
THE PESTICIDE REVIEW

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Santa Clara County Division of Agriculture

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Defining "Physically Present"

Enforcement Letter 04-21

The Department of Pesticide Regulation recently published an enforcement letter modernizing their interpretation of "physically present". When a label or regulation requires a certified applicator be physically present during an application, the application can be performed by non-certified applicators if all of the following three items are met:

1. Two trained applicators must be at the handling site.
2. The certified applicator is physically present on the premises or contiguous parcel.
3. The certified applicator and handlers must have a method of voice communication throughout the application. (i.e. cell phones)

If there is only one non-certified handler at the handling site, the certified applicator must be in the line of site of the handler. Voice contact alone with just one applicator does not meet this standard. If you would like to read the enforcement letter, you can click on the following link:

<http://www.cdpr.ca.gov/docs/enfcmpli/penfltrs/penf2004/2004021.pdf>

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Pesticide Illness Surveillance Program

Excerpts from DPR's 2002 morbidity and mortality report

DPR investigated five deaths in 2002, and found three of them definitely related to pesticide exposure. Two people died of unintentional pesticide ingestion, and one broke into his home while it was being fumigated. One of the ingestion victims was an 88-year-old Alzheimer's disease patient who drank sanitizer under the misimpression it was apple juice. She was hospitalized for four days before she succumbed. The other was an 88-year-old farmer who used old bleach bottles to store both pesticides and drinking water. One afternoon after spraying herbicides in his orchard he drank from a bottle he thought contained water. It proved to contain demeton concentrate, an organophosphate insecticide. He informed his family of the mistake, and they called for help, but he died at the hospital about an hour later.

The other two deaths were inconclusive and DPR categorized them as unrelated to pesticide exposure. One death was that of an 85-year-old man who suffered a heart attack a few hours after spraying a herbicide (prometon) in his back yard. The other case did not have enough information to determine whether pesticide exposure might have contributed to a fatal crash when an aerial applicator hit a power line.

Examples of the Importance of Compliance with Safety Procedures

Severe intoxications typically result from careless and often illegal use of pesticides. Besides the farmer who fell victim to his dangerous and illegal practice of storing pesticides in unmarked containers, a man was hospitalized overnight after drinking a herbicide (monosodium methane arsenate) that he found in a lemonade container at a friend's home. These cases demonstrate the importance of properly storing pesticides in accordance with regulations!

The Return of Bed Bugs

"Sleep tight and don't let the bed bugs bite..."



The United States has enjoyed a relative bed bug - free existence the last 50 years due to the wide use of DDT in the 1940's and 1950's. However, with world travel, immigration, changes in pest control applications, and the bed bug's crafty way of hiding in tiny nooks and crannies, we are seeing a resurgence of this parasitic pest.

Because this nocturnal parasite can squeeze into tiny spaces, controlling it can be challenging, to say the least! These insects will hide behind pictures on the wall, in recessed screw holes, behind electrical outlets, inside the creases of mattresses, behind baseboards, under carpeting, etc. Because they can survive for long periods of time between feedings and disperse easily throughout a building; most infestations require multiple applications to gain control.

One way to find out if someone has bed bugs is to inspect the bedding, mattress, and box springs for reddish brown fecal spots. Bed bugs will usually feed on people when they are sleeping and will leave their tell-tale droppings behind on the bedding. If bed bugs are found, it is highly recommended the mattress and box springs be thrown away. Bed bugs like to hide close to their feeding ground and getting these parasites out of a bed is very difficult. (If throwing away the mattress is not an option, enclosing the mattress with a mattress cover and sealing the zipper closure with tape may be an option.)

Once the bed has been dismantled and thoroughly inspected, one way to keep the bed bugs from re-infesting the bed is to create a physical barrier. Thankfully, bed bugs do not fly, so it's possible to create a barrier to keep them from crawling back into the bed. Some suggestions we found were to treat the legs of the bed with an approved insecticide, wrapping the legs with double sided sticky tape, rubbing petroleum jelly on the legs, or even placing the legs on top of a brick and place them in a shallow pan of soapy water creating a moat around each leg. Some of these measures can seem a bit extreme, but when dealing with a parasite that is able to hide the way this one does, people can be desperate for relief.

Treatments

Bed bug inspections and treatments are time consuming and labor-intensive. Thorough inspection of nightstands, closets, carpeting, baseboards, electrical outlets, pictures, wallpaper, adjoining bedrooms, etc is necessary. A residual insecticide should also be deployed in cracks and crevices to gain control.

How can you avoid bed bugs?

Some people associate bed bugs with poor living conditions, but that is not the case. Bed bugs are not picky where they live and will take up residence amongst any socio-economic group. Bed bugs are excellent hitchhikers and will live anywhere they can get a blood meal.

Bed bugs are prevalent in many parts of the world, even in Europe. Hotels, especially those overseas, can harbor bed bugs due to the large turn-over of guests and the prevalence of bed bugs in those areas. Many people store their luggage under their beds at home. If the person's home is infested with bed bugs, they may have bed bugs hiding in their suitcases. Consequently, when that person checks into a hotel, there may be more than one "guest" checking-in! To help avoid acquiring bed bugs when visiting a hotel, try to keep your suitcase elevated off the floor to lessen the chance of an unwanted hitchhiker. If you are traveling overseas, check your luggage thoroughly before returning home. The same applies for hotels in North America that cater to overseas travelers.

Another way homes become infested with bed bugs is through wild animals. Bats, rats, and swallows sometimes take up residence in and around our homes and can bring unwanted parasites with them. Some of the bed bugs that parasitize these animals prefer these other hosts. However, if their preferred host disappears, they will feed on people and their pets.

If there is a positive side to bed bugs, it would be they are not a vector of disease. Even though bed bugs are not considered a vector, Santa Clara County Vector Control District Technicians may be able to help answer your questions about this pest. You can call (408) 792-5010 for more information.

Virus Infects Red Imported Fire Ants

November 30, 2004

ARS News Service

Agricultural Research Service, USDA

The first known virus to infect the destructive and costly red imported fire ant (RIFA) was recently discovered by Agricultural Research Service scientists.

RIFA, *Solenopsis invicta*, currently infests about 300 million acres in the United States. Although RIFA is native to South America, it thrives here because of a lack of natural enemies. Fire ants cost Americans hundreds of millions of dollars annually. The ants occasionally kill young, unprotected livestock and wildlife, and they inflict a painful sting that is sometimes deadly to humans.

Steven M. Valles, an entomologist with the ARS Center for Medical, Agricultural and Veterinary Entomology (CMAVE) in Gainesville, Fla., and colleagues at CMAVE and the ARS Horticulture and Breeding Research Laboratory in Fort Pierce, Fla., have identified a new natural enemy of RIFA.

The newly found natural agent is a virus in the Dicistroviridae family, which is related to the well-known picorna-like viruses. The entire genome has been sequenced, and studies suggest the virus, tentatively named *Solenopsis invicta virus-1* (SINV-1), may be an excellent biological control agent for fire ants. Scientists use natural organisms as part of a strategy to reduce RIFA numbers without using pesticides.

A survey in Florida locations found that approximately 23 percent of RIFA nests examined were infected with SINV-1. The virus infects all fire ant castes and stages of development, and Valles was able to successfully transmit the viral infection to uninfected fire ant nests.

Brood in infected colonies died within three months during laboratory studies, but the effect of the virus on field populations is still being evaluated, according to Valles, who is in CMAVE's Imported Fire Ant and Household Insects Research Unit.

ARS researchers are currently examining SINV-1 to determine its effectiveness and potential for use as a sustainable, microbial control agent against the red imported fire ant.

ARS is the U.S. Department of Agriculture's chief scientific research agency.

From the Question File:

Recent questions from pest control companies...

In March 2004, we posed a question concerning the use of No Foam B in structural settings. We recently received some information from the manufacturer of No Foam B regarding a label update.

Monterey Chemical contacted our office and informed us they updated their No Foam B label to now include structural chemicals. Therefore, No Foam B can now be used in agricultural and structural settings.

"I like to hunt wild fowl and am concerned about the West Nile Virus. If I eat a bird that is infected with the West Nile Virus, can I catch the disease? I've heard of raptors contracting the West Nile Virus from eating sick birds."

After double-checking with Santa Clara County Vector Control District, the answer to this question is "No". Unlike raptors, we cook our meat. The temperature needed to cook the meat of the game fowl will kill the West Nile Virus.

However, hunters should be extremely careful when handling carcasses. There have been cases of the West Nile Virus being transferred through blood contact. Be sure to wear appropriate safety gear when handling wild birds.

Contact Corner

If you have questions, comments, or would like to suggest a subject for an article, please write to:

Santa Clara County Division of Agriculture
The Pesticide Review
1553 Berger Drive
San Jose, CA 95112

Or e-mail us: sccagriculture@era.co.scl.ca.us

Santa Clara County Division of Agriculture
1553 Berger Drive
San Jose, CA 95112
<http://www.sccagriculture.org>

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