

Karis 10 CS

INSECTICIDE

KARIS 10 CS is a broad-spectrum insecticide for the control of aphids, beetles, moths, suckers and weevils in a wide range of crops.

0,5 Litre^e

Active substance:
Lambda-cyhalothrin 100.0g/l

Formulation:
Capsule suspension (CS)

RISK AND SAFETY INFORMATION

Harmful if swallowed. Harmful if inhaled.

Very toxic to aquatic life with long-lasting effects.

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

Avoid breathing vapours/spray.

Wash hands thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Avoid release to the environment.

Call a POISON CENTER/doctor if you feel unwell.

Collect spillage.

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

Do not contaminate water with this product or its container (Do not clean application equipment near surface water / Avoid contamination via drains from farmyards and roads).

READ DIRECTIONS FOR USE ON ATTACHED LEAFLET

Boom Sprayers: To protect aquatic organisms respect an unsprayed buffer zone of 5m to surface water bodies.

Broadcast air-assisted sprayers: To protect aquatic organisms respect an unsprayed buffer zone of 25m to surface water bodies.

Hand held sprayers: To protect aquatic organisms respect an unsprayed buffer zone of 1m to surface water bodies.

Karis is a trademark and product of FMC Chemical Sprl, Boulevard de la Plaine 9/3, 1050 Brussels, Belgium

WARNING



Authorization holder:

FMC

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PCS No.: 04454

FOR PROFESSIONAL USE ONLY**Important Information**

Area of Use:

For use as an insecticide in agricultural and horticultural crops.**Crops:**

winter wheat, spring wheat, winter barley, spring barley, oats rye, triticale, oilseed rape (winter and spring), combining pea, field bean, edible podded pea, vining pea, broccoli/calabrese, brussels sprout, cabbage, cauliflower, sugar beet, fodder beet, potatoes (seed and ware), pear, lettuce (outdoor), carrot & parsnip

Maximal individual dose:

Details are given in the statutory area on the attached leaflet.

Maximal total dose:

Details are given in the statutory area on the attached leaflet.

Latest time of application:

Details are given in the statutory area on the attached leaflet.

Specific uses / restrictions

See directions for use table.

Method of application:

Orchard blast sprayer / Tractor mounted/trailed sprayer / Knapsack

Do not allow direct spray from horizontal boom sprayers to fall within 5m of the top of the bank of any static or flowing waterbody or within 1m of a ditch which is dry at the time of application.

Do not allow direct spray from horizontal boom sprayers to fall within 25m of the top of the bank of any static or flowing waterbody or within 5m of a ditch which is dry at the time of application.

Spray from hand-held sprayers must not be allowed to fall within 1m of the top of the bank of any static or flowing waterbody.

Spray must be aimed away from water.

Protect from frost. Shake well before use.**The material and its container must be disposed in a safe way.****DIRECTIONS FOR USE of KARIS 10 CS**

PCS No.: 04454

**This information is approved as part of the Product Label.
All instructions within this section must be read carefully in order to obtain safe and successful use of this product.**

IMPORTANT:**For use as an insecticide in agricultural and horticultural crops.**

Crops	Maximal individual dose	Maximal numbers of applications	Maximal total dose	Latest time of application
Winter wheat, spring wheat, winter barley, spring barley, rye, triticale	50 ml/ha	4	200 ml/ha	Before late milk stage (GS 77)
Oats	50 ml/ha	4	200 ml/ha	Before watery ripe stage (GS 71)
Oilseed rape (Winter)	75 ml/ha	4	225 ml/ha	Before end of flowering
Oilseed rape (Spring)	75 ml/ha	4	225 ml/ha	6 weeks before harvest
Combining pea, field bean	75 ml/ha	2	150 ml/ha	25 days before harvest
Edible podded pea, vining pea	75 ml/ha	2	150 ml/ha	-
Broccoli/calabrese, Brussels sprout, cabbage, cauliflower	100 ml/ha	2	200 ml/ha	-
Sugar beet & fodder beet	75 ml/ha	2	150 ml/ha	8 weeks before harvest
Potatoes (seed and ware)	75 ml/ha	4	300 ml/ha	-
Pear	90 ml/ha	3	270 ml/ha	7 days before harvest
Lettuce (outdoor)	75 ml/ha	2	150 ml/ha	7 days before harvest

Carrot, parsnip	75 ml/ha	4	150 ml/ha	14 days pre-harvest
A minimum interval of 7 days must be observed between applications on the following crops: Oilseed rape, combining pea, field bean, vining pea, edible podded pea, potato, sugar beet, fodder beet, lettuce, carrot, parsnip				
A minimum interval of 10 days must be observed between applications on the following crops: Brussels sprout, cabbage, cauliflower, broccoli/calabrese				
A minimum interval of 14 days must be observed between applications on the following crops: Wheat, barley, oats, rye, triticale, pear				
Specific pests controlled:				
Wheat, barley, rye, triticale & oats: Aphids, yellow cereal fly				
Potatoes: Aphids				
Sugar beet & fodder beet: Flea beetle, beet leaf miner and cutworms				
Oilseed rape: Cabbage stem flea beetle, aphids, pollen beetles, seed weevils and pod midge				
Peas and beans: Pea and bean weevil, pea moth, pea midge and pea aphid				
Broccoli/calabrese, Brussels sprout, cabbage, cauliflower: caterpillars and whitefly				
Lettuce: Cutworm				
Carrot and Parsnip: Cutworm				
Pear: Pear sucker and aphids				

GENERAL INFORMATION

KARIS 10 CS acts by contact therefore ensure thorough spray cover for good control.

Processed Crops: Taint tests have shown that KARIS 10 CS does not taint crops, but growers should consult processors before use.

RESISTANCE MANAGEMENT

Strains of some aphid species are resistant to many aphicides. Where aphids resistant to products containing Lambda-cyhalothrin occur, KARIS 10 CS is unlikely to give satisfactory control. Repeat treatments are likely to result in lower levels of control.

To ensure maximum and prolonged effectiveness and to minimise the likelihood of resistant strains of pests developing, it is recommended that a non-pyrethroid insecticide is incorporated into annual spray programs.

CEREALS:

Winter wheat, spring wheat, winter barley, spring barley, rye, triticale and oats against aphids and yellow cereal fly:

Aphids, control of aphid vectors (Barley Yellow Dwarf Virus):

Timing for High Risk (Virus Prone) Areas:

a) Cereals sown in **September**: Apply a single KARIS 10 CS spray as a routine in the midlate period; **October** if BYDV is commonly a problem on the farm or in the locality. If aphids can be found in the crop earlier, spray immediately. Further treatments may be required in high risk areas especially during mild winters.

b) Cereals sown from **October** onwards: Follow recommendations for low risk areas.

Timing for Low Risk Areas:

A spray should only be applied in the years when the risk of infection is high, based on aphid monitoring and according to specialist advice. When aphids can be found in the crop and/or specialists identify a BYDV risk, spray immediately.

Notes: Crops which follow closely a grass ley or weedy stubble, where there is a risk of direct aphid transfer to the crop, should be treated as high risk.

Rate of use: 50 ml/ha

Maximal total dose: 200 ml/ha

Water volume: 200 l/ha

Aphids on ears:

Timing: The optimum timing for application is after ear emergence (GS59). Apply according to official thresholds.

Notes: When KARIS 10 CS is used for control of aphids on the ear, some reduction of aphids on the flag leaf will occur.

Rate of use: 50 ml/ha

Maximal total dose: 200 ml/ha

Water volume: 200-300 l/ha. (Use sufficient water volume to ensure thorough crop penetration)

Yellow cereal fly:

Timing: Apply at egg hatch, usually from late January onwards depending on the season. Early emerged crops are most at risk. Sprays applied for the control of aphids will also give some control of this pest.

Notes: -

Rate of use: 50 ml/ha

Maximal total dose: 200 ml/ha

Water volume: 200 l/ha

The latest time of application on wheat and barley, rye and triticale is before GS 77 and on oats is before GS 71.

OIL SEED RAPE:

Winter and **spring oil seed rape** against cabbage stem flea beetle, aphids and aphid vectors (Beet Western Yellow Virus), pollen beetles, seed weevils and pod midge:

Cabbage stem flea beetle:

Timing: Apply in the autumn when feeding damage is first seen on young rape plants to control the adults. To control the larvae, spray once larvae can be found in the plants, normally late October/early November. Monitor crops carefully for signs of further larvae infestation and apply a second spray if required. A routine spray in late October/early November can often be justified in known high risk areas.

Notes: Add a non-ionic surfactant adjuvant that is not an organosilicone in accordance with the manufacturer's instructions.

Rate of use: 75 ml/ha

Maximal total dose: 225 ml/ha

Water volume: 200 l/ha

Add a non-ionic surfactant adjuvant that is not an organosilicone in accordance with the manufacturer's instructions.

Aphids and Aphid Vectors (BWYV):

Timing: Apply as soon as aphids can be found in the crop. A second spray may be needed 3–5 weeks later if aphids continue to migrate into the crop. Applications made late in the autumn, i.e. from November onwards, may be less effective in controlling aphid migration had begun several weeks earlier. KARIS 10 CS applied to control aphids will reduce also Cabbage stem flea beetle adults and larvae depending on their incidence and the period of egg hatch.

Notes: Add a non-ionic surfactant adjuvant that is not an organosilicone in accordance with the manufacturer's instructions.

Rate of use: 75 ml/ha

Maximal total dose: 225 ml/ha

Water volume: 200 l/ha

Add a non-ionic surfactant adjuvant that is not an organosilicone in accordance with the

manufacturer's instructions.

Pollen beetles:

Timing: Apply at the green/yellow bud stage according to specialist advice or if official thresholds are reached.

Notes: -

Rate of use: 75 ml/ha

Maximal total dose: 225 ml/ha

Water volume: 200-300 l/ha (Use sufficient water volume to ensure thorough crop penetration)

Seed weevils and pod midge:

Timing: Applications should be made during the flowering period when seed weevil numbers reach the threshold for spraying. Best results are normally achieved when application coincides with the onset of peak adult activity. This often occurs between the 20% pod set stage and the end of flowering on the main raceme (i.e. 75% petal fall across the entire crop). Avoid spraying in the heat of the day when bees are particularly active.

Notes: For spring sown varieties apply at green to yellow bud stage if seed weevils are present at threshold levels. Repeat application during flowering if the attack is prolonged.

Rate of use: 75 ml/ha

Maximal total dose: 225 ml/ha

Water volume: 200-300 l/ha (Use sufficient water volume to ensure thorough crop penetration)

The latest time of application on spring oilseed rape is 6 weeks before harvest and on winter oilseed rape is before end of flowering.

BEANS:

Winter and spring field beans against pea and bean weevil:

Pea and bean weevil:

Timing: For the reduction of leaf notching/feeding damage, apply if there is a risk of severe damage by adult weevils to the growing points of the crop in the early stages of growth. Under high pest pressure a repeat application may be required 2–3 weeks after the initial application. Where there is a history of severe weevil damage, a first application made at the first signs of adult attack (leaf notching) may be beneficial in some situations

Rate of use: 75 ml/ha

Maximal total dose: 150 ml/ha

Water Volume: 200-300 l/ha (Use sufficient water volume to ensure thorough crop penetration)

PEAS:

Combining pea, edible podded pea, vining pea against pea and bean weevil, pea moth, pea midge and pea aphid:

Pea and bean weevil:

Timing: For the reduction of leaf notching/feeding damage, apply if there is a risk of severe damage by adult weevils to the growing points of the crop in the early stages of growth. Under high pest pressure a repeat application may be required 2–3 weeks after the initial application. Where there is a history of severe weevil damage, a first application made at the first signs of adult attack (leaf notching) may be beneficial in some situations

Rate of use: 75 ml/ha

Maximal total dose: 150 ml/ha

Water Volume: 200-300 l/ha (Use sufficient water volume to ensure thorough crop penetration)

Pea moth:

Timing:

Combining peas: Apply to flowering crops according to official advice or as indicated by pheromone traps. Spray later crops as soon as they are in full flower. Apply a second treatment 10–14 days after the first.

Edible podded and vining peas: Crops which are in full flower should be treated with a single spray at the calculated date.

Rate of use: 50 ml/ha

Maximal total dose: 150 ml/ha

Water Volume: 300-600 l/ha (Use sufficient water volume to ensure thorough crop penetration)

Pea midge:

Timing: Apply within 3–5 days of the first adult midges being found in the crop. Repeat 7–10 days later if midge activity continues. Sprays can be delayed if the weather is not suitable for midge activity or if the crop is not at a susceptible growth stage. Note: Consult a crop specialist for advice on application timing and information on midge activity in your area.

Rate of use: 75 ml/ha

Maximal total dose: 150 ml/ha

Water Volume: 300-600 l/ha (Use sufficient water volume to ensure thorough crop penetration)

Pea aphid:

Timing: Apply to flowering crops according to specialist advice or when thresholds are reached. Repeat if necessary. Inspect the crop carefully, especially during the early stages of flowering.

Notes: KARIS 10 CS will provide effective control of early aphid infestations of Pea Aphid which are confined to the terminal growing points of the crop and are exposed to spray droplets. For established aphid infestations on the growing points and for aphid infestations which are sheltered within the crop canopy apply KARIS 10 CS in tank mixture with APHOX at 140 g/ha.

Where aphids are the only pest present and are well established throughout a crop canopy which is dense it is preferable to apply APHOX alone at 280 g/ha.

Rate of use: 50 ml/ha

Maximal total dose: 150 ml/ha

Water Volume: 300-600 l/ha (Use sufficient water volume to ensure thorough crop penetration)

The latest time of application on combining peas and field beans is 25 days before harvest.

BRUSSELS SPROUTS, CABBAGE, CAULIFLOWER and BROCCOLI (including CALABRESE):

Brussels sprouts, cabbage, cauliflower and broccoli (including Calabrese) against caterpillars and whitefly:

Caterpillars:

Timing: Apply at first sign of attack. Repeat if necessary.

Rate of use: 50 ml/ha

Maximal total dose: 200 ml/ha

Water Volume: 300-600 l/ha (Use sufficient water volume to ensure thorough crop penetration; consider applying to Brussels sprouts through a drop-leg sprayer). Add a non-ionic surfactant adjuvant that is not an organosilicone in accordance with the manufacturer's instructions.

Whitefly:

Timing: Apply at first sign of attack. Repeat 10–14 days later if necessary.

Rate of use: 100 ml/ha

Maximal total dose: 200 ml/ha

Water Volume: 300-600 l/ha (Use sufficient water volume to ensure thorough crop penetration; consider applying to Brussels sprouts through a drop-leg sprayer). Add a non-ionic surfactant adjuvant that is not an organosilicone in accordance with the manufacturer's instructions.

Notes on aphid control: If the Peach Potato Aphid (*M. persicae*) is present in the crop at the time of an application to control caterpillars or whitefly use a tank mix with APHOX at 280 g/ha.

LETTUCE:

Lettuce (outdoor) against cutworm:

Timing: Apply at egg hatch or according to specialist advice and repeat 10–14 days later.

Rate of use: 75 ml/ha

Maximal total dose: 150 ml/ha

Water Volume: 400-1000 l/ha (Use sufficient water volume to ensure thorough crop penetration).

The latest time of application on outdoor lettuce is 7 days before harvest.

SUGAR BEET AND FODDER BEAT:

Sugar beet and fodder beat against flea beetle, beet leaf miner and cutworms:

Flea beetle:

Timing: Apply as soon as adult feeding damage is seen. Repeat if necessary.

Rate of use: 75 ml/ha

Maximal total dose: 150 ml/ha

Water Volume: 200 l/ha

Beet Leaf Miner (Mangold Fly):

Timing: Apply at egg hatch or according to specialist advice. Repeat if necessary.

Rate of use: 75 ml/ha

Maximal total dose: 150 ml/ha

Water Volume: 200 l/ha

Cutworms:

Timing: Apply according to specialist advice at egg hatch and repeat 10–14 days later. The latest time of application is eight weeks before harvest.

Rate of use: 75 ml/ha

Maximal total dose: 150 ml/ha

Water Volume: 400-1000 l/ha (Use sufficient water volume to ensure thorough crop penetration)

Notes on aphid control: If Peach Potato Aphid (*M. persicae*) or Black Bean Aphid (*Aphis fabae*) is present in the crop at the time of an application to control Flea Beetle, Leaf Miner or Cutworm use a tank mix with APOX at 280 g/ha.

The latest time of application on sugar beet and fodder beet is 8 weeks before harvest.

POTATOES:

Potatoes (seed and ware) against aphids:

Aphids:

Timing:

Seed crops: Apply in mixture with APOX at 280 g/ha. Apply the first spray according to specialist advice (normally at 80% emergence) and apply additional sprays at 7-14 day intervals (according to pest pressure) until the risk of virus transmission has diminished.

Ware crops: Apply according to specialist advice or as soon as aphids reach threshold levels. Repeat if necessary. If aphids are present in the base of the crop or if resistant strains of the Peach - potato Aphid are believed to be present tank mix with APOX at 280 g/ha.

Rate of use: 75 ml/ha

Maximal total dose: 300 ml/ha

Water Volume: At least 400 l/ha (Use sufficient water volume to ensure thorough crop penetration)

CARROT AND PARSNIP:

Carrot, parsnip against cutworm:

Cutworm:

Timing: Apply at egg hatch or according to specialist advice and repeat 10–14 days later.

Rate of use: 75 ml/ha

Maximal total dose: 150 ml/ha

Water Volume: 400-1000 l/ha (Use sufficient water volume to ensure thorough crop penetration).

The latest time of application on carrot and parsnip is 14 days before harvest.

PEAR:

Pear against pear sucker and aphids:

Pear sucker and Aphids:

Timing: Apply when first sucker eggs are being laid, usually in late February/early March. Should sucker build up in the summer in the absence of predators, apply KARIS 10 CS at the same rate and repeat after 2–3 weeks if necessary.

Rate of use: 90 ml/ha

Maximal total dose: 270 ml/ha

Water Volume: 200-2000 l/ha (Use sufficient water volume to ensure thorough crop penetration).

The latest time of application on pear is 7 days before harvest.

THIS PRODUCT IS TO BE USED ONLY IN ACCORDANCE WITH THE RECOMMENDATIONS AND INSTRUCTIONS PROVIDED WITH THIS PACK. USE IN ANY OTHER CIRCUMSTANCES IS ENTIRELY AT USER'S RISK.

MIXING:

Preparation of sprayer: Part fill the spray tank with clean water and start agitation. Shake the container and add the correct amount of KARIS 10 CS to the sprayer using a filling device (e.g. induction bowl, probe etc.) or by direct addition to the spray tank.

Spraying: Ensure adequate volume and pressure is used and that the sprayer is correctly calibrated before use. Do not leave the spray liquid in the sprayer for long periods (i.e. during meals or overnight).

Cleaning: Wash out container thoroughly. Preferably use an integrated pressure-rinsing device or manually rinse three times. Add washings to the sprayer at the time of filling. Dispose of rinsed container safely.

COMPATIBILITY:

The product label provides information on a specific pesticidal use of the product; do not use otherwise, unless you have assessed any potential hazard involved, the safety measures required and that the particular use has 'off-label' approval or is otherwise permitted under the Plant Protection Product Regulations. The information on this label is based on the best available information including data from test results.

ADDITIONAL SAFETY INFORMATION

First Aid Measures:

General information: In case of accident or feel unwell, seek medical advice immediately. Change contaminated, saturated clothing.

After inhalation: Remove affected person from the immediate area. If unconscious, place in recovery position and seek medical advice. Ensure supply of fresh air.

After skin contact: Wash off immediately with soap and plenty of water.

After eye contact: Remove contact lenses, irrigate copiously with clean fresh water for at least 15 minutes, holding the eyelids apart and seek medical advice. Eye treatment by an oculist.

After ingestion: Do not induce vomiting – aspiration hazard. Summon a doctor immediately. Never give anything by mouth to an unconscious person.

Storage and disposal:

Avoid contact with skin and eyes. Keep container tightly closed. If workplace exposure limits are exceeded, respiratory protection approved for this particular job must be worn.

Do not eat or drink during work - no smoking.

Keep away from sources of ignition.

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Keep only in the original container.

Do not store together with oxidizing agents.

Keep container tightly closed in a cool, well-ventilated place.

Dispose in a safe way.