

Pest Management News

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Acelepryn: A New Insecticide Without a Signal Word

John D. Hopkins


A new insecticide label was approved early this summer and has an unusual twist. Unlike nearly all labels approved over the past 3 years, chlorantraniliprole, marketed by DuPont Professional Products under the trade name Acelepryn comes without one of the nearly-always-present signal words: Danger, Warning or Caution.

Link to label:

http://www2.dupont.com/Professional_Products/en_US/assets/downloads/pdfs/H65649.pdf

Because signal words are so universally required in the U.S., to see a product without one makes the average pesticide applicator wonder if something is wrong. But the missing precautionary statement is no oversight. It is part of a new EPA guideline, approved last year, allowing manufacturers to leave the signal word off the packaging for Category IV products, EPA's lowest risk category for pesticides.

H - 65649



Professional Products

GROUP	28	INSECTICIDE
INTENDED FOR USE BY COMMERCIAL APPLICATORS ONLY.		
For foliar and 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		18.4%
Inert Ingredients		81.6%
TOTAL		100.0%
ACELEPRYN™ insecticide is a suspension concentrate. This product contains 1.67 pounds of active ingredient per gallon.		
*Chlorantraniliprole belongs to the anthranilic diamide chemical class.		
EPA Reg. No. 352-731 EPA Establishment No. _____		
NET CONTENTS: _____		
E.I. du Pont de Nemours and Company 1007 Market Street Wilmington, Delaware 19898		

KEEP OUT OF REACH OF CHILDREN
 Si usted no entiende la etiqueta, 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.

After the product has been diluted in accordance with label directions for use, shirt, pants, socks, and shoes are sufficient Personal Protective Equipment (PPE). Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables are available, 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.

[NOTE: NO SIGNAL WORD is required for this product]



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Category IV products have always been difficult to identify because they lack their own unique signal word. Both Category IV and Category III products, until now, were required to bear the Caution signal word. Category III products will still be required to carry the Caution signal word; but as of August 2007 the signal word and first aid statement is optional for any pesticide that qualifies, under all toxicity criteria, as a Category IV product.

These new EPA guidelines can cause some confusion among Extension educators and State pesticide regulators. The signal word was the most obvious sign of a properly executed pesticide label. In many cases it can be used to quickly spot legal from illegal, under-the-radar products. However, chlorantraniliprole is not the first legal insecticide to be excused from including a signal word on its packaging.

Signal words are optional for the so-called 25(b) products, pesticides that contain only active ingredients deemed to be safe enough to be exempt from normal registration requirements since 1996.

More about EPA exempt products:

The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) require that all pesticides, with very limited exceptions, be registered with the U.S. Environmental Protection Agency (EPA) before they can legally be sold or used in the United States. However, in 1996, the EPA Administrator exercised her authority to exempt certain pesticides (considered to pose 'minimum risk' to humans and the environment) from this requirement. In an effort to reduce costs and regulatory burdens on businesses, the EPA exempted a list of so-called 25(b) products as part of an effort to help the Agency focus its limited resources on higher risk pesticides.

Products identified as exempt under Section 25(b) do not require EPA label approval and do not undergo review by the EPA. They also are not required to have an EPA registration or establishment number, signal word or personal protective equipment (PPE) statements. Pesticide Registration Notice 2000-6 states, "EPA does not review, or issue notices of exemption for products, which meet the conditions for exemption."

Section 25(b) pesticides are required to have a tolerance established, if they are intended for use in or on foods, food crops, food contact surfaces or animal feeds, unless they are exempt from a tolerance under other regulations.

The 25(b) exemption is not without its critics. Regulators and Extension educators are frequently uncomfortable with the lack of safety testing and the confusion caused by 25(b) exemptions. Because states are not required to automatically exempt 25(b) products, the situation varies from state to state. Texas, for example, exempts 25(b) products from registration. However, Arkansas (according to Brandy Reynolds of the Arkansas State Plant Board) and Oklahoma do not recognize 25(b) exemptions and require that these products be registered yearly like all other pesticides.

One of the biggest headaches for regulators occurs when sales representatives claim that their 25(b) products are 'safe' and legal for anyone to use. Safety issues aside, not all states allow 25(b) pesticides to be used by non-licensed applicators.

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The application of 25(b) products are a non-issue in Arkansas and Oklahoma; because anyone can apply non-restricted use products. Texas, on the other hand, requires ALL pesticide applications, including 25(b) applications, be performed by a licensed applicator.

As with all pesticides the University of Arkansas, Cooperative Extension Service recommends you use caution, understand all the risks involved and ALWAYS read the label. Exempt 25(b) products can be a great solution to a pest problem, when the problem is minimal and isolated.

To obtain a full list of active and inactive ingredients, follow the link to the EPA web site for a full article about 25(b) products:

www.epa.gov/opppmsd1/PR_Notices/pr2000-6.pdf

For inert ingredients eligible for FIFRA 25(b) pesticide products (Last Updated April 10, 2008), use the following link:

www.epa.gov/opprd001/inerts/section25b_inerts.pdf

Back to Acelepryn:

This newly EPA approved DuPont insecticide is labeled for use on turf and ornamentals against several pests. It can be considered one of the least toxic materials registered yet for control of white grubs, chinch bugs and caterpillars.

Dr. Chuck Silcox, global product development manager for DuPont Professional Products, Wilmington, Del., says that independent university researchers have confirmed that the mode of action for Acelepryn provides superior control of the 10 key white grub species and other important turf insects, including annual bluegrass weevils, billbugs and caterpillars.

Acelepryn has the ability to control multiple pests with a single, early application. It has a low impact to nontarget organisms, such as beneficial arthropods, bees, birds, fish and mammals. The insecticide can be used at a wide range of sites, including golf courses and commercial and residential turf sites, as well as on trees, shrubs, foliage plants, flowers and nonbearing fruit and nut trees.

Expect to see more such labels in the future.

Fall Armyworms: Time to Scout

Kelly M. Loftin

Livestock and hay producers should begin scouting their pastures and hay meadows for fall armyworms. Although I have heard of only a few reports of fall armyworms in pastures or hay fields, their presence has been reported. Dr. Gus Lorenz (extension entomologist and associate department head with U of A Division of Agriculture in Lonoke County) and some of his colleagues in adjoining state have reported fall armyworm outbreaks in soybeans. The outbreaks are from the "grass" strain of the fall armyworm. Gus indicated that the problems were severe in fields following application of herbicide to control significant grass growth within the soybean field. After the herbicide treatment killed the grass, fall armyworms shifted to feeding on the soybeans. Pastures not associated with soybean production, as well as those stressed due to lack of rainfall, can still be at risk. All it takes is

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rainfall for stressed grass to “green up” and begin growing to become preferred fall armyworm forage. With this in mind, encourage your producers to scout their pastures for armyworms. If you receive reports of fall armyworms in pastures or encounter difficulty in locating insecticide, please either call or email so that we can keep interested parties up to date.

Fall armyworms do not overwinter in Arkansas instead the adult moths catch wind currents and gradually move into the state from the south and lay eggs. Fall armyworm damage can appear almost overnight. Infestations can be easily overlooked when the caterpillars are small and eating very little. Once caterpillars grow large and consume more grass, damage becomes apparent. Fall armyworm infestations can be expected from now through September.

Producers should carefully examine grass blades, stems and organic debris at plant base, and soil surface in a 1 sq. ft. area. It is best to take at least 10 random 1 sq. ft. samples across the pasture or hay meadow. Female fall armyworm moths prefer to lay eggs in areas of abundant growth, so be sure to include a few of these areas in your 10 samples. Also, make note of the size of the armyworms. Knowledge of their size will help producers make sound management decisions. A 1 sq. ft. sampling device made of stiff wire or PVC pipe will make the sampling process much easier. Remember, armyworm outbreaks often occur in waves about 30 days apart, indicating the need for routine scouting.

There are a few tips to remember about fall armyworms. First, do not treat when armyworms are tiny, however, get prepared. Several natural enemies such as parasites, predators and pathogens occur and can possibly eliminate or reduce populations in a short period of time. Many of you will remember a few years ago how the parasite, *Cotesia marginiventris*, showed up in large numbers and helped control fall armyworms in many fields. County agents and producers saw the small white cocoon cases (of the pupal stage) that were mistakenly thought by some to be armyworm eggs. We have seen on several occasions that population numbers will often decrease after a population of small larvae had previously been observed. Secondly, the fall armyworm has about 6 larval instars. The last few and particularly the fifth and sixth instars are when most of the damage to pastures occurs. Of the total foliage consumed, greater than 80–85% will occur at these stages. The best advice is to not get over-anxious and treat before necessary. Likewise, do not wait until they become too large. Harvesting an infested hay meadow is an option if the hay is mature. Most of the products recommended will work well on medium-sized larvae. Unlike cotton, corn or other crops the larvae have no place to avoid the insecticide and are easier to kill in pasture situations.

The treatment threshold for fall armyworms is 3 or more worms per square foot. “2008 Insecticide Recommendations for Arkansas MP-144” lists insecticides that can be used against fall armyworms in pastures (http://www.uaex.edu/Other_Areas/publications/PDF/MP144/C_Pasture.pdf). Fortunately, more insecticide formulations labeled for use against armyworms are available with little or no grazing and harvest restrictions than in past years. Closely follow application methods and grazing/harvest restrictions. For example, Sevin formulations (carbaryl) are labeled for use against fall armyworms in pastures and hay meadows, however, it cannot be applied within 14 days of harvest or grazing. In contrast, Mustang Max (zeta-cypermethrin) has no grazing or harvesting restriction for grass forage or hay; and Tracer (spinosad) has no grazing restriction other than “do not allow cattle to graze until spray dries” but, hay can not be harvested within 3 days of Tracer application. For organic dairy producers, Entrust (a different spinosad formulation) is OMRI (organic materials review institute)

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certified for use in organic production. However, organic producers should check with their certifier prior to application.



Characteristics of fall armyworm larvae



Fall armyworms in thatch.



Device used to sample fall armyworm (size: 1 square foot constructed from ½ inch PVC pipe)

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Turfgrass “Dollar Spot”

Stephen R. Vann

This disease is perhaps one of the most widespread turf diseases in the home lawn. In Arkansas hybrid bermudagrass and zoysia are the most affected lawngrasses. The disease is caused by the fungus *Sclerotinia homeocarpa*. This disease is mostly seen in mid summer into fall when temperatures are mild and conditions are moist. Dollar spot is usually more of a problem on drought-stressed grass. Low cutting heights and low nitrogen fertility can also increase disease severity. The disease is fairly inconspicuous until several spots begin to grow together to form larger brown areas in the lawn.



The disease usually begins as small, circular, straw-colored spots (which are 1 to 3 inches in diameter) in the lawn. These spots are most obvious on closely-cut hybrid bermudagrass and zoysiagrass. The randomly occurring spots may grow together, forming larger dead areas of turf. During the early morning hours when dew is heavy, the fungus produces white “cottony” growth or threads on the dead leaf blades. This “fuzzy” growth resembles spider webs. These fungal threads (mycelium) quickly disappear once the dew has dried. On individual infected leaves, yellow to brown lesions with a distinctive dark brown border develop which eventually girdle the leaf blade. Lesions have a distinctive dark brown border that surrounds this. This distinctive symptom is useful for a field diagnosis. Most of the damage to the plants is restricted to the foliage, but the fungus may occasionally cause some problems with the crown.

The disease is favored by temperatures between 59 and 86 degrees F with high humidity over several days. Dollar spot is particularly favored by hot days with mild nights as we have experienced over the last 2 months. Heavy dews encourage disease development. The disease also tends to be more severe on dry soils and in sites that are nitrogen deficient. The fungus survives as mycelium in the diseased grass. Infected clippings left by the lawnmower contribute to future disease outbreaks. The fungus spreads by the movement of infected grass clippings by lawnmowers and other lawn maintenance equipment.

Since the severity of this disease is closely related to how well the lawn grass is maintained, adequate nitrogen fertility and soil moisture are effective in managing dollar spot. Fertilizer applications should be based on a recent soil test, and turf should be irrigated deeply, but infrequently, to minimize moisture stress. Early morning, irrigation is best to help reduce the time the

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leaves remain wet. Always cut the grass at the recommended height using a sharp lawnmower blade. Do not cut the grass when it is wet since this creates a favorable condition for infections. Raising the cutting height can be quite helpful in managing the disease. Soil aeration and excess thatch removal may also be beneficial. If dollar spot is localized to a limited area in the lawn, homeowners may wish to cut that area last, bag and dispose of the clippings. This practice may help reduce spread of the fungus. If this disease causes severe damage for several successive years, fungicide applications, in conjunction with cultural practices, may be necessary to prevent disease or reduce its severity.

Fungicide choices for the home lawn include those that contain myclobutanil (e.g. Immunox), triadimefon (e.g. Bonide Fung-onil), thiophanate-methyl (e.g. Scotts Lawn Fungus Control), or propiconazole (e.g. Fertilome Liquid. Systemic Fungicide). It should be noted that products containing chlorothalonil (e.g. Daconil) are no longer registered for residential lawns. For best results, fungicide applications should begin in the spring before the disease appears. Always read and follow label instructions for proper application rates and intervals.

Name That Weed

Bob Scott

Okay native range guys, it's your turn! This grass is native to the great plains and many parts of Arkansas. It is a decreaser species. It is a North American prairie grass, and is the official state grass of both Oklahoma and South Carolina. It's a perennial bunchgrass, prominent in tallgrass prairie, along with big bluestem (*Andropogon gerardii*), little bluestem (*Schizachyrium scoparium*), and switchgrass (*Panicum virgatum*). Name this beneficial pasture plant. Be the first to respond to me at bscott@uaex.edu with the correct common name and win a prize.



To The Readers

Please offer any suggestions for Urban or Livestock Integrated Pest Management topics (insect pests, plant diseases, weed problems, wildlife control problems) that you would like to see – OR – feel free to submit an article that you have prepared. Kelly and I will be glad to include it (subject to editing). Send feedback to jhopkins@uaex.edu or kloftin@uaex.edu.

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