

# life scientific

ENGINEERED BENEFITS

Lambdastar®



## Lambdastar

Lambdastar is a contact and ingested pyrethroid insecticide from Life Scientific for control of a wide range of pests in wheat, barley, oats, oilseed rape, peas, beans, potatoes, sugar beet, carrots, parsnips, brassica and pear crops.

The capsule suspension (CS) formulation of Lambdastar means less exposure for the operator to the active ingredient when handling the product.

Lambdastar contains 100g/L lambda-cyhalothrin

For more information including product label, safety data sheet and compatible tank mixes see the Life Scientific website

<https://lifescientific.com/products/uk/lambdastar-uk/>

or download the App to get product information direct to your phone.

## Product Comparability

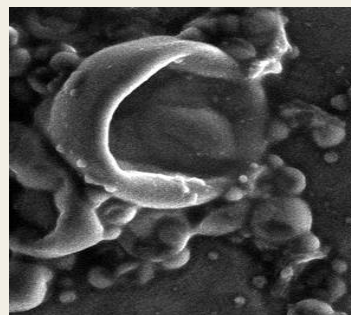
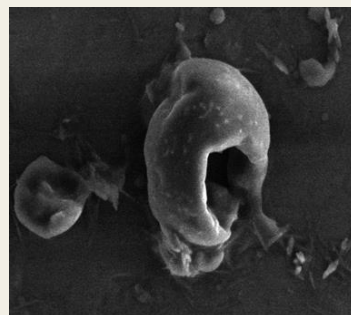
CRD give all the Life Scientific reverse engineered products approval based on comparability to the reference product.

This means Lambdastar has been classed as comparable to the reference product Hallmark Zeon from pesticide chemistry, mammalian toxicology, ecotoxicology and efficacy perspectives.

Users can be confident it works in exactly the same way and gives the results that you would expect from the original.

The reference product is a complicated formulation and chemists at Life Scientific have worked hard to ensure that Lambdastar behaves in the same way, so the capsules break down and release the active ingredient at the same rate, delivering speed of activity and persistency expected from the reference product.

The electron microscopy images opposite show breakdown the capsules of Hallmark Zeon (top) and Lambdastar (bottom).

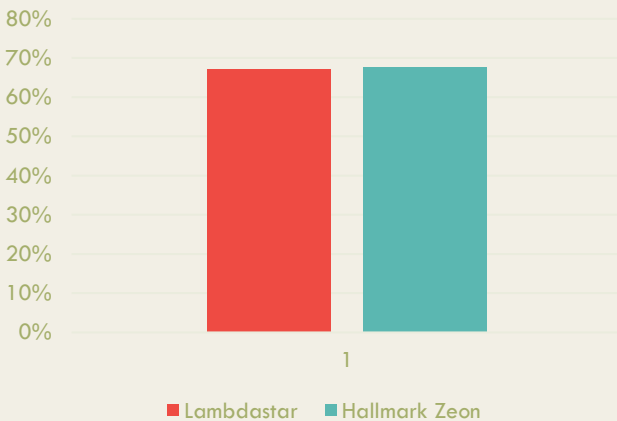


# Insecticide Study

As part of our research into how to deal with the BYDV risk in cereals this Autumn, following the loss of neonicotinoid seed dressings, Life Scientific commissioned Agrochemex to carry out an insecticide knockdown and persistence study in a replicated glasshouse trial.

A sensitive population of aphids (*Aphis fabae*) were introduced to bean plants, which were then sprayed with either Life Scientific's Lambdastar or Hallmark Zeon at a rate of 50ml in 200 litres of water. The data below shows control 7 days after application.

Comparison of efficacy against *Aphis fabae* initial knockdown



As expected, no significant differences were apparent between Lambdastar or Hallmark Zeon in terms of knockdown or persistency, however it's always good to receive confirmation of product comparability between Lambdastar and the reference product.

The control of aphids reintroduced after treatment was reduced and more variable, showing correct application timing for aphid control is critical.

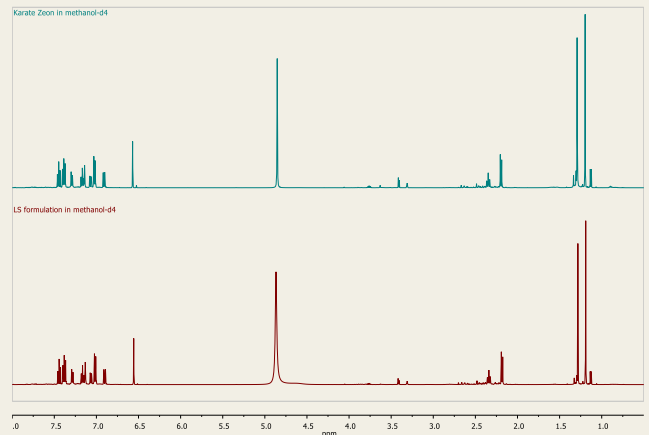


# Formulation Comparison

Nuclear Magnetic Resonance (NMR) spectroscopy is an analytical chemistry technique used in quality control and research for determining the content and purity of a sample as well as its molecular structure.

It is a technique used by Life Scientific to show the comparability of our products to the reference material.

The NMR below shows Hallmark Zeon (blue) and Lambdastar (red) and how the two formulations are identical.



Lambdastar does not contain titanium dioxide, the component which Syngenta have included in their formulation as a sunscreen. <sup>1</sup>H-NMR only shows signals for hydrogen atoms. CRD agreed with Life Scientific that efficacy was comparable without the addition of titanium dioxide.

## About Life Scientific

We specialise in bringing high quality off-patent crop protection products to market. Our goal is to give our customers better options to meet their plant protection needs.

So if it's under the Life Scientific brand you can be confident it's as effective as the current leading standards in the market.

**For product queries in the UK, call our new free phone helpline 0800 044 5025 or email [infoUK@lifescientific.com](mailto:infoUK@lifescientific.com)**

Lambdastar is a registered trademark of Life Scientific. Lambdastar contains lambda-cyhalothrin. Hallmark Zeon contains lambda-cyhalothrin.

All other products are those of other manufacturers where proprietary rights may exist. Use plant protection products safely. Always read the label and product information before use. For further product information including warning phrases and symbols refer to [www.lifescientific.com](http://www.lifescientific.com)