

November 2017



Pesticide Applications Near Schools

New regulations are coming

DPR is moving forward with a new regulation which would require growers to notify public K-12 schools, child day care facilities and County Ag when certain applications are made within ¼ mile of a school site. A school site includes the buildings or structures, playgrounds, athletic fields, vehicles or a parking lot, or any other area visited or used by students. A school site does not include family day care homes, private schools, junior colleges, universities or school bus stops outside of school grounds.

The proposed regulation only applies to production agriculture. It does not apply to non-agriculture sites like farm roads, etc. The following is a summary of the proposed regulation. For details, please read the complete proposed regulation found in the link at the end of this article.

Application Restrictions – Beginning January 1, 2018 (Monday through Friday) between the hours of 6am and 6pm, growers will be prohibited from using fumigants, dusts, and applying any kind of pesticide by aircraft, sprinklers, or air-blast equipment. – This even includes non-restricted and exempt materials! *(For a helpful chart showing application restrictions, look on page 6.)*

Annual Notification – By April 30th of each year, growers will be required to provide notice to all schools and daycare centers ¼ mile from treatment sites. These notices will be for all pesticide applications that are expected to happen within the upcoming fiscal year: (July 1st through June 30th). The notice will include:

- The name of the pesticide and the main active ingredient(s)
- A map showing the location of the field to be treated
- Contact information for the grower/operator and the County Ag Commissioner
- The web address for the National Pesticide Information Center

We've been told that the company that created CalAgPermits (They created the website where you can submit your use reports) is finalizing an electronic portal that would notify growers of all affected fields and the contact information for the school & daycare center. If you do not have a log-in to the system, contact your District Biologist.

Because of the wide variety of variables with California's microclimates and school extracurricular activities, there will be an allowance for schools and day-care facilities, the grower, and the Commissioner to develop alternative written agreements to which all three parties must agree to. These agreements cannot be less-restrictive than the regulations such as decreasing the distances or 12-hour application window, etc. They can however, shift that 12-hour window if everyone agrees. So, if school doesn't start until 8:30 am, it might be possible for a grower, school principle, and Commissioner to agree to restrict applications between the hours 8am -8pm.

To read the complete text of the proposed regulations, visit this website:

http://www.cdpr.ca.gov/docs/legbills/rulepkgs/16-004/16-004_modified_text.pdf

In this issue:

- Poisoned Great Horned Owl
- Top Pesticide Blunders
- Pesticide Use Reporting On-Line
- Cucumber Green Mottle Mosaic Virus
- Asian Crazy Worm
- Pesticide Spill Kits

Poisoned Great Horned Owl

Fish and Wildlife correspondence

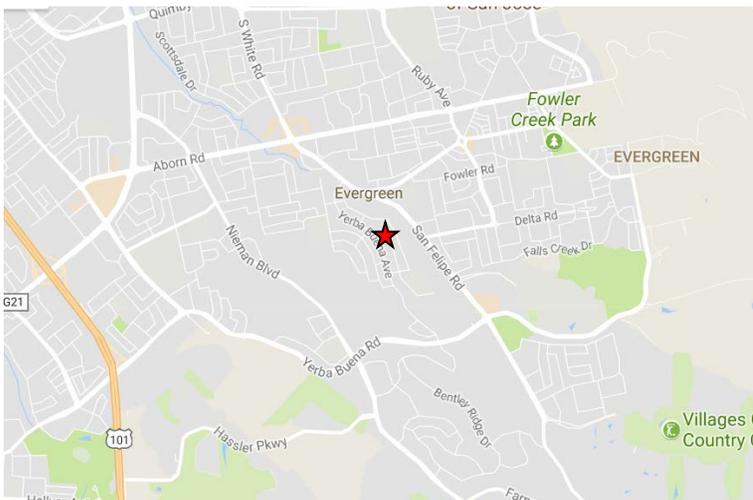


It thankfully doesn't happen too often, but we do receive morbidity reports from the Fish and Wildlife service on occasion when they find a wild animal with a lethal dose of pesticide in their system. We received one of these reports late last year concerning a male Great Horned Owl.

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 F&W 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.

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. 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 types of uses are on the currently registered SGAR product labeling?

These products are labeled only for control of three rodent species (Norway rats, roof rats, and house mice) in and around buildings and other man-made structures as defined by the product label.

SGAR labels explicitly prohibit use against any other pest species. DPR has determined that SGAR products are not labeled for controlling ornamental, plant, or turf pests.

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 one of the three rodent species listed on SGAR labeling, 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).

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 growers would have 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 4th container in the back of his truck. Thinking that he was handling a rinsed container, he retrieved the 4th 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/>

Pesticide Use Reporting On-Line

By Biologist Kristian Barbeau

Many businesses have switched over to reporting their pesticide use electronically through the Cal-Ag Permits website. This change has significantly reduced the number of paper reports the County receives, and with continued effort, we may one day become completely paperless.

If you are one of our holdouts or are unsure about signing up for this service; I am available to help anyone who needs a little guidance on the use of the system! My phone number is: (408) 201-0650 and my email is: Kristian.Barbeau@cep.sccgov.org Give me a call so I can set you up!

Cucumber Green Mottle Mosaic Virus (CGMMV)

Found at two grocery stores in Santa Clara County



In September of this year, we received an alert from the State Department of Food & Agriculture about a possible interception of CGMMV at a grocery store. A few Biologists went out to the 2 stores and found disease symptoms on opo leaves. The grocery stores willingly turned over their produce to our county and we sent a sample to the State Laboratory. The samples came back positive for CGMMV and the opo leaves were traced to a field in Fresno County. Unfortunately, when Fresno County surveyed the field, they found a variety of vegetables suffering from this highly contagious disease: Opo, Japanese cucumber, cucumber pickle, Moqua, and Chinese bittermelon. Fresno County is working with the grower to trace-back their seed source.

Vegetables that are susceptible to this disease are: cucumber, gherkin, melon, watermelon, bottle gourd, squash (zucchini), bitter gourd, and non-cucurbits: sword lily & gladiolus.

The State pathologist said that walking through fields, touching infected plants, and mechanical spread of this virus is very easy.

To limit your risk of this virus, be sure to request certified seed tested free of CGMMV and implement a comprehensive hygiene program. If you do observe virus-like symptoms, have a sample run at a diagnostic lab / contact your District Biologist.

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! They 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.

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 pesticide applicators should be prepared to handle a pesticide spill. Having the means to quickly contain an accidental release will not only protect the environment, but it can prevent contamination of your crop or a neighbor's property.

What is required when a pesticide spill occurs? Are there regulations that require applicators 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 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 an applicator 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 applicators to carry some sort of means to contain an accidental release to protect the environment.

We recommend that every applicator have a spill kit at the mix / load site and applicators need to be trained 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 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.



This is a helpful checkoff list for a basic spill kit for a vehicle. If you have large tanks / pesticides stored in an area, this kit can be supersized to a garbage can size. What you have in your kit and the size of the kit depends on your chemicals / equipment / situation.

A small portable spill kit:

- Small 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.

Pesticide Applications Near Schools

Continuation from the front-page article

Production agriculture applications restrictions

Monday through Friday, from 6:00 a.m. to 6:00 p.m.;

- With a prohibition distance of ¼ mile (1,320 feet), 25 feet, or no distance depending on the type of application equipment used and type of pesticide applied (some application types are prohibited by labels or do not occur);

Application Equipment Type	Minimum Distance to School site by Equipment and Pesticide Type			
	Dust	Fumigant	Granule	All Other Pesticides
Airblast Sprayer	¼ mile	Prohibited	Doesn't occur	¼ mile
Aircraft	¼ mile	Prohibited	¼ mile	¼ mile
Backpack Sprayer	¼ mile	Prohibited	None	None*
Bait Station	None	Prohibited	None	None
Ground-Rig Sprayer	¼ mile	¼ mile	None	25 feet
Hand Pump Sprayer	¼ mile	¼ mile	None	None
Soil Injection	None	¼ mile	None	25 feet
Sprinkler Chemigation	Doesn't occur	¼ mile	Doesn't occur	¼ mile
All Other Equipment	¼ mile	¼ mile	None	25 feet

*Backpack sprayers that incorporate an air blast sprayer to apply "other" pesticides are prohibited within ¼ mile.