

# The Pesticide Review



Santa Clara County Division of Agriculture

November 2017

## Protecting a Client's Privacy

*Information from the District Attorney*

The Division of Agriculture has a close working relationship with our local District Attorney's office and we regularly attend the D.A.'s Environmental Task Force meetings. These meetings are attended by agencies in the County that enforce environmental laws. During a recent meeting, the D.A. talked about a case where a company was in trouble for improper disposal of hazardous materials. During the investigation, they also discovered that the company was tossing invoices and driver license information of their clients in the trash.

The D.A. said that it is illegal for any company to toss their customer's information straight into the garbage without shredding it first. – [Especially with all the identify theft these days!] We wanted to pass this information along to all of you to make sure you shred customer bills, invoices, etc. that has names, addresses, or any other personal information before disposing of them.

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## Structural Pesticide Notice

*Notice must be given ahead of time!*

There were two recent incidents where we were surprised to learn that two pest control companies were failing to provide written notice prior to their structural applications. These companies were telling their clients verbally what pesticide was going to be used, but nothing was given in writing. In one case, the landlord of a tenant was told the chemical, but the tenant didn't receive any advance notice other than "we'll be treating your apartment on Tuesday." - Needless to say, that doesn't cut it.

Structural companies must give written notice before each application. This advance notice requirement is not covered by placing a pesticide disclosure "door hanger" after the job is done. - The disclosure notice is meant to let the client know what specifically was applied, but this notice does not meet 8538 requirements. Before you begin, you must first let the owner and tenant know specific information before any pesticides are used and it must be in writing.

Business and Professions Code Section 8538 states:

(a) A registered structural pest control company shall provide the owner, or owner's agent, and tenant of the premises for which the work is to be done with clear written notice which contains the following statements and information using words with common and everyday meaning:

- (1) The pest to be controlled.
- (2) The pesticide or pesticides proposed to be used and the active ingredient or ingredients.
- (3) "State law requires that you be given the following information..."

In the case of Branch 2 or Branch 3 registered company applications, the notice prescribed by subdivision (a) shall be provided no later than prior to application.

In either case, the notice shall be given to the owner, or owner's agent, and tenant, if there is a tenant, in at least one of the following ways:

- (1) First-class or electronic mail, if an electronic mail address has been provided.
- (2) Posting in a conspicuous place on the real property.
- (3) Personal delivery...

# Poisoned Great Horned Owl

*Fish and Wildlife correspondence*

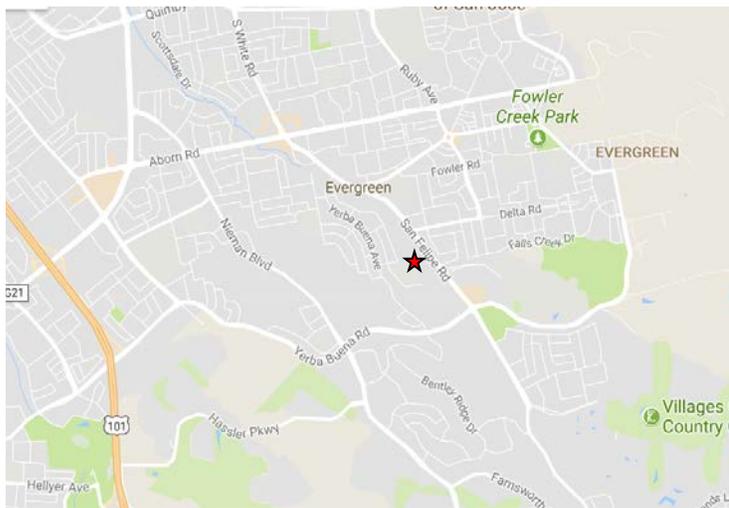


It thankfully doesn't happen too often, but we do receive morbidity reports from the Fish and Wildlife service on occasion when they find a wild animal with a lethal dose of pesticide in their system. We received one of these reports late last year concerning a male Great Horned Owl.

A homeowner on Partridge Drive in San Jose found the sick bird and they brought it into the Wildlife Center of Silicon Valley in San Jose. The owl wasn't moving and had his eyes closed most of the time. Unfortunately, the owl died a short time after intake at the center. Because the center suspected poisoning, they contacted the California Department of Fish and Wildlife.

Fish and Wildlife sent the owl to their lab to be necropsied and found that the bird had unclotted blood as well as brodifacoum in its liver. The cause of death was determined to be anticoagulant intoxication.

According to the Fish & Wildlife biologist, Great Horned Owls will hunt a territory approximately .7 – 1.6 square miles. This map gives you a general idea of this owl's hunting area:



Owls will eat a wide variety of prey, so it's possible that someone in the area was treating a rodent infestation with a high number of bait boxes to produce enough brodifacoum-poisoned rodents in a small area to give this owl a lethal dose. It's impossible to pinpoint the source of the material, and it could very likely be an unknowledgeable homeowner at fault for the poisoning due to the proximity of the residential area. SGARs, like

brodifacoum, are restricted in agricultural settings and have label restrictions on their placement. These materials however are widely available on the Internet and most homeowners, unfortunately, do not read labels.

This owl's death is an important reminder of the importance to adhering to label requirements and the proper placement of rodent bait. To review, brodifacoum, along with the other 2nd generation rodenticides (SGARS): bromadiolone, difenacoum, and difethialone were added to 3CCR section 6400 as California restricted materials in 2014. (DPR has determined that SGAR products are not labeled for controlling ornamental, plant, or turf pests.) Section 6471 was also added to supplement label restrictions by prohibiting placement of above-ground bait more than 50 feet from a man-made structure with some exceptions.

What are some examples of the phrase used in 3CCR Section 6471: "a feature associated with the site that is harboring or attracting the pests targeted"?

Such features potentially could include any harborage (such as dense vegetation or debris) or any attractive resource (such as a source of food or water). The key consideration is that the feature must be both: currently harboring or attracting Norway rats, roof rats, or house mice, and the "feature" is located more than 50 feet from the man-made structure, but less than the placement limit specified on the label (which is up to 100 feet on some SGAR labels).

## Use Reporting Accuracy

*One use reporting error can skew the statistics for the State!*

We recently attended a meeting where a State use reporting analyst showed us a State-wide report on pyrethroid and fipronil use. The Sacramento Valley showed a huge increase over the last two years, which caught the attention of the State. Looking closely at the data, they discovered the increase was due to 1 pest control company that reported their use in "gallons" instead of "ounces". That's a 128-fold difference!

Use report data can affect pesticide policy so it's important to be as accurate as possible. Please be sure to report the concentrate of product used, not the amount of the end-use diluted product. Also, choosing the correct unit of measure is extremely important as the example above shows.

# Top Pesticide Blunders

*Looking back at Santa Clara County's illnesses in 2016*

We normally reserve this column for the DPR's pesticide horror stories, but we decided to look back on our 41 pesticide illness investigations we investigated last year and create our own list.

In March 2016, a homeowner's friend was spraying weeds on a property with Spectracide Weed and Grass Killer. He wore work gloves, but no protective eyewear and when he went to remove his sunglasses, he transferred some of the material onto his forehead, which then ran down into his eyes. He flushed out his eyes but his eyes were still irritated so he went to St. Louis Hospital where they flushed his eyes. The next day he was surprised that his eyes were still bothering him so he went to see his regular doctor who prescribed pain medication. He was surprised how irritated his eyes had become and didn't think a homeowner ready-use pesticide would cause so much irritation. The label doesn't call for eyewear, it states "Avoid contact with eyes or clothing..." Since this was a "homeowner" type of situation, there wasn't a violation, but this points out the reason for worker protection standards going above and beyond a label PPE requirement.

Every year we unfortunately have several illnesses that affect children. The majority, if not all, of these incidents are pesticides that were used at home / stored at home improperly. An example of one of these cases involved a 23-month-old girl. The mom heard crying in the other room and when she went in to investigate, she was horrified to see a can of Ben's 100 Tick and Insect Repellent beside her daughter and the baby was crying and rubbing her eyes. She immediately washed her daughter's eyes with water and took her to Urgent Care. Thankfully after the trip to the Urgent Care, the baby didn't have any further symptoms. Keeping pesticides locked and out of the reach of children is something that every pest control applicator has on their radar. Unfortunately, many homeowners don't have the same respect for these chemicals. Got to keep pesticides properly stored and out of reach of kids!

In September of last year, we received a report of a pest control applicator that had an ocular exposure to Suspend Polyzone. This applicator triple-rinsed 4 concentrate containers and he threw 3 of the containers in the trash but later realized he forgot about the 4<sup>th</sup> container in the back of his truck. Thinking that he was handling a rinsed container, he retrieved the 4<sup>th</sup> container and threw that one in the trash without putting on gloves or eyewear. A few moments later he wiped his brow and the next

thing he knew, he had eye irritation. He informed his supervisor of what happened and he had his eyes flushed at a clinic. You have to wear PPE whenever handling pesticide containers, rinsed or not. Containers might be triple-rinsed on the inside, but unless it's a closed system, it's tough to not drip anything on the outside. This applicator found out the hard way that handling containers without PPE is an easy way to get exposed.

A lot of household cleaners, like bleach, are in fact pesticides, so we get quite a few homeowner injuries reported to our office. This last November, a woman decided that she was going to improve upon the usual household bleach and create her own mixture...of bleach mixed with ammonia and Fabuloso! This housekeeper never heard of the number one rule of cleaning...Never mix bleach with ammonia! In this case, she instantly started coughing, had watery eyes, and developed shortness of breath. She immediately left the room and went outside for fresh air. Since her symptoms persisted throughout the night, a family member drove her to the clinic to be seen by her doctor. She thankfully fully recovered from this mishap.

On Christmas Eve last year, we received a report of an 11-month old little girl who was taken to the hospital. She had dropped her candy into a white powder at her grandmother's house and before family members could take her candy away, she put it back into her mouth. The baby immediately started vomiting and turned pale. The family took the dazed infant to the emergency room where she was observed for several hours. Thankfully after several hours her condition improved and she was released. (The baby turned out to be okay.)

The Grandmother had purchased the pesticide at the flea market where the seller told her it was "non-toxic". When the grandmother showed the investigating Biologist the container, she recognized it immediately. We were in the middle of helping a D.A. investigator with the investigation of this illegal roach powder peddler.

The D.A. had seized some of the roach powder during an undercover sting shortly before this illness case and we sent the material to the State Lab to be identified. That "non-toxic" roach powder turned out to be agricultural grade acephate. Acephate is not approved for use in the home and sprinkling the powder inside for cockroaches and telling people it was non-toxic was criminal. The D.A. in this case arrested the suspect and he was charged with three felonies. To read more, you can click on this Mercury News Article:

<http://www.mercurynews.com/2017/08/01/san-jose-man-sentenced-in-toxic-cockroach-powder-scheme/>

# Pyrethroid Applications

Title 3, California Code of Regulations §6970

Our office has recently inspected a few companies and were surprised these companies were applying pyrethroids with a 4-inch, and in one case, an 8-inch fan spray pattern around the hardscape of a home!

Pyrethroid labels will many times state the material can be applied in a 2 or 4-foot band around a structure. However, there is a regulation that imposes more stringent requirements. Starting 5 years ago in July 2012, Section 6970 imposed specific restrictions to the way 17 pyrethroids can be applied. To read the code section in its entirety, please visit DPR's website:

<http://www.cdpr.ca.gov/docs/legbills/calcode/040501.htm#a6970>

## The Cliff Notes Version of §6970:

1. Pyrethroids can only be applied by a pin stream of 1" or less to outdoor impervious surfaces (hard surfaces, such as concrete, sidewalks, windows, doors, driveways, etc.)
  - a. Perimeter band treatments to the vertical surface of things such as a wall or foundation are allowed up to 2 vertical feet.
2. Perimeter band treatments of three feet wide or less from the base of a building outward are allowed on "soft" surfaces, such as dirt, lawn, etc. – and you maintain a 2' buffer to hardscapes.
3. Broadcast treatments can be made to a lawn, soil, or other non-impervious surface as long as you keep a 2' buffer from impervious surfaces.
4. The following applications are prohibited:
  - a. You cannot apply when it's raining unless your treatment site is a house eave which will be protected against the rain.
  - b. You cannot apply these materials if there is any standing water in your treatment area.
  - c. You cannot apply to a visible drainage grate, sewer, storm drain, curbside gutter, or French drain.
  - d. You can't apply to areas within 25 feet of an aquatic habitat located downgrade from your application.

If you should have any questions regarding these regulations, please give us a call! You can also visit the Pyrethroid Working Group website to see demonstration videos: <http://pwg2pmp.com/>

# Fipronil Label Changes Coming!

Final label review was approved by DPR in October 2017

Fipronil use has steadily increased in recent years, with approximately 51,000 lbs. of fipronil applied annually for structural control of ants and termites.

The Department of Pesticide Regulation (DPR) conducted a study and found fipronil or its degradants in 29% of the samples taken from creeks around the San Francisco Bay area. According to the EPA, fipronil is highly toxic to aquatic species in concentrations as low as 5 parts per trillion. These findings have led to recent studies that have shown that application practices could reduce fipronil runoff from urban homes by restricting treated areas, altering spray methods, and timing.

An evaluation of product labels showed that only two products currently registered for outdoor use that have the potential to contaminate surface waters:

- Termidor SC Termiticide/Insecticide
- Taurus SC Termiticide/Insecticide.

As such, there are new CA-specific restrictions on these product labels and they were approved by the EPA in April 2017 and DPR in October 2017. These new restrictions are significant, and are similar to the restrictions for pyrethroid applications.

There are now explicit prohibitions of applications to driveway / garage door areas and specific times of the year. These changes are likely to significantly impact general pest control, especially for ants & perimeter pests.

- **DO NOT** apply to garage doors, driveway, vertical surfaces above the driveway or garage door, or to cracks and crevices leading or adjacent to the driveway such as the expansion joint between garage and driveway. Only use of the 0.03% Termidor SC finished dilution is permitted.
- **DO NOT** apply more than 4 times per year.
- **DO NOT** re-apply at intervals less than 60 days.
- For foundation exterior perimeter treatments, apply Termidor SC finished dilution as a low-pressure (25 PSI or less at the nozzle) coarse general surface spray along the foundation exterior perimeter to an area six inches up and six inches out from where the ground meets the foundation.
- **DO NOT** apply spray bandwidth at greater than 6 inches out or up from where the foundation meets the ground.
- **DO NOT** make application on any date between **November 1 and February 28.**

# Pesticide Spills

*Be sure to be prepared!*

We received a report recently regarding a pesticide release. This release was contained before reaching the creek, but it serves an important reminder that all professional pest control companies should be prepared to handle a pesticide spill. Having the means to quickly contain an accidental release will not only protect the environment or your client's property, but it will also help protect your liability.



What is required of pest control companies when a pesticide spill occurs? Are there regulations that require companies to carry spill kits?

Title 3 of the California Code of Regulations and the California Food and Agricultural Code do not have any code sections that specifically require a company to carry a spill kit. However, Title 3, California Code of Regulations Section 6600 (e) states:

“Each person performing pest control shall:  
(e) Exercise reasonable precautions to avoid contamination of the environment.”

This regulation doesn't specifically require a company to carry a spill kit. But, it does require companies to take “reasonable precautions to avoid environmental contamination.” It could therefore be construed as reasonable for companies to carry some sort of means to contain an accidental release to protect the environment.

We recommend that every company carry a small spill kit in each pesticide rig and train applicators what to do in the event of a spill or accident. There are products on the market today that don't take up a lot of space and are relatively inexpensive. You can also easily make one yourself. Absorbent snakes and pillows can be very useful in creating a dike around a storm drain or to help contain a spill until it can be cleaned up. Having something with you at the scene can prove to be invaluable in the event an accidental spill occurs near a storm drain, creek, private property, etc. The cost of the items in a spill kit can pay off exponentially in the event of a release.

Helpful checkoff list for a basic spill kit for a vehicle:

- Trash can / container with a clamp down lid
  - Back up rubber gloves / safety goggles or safety glasses in a Ziploc bag.
  - Small broom & brush or folding small hand shovel
  - Small dustpan
  - Roll of Paper towels
  - Absorbent material (absorbent pads and dry absorbent such as cat litter) For portable spill kits on a vehicle, you can fill 1-gallon Ziploc bags with the kitty litter.
  - Absorbent snake(s)
  - Trash bags
- Label your spill kit can / container “SPILL KIT” with permanent marker, or another permanent label so everyone will know what is in the container.
  - Fill several of the gallon sized plastic bags with absorbent and place them in the bottom of the container to act like a ballast.
  - Place the gloves, safety glasses or goggles in one bag. If you chose to include a Tyvek suit and shoe covers, place those in their own plastic bag.
  - Place all the other items or anything extra you think are needed for your specific situation in the container and secure the lid.

## Boxwood Blight

*Calonectria pseudonaviculata*



This past February, our office received a call from a maintenance gardener in Palo Alto. He was concerned about a disease affecting the boxwoods at one of his client's properties and he suspected it might be boxwood blight.

We went out to the residence and found severe dieback of several boxwood hedges at the property. Not seeing these symptoms before in boxwood, we took a sample and sent it to the laboratory for identification. (San Mateo had also been alerted to the disease by a landscaper in Hillsborough a couple of months prior to our call and had already gotten their results back from the lab.) The samples in both counties were confirmed to be boxwood blight.

CDFA sent out a nursery advisory to all counties in the State about the disease because it had not been known to

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occur in California before the detections in San Mateo and our county. The following is an excerpt from that State advisory:

Infection, spread, and defoliation of the plants can occur very quickly under optimum conditions, which include rainy and wet weather with temperatures ranging from about 64 to 80°F. [Last years' El Nino provided optimum conditions for spread of this disease.]

Boxwood (*Buxus* spp.) is typically used in hedges and is commonly used in formal gardens; boxwoods are the centerpiece of many historical landmarks with ornate plantings and mazes. This dense planting and repeated pruning/hedging of boxwood enables a continuous spread of the pathogen to susceptible plant tissue from plant to plant and on pruning equipment. The disease can be difficult to recognize at the onset, and spread can occur by pruning/hedging before symptoms are recognized.

The implementation of best management practices to prevent introduction and spread of this pathogen is critical. Such practices would include close inspection of any new plants to be used for planting, a regular regime of sanitation of maintenance tools and equipment (including personal protective equipment), safe removal (double bagged and disposal at the landfill) of infected plants and leafy debris, and the use of fungicides.

*Calonectria pseudonaviculata* produces an abundance of sticky spores on the leaf and stem surfaces, including leaves that have fallen to the ground. The fungus is especially active in producing spores during wet or humid conditions. During inspection of suspected infestations, use protective equipment such as disposable gloves and booties. Sanitation of equipment, shoes, and hands between sites is critical. Spores can also be carried on clothing.

The landscaper who first alerted our County about the disease wore Tyvek over their employee uniform, gloves, and booties, while on site of the affected property. (This property had hundreds of small and large boxwood plants planted in an elaborate English style garden). Some of the compact plantings were hard hit by this disease and the decision was made to remove all the diseased hedges. The plants were double-bagged and the landscaper carried Lysol to disinfect their tools he was using. The last thing this landscaper wanted to do was to spread this highly contagious disease to another part of the yard or to another client's property.

## Asian Crazy Worm

*Receives highest pest rating by CDFA*

Asian crazy worm, *Amyntas agrestis*, also known as snake worm or Alabama jumper, is an invasive earthworm that is native to East Asia. These earthworms are extremely active, aggressive, and have voracious appetites. True to their name, they jump (known to jump off the ground or out of a bait can) and thrash immediately when handled behaving more like a threatened snake than a worm, sometimes even breaking and shedding their tail when caught.



These worms are up to 8 inches in length and are characteristically marked by a light (milky white to gray) band (clitellum) around a dark body. They breed en masse and constantly produce cocoons at the soil surface. (*Amyntas agrestis* is a cousin of another worm, who is also called Asian Crazy Worm, *Amyntas gracilis*, which is not a pest.)

Unlike other earthworms that are considered friends of the ecosystem due to their ability to loosen and aerate soil, crazy worms pose a significant threat to forest health so have received an "A" rating from CDFA. This profile puts Crazy worms in the same unwanted club with things like MedFly and Japanese Beetle, etc.

Crazy worms have been in the US, particularly the eastern states, for many years. They were being sold to composters and as fish bait. Composting ads boast that the worm can eat and process more than its body weight in organic matter (vegetable scraps, leaves, lawn trimmings, etc.) each day. That same tenacious appetite means that when people release their fish bait (or their bait escapes) and the worms make their way to the forest, they consume massive amounts of leaf litter. If you were a leaf-litter-feeder such as a millipede, fly larvae, or springtail, this would be a big problem because your food source would be gone! It would also be bad if you were a creature that ate these invertebrates. In some areas of the eastern US, the crazy worm population is so high, there is almost no leaf litter left. Without this food, native animals are disappearing, and the nutrients from decaying plants aren't there to build new soil for seedlings! These worms can also cause harm to ornamental plantings and turf. Lawn damage due to abundant castings of this earthworm have been reported in Connecticut. Once established in the environment, crazy worms are impossible to eradicate.