PESTICIDE CHOICE FOR SCHOOLS

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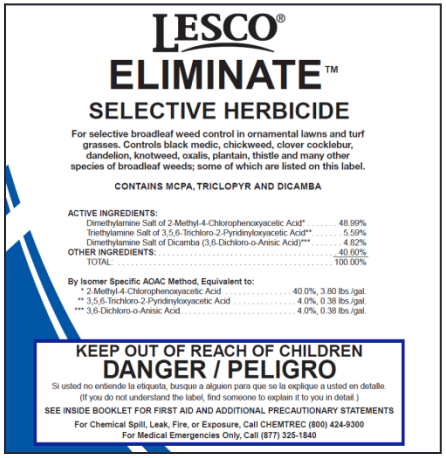
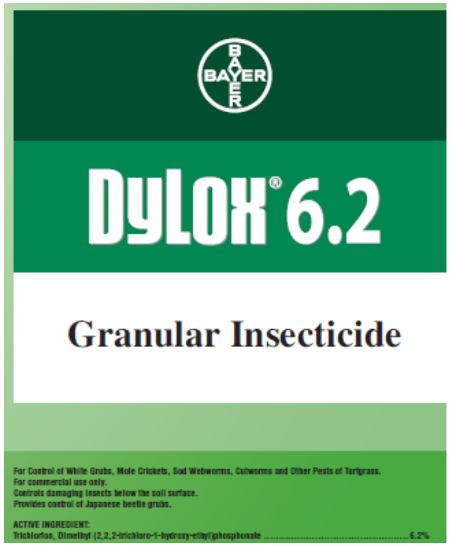
Where do you start?

- Read the labels
  1. The label must list the “site” to be treated
  2. Should also list the pest to be controlled, e.g., weed, insect, fungus, rodent, germ, etc.
- Once you determine the above, then you can look at other product characteristics.

What chemical characteristics are important?

- Toxicity – To humans (children especially), pets, bees and other pollinators, wildlife, plants
  - Acute and chronic
- Formulation – granular, spray or bait
  - Drift potential
  - Volatility
  - Odors
  - Equipment used to apply
    - Injected in crack
    - Sprayed
    - Incorporated into soil
    - Watered into the soil

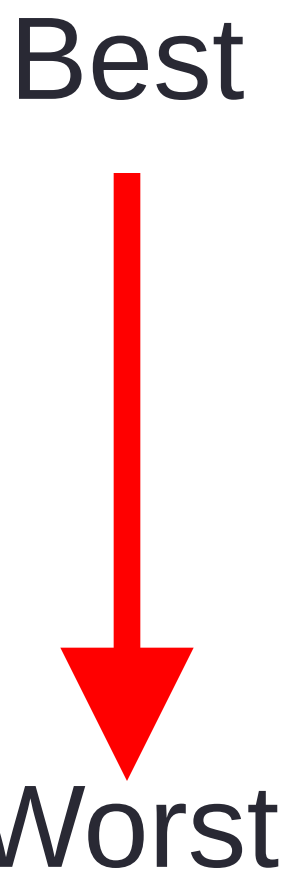




No endorsement intended or implied

Reduce exposure by using targeted materials

- Enclosed baits & gels
- Spot treatments
- Broadcast treatments



Environmental Fate

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

Surface Water Advisory:

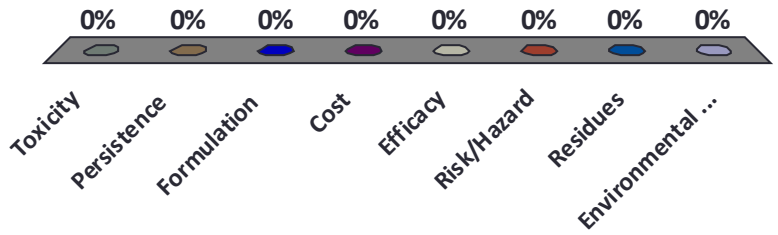
This product may contaminate water through runoff. This product has a high potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water table are more prone to produce runoff that contains this product. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from runoff. 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. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination.

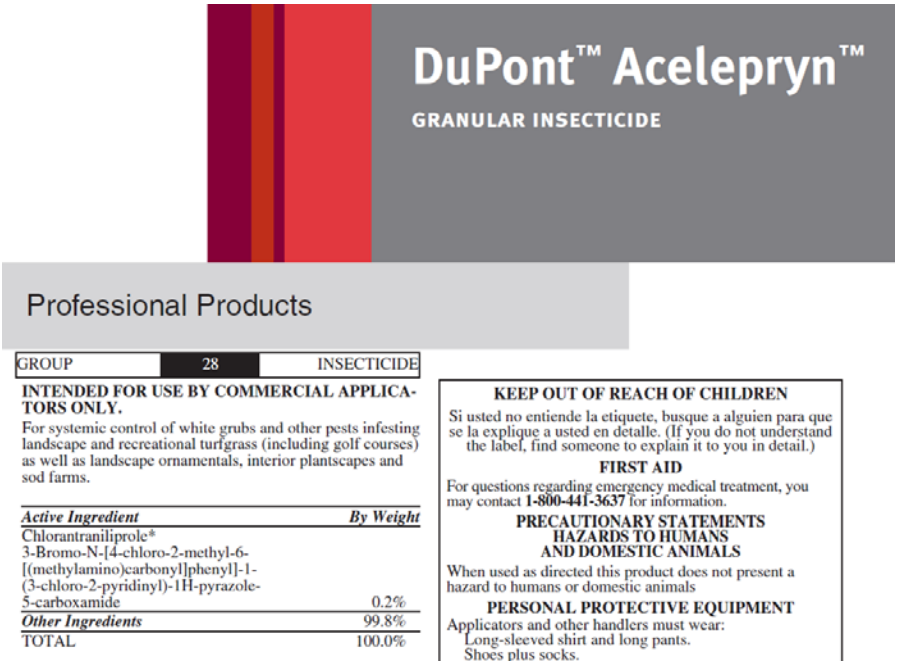
Which characteristics do you think are most important?

1. Toxicity
2. Persistence
3. Formulation
4. Cost
5. Efficacy
6. Risk/Hazard
7. Residues
8. Environmental Fate



Where can you find this information?

- Pesticide label
  - Signal word (Caution, Warning or Danger)
  - Precautionary statements
  - PPE requirements
  - Re-entry statements
  - Environmental hazards
  - Application restrictions
  - Mode of action



DuPont™ Acelepryn™

GRANULAR INSECTICIDE

Professional Products

GROUP	28	INSECTICIDE

INTENDED FOR USE BY COMMERCIAL APPLICATORS ONLY.

For systemic control of white grubs and other pests infesting landscape and recreational turfgrass (including golf courses) as well as landscape ornamentals, interior plantscapes and sod farms.

Active Ingredient	*By Weight*
Chlorantraniliprole* 3-Bromo-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide	0.2%
Other Ingredients	99.8%
TOTAL	100.0%

KEEP OUT OF REACH OF CHILDREN

Si usted no entiende la etiquete, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID

For questions regarding emergency medical treatment, you may contact **1-800-441-3637** for information.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

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

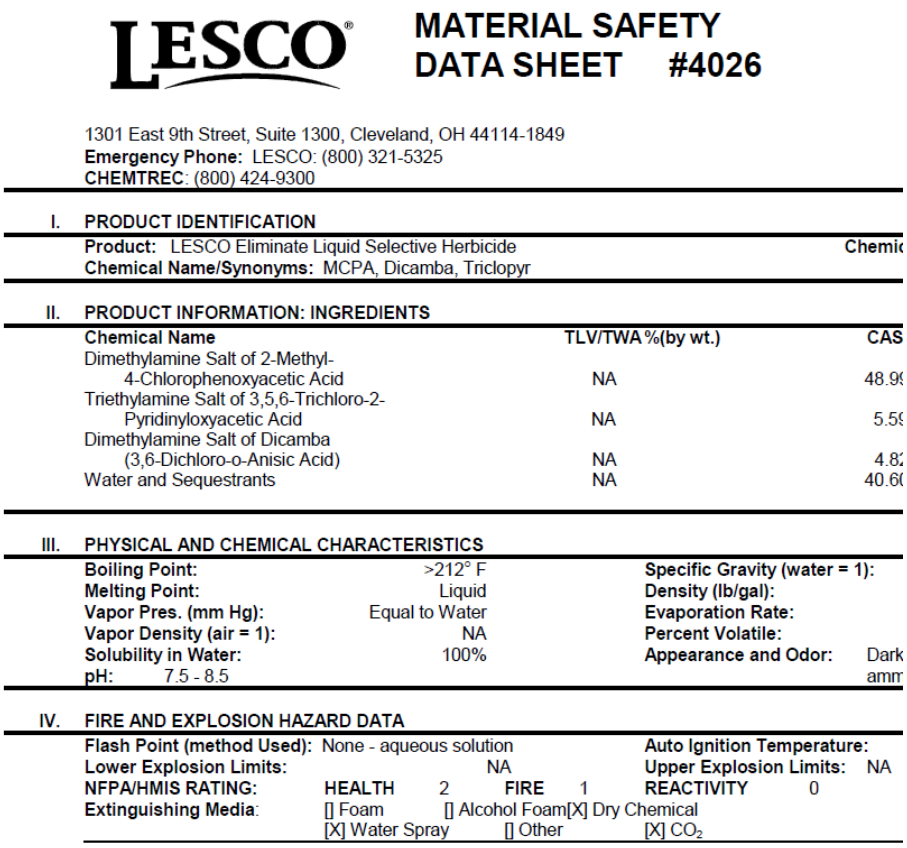
PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:
Long-sleeved shirt and long pants.
Shoes plus socks.

No endorsement intended or implied

Where can you find this information?

- MSDS or SDS
  - Flammability
  - Reactivity
  - PPE
  - Long term health effects
    - Carcinogen
    - Teratogen
    - Mutagen
    - Reproductive effects
  - Vapor pressure



LESCO

MATERIAL SAFETY DATA SHEET #4026

1301 East 9th Street, Suite 1300, Cleveland, OH 44114-1849
Emergency Phone: LESCO: (800) 321-5325
CHEMTREC: (800) 424-9300

I. PRODUCT IDENTIFICATION

Product: LESCO Eliminate Liquid Selective Herbicide — **Chemic**
Chemical Name/Synonyms: MCPA, Dicamba, Triclopyr

II. PRODUCT INFORMATION: INGREDIENTS

Chemical Name	TLV/TWA	%(by wt.)	CAS
Dimethylamine Salt of 2-Methyl-4-Chlorophenoxyacetic Acid	NA		48.9
Triethylamine Salt of 3,5,6-Trichloro-2-Pyridinyloxyacetic Acid	NA		5.5
Dimethylamine Salt of Dicamba (3,6-Dichloro-o-Anisic Acid)	NA		4.8
Water and Sequestrants	NA		40.6

III. PHYSICAL AND CHEMICAL CHARACTERISTICS

Boiling Point:	>212° F	**Specific Gravity (water = 1):**	
Melting Point:	Liquid	**Density (lb/gal):**	
Vapor Pres. (mm Hg):	Equal to Water	**Evaporation Rate:**	
Vapor Density (air = 1):	NA	**Percent Volatile:**	
Solubility in Water:	100%	**Appearance and Odor:**	Dark amm
pH: 7.5 - 8.5			

IV. FIRE AND EXPLOSION HAZARD DATA

Flash Point (method Used): None - aqueous solution — **Auto Ignition Temperature:**
Lower Explosion Limits: NA — **Upper Explosion Limits:** NA
NFPA/HMIS RATING: **HEALTH** 2 **FIRE** 1 **REACTIVITY** 0
Extinguishing Media: [] Foam [] Alcohol Foam [X] Dry Chemical [X] Water Spray [] Other [X] CO_2

No endorsement intended or implied

Where can you find this information?

- Windows Pesticide Screening Tool WIN-PST
  - Relative leaching potential
  - Relative surface loss potential
  - Potential loss attached to eroded soil
  - Relative risk to humans in drinking water
  - Relative risk to aquatic organisms in water or sediments

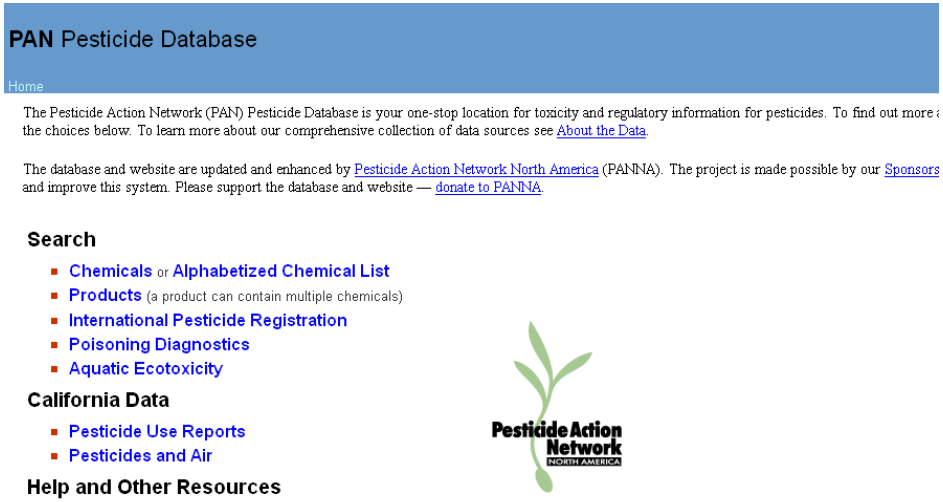
WIN-PST Ratings for Turf Products

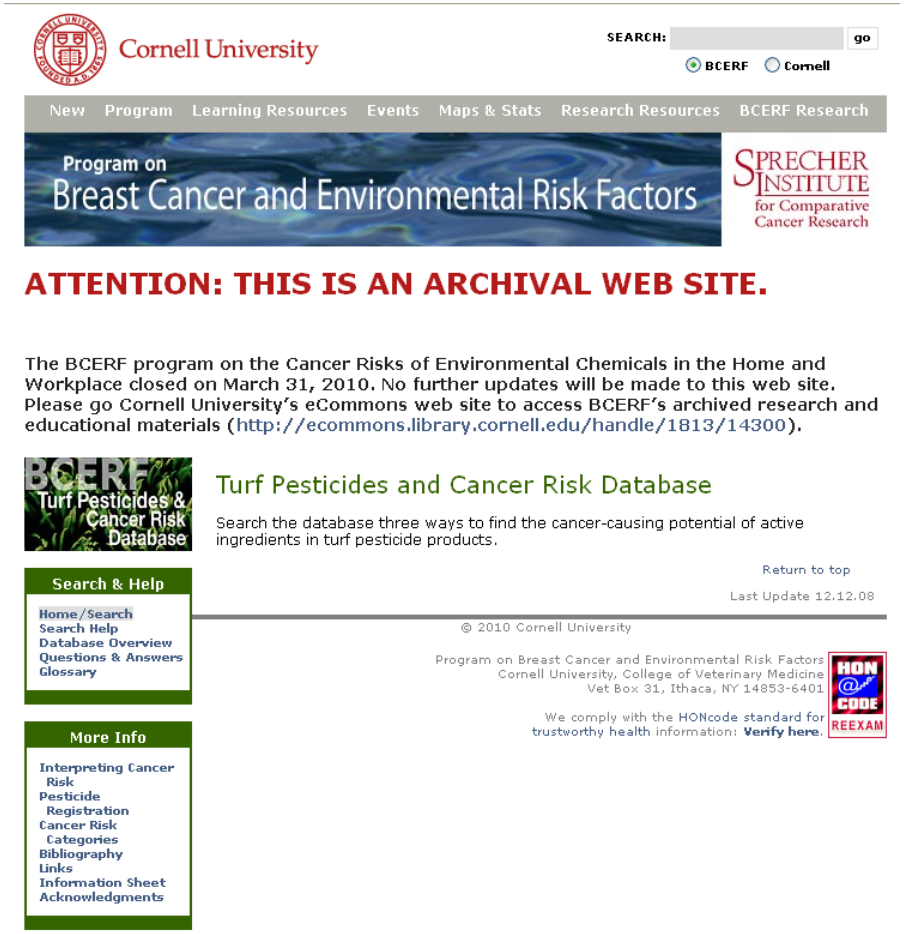
Brand Name	Active Ingredient Name(s)	Leaching Potential
0.10% DIMENSION PLUS FERTILIZER		
	Dithiopyr	HIGH
18 PLUS FUNGICIDE		
	Iprodione	LOW
3336 F		
	Thiophanate-methyl	LOW
3336 G		
	Thiophanate-methyl	LOW
ACCLAIM EXTRA HERBICIDE		
	Fenoxaprop-p-ethyl	LOW
ACELEPRYN		
	Chlorantraniliprole	VERY LOW
ACELEPRYN G INSECTICIDE		
	Chlorantraniliprole	VERY LOW
ACEPHATE 75SP		
	Acephate	LOW
AFFIRM FUNGICIDE		
	Polyoxin D zinc salt	HIGH

No endorsement intended or implied

Where can you find this information?

- Turf Pesticide & Cancer Risk Database - Cornell University
- Pesticide Action Network Database - PANNA

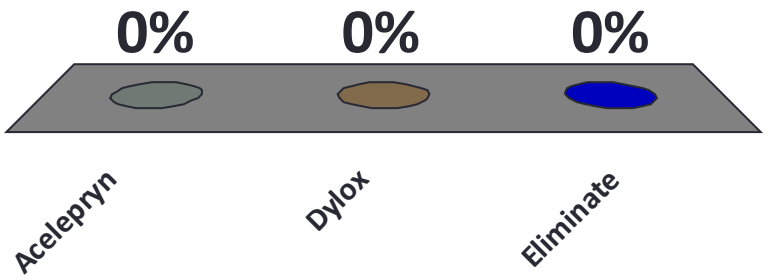




No endorsement intended or implied

Which product is least hazardous to humans?

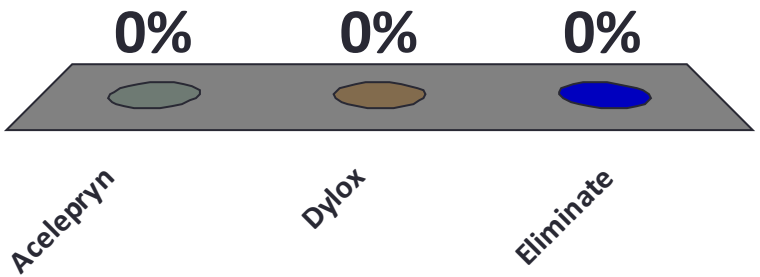
1. Acelepryn
2. Dylox
3. Eliminate



No endorsement intended or implied

Which product is more likely to leave a residue that poses some risk to students?

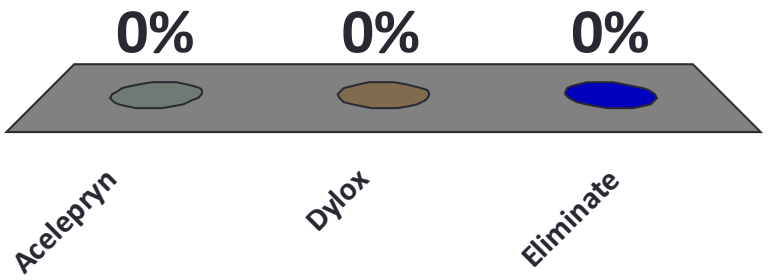
1. Acelepryn
2. Dylox
3. Eliminate



No endorsement intended or implied

Which product has the lowest drinking water risk?

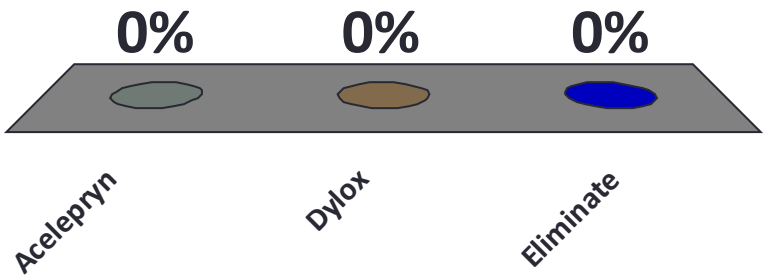
1. Acelepryn
2. Dylox
3. Eliminate



No endorsement intended or implied

Which product has the greatest risk to aquatic life if it gets into a stream?

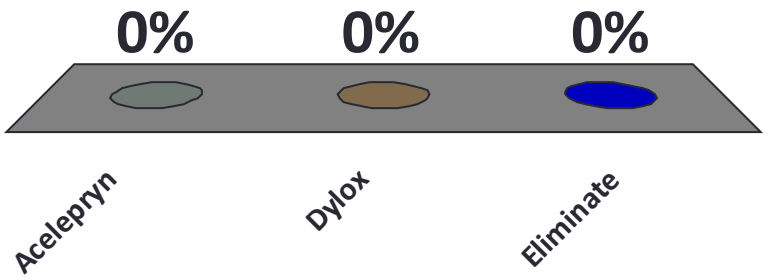
1. Acelepryn
2. Dylox
3. Eliminate



No endorsement intended or implied

Which product is more likely to give off vapors?

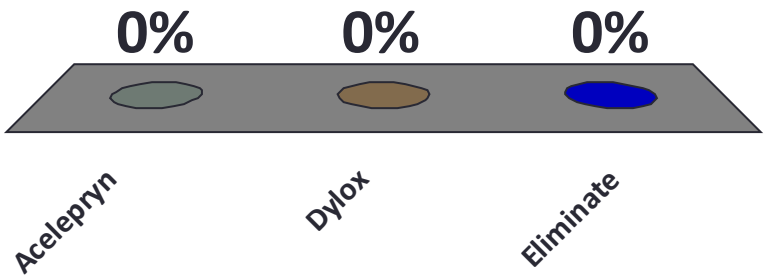
1. Acelepryn
2. Dylox
3. Eliminate



No endorsement intended or implied

Which product would you choose if you identified European chafer grubs in an athletic field at 10/sq. ft. in late July?

1. Acelepryn
2. Dylox
3. Eliminate



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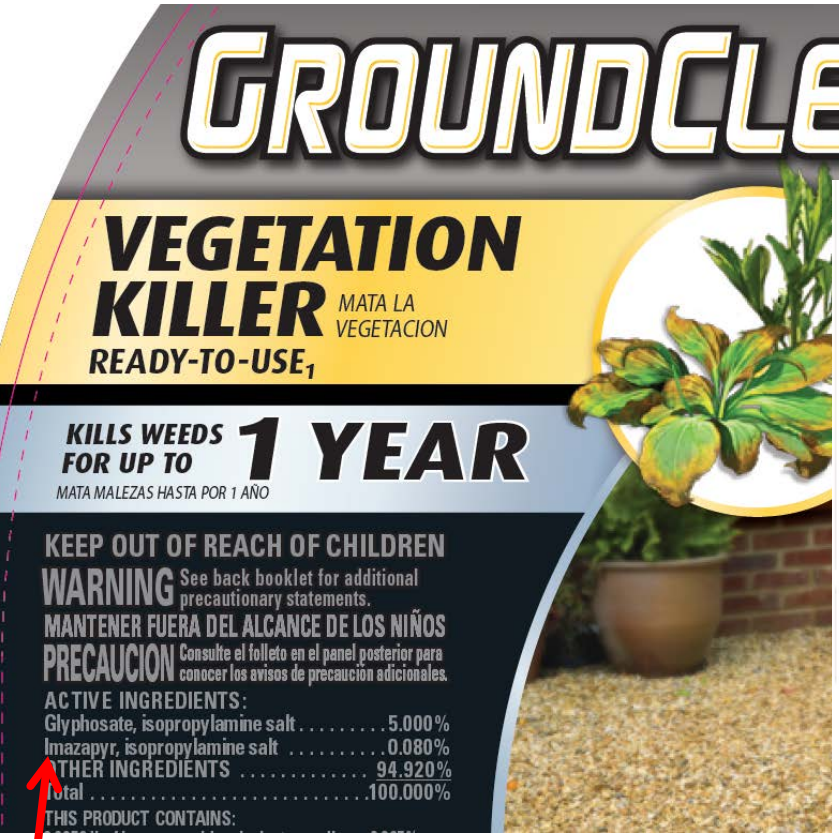
What about persistence?



WIN-PST shows half-life in days

NRCS Natural Resources Conservation Service

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Pesticide Active Ingredient Rating Report

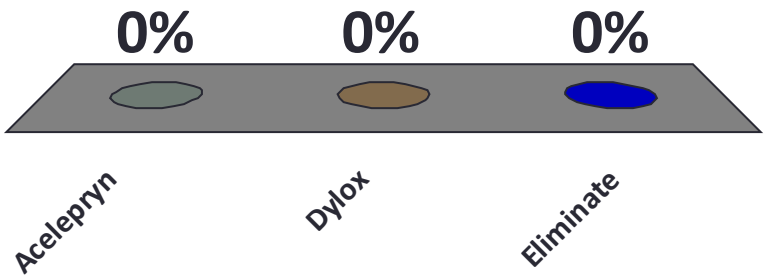
Active Ingredient Common Name	pH	Solubility in Water (ppm)	Half Life (days)	KOC (mL/g)	Human Toxcicity (ppb)	Fish Toxicity MATC* (ppb)	Fish Toxicity STV	SPISP II Pesticde Ratings Leaching	Runoff Solution	Runoff Adsorbed	Exposure Adjusted Toxicity Category Water Human	Water Fish	Sediment Fish
ACTIVE INGREDIENTS													
100% Quinclorac													
Reg No:													
PC_Code:		64	913	32	2,660.00	22,271.00	712,672.00	H	H	I	V	V	V
Method: Surface Applied													
Area: Broadcast													
Rate: Standard													
100% Imazapyr, isopropylamine salt													
Reg No:													
PC_Code:		500000	90	100		251,189.00	25,118,900.00	H	H	I		V	V
Method: Surface Applied													
Area: Broadcast													
Rate: Standard													

Where can you go for product efficacy and pest management information?

- School IPM website
- Got Pests website
- University of Maine Pest Management
- YardScaping website
- U-Mass Turf Program
- U-Mass Landscape & Nursery Program
- The label
- Research articles in journals
- Pesticide dealer
- Pesticide manufacturer

Which product is least likely to leach into groundwater?

1. Acelepryn
2. Dylox
3. Eliminate



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