

27th February 2020

I-Insecticide

HARPUN®
(MAPP 19383)

An emulsifiable concentrate containing 100g/L Pyriproxyfen Also contains solvent naphtha (petroleum) heavy aromatic.

HARPUN is an insecticide for use on indoor tomato and cucumber against whitefly, and outdoor use on apple against codling moth and on pears against pear sucker.

The (COSHH) Control of Substances Hazardous to Health Regulations may apply to the use of this product at work.

Contents: 5 litres e

Batch number:

SHAKE WELL BEFORE USE

PROTECT FROM FROST

Authorisation Holder: Galenika-Fitofarmacija a.d. Batajniki drum bb, 11080 Belgrade, SERBIA. Tel: +381 11 3072 301 Website/e-mail: <http://www.fitofarmacija.rs/> / office@fitofarmacija.rs

HARPUN (MAPP 19383)

An emulsifiable concentrate containing 100g/L of pyriproxyfen. Also contains solvent naphtha (petroleum) heavy aromatic.



Danger

May be fatal if swallowed and enters airways

Causes serious eye damage

May cause drowsiness or dizziness

Very toxic to aquatic life with long lasting effects

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wear protective gloves/protective clothing/eye protection/face protection.

IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do - continue rinsing.

Call a POISON CENTRE or doctor/physician if you feel unwell.

Do NOT induce vomiting.

Collect spillage.

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.

Repeated exposure may cause skin dryness or cracking.

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

IMPORTANT INFORMATION
FOR PROFESSIONAL USE ONLY AS AN INSECTICIDE

Crop	Maximum individual dose (L product/ha)	Maximum number of treatments (per crop)	Latest time of application
Apple (outdoor)	1	2	Fruit diameter up to 40mm (BBCH 74)
Pear (outdoor)	1	1	Fruit about half size (BBCH 75)
Tomato (permanent protection with full enclosure)	1.125	2	3 days before harvest
Cucumber (permanent protection with full enclosure)	1.125	2	3 days before harvest

Other specific restrictions:

- 1) This product qualifies for inclusion within the Local Environment Risk Assessment for Pesticides (LERAP) scheme for broadcast air-assisted sprayers. Before each spraying operation from a broadcast air-assisted sprayer, either a LERAP must be carried out in accordance with the 'Local Environment Risk Assessment for Pesticides Broadcast Air-Assisted Sprayers' booklet available from the HSE Chemicals Regulation Division's website or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for three years.
- 2) Do not apply by hand-held equipment to pome fruit.
- 3) Do not handle treated pome fruit crops for at least 1 day after treatment.
- 4) For application to tomato and cucumber treatment must only be made under 'permanent protection' situations which provide full enclosure (including continuous top and side barriers down to below ground level) and which are present and maintained over a number of years.
- 5) Reasonable precautions must be taken to prevent access of birds, wild mammals and honey bees to treated crops.
- 6) To minimise airborne environmental exposure, vents, doors and other openings must be closed during and after application until the applied product has fully settled.
- 7) # Managers must carry out a thermal comfort checklist for protected environments (see - <http://www.hse.gov.uk/temperature/assets/docs/thermal-comfort-checklist.pdf>) prior to worker re-entry tasks. If needed, an additional heat stress check list and associated risk assessment must be undertaken (see- <http://www.hse.gov.uk/temperature/assets/docs/heat-stress-checklist.pdf>) and the records retained. Temperature and humidity inside glass houses should be monitored during re-entry tasks. If conditions become such that there is a risk of heat related illness, or workers complain of ill effects, then work must cease until the risk is reduced. It is not acceptable for workers to remove clothing and continue working.

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.

SAFETY PRECAUTIONS

Operator and Worker protection

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

OPERATORS MUST WEAR SUITABLE PROTECTIVE GLOVES AND FACE PROTECTION (FACESHIELD) when handling the concentrate.

OPERATORS MUST WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when applying by pedestrian-controlled sprayer with vertical boom or where contact with treated foliage is unavoidable during application in protected situations.

OPERATORS MUST ONLY use vehicle mounted or trailed horizontal or vertical boom sprayers where the operator's normal working position is within a closed cab with a suitable in-cab filtration system* or suitable respiratory protective equipment** is worn during application in protected situations.

*Closed cabin meeting at least EN 15695 category 3 **Disposable filtering facepiece respirator to at least EN149 FFP3 or equivalent.

WORKERS MUST WEAR SUITABLE PROTECTIVE GLOVES* when handling treated tomato and cucumber crops or contaminated surfaces within 3 weeks after treatment.

*Meeting at least glove safety standard EN374-2:2019, Level 2 and CE category III. Such gloves can be identified by a CE Mark with four digits below, and the EN374 pictogram for micro-organisms.

WORKERS MUST WEAR SUITABLE PROTECTIVE CLOTHING in which arms, body and legs are fully covered when handling treated vegetable crops or contaminated surfaces within 35 days after treatment. (See 'Other Specific Restrictions' #).

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

WHEN USING DO NOT EAT, DRINK OR SMOKE.

IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, seek medical advice immediately (show the label where possible).

IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY with plenty of water and seek medical advice.

WASH HANDS AND EXPOSED SKIN before meals and after work.

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.

Apple (outdoor) and Pear (outdoor)

DO NOT ALLOW DIRECT SPRAY from broadcast air-assisted sprayers to fall within 20m (for apples) and 30m (for pears) of the top of the bank of any static or flowing waterbody 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 for BROADCAST AIR-ASSISTED SPRAYERS. Before each spraying operation from a broadcast air-assisted sprayer, either a LERAP must be carried out in accordance with CRD's published guidance or the

statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for three years.

Storage and disposal

KEEP OUT OF REACH OF CHILDREN

KEEP IN ORIGINAL CONTAINER, tightly closed in a safe place.

Storage temperature should not be less than 5°C or higher than 30°C.

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS KEEP AWAY FROM HEAT OR SPARK.

DO NOT RE-USE CONTAINER for any purpose.

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

This leaflet is part of the approved label.

DIRECTIONS FOR USE

IMPORTANT: 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.

HARPUN is intended to be used as an agricultural and horticultural insecticide. HARPUN acts by suppressing embryogenesis within the insect egg and by inhibition of metamorphosis and adult emergence of target insects. HARPUN acts on all stages of the insect pest, either directly (ovicidal) or indirectly (transovarial and suppression of the adult formation upon treatment of larvae). Applied to the pre-metamorphic instar HARPUN disrupts metamorphosis and therefore prevents progression from the larvae to adult stage.

Restrictions

- Where beehives are used for pollination in glasshouses it is recommend to close hives prior to application.
- Crops should not be re-entered until spray residues are dry.
- Where a crop is destined for processing, consult your processor before treating with HARPUN.
- Caution: Crop safety, including russeting, on 'Cox' / 'Gala' / 'Bramley' / 'Conference' has not been established.

Resistance

HARPUN contains pyriproxyfen which mimics juvenile hormone and thereby interferes with insect maturation by disrupting and preventing metamorphosis. It is classified by IRAC as having mode of action code 7C. To prevent the development of resistance, pesticides with different modes of action or alternative control methods should be included in a treatment program.

Alternating insecticides with a different mode of action is a recognized anti-resistance strategy and HARPUN should always be used in alternation with other insecticides with a different mode of action where possible. Consult IRAC for the most up to date resistance strategies.

PESTS CONTROLLED

HARPUN reduces populations of Codling moth (*Cydia pomonella*) on apples, and reduces Pear sucker (*Cacophyslla pyricola*) on Pears.

HARPUN reduces greenhouse whitefly (*Trialeurodes vaporariorum*) on tomato and cucumber.

Safety to beneficial organisms used in IPM systems has not been established and cannot be assumed.

CROP SPECIFIC INFORMATION

HARPUN should be applied with an orchard/blast sprayer or an overhead gantry sprayer.

HARPUN can also be applied via hand-held sprayer on Tomato (permanent protection) and Cucumber (permanent protection). Do not apply by hand-held equipment to pome fruit.

For 3-d crops: Where tree height and/or canopy density is reduced, the dose (and water volume) should be adjusted in accordance with an appropriate dose adjustment scheme. Consult your specialist advisor for further information. Further information on the PACE scheme is available from the AHDB, or see the AHDB leaflet (Orchard Spraying: Opportunities to reduce rates) available on the CRD website.

Apples

To reduce populations of Codling moth, apply HARPUN at the start of egg laying phase of the first generation and when the trees are at *Fruit size up to 10 mm; fruit fall after flowering to Fruit diameter up to 40 mm; fruit erect* stage. (BBCH 71-74). Apply HARPUN at a rate of 1.0L/ha as a foliar spray in a water volume of 600-1000L/ha to ensure thorough coverage.

DO NOT APPLY more than 2 applications per crop and 14 days must lapse between treatments.

Pears

For the reduction in the Pear sucker apply HARPUN at the period of early egg hatch to third instar nymph in order to reduce egg production of the adults when the trees are *Inflorescence buds swelling: bud scales elongated, with light coloured patches* stage to *Fruit about half final size* stage (BBCH 51-75).

Apply HARPUN at a rate of 1.0L/ha as a foliar spray in a water volume of 600-1000L/ha to ensure thorough coverage.

DO NOT APPLY more than 1 treatment per crop per season.

Tomato (permanent protection) and Cucumber (permanent protection)

For reduction of Glasshouse whitefly apply HARPUN when the whitefly first appears. Apply with foliar sprays at a concentration of 75ml in 100L of water in a water volume of 1000-1500L/ha to ensure thorough coverage.

Do not apply more than 1.125L product/ha

DO NOT APPLY more than 2 applications per crop and 10-14 days must lapse between treatments.

MIXING AND SPRAYING

Check sprayers are thoroughly clean and all filters and jets are clear and damage free before use. It is recommended that the sprayer be washed with a detergent prior to use as some of the solvents in EC formulations can remove pesticides adhering to the spray tank and lines.

Half fill the spray tank with clean water and begin agitation. Immediately add the required quantity of HARPUN. Continue to fill the tank with water and continue agitation. Wash out any empty containers and add the washings to the spray tank as it fills. Continue agitation throughout the spraying operation.

Apply as a MEDIUM (as defined by BCPC) quality spray, at a pressure of 2-3 bar (30-40psi) in 600-1500L of water/ha dependent on the crop and pest-see crop specific information. It is important that the amount of water allows good spray coverage of the foliage of the crop. Only use nozzles designed and recommended for the volume to be applied.

Clean sprayer thoroughly after use. Empty the tank and completely drain the system. Rinse the tank, pump, lines, hoses, nozzles and filters by circulating clean water through the system. Drain and repeat the rinsing procedure twice more.

DISCLAIMERS <company disclaimer may be added here>

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UK LABEL