



**Merit**  
GRANULAR

The Standard in Grub Control

## Fact Sheet

MERIT® is a highly effective, systemic insecticide, used at very low rates registered to control Black Turfgrass Ataenius, European Chafer and Japanese Beetle grubs in turf.



Merit® insecticide is a broad-spectrum, systemic insecticide. Imidacloprid, the active ingredient in Merit, interferes with nerve impulses and disrupts insect behavior resulting in insects not feeding, not reproducing, and eventually dying.

The newly formulated Merit Granular has an innovative gypsum carrier with no fine particles. This rounded, more uniformly sized prill produces less dust and optimally penetrates into the turf canopy.

Merit Granular insecticide has sufficient residual activity so that application can be made preceding the egg laying activity of the adult stage. Merit Solupak can be conveniently applied through a sprayer followed by an irrigation cycle. Merit insecticide should be applied prior to the onset of the third larval stage of white grubs, which in most areas will occur around mid-August.

### Benefits of Applying Merit

- ☑ Proven performance on grubs
- ☑ Wide window of application
- ☑ Strong residual soil activity
- ☑ Low use rates
- ☑ Low risk to applicators and non-target organisms
- ☑ Low environmental impact including low mammalian toxicity
- ☑ Low to no odour
- ☑ First and most effective insecticide in the new chloronicotinyl class 4 insecticide group
- ☑ MERIT is the only insecticide registered for control of Black Turfgrass Ataenius grubs

### Turfgrass Insect Time Profile

INSECT TYPE	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Black Turfgrass Aetanius</b>					→	→	→	→				
<b>European Chafer Grub</b>				→	→	→	→	→	→	→		
<b>Japanese Beetle</b>				→	→	→	→	→	→			
<b>Leatherjack</b> (European Marsh Crane Fly)				→	→	→	→	→	→	→		

Timing of application and life cycle may vary in different parts of the country.

Periods of egg laying →

Periods of Feeding →



# Merit<sup>®</sup> GRANULAR



## ENVIRONMENTAL IMPACT

All pesticides are regulated under the Pest Control Products Act to ensure that they do not pose an unacceptable risk to human health and the environment. For information regarding the pesticide regulatory process, visit Health Canada's (Pest Management Regulatory Agency) website: [www.hc.sc.gc.ca/pmra-arla](http://www.hc.sc.gc.ca/pmra-arla)



## MODE OF ACTION

MERIT contains the active ingredient imidacloprid; a novel chemistry belonging to a unique chemical class known as the chloronicotinyls (Group 4). Imidacloprid is not a cholinesterase inhibitor like some other turf insecticides. MERIT acts by blocking the receptor sites in the nervous system of target pests. The message sent from the preceding nerve is not received by the next nerve, or it receives an incomplete message.

Insects that have ingested or absorbed imidacloprid become immobile and stop feeding very soon after ingesting or coming in contact with MERIT.



## SOIL RESIDUAL CONTROL

MERIT provides outstanding soil residual control after it has been watered in. The half life of MERIT on a turf covered soil is 21-33 days. MERIT degrades rapidly soon after application but slows over time and becomes strongly bound to the soil and is unlikely to leach. Minute but sufficient amount of the active ingredient in MERIT is expected to remain in the grass plant and provide approximately 90 to 110 days control.



## IMPACT ON TURF ACTIVITIES

MERIT when applied has no significant odour and will not distract patrons from turf activities.

## APPLICATION TIPS

- ☑ MERIT Solupak should be used in a minimum of 6L of water/100m<sup>2</sup>.
- ☑ MERIT must be incorporated to the soil after application to be effective, through watering or irrigation. Once absorbed by the roots, imidacloprid moves within the plant to protect it. As grubs feed on the roots they ingest imidacloprid and stop feeding immediately.
- ☑ Spray applications of MERIT should be watered-in within 24 hours following application as the product is otherwise subject to degradation from sunlight.
- ☑ Granular applications of MERIT should also be watered in as soon as possible, however field trials have shown that if irrigation occurs within a 1-2 week period following application, adequate control can still be expected.
- ☑ Use enough water to sufficiently wet the top inch of soil. Apply 5-10mm of water. This may take approximately 1/2 an hour depending on your irrigation system or sprinkler type.
- ☑ Dethatch high thatch turf before application for best results.

## NOTE:

Be careful not to use too much water (greater than 25mm) as this may cause the material to move past its target area and thus reduce effectiveness. Torrential rains following application can also cause this to occur.

	Rates	Formulation	Water Volume
<b>MERIT Solupak</b>	Water Soluble Packets	1(45g packet) / 1206m <sup>2</sup>	Minimum 6L/100m <sup>2</sup>
<b>MERIT Granular</b>	Ready to Use Granular	56kg/Ha or 0.56kg/100m <sup>2</sup>	--

## Rates of Application

MERIT is available in 2 formulations: MERIT Solupack (75% Wettable Powder in soluble bag) and MERIT Granular (ready-to-use granular).

