

## 7. HORTICULTURAL BRASSICAE (Brussels sprouts, cabbage, cauliflower, broccoli & calabrese):

### 7.1 Caterpillars:

Apply 50 ml/ha LAMBDASTAR in 300 – 600 L/ha water with a non-organo-silicone non-ionic wetter at the manufacturers recommended rate to achieve good crop penetration. Brussels sprouts can benefit from application via a drop leg sprayer. Treat at the first sign of attack and repeat as necessary.

### 7.2 Whitefly:

Apply 100 ml/ha LAMBDASTAR in 300 – 600 L/ha water with a non-organo-silicone non-ionic wetter at the manufacturers recommended rate to achieve good crop penetration. Brussels sprouts can benefit from application via a drop leg sprayer. Treat at the first sign of attack and repeat as necessary.

## 8. PEARS:

### 8.1 Pear sucker:

Apply 90 ml/ha LAMBDASTAR in 200 – 2000 L/ha water to achieve good crop penetration when the first sucker eggs are being laid in spring (late February – early March). In the absence of effective predators, sucker numbers can build up in summer and where this occurs, make another application of the same dose and repeat 2-3 weeks later if necessary. Some pear sucker populations have developed resistance to pyrethroid insecticides and where these occur, LAMBDASTAR may not give satisfactory control. Use active ingredients from a different mode of action group when retreating.

## 9. CARROTS & PARSNIPS:

### 9.1 Cutworm:

Apply 75 ml/ha LAMBDASTAR in 400 – 1000 L/ha water to achieve through crop canopy penetration at egg hatch or when advised and repeat 10 – 14 days later.

### MIXING INSTRUCTIONS

Shake the container before use. Place half the required amount of clean water in the spray tank and commence agitation. Add the required amount of LAMBDASTAR either directly into the tank or via a filling device such as an induction bowl etc. The use of sprayer mounted pressure rinsing equipment is advised. If not available, containers should be manually rinsed three times. Add the remaining water requirement and continue agitation during spraying. Do not allow the spray mixture to stand. Immediately after use wash sprayer and other equipment thoroughly with water and detergent.

Dispose of empty rinsed containers according to the MAPP/HSE Plant Protection Products (sustainable use) Regulations on Farms and Holdings. Thoroughly wash all equipment after use.

### Spray Quality

Apply as a MEDIUM spray (as defined by BCPC).

### Water Volume

Apply LAMBDASTAR in 200-300 litres of water per hectare to cereals, oilseed rape and field beans. Potatoes require at least 400 L/ha and horticultural brassica crops require 300-600 L/ha water plus a non-organo-silicone non-ionic wetter at the manufacturers recommended rate. Sugar beet requires 200-1000 L/ha water according to the target. Carrots should be treated with 400 – 1000 L/ha water. Peas need to be treated in 200 – 600 L/ha water while pears require 200 – 2000 L/ha. See crop specific information for details of which target pests require which water volume.

### Tank Mixes

LAMBDASTAR is physically compatible with a range of other products but the efficacy of the mixtures have not been confirmed in trials so use is at the grower's risk. If using tank mixes, unless directed otherwise, the preferred order of addition of products to the tank is: water dispersible granules, wettable powders, suspension concentrates (flowables), emulsifiable concentrates, soluble concentrates. Each product must be added to a half-full sprayer and be fully dispersed before the addition of the next product.

Tank mixes must only be applied within the label recommendations of every product in the mix. Contact your supplier for compatibility information on specific tank mixes. Manufacturer's instructions must be followed for each tank-mix component.

### CONDITIONS OF SUPPLY

All goods supplied by the company are of good quality and we believe them to be fit for purpose. However, as we cannot exercise control over their storage, handling, mixing or use or the weather conditions before, during or after application, which may affect the performance of the goods, all conditions and warranties, statutory or otherwise, as to the quality or fitness for any purpose of our goods are excluded, and no responsibility will be accepted by us or re-sellers for any failure in performance, damage or injury whatsoever arising from their storage, handling, application or use. These conditions cannot be varied by our staff or agents whether or not they supervise or assist in the use of such goods.

# life scientific

FIRST TO MARKET

## LAMBDASTAR®

MAPP 17406

CONTAINS 100G/L LAMBDA-CYHALOTHRIN AND 1,2-BENZISOTHAZOLIN-3-ONE AS A CAPSULE SUSPENSION FORMULATION. LAMBDASTAR IS A CONTACT AND INGESTED PYRETHROID INSECTICIDE FOR CONTROL OF A WIDE RANGE OF PESTS IN WHEAT, BARLEY, OATS, OILSEED RAPE, COMBINE, VINING AND EDIBLE-PODDED PEAS, FIELD BEANS, POTATOES, SUGAR BEET, CARROTS, PARSNIP, BRUSSELS SPROUTS, CABBAGE, CAULIFLOWER, BROCCOLI, CALABRESE AND PEAR CROPS.



**WARNING**  
HARMFUL IF SWALLOWED  
HARMFUL IF INHALED  
VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS  
KEEP OUT OF REACH OF CHILDREN.  
AVOID BREATHING IN SPRAY  
WASH HANDS THOROUGHLY AFTER HANDLING  
CALL A POISON CENTER OR DOCTOR/PHYSICIAN IF YOU FEEL UNWELL  
COLLECT SPILLAGE  
DISPOSE OF CONTENTS/CONTAINER TO HAZARDOUS OR SPECIAL WASTE DISPOSAL POINT  
DO NOT CONTAMINATE WATER WITH THE PRODUCT OR ITS CONTAINER (DO NOT CLEAN APPLICATION EQUIPMENT NEAR SURFACE WATER / AVOID CONTAMINATION VIA DRAIN FROM FARMYARDS AND ROADS)

TO AVOID RISKS TO HUMAN HEALTH AND THE ENVIRONMENT, COMPLY WITH THE INSTRUCTIONS FOR USE

IMPORTANT INFORMATION : FOR USE ONLY AS A PROFESSIONAL AGRICULTURAL/HORTICULTURAL INSECTICIDE

CROPS/SITUATIONS:	MAXIMUM INDIVIDUAL DOSE (PRODUCT/HA)	MAXIMUM TOTAL DOSE (PRODUCT/HA)	LATEST TIME OF APPLICATION
Barley, wheat	50 ml/ha	200 ml/ha/crop	Before late milk stage (BBCH 77)
Oats	50 ml/ha	200 ml/ha/crop	Before watery ripe stage (BBCH 71)
Oilseed rape (winter)	75 ml/ha	225 ml/ha/crop	Before end of flowering
Oilseed rape (Spring)	75 ml/ha	225 ml/ha/crop	6 weeks before harvest
Combining pea, field bean	75 ml/ha	150 ml/ha/crop	25 days before harvest
Edible podded pea, vining pea	75 ml/ha	150 ml/ha/crop	-
Potato	75 ml/ha	300 ml/ha/crop	-
Sugar beet	75 ml/ha	150 ml/ha/crop	8 weeks before harvest
Broccoli/calabrese, brussels sprout, cabbage, cauliflower	100 ml/ha	200 ml/ha/crop	-
Pear	90 ml/ha	270 ml/ha/year	7 days before harvest
Carrot (outdoor) parsnip (outdoor)	75 ml/ha	225ml/ha/crop	14 days before harvest

**OTHER SPECIFIC RESTRICTIONS:** (1) This product qualifies for inclusion in the Local Environmental 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 Chemical Regulation Directorate'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 (2) Returnable containers must not be re-used for any other purpose. (3) Returnable containers must be returned to the supplier. (4) Non-returnable containers must not be re-used for any purpose. (5) A minimum interval of 7 days between applications must be maintained in oilseed rape, peas, (vining, combining and edible-podded), field beans, sugar beet, potatoes, carrots and parsnips. (6) A minimum interval of 10 days must be maintained between applications to Brussels sprouts, cabbage, cauliflower, broccoli and calabrese. (7) A minimum interval of 14 days between applications must be maintained in wheat barley, oats and pears. (8) The maximum number of applications per crop is 4. The maximum number of 4 applications per crop must not be exceeded.

**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.**

**APPROVAL HOLDER AND MARKETING COMPANY:** Life Scientific Ltd,  
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**THE (COSHH) CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS**  
**MAY APPLY TO THE USE OF THIS PRODUCT AT WORK.**

**FOR 24-HOUR EMERGENCY INFORMATION CONTACT: NHS 111**

**PROTECT FROM FROST**

**MADE IN EU**



This product label is compliant with the CPA Voluntary Initiative (VI) guidance.

The Voluntary Initiative

LABEL VERSION LAM/UK/V10

**BATCH NO. SEE PACKAGING****NET Contents: 1L**

## 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 AND PROTECTIVE CLOTHING (COVERALLS)** when handling the concentrate and when applying by hand-held equipment.

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

**WASH CONCENTRATE** from skin or eyes immediately.

**WHEN USING**, do not eat, drink or smoke.

**DO NOT BREATHE FUMES/SPRAY.**

**AVOID CONTACT** with skin. If contact with skin occurs, wash immediately with plenty of soapy water.

**WASH HANDS AND EXPOSED SKIN** before meals and after work.

**WASH ALL PROTECTIVE CLOTHING** thoroughly after use, especially the insides of gloves.

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

### 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.



**DO NOT ALLOW DIRECT SPRAY** from horizontal boom sprayers to fall within 5 m of the top of the bank of a static or flowing water body unless a Local Environmental Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, nor within 1m of the top of a ditch which is dry at the time of application.



**DO NOT ALLOW DIRECT SPRAY** from hand-held sprayers to fall within 1 m of the top of a bank of a static or flowing water body. Aim spray away from water.

**DO NOT ALLOW DIRECT SPRAY** from broadcast air-assisted applications to fall within 25m of the top of a bank of a static

or flowing water body unless a Local Environmental Risk Assessment (LERAP) permits a narrower buffer zone, nor within 5m of the top of a ditch which is dry at the time of application. Aim spray away from water.

To protect aquatic organisms, respect an unsprayed buffer zone distance to surface water bodies in accordance with LERAP requirements.

This product qualifies for inclusion in the Local Environmental 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 Chemical Regulation Directorate'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.

**TO PROTECT NON-TARGET INSECTS AND ARTHROPODS** respect an untreated buffer zone of 5m to non-crop land (see Directions for use).

### Storage and disposal:

**KEEP OUT OF REACH OF CHILDREN.**

**KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.**

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

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

**DO NOT RE-USE CONTAINER** for any purpose.

**This material and its container must be disposed of in a safe way. Use appropriate containment to avoid environmental contamination.**

### 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.

LAMBDASTAR is a contact and stomach-acting pyrethroid insecticide for control of a wide range of pests in wheat, barley, oats, oilseed rape, combine, vining and edible-podded peas, field beans, potatoes, sugar beet, carrots, parsnip, Brussels sprouts, cabbage, cauliflower, broccoli, calabrese and pear crops. To maximise the contact activity, ensure good spray coverage of the target during application.

### RESTRICTIONS:

- Consult processors before treating crops which are destined for processing.
- To reduce the effects on non-target insects and arthropods, do not spray cereals within 5m of the field boundary<sup>1</sup>.
- When using tractor-mounted boom sprayers in arable and vegetable crops, do not apply LAMBDASTAR within 5 m of the field boundary<sup>1</sup> to minimise the effects on non-target insects and arthropods.
- When treating pears with broadcast air-assisted sprayers, apply in a way which minimises off-target drift.

<sup>1</sup> Field boundary buffer distances are measured from the edge of non-cropped land, including the 1-2m adjacent to hedgerows and waterbodies established under the Single Payment Scheme. Whilst cropped land includes buffer strips such as wild flower margins and conservation headlands, these are areas dedicated to be wildlife refuges and it is best practice to minimise spray drift into them.

### RESISTANCE:

Some strains of aphid species have developed resistance to many aphicides. Where aphids resistant to lambda-cyhalothrin occur, LAMBDASTAR will not give satisfactory control and repeated applications will not improve activity. The LAMBDASTAR mode of action is classified by the IRAC mode of action code: '3'. To reduce the risk of the development of resistance to LAMBDASTAR, it is important to ensure that a non-pyrethroid insecticide classified with another mode of action code is incorporated into the pest control programme each year.

### CROP SPECIFIC INFORMATION

#### RATE OF APPLICATION, TIMING AND PESTS CONTROLLED

##### 1. WINTER WHEAT, WINTER BARLEY, WINTER OATS AND DURUM WHEAT:

###### 1.1 Aphid vectors of barley yellow dwarf virus (winter wheat, winter barley, winter oats and durum wheat):

Apply a routine spray of 50 ml/ha LAMBDASTAR in 200 L/ha water during late October to cereals sown in September in areas where BYDV is known to be present. If aphids are seen to be present in the crop before this date, spray immediately and note that further treatments may be required particularly in mild winters. In later sown (from October onwards) cereals apply 50 ml/ha in 200 L/ha water when a BYDV risk is present. Application is worthwhile up to GS32 of the cereal crop to reduce the risk of BYDV. Routine sprays are advised when the cereal crop follows a weedy stubble or grass leys due to the risk of direct aphid transfer to the crop.

###### 1.2 Grain aphid or rose grain aphid on the ear (winter & spring wheat, barley, oats and durum wheat):

Apply 50 ml/ha LAMBDASTAR in 200-300 L/ha water to achieve thorough crop penetration of the spray. Optimum timing is after ear emergence

(GS59) but applications can be made up to late milk stage (GS77) on wheat and barley and before GS71 on oats. AHDB threshold for treatment is when aphids are present on two-thirds of tillers. Where aphid numbers are lower than this, check for natural enemies of aphids and spray if none are found.

###### 1.3 Yellow cereal fly (winter wheat):

Apply 50 ml/ha LAMBDASTAR in 200 L/ha water at egg hatch which usually starts in late January, depending on the season. Crops which have emerged early are most susceptible but an application of LAMBDASTAR against BYDV vectors will also give some control of this pest.

##### 2. WINTER & SPRING OILSEED RAPE:

###### 2.1 Flea beetle:

Apply 75 ml/ha LAMBDASTAR in 200 L/ha water at the first sign of pest attack and repeat 10-14 days later if necessary.

###### 2.2 Cabbage stem flea beetle:

Apply 50 ml/ha LAMBDASTAR in 200 L/ha water with non-organo-silicone non-ionic wetter at the manufacturers recommended rate when feeding damage is first seen in the autumn or when economic thresholds of larvae are present. If further active larvae are found, a second application may be required and, in high risk areas, a routine application may be justified late October – early November.

###### 2.3 Aphid vectors of beet western yellow virus:

Apply 75 ml/ha LAMBDASTAR in 200 L/ha water with non-organo-silicone non-ionic wetter at the manufacturers recommended rate when the aphids are seen in the crop. After 3-4 weeks apply a second spray if aphids continue to appear in the crop. Any delay in treatment can result in poorer control of the virus. Note that this treatment can also give control of cabbage stem flea beetle infestations since the timings often coincide in the autumn.

###### 2.4 Pollen beetles:

Apply 75 ml/ha LAMBDASTAR in 200 – 300 L/ha water to achieve good canopy penetration at the green/yellow bud stage of the oilseed rape in accordance with either specialist advice or when the threshold is reached (15 beetles per plant in well-established crops, 5 beetles per plant in backward or pigeon-damaged crops and 3 beetles per plant in spring oilseed rape).

###### 2.5 Seed weevil & pod midge:

Apply 75 ml/ha LAMBDASTAR in 200 – 300 L/ha water to achieve good canopy penetration during crop flowering provided that seed weevil numbers have reached the threshold (1 seed weevil per 5 plants of spring or winter oilseed rape. Note that this also takes into account the pod midge risk since these lay eggs in the feeding holes of the seed weevil).

The best timing of the spray is from 20% pod set up to 75% petal fall. Note that spraying must stop at the end of flowering in winter rape and six weeks before harvest in spring rape. A repeat application may be required where pest attack is prolonged.

DO NOT spray in the heat of the day when bees are most active in the crop.

##### 3. WINTER & SPRING FIELD BEANS:

###### 3.1 Pea & bean weevil:

Apply 75 ml/ha LAMBDASTAR in 200 – 300 L/ha water when feeding damage (notching of the leaves) is first seen in the crop if there is a risk to the growing points of the crop. Where the number of weevils is high, a second application can improve control if applied 2 – 3 weeks after the

first treatment.

##### 4. PEAS:

###### 4.1 Pea & bean weevil:

Apply 75 ml/ha LAMBDASTAR in 200 L/ha water when feeding damage (notching of the leaves) is first seen in the crop if there is a risk to the growing points of the crop. Where the number of weevils is high, a second application can improve control if applied 2 – 3 weeks after the first treatment.

###### 4.2 Pea moth:

Apply 50 ml/ha LAMBDASTAR in 300 – 600 L/ha water to achieve good canopy penetration. The timing of the spray is when the crop is in full flower or as advised by the results of pheromone traps (10 moths in a pair of traps on consecutive occasions) or official advice. Combining peas may require a second treatment 10 – 14 days after the first spray but vining peas should only receive a single spray on the advised date.

###### 4.3 Pea aphid:

Apply 50 ml/ha LAMBDASTAR in 300 – 600 L/ha water to achieve good canopy penetration. The timing of the spray is when the threshold is reached (20 – 30% of shoots infested between first flower and pod set on 4<sup>th</sup> truss in combining peas). Inspect the crop carefully during flowering and repeat the application if necessary.

Where aphid infestations are well established and sheltered within the crop canopy, use a tank-mixture with 140 g/ha 50% w/w pirimicarb. If aphids are the only pest attacking the crop and are hidden within the crop canopy, applying 280 g/ha of the pirimicarb product alone will be a better treatment choice.

###### 4.4 Pea midge:

Apply 75 ml/ha LAMBDASTAR in 300 – 600 L/ha water to achieve good canopy penetration within 3 – 5 days of the finding of the first adult midges in the crop. Where necessary, sprays can be repeated 7-10 days later if midge activity continues and the crop is at a susceptible stage.

##### 5. POTATOES:

###### 5.1 Aphids:

Apply 75 ml/ha LAMBDASTAR in at least 400 L/ha water to achieve good crop canopy penetration. Treat seed and ware crops to minimise the spread of potato viruses when aphids are first seen in the crop and use in mixture with 50% w/w pirimicarb product to improve activity provided that aphids resistant to pirimicarb are not present. An application of LAMBDASTAR can also give some control of cutworms since the timing coincides with that for aphids. Where resistant forms of Myzus persicae are present or suspected, LAMBDASTAR should not be used.

###### 6. SUGAR BEET:

###### 6.1 Flea beetle:

Apply 75 ml/ha LAMBDASTAR in 200 l/ha water as soon as adult feeding damage is seen in the crop and repeat if necessary.

###### 6.2 Beet leaf miner (Mangold fly):

Apply 75 ml/ha LAMBDASTAR in 200 L/ha water at egg hatch and repeat as necessary.

###### 6.3 Cutworm:

Apply 75 ml/ha LAMBDASTAR in 400 – 1000 L/ha water at egg hatch and repeat 10 – 14 days later, noting the eight week harvest interval.