

# SPEAR® LEP

## The powerful insecticide solution for tree nuts, fruits, and vegetables



### Discover SPEAR® LEP – Vestaron Crop Protection’s revolutionary insecticide with a new mode of action to tackle pest pressures and resistance throughout the entire season.

Targeting lepidopteran pests such as navel orangeworm, peach twig borer, armyworms, loopers, “worms”, codling moth and leafrollers – and with no known resistance or cross-resistance – SPEAR LEP works as a standalone or in rotation with conventional insecticides. With rapidly growing market share and more than 700,000+ acres applied, PCA’s and growers are seeing excellent results with SPEAR LEP as an IPM and resistance management tool. Our 800+ field trials have demonstrated similar efficacy to traditional synthetic products, allowing for the 1:1 displacement of chemicals.

Soft on pollinators, workers, and local biodiversity, SPEAR LEP allows for less downtime in the field, increased marketing flexibility, while positioning growers for leadership in Sustainable Pest Management.

## Features and benefits



### MRL exempt for best-in-class marketability

Growers receive full value for their crop without worrying about being turned away at processing as more markets enforce strict MRLs.



### In-field flexibility: 0-Day PHI + 4-Hour REI

With the shortest allowable 4-Hour Restricted-Entry Interval and 0-Day Pre-Harvest Interval, SPEAR LEP can be applied and crops can be harvested within the same day, significantly reducing downtime.



### Novel MOA

SPEAR LEP works on a unique neuromuscular receptor qualifying as the first product in IRAC Group 32 – and the first novel broad-spectrum nerve and muscular MOA in 15 years.

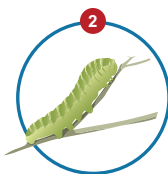




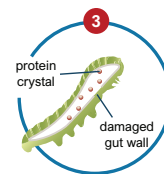
## HOW SPEAR LEP WORKS



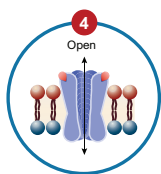
1 SPEAR LEP is tank mixed with a gut-disrupting facilitator such as *Bacillus thuringiensis* (Btk) (we recommend LEPROTEC® WG)\*



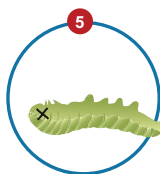
2 Pest ingests plant tissue treated with SPEAR LEP and a low dose of Btk.



3 Btk crystal proteins damage the gut cells allowing SPEAR LEP access to the nervous system.



4 The targeted nervous cells are depolarized and unable to reset and transmit new electrical signals.



5 This causes paralysis and death of the insect.

\* LEPROTEC® WG is Vestaron's OMRI Listed Btk insecticide that is the ideal partner for use with SPEAR® LEP. When ingested together, the non-lethal dose of Btk proteins perforate the insect mid-gut allowing the SPEAR® peptide to access the target receptor in the nervous system, killing the pest.

## PRODUCT INFORMATION

EPA REG #	88847-6
AI	GS-OMEGA/KAPPA-HXTX-HV1A
Formulation	Liquid
IRAC group	32
Signal word	Caution
REI	4 Hours
PHI	0 Days
Package size	1 gal, 4x1 gal case
Use rate	2 pt/acre plus Btk
Surfactant	For best performance, use with a NIS or spreader/sticker at 0.125% v/v

## PESTS CONTROLLED

(Refer to label for full list of pests controlled)

- Navel orangeworm
- Peach twig borer
- Beet armyworm
- Blackheaded fireworm
- Cabbage looper
- Codling moth
- Corn earworm
- Cranberry fruitworm
- Diamondback moth
- Fall armyworm
- Grape berry moth
- Imported cabbageworm
- Melonworm
- Oblique-banded leafroller
- Oriental fruit moth
- Sparganothis fruitworm
- Tobacco hornworm

