN 5M VIA HORIZONTAL BOOM SPRAYER ARE NOT REDUCIBLE. The results of the LERAP must be recorded and kept available for three years. RISK TO NON-TARGET INSECTS OR OTHER ARTHROPODS when applied to crops other than cereals. See Directions for use

#### Storage and Disposal

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS.

KEEP OUT OF REACH OF CHILDREN.

KEEP IN ORIGINAL CONTAINER, TIGHTLY CLOSED, IN A SAFE PLACE.

RINSE CONTAINER THOROUGHLY by using an integrated pressure rinsing device or manually rinsing 3 times. Add washings to the sprayer at the time of filling and dispose of safely.

Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

## Safety information Decis Protech

Contains 15 g/L (1.50% w/w) deltamethrin.



#### Warning

Flammable liquid and vapour.

Very toxic to aquatic life with long lasting effects.

Ground/bond container and receiving equipment.

Wear protective gloves/protective clothing/eye protection.

Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste

To avoid risks to human health and the environment, comply with the instructions for use.

Contains 1,2-Benzisothiazolin-3-one, 5-Chloro-2-methyl-isothiazol-3-one/2-Methyl-isothiazol-3-one, benzyl salicylate and alpha-hexylcinnamaldehyde. May produce an allergic reaction.



To access the **Safety Data Sheet** for this product scan the code or use the link below:

www.bayercropscience.co.uk/decisprotechsds or alternatively contact your supplier GB80895011e rA4a

Bayer