

Biological Insecticide  
**DiPel® WP**  
Wettable Powder

COMMERCIAL

GUARANTEE:

*Bacillus thuringiensis*, var. *kurstaki* strain ABTS-351 fermentation  
solids, spores, and insecticidal toxins. . . . .32.0%

\*Potency: 16,000 Cabbage Looper Units (CLU) per mg (16 billion CLU per kg)

The percent active ingredient does not indicate product performance and potency measurements are not globally standardized.

REGISTRATION NO. 11252 PEST CONTROL PRODUCTS ACT

POTENTIAL SENSITIZER  
CAUTION EYE IRRITANT  
KEEP OUT OF REACH OF CHILDREN

READ THE LABEL AND THE ATTACHED BROCHURE BEFORE USING

Net Contents:                      Date                                      of manufacture: \_\_\_\_\_

Lot No.:

Registrant:                      Canadian  
Valent BioSciences Corporation  
870 Technology Way                      6-130  
Libertyville, Illinois 60048, USA  
1-800-323-9597

Agent:  
Valent Canada, Inc.  
Research Lane  
Guelph, Ontario N1G 5G3

**PRECAUTIONS:**

KEEP OUT OF REACH OF CHILDREN

MAY CAUSE SENSITIZATION

CAUTION EYE IRRITANT

Avoid contact with skin, eyes, and clothing. Avoid breathing dust/spray mist. Wear a long sleeved shirt, long pants, waterproof gloves, shoes and socks, eye goggles and NIOSH-approved respirator with any N-95, R-95, or P-95 filter for biological products when handling, mixing/loading or applying the product and during all clean-up/repair activities. When applicators use closed systems (e.g. enclosed cabs) the personal protective equipment requirements may be reduced or modified. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's web site at:

[www.croplife.ca](http://www.croplife.ca).

<b>FIRST AID</b>	
If on skin or clothing	Rinse skin immediately with plenty of water. Remove contaminated clothing and wash separately before reuse. If irritation occurs and persists or is severe, seek medical attention.
If in eyes	Hold eye open and rinse slowly and gently with water. Remove contact lenses, if present, then continue rinsing eye. If irritation occurs and persists or is severe, seek medical attention.
If inhaled	Move person to fresh air, apply respiration if needed and seek medical attention.
If swallowed	Rinse mouth and throat with copious amounts of water. DO NOT induce vomiting. Promptly contact a physician or poison control centre. DO NOT give anything by mouth to an unconscious person.
General	Seek medical attention if irritation or signs of toxicity occur and persist or is severe. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

**TOXICOLOGICAL INFORMATION:** Treat symptomatically.

**STORAGE**

In order to ensure microbial purity and potency, DiPel WP should be stored in the original container at 0 - 25°C and used within 24 months of the date of manufacture.

**DISPOSAL**

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

#### **RESISTANCE MANAGEMENT RECOMMENDATIONS:**

For resistance management, please note that DiPel WP contains a Group 11 insecticide. Any insect population may contain individuals naturally resistant to DiPel WP and other Group 11 insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same site. Other resistance mechanisms that are not linked to site of action but are specific for individual chemicals, such as enhanced metabolism, may also exist. The following appropriate resistance management strategies should be followed to delay insecticide resistance:

- Where possible, rotate the use of DiPel WP or other Group 11 insecticides with different groups that control the same pests in a site.
- Insecticide use should be based on an Integrated Pest Management program that includes scouting, record keeping, and considers cultural, biological and other chemical control practices.
- Monitor treated pest populations for resistance development.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance management and/or integrated pest management recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance, contact Valent BioSciences Corporation at 1-800-323-9597

#### **DIRECTIONS FOR USE**

DO NOT apply this product through any type of irrigation system.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes. As this pesticide is not registered for control of pests in aquatic systems, DO NOT use to control aquatic pests.

DO NOT allow spray mixture to stand in the tank for more than 12 hours.

DiPel WP is a biological insecticide and is intended for use against leaf-chewing larvae (caterpillars) of certain Lepidopterous species. Studies to date indicate that, if applied when pests are first noticed and at intervals of one week thereafter, excellent control is achieved. Suspend the required amount of DiPel WP (as determined from the table) in the spray tank; agitate thoroughly. Use recommended amounts in a minimum of 136 to 227 liters of water per hectare for vegetable crops when DiPel WP is applied by ground spray equipment. Fruit crops may require up to 2000 liters per hectare to get adequate coverage. Apply DiPel WP at first sign of infestation and repeat at 7 to 10 day intervals when needed to maintain control. Good coverage of all leaves is essential since the insect must ingest the DiPel WP for insecticidal action. Within a few hours of application, the larvae stop all further eating and death occurs within 1 to 3 days. A spreader sticker such as TRITON\*B-1956 should be combined with DiPel WP to aid in thorough coverage of all the foliage. One application will usually be enough to control hornworms on tobacco.

#### **Aerial Application Instructions:**

Apply only by fixed-wing or rotary aircraft equipment that has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label.

Label rates, conditions and precautions are product specific. Apply only at the rate recommended for aerial application on this label. Where no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment.

Ensure uniform application by using appropriate marking devices and/or electronic guidance equipment.

**Use Precautions:**

Apply only when meteorological conditions at the treatment site allow for complete and even coverage. Apply only when meteorological conditions are in compliance with local and /or provincial authorities.

**Operator Precautions:**

DO NOT allow the pilot to mix product to be loaded onto the aircraft. However, loading of premixed product with a closed system is permitted. It is desirable that the pilot has communication capabilities at each treatment site at the time of application.

The field crew and the mixer/loaders must wear the personal protective equipment described in the PRECAUTIONS section of this label. When handlers/loaders use closed systems to load product onto the aircraft, the handler requirement for a NIOSH-approved respirator with any N-95, R-95, or P-95 filter for biological products may be waived. When reduced personal protective equipment is worn, the respirator/mask must be immediately available for use in an emergency such as a spill or equipment breakdown.

All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing must be washed before reuse. Decontaminate aircraft cockpit and vehicle cabs if contamination occurs.

**Product Specific Precautions:**

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-800-323-9597 or obtain technical advice from the distributor or from your provincial agricultural or forestry representative. Application of this specific product must meet and/or conform to the aerial uses and rates on this label.

APPLICATION RATES

Thorough coverage is essential for good control

CROP	PEST	Rate (g/ha)
APPLES	Leafrollers* (Fruitree, European, Oblique-banded, Three-lined)	2250 - 3350
	Winter moth**  *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. Best results are obtained if applications are made in the evening or on a cloudy day.	560

CROP	PEST	Rate (g/ha)
BROCCOLI	Cabbage looper Diamondback moth Imported cabbageworm	550 – 1100 110 – 275 110 - 275
CAULIFLOWER	Cabbage looper Imported cabbageworm	550 - 1100 110 - 275
COLLARDS	Cabbage looper	550 - 1100
CRANBERRIES	Green and Brown spanworm	550 - 1100
KALE	Cabbage looper	550 - 1100
LETTUCE	Cabbage Looper	550 - 1100
MUSTARD GREENS	Cabbage Looper	550 - 1100
PARSLEY	Cabbage Looper	550
PEARS	Leafrollers* (Fruittree, European, Oblique-banded, Three-lined) Fruitworm** *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. Best results are obtained if applications are made in the evening or on a cloudy day. **Apply in 2000 L/ha at pink stage to petal drop in evening or on cloudy days using an air-blast orchard sprayer.	2250 - 3350 2250 - 3350
RED RASPBERRIES	Early Season Oblique-banded Leafroller* *Apply with ground equipment at prebloom and bloom	1100 - 2250
SPINACH	Cabbage looper	550 - 1100

CROP	PEST	Rate (g/ha)
STONE FRUIT Apricot, Cherry, Peach, Plum/Prune	Leafrollers* (Fruittree, European, Oblique-banded, Three-lined)  Fruitworm**  *Apply in 600-800 L/ha at pink stage and, if populations are heavy, at petal fall using an airblast 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.  **Apply in 2000 L/ha at pink stage to petal drop in evening or on cloudy days using an airblast orchard sprayer.	2250 - 3350  2250 - 3350
SUNFLOWERS	Sunflower Moth*  *Applied aurally, mix the applicable amount (grams) per minimum of 20 liters of water. Apply when 20-50% heads in bloom. Thorough coverage of larval feeding sites within flowers is necessary for adequate control. Apply when provincial authorities recommend treatment based on pheromone trap counts. A second application may be required if trap counts are high.	625 - 1250
TIMOTHY	Essex (European) skipper	275 - 550
TURNIP GREEN	Cabbage looper	550 - 1100
TOBACCO	Hornworm	110 - 275
TOMATOES	Cabbage looper Tomato fruitworm* Tomato hornworm  *Apply every 5 to 7 days	550 - 1100 1100 275 - 550

ORNAMENTAL AND SHADE TREES	g per 400L Hydraulic Sprayer*
Spruce budworm (Spruce)	250 - 500
Gypsy moth	250 - 500
Bagworm	250 - 500

Spring and Fall cankerworm	250
Fall webworms	250
Elm spanworm	500
Tent caterpillar	125 - 250
*For mist blowers, mix the appropriate amount of DiPel WP (grams) with 40 liters of water.	

FOR GREENHOUSE USE		
Roses	Omnivorous leafroller*	500g/400L
Chrysanthemums	Cabbage looper*	250 - 500g/400L
Tomatoes	Cabbage looper	150 – 300g/250L/4000 sq. meters
Peppers	Cabbage looper	150 – 300g/250L/4000 sq. meters

\* Apply to upper and lower portions of the leaves to run-off. Repeat applications will be necessary if a new hatch occurs.

**HOW TO TANK MIX DIPEL WP**  
(Equipment with mechanical agitators)

1 Slowly sprinkle DiPel WP into a partially filled tank	2 Wait two minutes	3 Start agitator operating vigorously	4 Maintain agitation while adding remaining water to the tank
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**NOTICE TO USER**

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the PEST CONTROL PRODUCTS ACT to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.



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