

Pesticides



Maine Board of Pesticides Control
28 State House Station
Augusta ME 04333-0028
(207)287-2731
pesticides@maine.gov

What are pesticides?



- Bleaches, *Lysol*, pine oil



- Weed & Feed, *Roundup*



- Rat & mouse baits



- Plant disease controls

No endorsement intended or implied

What are pesticides?



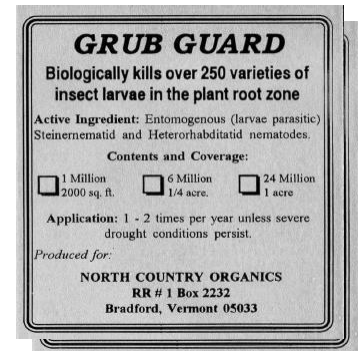
- Sevin, Pyrethroids, *Raid*
- “Organics” like pyrethrum
- Biopesticides



- Wood preservatives

What products are NOT pesticides?

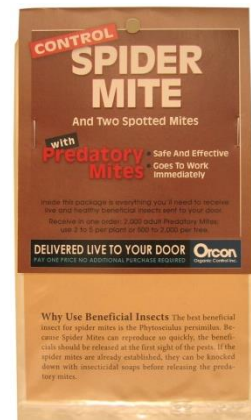
- Insect parasitic nematodes



- Rodent or insect traps



- Beneficial insects or mites



No endorsement intended or implied



Pesticides may not be used in Maine schools except by licensed applicator

- Weed killers
- Mouse poison
- Ant bait (including 'cups' and 'traps')
- Organic and natural pesticides

- Exemptions:
 - Emergency use of wasp spray directed into a wasp nest.
 - Disinfectants used for routine cleaning.

Where do you start?—
Don't forget IPM!



Is a pesticide the right answer?

- Are there non-chemical strategies that can be used to control the pest?
- Is the pest still present?
- Are there enough pests to require control? (threshold)
- Is the pest in a susceptible stage?

Read the labels!

- Must list the “site” to be treated
- Should list the pest to be controlled
- Must be labelled for use at schools—not a “homeowner” product



MAXFORCE® FC PROFESSIONAL INSECT CONTROL® ANT BAIT STATIONS

FOR USE IN COMMERCIAL, INDUSTRIAL AND RESIDENTIAL AREAS

ACTIVE INGREDIENT:

Fipronil*: [5-Amino-1-(2, 6-dichloro-4-trifluoromethyl) phenyl)-4-(1, R, S)-(trifluoromethyl) sulfinyl)-1H-pyrazole-3-carbonitrile].....0.01%

OTHER INGREDIENTS:.....99.99%

Total:.....100.00%

*CAS NO. 120068-37-3

Contains: 24 Child-Resistant Bait Stations

EPA Reg. No. 432-1256

EPA Est. No.

U.S. Patent Nos. 4,353,907; DES 278,842; 4,563,836; 4,845,103; 5,271,180 and other patents pending.

KEEP OUT OF REACH OF CHILDREN
CAUTION: SEE PRECAUTIONS BELOW



FIRST AID	
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
IF IN EYES:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.
<p>Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-334-7577 for emergency medical treatment information.</p>	

MAXFORCE® FC Professional Insect Control® Ant Bait Stations contain a patented bait formulation which kills Pharaoh ants and other common household ants: Argentine Ants, Carpenter Ants, Crazy Ants, Pavement Ants, Cornfield Ants, Odorous House Ants, Acrobat Ants and Thief Ants. When properly used, MAXFORCE® FC Professional Insect Control® Ant Bait Stations will attract foraging worker ants. The ants will feed on the bait, which contains the active ingredient Fipronil. Then, the worker ants will take some of this bait back to the nest, where they will pass it on to destroy the queen and the entire colony. MAXFORCE® FC Professional Insect Control® Ant Bait Stations will kill both adult and larval ant forms.

Do not use residual sprays with or near the MAXFORCE® FC Professional Insect Control® Ant Bait Stations, as the worker ants must remain alive to carry the bait back to the queen and immature workers. Residual sprays may cause worker ants to spread out and form secondary colonies. MAXFORCE® FC Professional Insect Control® Ant Bait Stations work because it is non-repellent and thus will not cause secondary colony formation.

MAXFORCE® FC Professional Insect Control® Ant Bait Stations have no insecticide odor, are child-resistant and easy to use. The patented bait station design allows you to inspect each bait placement and monitor the amount of ant feeding. They may be used for the control of ants in hospitals, nursing homes, day care centers, schools, residential establishments, warehousing and commercial establishments, food service, food manufacturing and food processing facilities, laboratories, computer and electronic equipment facilities, pet shops, zoos, buses, boats, aircraft, and trains.

1. Will this work for pavement ants?
2. Can it be used in schools?
3. License required?

Acelepryn® G

European Crane Fly: Apply Acelepryn G between September and November to control European crane fly larvae in turfgrass. The higher rate listed in Table 1 may be required to achieve control when applications are made in November.

Turf Caterpillars: Acelepryn G will provide curative caterpillar control in turfgrass. If the area being treated is maintained at a mowing height of greater than one inch, then the higher rate listed in Table 1 may be required during periods of high pest pressure.

Chinch Bugs: For suppression of chinch bugs, apply Acelepryn G before eggs hatch.

APPLICATION RATES FOR LAWNS, GOLF COURSES AND OTHER RECREATIONAL TURFGRASS AREAS

Table 1 provides the application rates that will control the listed turfgrass pests. For maximum residual effectiveness or for optimal control of large pest infestations, Acelepryn G may be applied at up to 125 pounds per acre (0.25 lb AI/A) to control any of the pests listed in Table 1. Restriction: Do not apply more than 250 pounds (equivalent to 0.5 lb of active ingredient) of product per acre per year in broadcast applications to turfgrass.

Table 1: Turfgrass Application Rates

Target Pest	Product per Acre	Product per 1,000 sq ft	Lb AI/A
White Grubs (including <i>Aphoditus</i> spp., Asiatic garden beetle, black turfgrass ataeinus, European chafer, green June beetle, Japanese beetle, May/June beetles (<i>Phyllophaga</i> spp.), northern masked chafer, oriental beetle and southern masked chafer) Billbugs European Crane Fly Turf caterpillars (including armyworms, cutworms and sod worms)	50 to 100 lb	1.15 to 2.3 lb	0.1 to 0.2
Annual Bluegrass weevil	75 to 100 lb	1.72 to 2.3 lb	0.15 to 0.2
Chinch bugs (suppression only)	50 to 100 lb	1.15 to 2.3 lb	0.1 to 0.2

APPLICATION RATES FOR ORNAMENTAL PLANTS

Table 2 provides the application rates that will control the pests of landscape ornamentals and interior plantscapes. Before application, remove black plastic or other weed barrier materials that are impermeable to water. For maximum residual effectiveness or for optimal control of large pest infestations, Acelepryn G may be applied at up to 125 pounds per acre (0.25 lb AI/A) to control any of the pests listed in Table 2.

Table 2: Ornamental Tree and Shrub (Including Evergreens), Flower, Foliage Plant, and Groundcover Application Rates

Target Pest	Product per Acre	Product per 1,000 sq ft	Lb AI/A
White Grubs (including <i>Aphoditus</i> spp., Asiatic garden beetle, black turfgrass Ataeinus, European chafer, green June beetle, Japanese beetle, May/June beetles (<i>Phyllophaga</i> spp.), northern masked chafer, oriental beetle and southern masked chafer)	50 to 100 lb	1.15 to 2.3 lb	0.1 to 0.2

OK for use at schools?

OK for use against European Chafer?

How 'Risky' is the Product?



- Human Risk = toxicity times exposure
 - 'Signal Word' indicates toxicity
 - Exposure varies with 'Formulation' and application method
- Environmental Risk (to bees, water, etc) varies with formulation, chemical composition and application method

Signal Word indicates toxicity to people

Signal Words

Danger

Warning

Caution



FOR ORGANIC PRODUCTION

ACTIVE INGREDIENT:
Bacillus thuringiensis, subsp. kurstaki, strain ABTS-351,
fermentation solids, spores, and insecticidal toxins 54%
OTHER INGREDIENTS 46%
TOTAL 100%

Potency: 32,050 Cabbage Looper Units (CLU) per mg (14.5 billion CLU per pound).

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

EPA Reg. No. 73345-39
EPA Est. No. 33752-14-001

Net Contents
16 FL OZ
(472 mL)

List No. 12046



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CAUTION

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What Signal Words do These Products Have?



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Acelepryn® Turf Insecticide

syngenta®

ACTIVE CONSTITUENT: 200 g/L CHLORANTRANILIPROLE

GROUP **28** INSECTICIDE

For the control of African Black Beetle, Argentine Stem Weevil, Argentinian Scarab, Billbugs and other insect pests in turf as per the Directions for Use

750 mL

Syngenta Australia Pty Ltd
Level 1, 2-4 Lyonpark Road, Macquarie Park NSW 2113

In a transport emergency dial 000, Police or Fire Brigade
For specialist advice in an emergency only, call 1800 033 111 (24 hours)

APVMA Approval No: 63085/ 58727
Item number

TM

Acelepryn® G

FIRST AID

HOT LINE NUMBER

For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident),
Call

1-800-888-8372

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

When used as directed, this product does not present a hazard to humans or domestic animals.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Shoes plus socks.

After the product has been loaded into properly calibrated application equipment, shirt, pants, socks and shoes are sufficient Personal Protective Equipment. Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

USERS SHOULD: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic invertebrates, oysters and shrimp. Do not apply directly to water. Drift and runoff may be hazardous to aquatic organisms in water adjacent to use sites.

Surface Water Advisory

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of chlorantraniliprole from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

Ground Water Advisory

This chemical has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Read and understand the entire label before using this product.

Acelepryn® G must be used only in accordance with specifications on this label or in separate Syngenta supplemental labeling that may be made temporarily available through local distributors, as a result of new EPA approvals. Syngenta will not be responsible for losses or damages resulting from the use of this product in any manner not specifically stated on this label or other labels or bulletins published by Syngenta. User assumes all risks associated with such non-specified use.

What is
risk to
people?



Select Lower Risk Formulations and Application Method

- Reduce Exposure Potential by Selecting Products with lower
 - Drift potential
 - Volatility (ability to offgas)
 - Odors

Select Lower Risk Formulations and Application Methods

- Bait blocks and gels in locked station
- Crack and Crevice Application
- Dusts and Powders
- Large area application of granules, fogs, dusts or sprays

Best



Worst



Which poses higher exposure risk?

Environmental Fate

- Will it runoff?
- Is it leachable?
- Is it volatile?
- Will it leave a residue on the surface?



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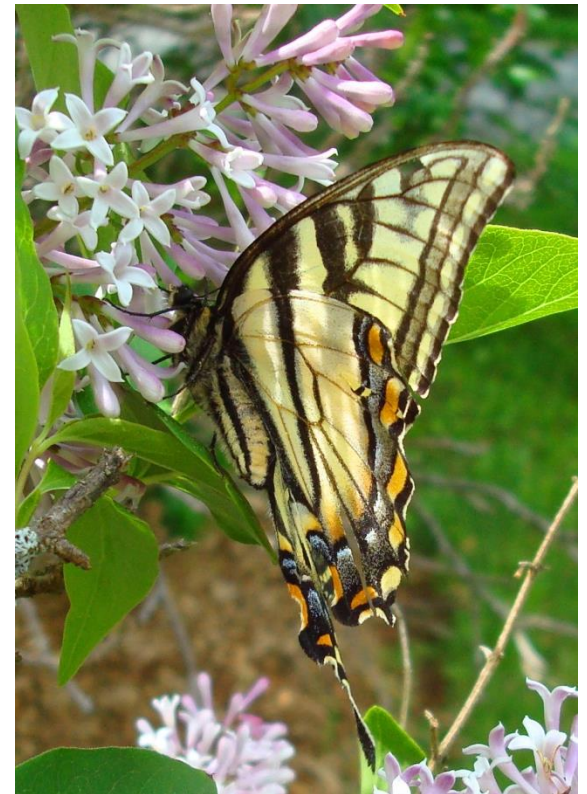
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What
environmental
risks posed by
this product?

Read the label!

- Can it be used in/on school property?
- Signal word (Caution, Warning or Danger)
- Precautionary statements
- PPE requirements
- Re-entry statements
- Environmental hazards
- Application restrictions
- Mode of action





Where to go for pest management guidance and product efficacy info

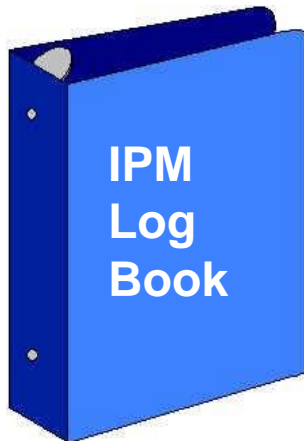
- National Pesticide Information Center (NPIC.org)
- Maine Board of Pesticides Control (thinkfirstspraylast.org)
- Maine School IPM website (maine.gov/schoolipm)
- UMaine Pest Mngmnt Office (www.maine.edu/ipm)
- YardScaping website (www.yardscaping.org)

Questions?



IPM Recordkeeping

- Pest Sighting Log (who, what, where, when)
- Inspection Reports
- Trap Captures
- IPM Actions Taken (what was done?) and Results (was the problem solved?)



Pest Sighting Log

Facility: Middle School Date: 9/4/04 Time: 6:30 am
 Person Monitoring: Custodian

Area	Pest Problem Found	Conditions	Recommendations
Kitchen	Small ants	Sugar on Counter	Clean area better
Food Storage	Mouse droppings	Hole around pipe	seal hole and put out traps
Kitchen	Flies	Dumpster too close to kitchen door	Clean dumpster and move it away from door
Entry Way	Yellowjackets	Nest in eaves above door	Check area regularly over the summer and remove first signs of a nest
Boys Bathroom	Small flies	Floor drains dirty	Scrub floor drains and flush with enzyme cleaner



IPM Recordkeeping

- Pesticide Approvals
 - IPM Coordinator must PRE-approve applications
- Pesticide Application Records
 - Applicator must provide records within 24 hours of application

Pest Management Activity Log

Page 3—Pesticide Application

Use this page when Pesticide Applications are necessary. Use the chart to determine what type of notification and/or signage is required. The Reference number should connect to the last column on Page 1—Monitoring/IPM.

Site _____ (can be building, room, field, playground, etc)

Reference Number from Monitoring/IPM page _____

1) What is the pest? How was the pest identified?

2) How was it determined that a pesticide application was necessary? Include information about the safety, economic or aesthetic threshold reached (see chapter 27 section 5C)

3) Application information:

Date/Time _____ Applicator Name _____

Product Name _____ Applicator License # _____

EPA Reg # _____ Company _____

Specific Location (under sink, west goal soccer field, etc) _____

4) Identify the type of application from the chart and continue to the required sections below.

Check one	See BPC Chapter 27 Section 3 for details about specific pesticide applications	IPM coordinator authorization	5 day notice to parents, guardians, staff	Signs posted 2 days prior to application
INDOOR				
	General use antimicrobial products for cleaning	NA	NA	NA
	Paints, stains or wood preservatives	NA	NA	NA
	for control of stinging or biting insects	required (go to 5)	NA	NA
	injected into cracks, crevices or wall voids	NA	NA	NA
	bait blocks, gels, pastes, granular and pelletized materials in areas inaccessible to students	NA	NA	NA
	indoor application with no re-entry or restricted entry interval, but entry is restricted for 24 hours	NA	NA	NA
	mosquito control in the event of arbovirus positives as defined in Section 3C	NA	NA	required (go to 7)
	in facilities used for agricultural or horticultural education (see chapter 27 section 3D)	NA	NA	required (go to 7)
	Any other applications made while school is not in session*	required (go to 5)	NA	required (go to 7)
	Any other application made while school is in session*	required (go to 5)	required (go to 6)	required (go to 7)
OUTDOOR				
	Any application made while school is not in session*	required (go to 5)	NA	required (go to 7)
	Any application made while school is in session*	required (go to 5)	required (go to 6)	required (go to 7)

(Use the chart above to determine which of the following are required. For further clarification consult BPC Chapter 27)

5) Authorization by IPM coordinator _____
signature date

6) Date notification sent to parents, guardians and staff: _____

7) Date and locations of signs posted: _____