

FIFRA 2(ee) Recommendation for the Control of Leek Moth

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ACCEPTED

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New York State Department
of Environmental Conservation
Division of Solid & Hazardous Materials
Pesticide Product Registration

Pesticide Name and EPA Registration No.:

1. Warrior II with Zeon Technology (EPA Reg. No. 100-1295)
2. Radiant SC (EPA Reg. No. 62719-545)
3. DuPont Lannate LV Insecticide (EPA Reg. No. 352-384)
4. Entrust (EPA Reg. No. 62719-282)
5. DiPel DF Dry Flowable Biological Insecticide (EPA Reg. No. 73049-39)

Doc id: 523482

Target Pest: Leek moth, *Acrolepiopsis assectella*

Target Crops: Garlic, Leek, and Onion

Nature of 2(ee) Variation from Product Label:

Leek moth was recently confirmed to be present in two counties of New York, its first confirmed presence in the continental United States. However, there are no labeled insecticides for its use in New York.

Leek moth was discovered in Canada in 1997 and insecticide trials in the field were conducted in 2005, 2006 and 2007 (see attached reports from trials from Canada). These trials indicate that leek moth can be controlled by products containing Lambda-cyhalothrin, Spinosad and *Bacillus thuringiensis* var. *kurstaki*.

Products containing Lambda-cyhalothrin, Methomyl and Spinetoram are registered in New York, listed in the *2010 Integrated Crop and Pest Management Guidelines for Commercial Vegetable Production*, and have provided effective control of onion thrips in onions and caterpillars in several other crops (e.g. cabbage). Spinosad (SpinTor 2SC) was listed in the *2009 Guidelines* but Dow AgroSciences is replacing it with the more active isolates in Spinetoram (Radiant SC) for onion thrips on onion. Radiant is also listed as effective against caterpillars on several other crops (e.g. cabbage). Growers can continue to use existing supplies of Spinosad as SpinTor 2SC and organic growers can use Spinosad as Entrust, one of the few effective insecticides organic growers can use for caterpillars. Entrust has proven to be an effective insecticide against leek moth in Canadian trials (see attached). Bt products have also proven to be effective against leek moth, although timing with this insecticide is more critical.

Expanding the labels of these products, already labeled on onions in New York, will allow conventional and organic growers to use them for control of leek moth. Organic growers have limited effective insecticidal options for control of caterpillars on vegetable crops, but the Canadian research has shown that spinosad and Bt can be effective against leek moth. Conventional growers should be able to use these products as well as Lambda-cyhalothrin, Methomyl, and Spinetoram. Because these products have different modes of action, use of them in an insecticide resistance management program by alternating them will reduce the likelihood of resistance in leek moth and reduce its spread and avoid catastrophic losses in *Allium* crops in New York.

Complete Recommendation as it will appear in Cornell Recommends:

Insecticide applications made 7-10 days following a peak flight of leek moths (determined through the use of a pheromone trap) can greatly reduce the leek moth population and amount of damage it causes. Good coverage of the plant is essential to control newly hatched larvae, especially with the use of Bt products.

1) Warrior II with Zeon Technology (EPA Reg. No. 100-1295)

Active Ingredient: Lambda Cyhalothrin

Target Crops: Garlic and Onion

Application Rate: 2.56-3.84 fl oz/A

Warrior II with Zeon Technology is a Restricted Use Pesticide in New York State

2) Radiant SC (EPA Reg. No. 62719-545)

Active Ingredient: Spinetoram

Target Crops: Garlic, Leek and Onion

Application Rate: 6-10 fl oz/A: do not make more than 2 consecutive treatments

3) Entrust (EPA Reg. No. 62719-282)

Active Ingredient: Spinosad

Target Crops: Garlic, Leek, and Onion

Application Rate: 1-2 fl oz/A: do not apply more than 9oz/A

4) DuPont Lannate LV Insecticide (EPA Reg. No. 352-384)

Active Ingredient: Methomyl

Target Crops: Garlic and Onion

Application Rate: 3 pt/A

DuPont Lannate LV Insecticide is a Restricted Use Pesticide in New York State

5) DiPel DF Dry Flowable Biological Insecticide (EPA Reg. No. 73049-39)

Active Ingredient: *Bacillus thuringiensis* var. *kurstaki*

Target Crops: Garlic, Leek, and Onion

Application Rate: 0.5-1.0 lbs/A