

## DuPont™ Lumiderm™ – New Canola Insecticide Seed Treatment Technology

DuPont Pioneer has introduced a new addition to its premium canola seed treatment package – DuPont™ Lumiderm™ insecticide seed treatment. Lumiderm insecticide can now be added to the standard Helix® Vibrance™ seed treatment that is available on all Pioneer® brand canola seed.

### Add Lumiderm insecticide to your Pioneer brand canola seed treatment package

Here's why:

- First canola seed treatment product that controls cutworms
- New class of chemistry (Group 28) for a resistance management strategy
- Improves consistency of flea beetle control when used with Helix Vibrance seed treatment
- Residual control – up to 35 days protection from cutworms and other insect pests through the critical stages of seedling growth
- Contributes to very good early season stand establishment & vigour

### Enhanced Flea Beetle Control

- Flea beetles are small, leaf-feeding insects with greatly enlarged hind femurs and have a habit of jumping when disturbed, which makes them difficult to see and even more difficult to scout.
- Flea beetles are the most chronically damaging insect pest of canola in Western Canada. Direct losses to oilseed production average 8-10% of the annual crop yield, and in outbreak years, flea beetles can cause hundreds of millions of dollars in damages.
- Pioneer brand canola seed treated with a combination of Lumiderm and Helix Vibrance insecticide seed treatment outperforms untreated seed and provides more consistent, longer-lasting flea beetle control than conventional insecticide seed treatments.

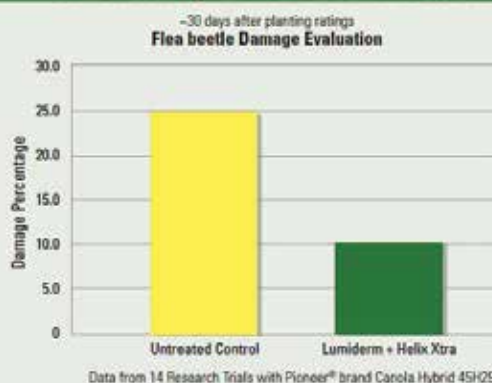


Untreated

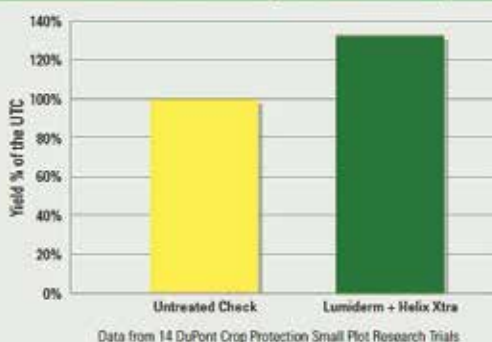


Lumiderm  
+ Helix  
Vibrance

### DuPont™ Lumiderm™ – Improves Consistency of Flea Beetle control



### Research shows that adding DuPont™ Lumiderm™ to your Pioneer® brand canola seed can help to increase yields.



Source: Canola Council of Canada

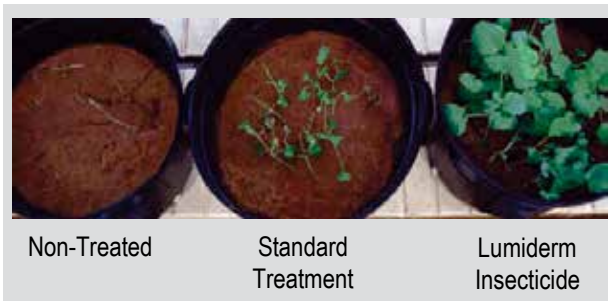
## Consistent Cutworm Control



- Cutworms can be a significant pest of agricultural crops in Western Canada that can wipe out huge patches of your canola within a couple of days.
- Cutworms usually feed at night and then go under-ground during the day, making them very difficult to scout. Cutworm damage will often appear in patches and can cause severe damage before you are even aware they are actively feeding on your canola crop. They feed anywhere on the canola plant and can consume the entire plant.
- **DuPont™ Lumiderm™ is the first and only insecticide seed treatment to control cutworms in canola.**



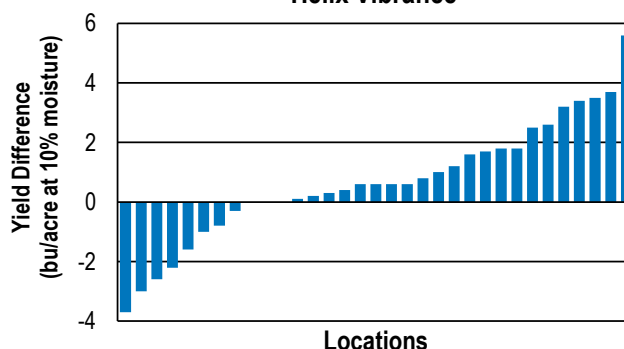
Canola crop with a large patch wiped out due to cutworm damage.



## 2013 Seed Treatment Trials

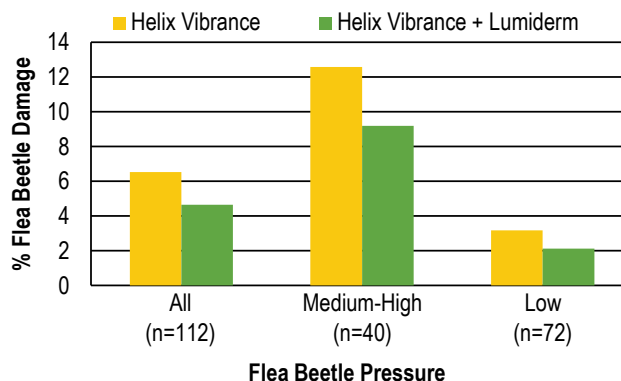
- Trials were conducted across Western Canada in 2013 comparing two canola seed treatments: Helix® Vibrance™ and Helix Vibrance + Lumiderm. Treatments were applied on Pioneer® hybrid 45S52 canola.
- Over these sites in 2013, there was low to moderate pressure from flea beetle and low pressure from cutworm.
- The Helix Vibrance + Lumiderm seed treatment resulted in higher yields in 73% of the trials.

**Yield Differences (bu/acre) with Lumiderm + Helix Vibrance**



- 112 locations in Western Canada were evaluated to measure Lumiderm performance on flea beetle.
- 72 of the locations were in areas with low flea beetle pressure. In these locations, a 33% reduction in flea beetle damage to the canola was observed with the Helix Vibrance + Lumiderm seed treatment.
- 40 locations were conducted under medium to high flea beetle pressure; at these locations, a 27% reduction in flea beetle damage to the canola was observed with the Helix Vibrance + Lumiderm seed treatment.

**Seed Treatment Effect on Flea Beetle Damage**



<sup>1</sup> Pioneer® brand products are provided subject to the terms and conditions of purchase which are part of the labeling and purchase documents.

<sup>2</sup> Product responses are variable and subject to a variety of environmental, disease and pest pressures. Individual results may vary.

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