

DiPel® 2X DF is a leading biological insecticide with a high potency resistance management tool for proven control of Lepidoptera pests in both conventional and organic cropping systems.

# DiPel® 2X DF

## Benefits

- The most potent Bt insecticide on the market with a unique mode of action, making it an excellent tool for managing resistance
- Immediately deters insects from feeding – death occurs within 1-3 days
- 36 month shelf life when stored at room temperature
- Not harmful to bees or beneficial insects making it a great tool for spring feeding caterpillars
- Very low REI of 4 hours or until spray is dried

## Registered crops

- |                                    |                          |                              |
|------------------------------------|--------------------------|------------------------------|
| • Apple                            | • Corn (sweet and field) | • Ornamental and shade trees |
| • Asian radish                     | • Cranberry              | • Parsley                    |
| • Berries and small fruit          | • Ginseng                | • Pear                       |
| • Blueberry (highbush and lowbush) | • Grape                  | • Potato                     |
| • Bok choy                         | • Greenhouse herbs       | • Raspberry                  |
| • Broccoli                         | • Greenhouse ornamentals | • Sea buckthorn              |
| • Cabbage                          | • Greenhouse vegetables  | • Spinach                    |
| • Cauliflower                      | • Herbs and spices       | • Stone fruit                |
| • Chinese broccoli                 | • Kale                   | • Sunflower                  |
| • Chinese cabbage                  | • Lettuce                | • Timothy                    |
| • Chokecherry                      | • Mustard greens         | • Tobacco                    |
| • Collards                         | • Nut crops              | • Tomato                     |
|                                    |                          | • Turnip greens              |

For a complete list of all crops registered and what is included for each crop group refer to the label

## General usage information

- OMRI-certified for use in organic production
- Apply when insect pests are small (egg hatch to early instars) before crop damage occurs
- Apply using sufficient water volume for thorough crop coverage
- Repeat at an interval sufficient to maintain control, usually 3-14 days
- Use with a water pH 7 or lower
- **Use with a non-ionic surfactant for hard to wet foliage (such as cabbage or broccoli)**



## Technical information

### CHEMICAL CLASS

- > Group II

### ACTIVE INGREDIENTS

- > *Bacillus thuringiensis, var. kurstaki strain ABTS-351 (57%)*

### PACKAGING

- > 24 x 0.5 kg case
- > 5 kg bag

### RAINFAST

- > Avoid application when heavy rainfall is in the forecast

### PCP #

- > 26508

Biological  
insecticide

APPROVED FOR  
ORGANIC PRODUCTION

 **Nufarm**  
Grow a better tomorrow

## Specific crop usage information

INSECT CONTROLLED      RATE      APPLICATION INFORMATION

### APPLE, PEAR

Leafrollers* (Fruitree, European, Oblique-banded, Three-lined)	1,125-1,675 g/ha (455-678 g/ac.)	*Apply with a spray solution of 600-800 L/ha at pink stage and, if populations are heavy, at petal fall using an air-blast orchard sprayer. Weekly applications may be necessary if egg hatch is asynchronous. Best results are obtained if applications are made in the evening or on a cloudy day
Winter moth** (not registered for pears)	280 g/ha (113 g/ac.)	**For use in combination with Ripcord™ or Cymbush® See the respective labels for specific instructions Follow the most restrictive label

### ASIAN RADISH, BOK CHOY, CHINESE BROCCOLI, CHINESE CABBAGE

Cabbage looper	275-550 g/ha (111-222 g/ac.)	Apply using a minimum of 400 L/ha of water A non-ionic surfactant is suggested for this crop
Diamondback moth	275 g/ha (111 g/ac.)	Refer to the general usage information
Imported cabbageworm	55-140 g/ha (22.3-56.7 g/ac.)	

### BLUEBERRY (highbush), CHERRY, CRANBERRY

Cherry fruitworm Fruitworm	1,680 g/ha (680 g/ac.)	Apply at egg hatch, from petal fall through to green fruit stage Use a minimum of 300 L/ha of water and apply with an airblast sprayer Maximum of 4 applications per season Repeat on a 3-14 day interval if needed
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### BLUEBERRY (lowbush)

Blueberry spanworm Chainspotted geometer Rannoch looper	550-1,125 g/ha (222-455 g/ac.)	Maximum of 4 applications per year Apply using a minimum of 300 L/ha of water Apply when larvae in the first or second instar are present at or above the economic threshold
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### BROCCOLI

Cabbage looper	275-550 g/ha (111-222 g/ac.)	A non-ionic surfactant is suggested for this crop Refer to the general usage information
Diamondback moth Imported cabbageworm	55-140 g/ha (22.3-56.7 g/ac.)	

### CABBAGE

Cabbage looper	275-550 g/ha (111-222 g/ac.)	A non-ionic surfactant is suggested for this crop Refer to the general usage information
Diamondback moth	55-275 g/ha (22.3-222 g/ac.)	
Imported cabbageworm	275 g/ha (111 g/ac.)	

INSECT CONTROLLED      RATE      APPLICATION INFORMATION

**CAULIFLOWER**

Cabbage looper	275-550 g/ha (111-222 g/ac.)	A non-ionic surfactant is suggested for this crop
Imported cabbageworm	55-140 g/ha (22.3-56.7 g/ac.)	Maximum of 5 applications per year

**CHOCHEERRY ORCHARDS AND SHELTERBELTS**

Fall webworm	635 g/ha (257 g/ac.)	1 application per year Mix 0.288 kg of product in 1,000 L of water Apply at a rate of 22 L mixture per 100 m <sup>2</sup> Apply as soon as tents are visible
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**COLLARDS**

Cabbage looper	275-550 g/ha (111-222 g/ac.)	A non-ionic surfactant is suggested for this crop
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**CRANBERRIES**

Green and brown spanworm	275-550 g/ha (111-222 g/ac.)	Refer to the general usage information
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**GINSENG**

Leafrollers	565-1,125 g/ha (228-455 g/ac.)	Ground application – apply in 760-1,250 L/ha water, maximum of 2 applications per year For best control apply when larvae are in early instar stage
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**GRAPE**

Grape berry moth	1,125 g/ha (455 g/ac.)	Begin applications after adult flight begins – before egg hatch Use a high water volume Repeat on a 7-10 day interval Maximum 6 applications per year
Leafrollers	125-250 g/ 400 L water	Repeat on a 3-14 day interval

**GREENHOUSE CUCUMBER**

Alfalfa looper Cabbage looper <i>Duponchelia fovealis</i>	625 g/1,000 L 75-150 g/250 L	Make applications when egg hatch is complete and when larvae are small Repeat every 3-14 days if needed
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**GREENHOUSE EGGPLANT, PEPPER, TOMATO**

Cabbage looper	75-150 g/250 L	Make applications when egg hatch is complete and when larvae are small Repeat every 3-14 days if needed
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**GREENHOUSE FRUITING VEGETABLES**

<i>Duponchelia fovealis</i>	625 g/1,000 L	Make applications when egg hatch is complete and when larvae are small Repeat every 7 days if needed
Lepidopteran leafminers	500-1,000 g/ 1,000 L	Make applications when egg hatch is complete and when larvae are small Repeat every 7-10 days if needed

INSECT CONTROLLED      RATE      APPLICATION INFORMATION

**GREENHOUSE HERBS, GREENHOUSE ORNAMENTALS**

<i>Duponchelia fovealis</i>	625 g/1,000 L	Make applications when egg hatch is complete and when larvae are small Repeat every 7 days if needed
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**GREENHOUSE WASABI**

Alfalfa looper Cabbage looper	75-150 g/250 L	Apply at the first signs of infestation Treat when larvae are young (early instars) Repeat applications on a 7-10 day interval if needed Maximum 8 applications per year
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**HOPS**

European corn borer	560-1,120 g/ha (226-453 g/ac.)	Apply at first sign of infestation Repeat on a 3-14 day interval if needed
Hop looper	275-550 g/ha (111-222 g/ac.)	

**KALE, LETTUCE, MUSTARD GREENS, SPINACH, TURNIP GREEN**

Cabbage looper	275-550 g/ha (111-222 g/ac.)	A non-ionic surfactant is suggested for this crop
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**NUT CROPS – HAZELNUTS, PECANS, SWEET CHESTNUTS, WALNUTS**

Leafrollers (European, Fruitree, Oblique-banded, Three-lined)	1,125-1,675 g/ha (455-678 g/ac.)	Refer to the general usage information
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**PARSLEY**

Cabbage looper	275 g/ha (111 g/ac.)	Refer to the general usage information
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**QUINOA**

European corn borer	560-1,120 g/ha (226-453 g/ac.)	Apply when pinhole feeding is observed in at least 5% of the plants Repeat on a 7 day interval if needed Apply before larvae begin stalk-boring
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**RED RASPBERRY**

Early season Oblique-banded leafroller	550-1,125 g/ha (222-455 g/ac.)	Refer to the general usage information
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**STONE FRUIT – APRICOT, CHERRY PEACH PLUM/PRUNE**

Fruitworm	1,125-1,675 g/ha (455-678 g/ac.)	Apply in 2,000 L/ha at pink stage to petal fall
Leafrollers (European, Fruitree, Oblique-banded, Three-lined)		Apply in 600-800 L/ha at pink stage and, if populations are heavy, at petal fall using an air-blast orchard sprayer. Weekly applications may be necessary if egg hatch is asynchronous.

**SUNFLOWER**

Sunflower moth	315-625 g/ha (127-253 g/ac.)	Applied as an aerial application. Mix amount in 20 L of water. Apply when 20-50% of heads are in bloom Thorough coverage is needed, apply second application if required
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INSECT CONTROLLED                      RATE                      APPLICATION INFORMATION

**SWEET CORN**

European corn borer	560-1,120 g/ha (226-453 g/ac.)	Apply when pinhole feeding is observed in at least 5% of the plants Repeat on a 7 day interval if needed
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**TIMOTHY**

Essex (European) skipper	140-275 g/ha (56.7-111 g/ac.)	Refer to the general usage information
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**TOBACCO**

Hornworm	55-140 g/ha (22.3-56.7 g/ac.)	Refer to the general usage information
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**TOMATO**

Cabbage looper	275-550 g/ha (111-222 g/ac.)	Refer to the general usage information
Tomato fruitworm	550 g/ha (222 g/ac.)	For tomato fruitworm apply every 5-7 days Refer to the general usage information



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Always read and follow the product label for more detailed information on control of weeds, insects or disease, application directions, and use precautions. Please refer to label for more information including future label expansions that may include new crops, pests and use patterns. Please refer to product label for re-entry periods.

Always read and follow label directions.

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