

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

# **BENEFITS**

- Most potent Bt insecticide on the market and unique mode of action making it an excellent tool for managing resistance
- Immediately deters insects from feeding death occurs within 1-3 days
- Dry flowable formulation is convenient and easy to handle and highly tank mixable
- Not harmful to bees or beneficial insects making it a great tool for spring feeding caterpillars
- No REI and safe for humans

## REGISTERED CROPS

- Apple
- Asian radish
- Berries and small fruit
- Blueberry (highbush and lowbush)
- Bok choy
- Broccoli
- Cabbage
- Cauliflower
- Chinese broccoli
- Chinese cabbage
- Chokecherry
- Collards

- Corn (sweet and field)
- Cranberry
- Ginseng
- Grape
- Greenhouse herbs
- Greenhouse ornamentals
- Greenhouse vegetables
- Herbs and spices
- Kale
- Lettuce
- Mustard greens
- Nut crops

- Ornamental and shade trees
- Parsley
- Pear
- Potato
- Raspberry
- Sea buckthorn
- Spinach
- Stone fruit
- Sunflower
- Timothy
- Tobacco
- Tomato
- Turnip greens

# TECHNICAL INFORMATION

#### **CHEMICAL CLASS**

> Group 11

#### **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** 

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 in 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 an adjuvant for hard to wet foliage (such as cabbage or broccoli)

APPROVED FOR ORGANIC PRODUCTION

# **SPECIFIC CROP USAGE INFORMATION**

SF ECIFIC CROP	OSAGE IIII	- ORMATION		
INSECTS CONTROLLED	RATE	APPLICATION INFORMATION		
APPLE, PEAR				
Leafrollers* (fruitree, European, oblique-banded, three-lined)	1125-1675 g/ha (455-678 g/ac.)	*Apply in 600-800 L/ha at pink stage and, if populations are heavy, at peta fall using an air-blast orchard sprayer. Weekly applications may be necessa if egg hatch is asynchronous.  Best results are obtained if applications are made in the evening or on a cloudy day  **For use in combination with Ripcord or Cymbush See the respective labels for specific instructions Follow the most restrictive label		
Winter moth** (not registered for pears)	280 g/ha (113 g/ac.)			
ASIAN RADISH, BOK	CHOY, CHINES	SE BROCCOLI, CHINESE CABBAGE		
Cabbage looper	275-550 g/ha (111-222 g/ac.)	Use in 400 L/ha An non-ionic surfactant is suggested for this crop		
Diamondback moth	275 g/ha (111 g/ac.)			
Imported cabbageworm	55-140 g/ha (22.3-56.7 g/ac.)			
BLUEBERRY (highbus	h) <b>, CHERRY, CR</b>	ANBERRY		
Cherry fruitworm Fruitworm	1680 g/ha (680 g/ac.)	Apply at egg hatch, from petal fall through to green fruit stage Use a minimum of 300 L/ha and an airblast sprayer Maximum of 4 applications per season Repeat on a 3-14 day interval if needed		
<b>BLUEBERRY</b> (lowbush	)			
Blueberry spanworm Chainspotted geometer Rannoch looper	550-1125 g/ha (222-455 g/ac.)	Maximum of 4 applications per year. Apply in a minimum of 300 L/ha. Apply when larvae in the first or second instar are present at or above the economic threshold.		
BROCCOLI				
Cabbage looper	275-550 g/ha (111-222 g/ac.)	An non-ionic surfactant is suggested for this crop		
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.)	An non-ionic surfactant is suggested for this crop		
Diamondback moth	55-275 g/ha (22.3-222 g/ac.)			
Imported cabbageworm	275 g/ha (111 g/ac.)			
CAULIFLOWER				
Cabbage looper	275-550 g/ha (111-222 g/ac.)	An 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		
CHOKECHERRY ORCHARDS AND SHELTERBELTS				
Fall webworm	635 g/ha (257 g/ac.)	One 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		

INSECTS CONTROLLED	RATE	APPLICATION INFORMATION			
COLLARDS					
Cabbage looper	275-550 g/ha (111-222 g/ac.)	An non-ionic surfactant is suggested for this crop			
CRANBERRIES					
Green and brown spanworm	275-550 g/ha (111-222 g/ac.)				
GINSENG					
Leafrollers	565-1,125 g/ha (228-455 g/ac.)				
GRAPE	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 Duponchelia fovealis	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			
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			
GREENHOUSE FRUIT	ING VEGETABL	ES			
Duponchelia fovealis	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			
GREENHOUSE HERBS, GREENHOUSE ORNAMENTALS					
Duponchelia fovealis	625 g/1,000 L	Make applications when egg hatch is complete and when larvae are small Repeat every 7 days if needed			
GREENHOUSE WASA	\BI				
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			
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.)	An non-ionic surfactant is suggested for this crop			

INSECTS CONTROLLED	RATE	APPLICATION INFORMATION		
NUT CROPS – HAZELNUTS, PECANS, SWEET CHESTNUTS, WALNUTS				
Leafrollers (European, Fruitree, Obliquebanded, Threelined)	1,125-1,675 g/ha (455-678 g/ac.)			
PARSLEY				
Cabbage looper	275 g/ha (111 g/ac.)			
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		
RED RASPBERRY				
Early season Oblique- banded leafroller (OBLR)	550-1,125 g/ha (222-455 g/ac.)			
STONE FRUIT – APRICOT, CHERRY PEACH PLUM/PRUNE				
Fruitworm	1,125-1,675 g/ha (455-678 g/ac.)	Apply in 2000 L/ha at pink stage to petal fall		
Leafrollers (European, Fruittree, Obliquebanded, Threelined)		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		
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		
TIMOTHY				
Essex (European) skipper	140-275 g/ha (56.7-111 g/ac.)			
TOBACCO				
Hornworm	55-140 g/ha (22.3-56.7 g/ac.)			
TOMATO				
Cabbage looper	275-550 g/ha (111-222 g/ac.)			
Tomato fruitworm	550 g/ha	For Tomato fruitworm apply every 5-7 days		



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