

Pesticide News

May 2012



Welcome to the latest edition of the Colorado Department of Agriculture Pesticide newsletter.

In this issue you'll find information about:

- **Soil Fumigation changes**
- **National Pollutant Discharge and Elimination System (NPDES)**
- **Remote Testing sites for Pesticide Applicators**
- **New Pests on the horizon**
- **Driftwatch**

Soil Fumigation

There is a lot going on in the soil fumigation arena, from label changes to changes in the application of soil fumigants and everything in between. The changes have been made due to the Registration Eligibility Decision or RED for soil fumigation. New safety measures will increase protections for agricultural workers and bystanders. These measures will work together to establish a baseline for safe use of the soil fumigants throughout the United States by reducing fumigant exposures and significantly improving safety.

Let's discuss label changes that will occur in 2012 for the following soil fumigants:

- Chloropicrin
- Dazome
- metam sodium / potassium
- methyl bromide.

The most used soil fumigants in Colorado are metam sodium / metam potassium used in potatoes. Common names include:

- Drexel Fume
- Metam soil Fumigant
- Nemasol 42%
- Metam Sodium
- AMVAC METAM

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Soil Fumigation continued...

Phase 1 Changes that Went Into Effect December 31, 2010:

Additional Worker Protections including the addition of "handlers" or person engaged in the fumigation process along with new respiratory protection, tarp handling and entry-restrictions.

Handler Training Information:

Fumigant registrants are developing new training information and materials for fumigant handlers (those working under the supervision of the certified licensed applicator in charge of fumigations).

Good Agricultural Practices:

Minimize inhalation and other risks from fumigant applications. Examples of good agricultural practices include proper soil preparation/tilling, ensuring optimal soil moisture and temperature, and appropriate use of sealing techniques.

Application Method, Practice and Rate Restrictions:

Labels restrict certain fumigant application methods that lead to risks that are difficult to address. These include certain untarped applications for some fumigants. The label also lowers the maximum application rate, thereby reducing the potential for inhalation exposure and risk.

Restricted Use Pesticide Classification:

EPA determined that all of the soil fumigants undergoing reregistration meet the criteria for restricted use. Therefore, EPA has reclassified metam sodium/potassium and dazomet, which had not been restricted, as restricted use pesticides.

Labels require fumigant users to prepare a written, site-specific fumigant management plan (FMP) before fumigations begin. In Phase 1, FMPs do not need to address any of the requirements that go into effect during Phase 2. These written plans will help prevent accidents and misuse, and will capture steps to take in case an accident occurs. EPA is developing FMP templates for each fumigant.

Phase 2 Changes that Go into Effect December 1, 2012:

Buffer zones:

New labels will require fumigant users to establish a buffer zone around treated fields to reduce risks from acute inhalation exposure to bystanders. Buffer zone distances are scenario-based using applicable site conditions, and will be provided in look-up tables on product labels. EPA is also giving "credits" to encourage users to employ practices that reduce emissions (for example, use of high-barrier tarps). Credits will reduce buffer distances. Some credits will also be available for site conditions that reduce emissions (e.g., high organic or clay content of soils).

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Soil Fumigation continued...

Posting requirements:

For buffer zones to be effective, bystanders need to be informed about the location and timing of fumigations. New labels will require buffer zones be posted at usual points of entry and along likely routes of approach to the buffer unless a physical barrier prevents access to the buffer. The signs must include a “do not walk” symbol, fumigant product name, and contact information for the fumigator.

Site-Specific Fumigant Management Plans (Complete):

In addition to the FMP requirements listed above, FMPs will need to include those requirements that go into effect in Phase 2.

Emergency Preparedness and Response Requirements:

New labels will require registrants to provide information to first responders in high fumigant use areas. In addition, EPA is requiring site-specific measures in areas where bystanders may be close to fumigant buffer zones. Fumigators may choose either to monitor the buffer perimeter or to provide emergency response information directly to neighbors.

Applicator Training Programs:

EPA has required fumigant registrants to develop and implement training programs

for certified applicators in charge of soil fumigations.

Information for Handlers, Communities, and First Responders:

EPA has required fumigant registrants to develop and disseminate safety information for fumigant handlers (those working under the supervision of the certified applicator in charge of the fumigations). EPA has also required fumigant registrants to develop and implement community outreach programs and information for first responders to ensure that information about fumigants and safety is available within communities where soil fumigation occurs.

Compliance Assistance and Assurance Measures:

In states that require notification of fumigant applications, applicators must notify State and Tribal Lead Agencies for pesticide enforcement about fumigant applications they plan to conduct. This information will aid those states in planning compliance assistance and assurance activities.

CDA has been monitoring both the label changes and the applicator / handler training proposed changes. The new (December 2012) soil fumigant labels will have requirements that applicators will have to abide by, some of the requirements are / may be:

- Certified applicators must be present at the start and finish of each

fumigant application

- Certified applicators must obtain training (general soil fumigation and specific active ingredient) prior to the fumigant application. Soil fumigant registrants will be providing the training in person (classes within the state and also online).

Applicators will also be required to take and pass a general fumigation test and an active ingredient specific test. provided by the registrant.

Applicators will be required to receive the training every 3 years. The registrants will provide some type of soil fumigation “certificate” to the applicators in order to show dealers and regulatory officials that they have received the training.

- State Lead Agencies (CDA) are required to develop soil fumigation certification and training plans.
- CDA’s draft plan includes:
 - Registrant training and testing for private applicators
 - A new soil fumigation test and license for qualified supervisors and certified operators
 - New continuing education credit information for the soil fumigation category

CDA will continue to keep soil fumigant applicators informed of these changes through press releases, letters and emails. Please contact Steve Blunt at 303-239-4178 or by email: steve.blunt@ag.state.co.us if you wish to have your name to the mailing list.

You can learn more about the soil fumigation changes by visiting EPA’s Soil fumigation Tool Box web site at http://www.epa.gov/opp00001/reregistration/soil_fumigants/.



Yes the Colorado NPDES general pesticide permit was issued by the Colorado Department of Public Health and Environment (CDPHE) on November 4, 2011. NPDES was a very hot topic this year in continuing education workshops throughout the state, including several NPDES specific workshops hosted by the Colorado Weed Management Association.

It is imperative that pesticide applicators that anticipate applying pesticide to, near or over water of the state visit the CDPHE website to obtain a copy of the Colorado General Pesticide Permit. You can obtain the permit by visiting <http://www.cdph.state.co.us/wq/PermitsUnit/PermittingPesticides.htm>

CDA's role and goals pertaining to the Colorado NPDES program are:

- Provide general overview of NPDES requirements to applicators
- Answer the questions we can
- Facilitate information to applicators via mailings and our website
- Provide resource contacts to answer questions
- Collect questions, find answers, and relay back to industry

General Colorado NPDES information

Colorado's Permit: There are 8 "Parts" to the permit

- Appendix A – definitions
- Appendix B – explains permit conditions (additional clarification on what an applicator must do to ensure they are in compliance with the permit: i.e.: must maintain records for 3 years, required to furnish information upon request, etc.)

Part 1 – who must comply, who is covered?

- This permit covers any Operator (Applicator or Decision Maker) that is "associated" with the application of pesticides to surface waters of the State.
- Definitions
 - Applicator: Any entity who performs the application of a pesticide or who has day-to-day control of the application;
 - Decision Maker: Any entity with the control over the decision to perform pesticide applications (Compliance Certifications may apply)

Part 1.1 Eligibility –Activities Covered

a. Mosquito and Other Flying Insect Pest Control

to control public health/nuisance and other flying insect pests in or above standing or flowing water including nuisance insects, mosquitoes and black flies.

b. Weed and Algae Pest Control

to control weeds, algae, and pathogens that are pests in water and at water's edge, including ditches and/or canals.

c. Animal Pest Control

to control animal pests in water and at water's edge. Animal pests in this use category include fish, lampreys, insects, mollusks, and pathogens.

d. Forest Canopy Pest Control

application of a pesticide to a forest canopy to control the population of a pest species (e.g., insect or pathogen) where, to target the pests effectively, a portion of the pesticide unavoidably will be applied over and deposited to water.

N PDES Update continued...

- Obtaining Authorization
If you do any of the previously listed types of applications – you are automatically and immediately authorized by the permit to discharge pesticides to those areas.

Part 1.1.2 Permit Limitations

There are limitations on what the permit covers:

- Impaired waters (with same a.i. or degradate)
- Outstanding waters – maintain water quality
- Covered under another permit

Part 2 – Technology Based Effluent Limitations (TBEL)

- Applies to all applicators
- TBEL = minimize discharges of pesticides to surface waters when applying pesticides through Pest Management Measures (PMM)
- PMM for applicators
 - Amount = use only amount needed and application procedures to control target pest.
 - Maintenance = maintain, calibrate equipment, etc.
 - Federal Requirements = follow label and any other applicable requirements (wind, precipitation, temperature)
- PMM for Decision makers
 - Same as applicators +
 - PMM defined in “Appendix A” = follow industry standards/practices, manufacture specs, follow the label
 - Outlines additional PMM for those Decision makers that must submit a CC (Compliance Certification)
 - Requirements for each application type are covered

Parts 2.2.1 thru 2.2.4 Decision Maker TBEL considerations

Mosquito, Weed & Algae, Animal and Forest Canopy Pest Control

- Identify the Problem: Target pest, densities and action thresholds, factors causing, etc.
- Pest Management Options: Consider no action, prevention, mechanical, cultural, biological and lastly... pesticides
- Pesticide Use: Conduct surveillance to verify thresholds met prior to application to reduce impact on environment

Part 3 Water Quality Based Effluent Limitations

- Control your pesticide discharge to ensure you don’t exceed any water quality standards
- If you become aware that your application has exceeded the standard, you must take “corrective action”, explained in Part 6 of the permit.

Part 4 Monitoring Must Dos

- Applicators
During the application visually assess for possible “adverse incidents”
 - Look for hazards
 - Consider potential non-target exposures (human, animal, environmental) and avoid
 - Look for signs of unintended injury, etc. (dead fish, distressed non-targets)
- Operators
Post-application visually assess any possible “adverse incidents” that occurred as a result of the pesticide application
 - Where there any non-target exposures (human, animal, environmental)
 - Do you see any signs of unintended injury, etc. (dead fish, distressed non-targets)

Part 5 – Pesticide Discharge Management Plans (PDMP)

Required for all Decision-makers that must submit a Compliance Certification (CC)

- Applies to large entities and municipalities serving a population over 10K
- PDMP Must be in place when you file the CC
- PDMP may reference other documents that meet the PDMP requirements (i.e.: application records required by PAA)

• PDMP elements

- **Pesticide discharge management team**
 - Identify all persons that compose team and responsibilities
 - Person managing pests
 - Person who developed/revises PDMP
 - Person who develops/implements corrective actions and other effluent limitation requirements

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N NPDES Update continued...

- **Problem identification**
 - Pest problem description (from Part 2)
 - Action threshold: Data used and method
 - General location map: Geographic boundaries where the plan applies and location of surface waters of the State.
 - Water Quality Standards: Document any Outstanding Waters or impaired.
- **Pest management options evaluation**
 - Document how you evaluated your pest management options (no action, prevention, mechanical, etc.)
 - The evaluation must consider impact to water quality, non-targets, feasibility, cost effectiveness and any other relevant PMMs
- **Response procedures (spills/adverse incidents)**
 - Document spill response procedures
 - Employees must be trained in procedures (should be listed on PDMP Team)
 - Notification procedures – company, emergency and regulatory agencies
 - Adverse incident response procedures:
 - Procedures to respond
 - Procedures to notify those listed
- **Document eligibility (type of application)**
- **Signature requirements**
 - Decision maker must sign, date and certify the PDMP
 - This is the responsible corporate officer, partner or ranking official
 - Certification statement, found in Appendix B.11, must be on PDMP.
 - “I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure...”
- **PDMP modification and availability**
 - Modifications: Must be made prior to or no later than 90 days after any “significant” change in the plan (areas, type or quantity discharged)
 - Availability: Decision maker must retain copies of the current PDMP and provide upon request to CDPHE, EPA or SLA (State Lead Agency).
 - This information becomes public record
 - CBI must be asserted and documented

Part 6 – Corrective Actions

Part 7.6 – Compliance Assistance Certification or NOI

- CC is required to be submitted to CDPHE no later than July 1, 2013. (Only for those entities that must comply with this provision). This is explained in Part 7 of the permit.
- Submissions must be received:
 - Emergency applications: 30 days after pesticide application
 - All other: 10 days before discharge or exceeding treatment thresholds

This is just a brief introduction to the world of Colorado’s NPDES General Permit. Please visit <http://www.cdph.state.co.us/wq/PermitsUnit/PermittingPesticides.htm> to obtain a copy of the GPP. Additional resources can be found on CDA’s website at www.colorado.gov/ag/dpi.

Questions and comments regarding the Colorado NPDES General Pesticide Permit should be directed to Colorado Department of Public Health and Environment contact:

Janet Kieler,
Permits Section Manager
Water Quality Control Division
303-692-3599
Email: janet.kieler@state.co.us

CDA contact information pertaining to NPDES:

John Scott
CDA Pesticides Program Manager
303-239-4179
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CDA Pesticide Applicator Program Coordinator
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Remote testing sites for qualified supervisors and certified operators

CDA and Colorado State University Extension have partnered to make remote pesticide applicator testing for qualified supervisors and certified operators possible. Select CSU Extension offices have been chosen to participate in proctoring these tests. The new testing sites will be in Fort Morgan, Lamar, the San Luis Valley, Durango and Grand Junction. CDA will also continue to proctor the tests at our Lakewood office.

In order to make this happen, CDA is in final negotiations with a web-based testing company called Metro Institute to assist CDA and CSU to provide web-based testing throughout Colorado. Metro Institute (Metro) provides web-based testing for several other state departments of agriculture. Metro's website will allow applicators to schedule and pay for the tests through their website. In addition, all the associated paper work (application for examination, identification, etc.) will be sent directly to the applicator to complete at their place of business or at home.

A consequence of using this system is that the current CDA procedure of allowing testers to take a test twice for \$100.00 will no longer be allowed. CDA is requiring that applicators pay a fixed price per test. The testing fee will be \$30.00 per test. All tests will be prepaid, onsite payment is not available, and all test scheduling and payment will be done by using Metro's website. Walk in testers will not be accepted and, the test centers are not able to schedule tests.

The exact test scheduling process is still being developed, however it will be similar to the following:

- The applicator starts at CDA's website which will provide basic testing and licensing information.
 - The applicator will then be directed to Metro's website where the applicator will be required to provide basic personal information such as name, address, phone number, email, if you are currently licensed or have previously taken a CDA test. This information is then submitted to CDA for verification or to provide an Applicator ID to new testers.
 - CDA will send an email to the tester that their information has been validated and direct the tester to Metro's website
 - At this point the applicator can choose the testing location and also see the available testing times. The available testing times have not yet been determined but it is anticipated that it will be a 2 hour block for the General Test and/or a 1 hour block for each Category Test.
 - Applicators will be able to take the test at any available time during testing center hours of operation, this means that an applicator could schedule a test at 11:00 AM or 2:00 PM or which time is most convenient for him or her.
- The applicator will arrive at the testing location, the proctor will verify the applicator's ID and receive the CDA testing paperwork and the applicator will take the test.
 - Test results will be available on site at the completion of the test.
 - Applicator licensing will only be done through the CDA office, either in person or by mail.

CDA will send out press releases, letters and emails to announce the rollout of this service. Please contact Steve Blunt at 303-239-4178 or by email if you wish to be included in our mailing/email list.

NEW PESTS Brown Marmorated Stink Bug (BSMB)



UGA1460050

All living organisms have certain built in mechanisms for spread or self dispersal that usually include aids such as wind, water and the ability to "hitchhike". Those interested in protecting agriculture and natural resources are on the constant lookout for exotic or invasive species that hitchhike or otherwise move into previously un-colonized areas.

Currently, in Colorado we are watching for over 22 pests that we think may pose a risk for agriculture, forests, and urban landscapes. Sometimes pests that are not on the 'watch' list catch us off guard.

The brown marmorated stink bug or BMSB is in the 'news' in the Eastern and Mid Western US. Originally from Asia, the insect has been in Pennsylvania since 2001 and is spreading. This summer reports were heard from Ohio, Kentucky and Indiana. First reports of this pest were mainly related to invasions of homes, where there is very little concern over plant damage. However, this past summer in Maryland and New Jersey BMSB began to cause serious damage to fruit crops and ornamentals.

It is possible we will see this pest show up in Colorado as it hitchhikes on vehicles and can also move through commerce. BMSB commonly feeds on landscape ornamentals and is often noticed by homeowners first. Nursery growers and retailers should familiarize themselves with this pest not only to help clientele, but to protect themselves. Make sure to check nursery stock

coming from the Eastern US to be sure it is free from the pest. Favored plants include fruit trees (Pyrus, Prunus, and Malus spp), catalpa, Norway maple, honeysuckle, butterfly bush, beans, raspberry and grape.

The stink bug is dark mottled brown in color ranging in length from 14 – 17 mm. Similar in shape to a box elder bug or seed bug, it causes damage on leaves and fruit by creating necrotic water soaked-lesions or cat-facing damage in fruit. It will also invade homes in the winter and be a major nuisance to homeowners. Like the name implies, the stink bug has an odor that adds to their nuisance potential.

Article provided by Laura Pottorff, CDA Nursery Coordinator
Image: David R. Lance, USDA APHIS PPQ, Bugwood.org



driftwatch™ is a new program used by several other states as a way to increase communication between pesticide applicators and growers of sensitive agricultural crops. *driftwatch*™ is a software program developed and maintained by Purdue

University. Minnesota, Wisconsin, Illinois, Michigan and Indiana are all currently participating in *driftwatch*™. Colorado has also contracted with Purdue University to provide this service to Colorado.

How does *driftwatch*™ work?
driftwatch™ is a voluntary program that is designed as a communication tool to protect sensitive crops. Producers register their crop sensitive locations through CDA and registered applicators will be able

to locate registered sites prior to making pesticide applications. *driftwatch*™ uses Google Maps technology for pesticide applicators to locate registered sensitive crops.

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Driftwatch continued...

Please keep in mind that it is a voluntary program for both growers and pesticide applicators to join. The minimum size requirement is ½ acre. Producers or growers enroll or register their crops with *driftwatch*TM by providing certain information such as:

Name
Address
Phone number
Email address
Sensitive crop location

*driftwatch*TM allows the producer to access Google Maps to locate and outline the sensitive crop area with their computer mouse. The producer and crop information is then reviewed by CDA's "Data Steward", a CDA staff person. The data steward ensures that the minimum size and crop qualifications are met. The producer will receive an automated email informing them if their submission has been accepted or not or if additional information is needed. Registered pesticide applicators will also receive an automated email of any "new" locations in their area.

Participation by pesticide applicators is also voluntary, applicators will be asked to register in *driftwatch*TM and will provide basic information to drift watch as well, including specific areas where the applicator may apply pesticides. The applicator will be able to visit the website, see the registered sensitive crops. Clicking on a "balloon" on the Google Map will pop up a description of the sensitive crop and the registered producer's contact information.

CDA has already started educational outreach to applicator and grower groups. CDA has started identifying data layers or sensitive crops. Some of the crops under consideration are:

- Alfalfa
- Dry Beans
- Potatoes
- Certified Organic
- Sunflowers
- Sugar beets
- Fruit trees
- Grapes
- Fruit (other)
- Onions

- Vegetables
 - Cabbage
 - Cantaloupe
 - Corn
 - Carrots
 - Lettuce
 - Spinach
 - Herbs and spices

- Nurseries
- Beehives
- Fish farms

Other data layers under consideration are;

- County lines
- Section lines
- Public lands (with / without access)
- Endangered Species habitat

The success of *driftwatch*TM depends on the commitment and involvement of a wide variety of individuals and organizations. Due to the complexity and detail of the *driftwatch*TM program, CDA and Purdue University anticipate that the *driftwatch*TM program will be fully operational in about 18 months.

Thia Walker, CSU Pesticide Education Coordinator, recently conducted a survey with bee keepers regarding the use of pesticides and *driftwatch*TM. The majority of bee keepers responded that they would likely participate in *driftwatch*TM to help reduce bee loss due to pesticide applications. Purdue University has documentation from the current states that participate in the *driftwatch*TM that the number of pesticide / sensitive crop related complaints has dropped significantly during the short time period that *driftwatch*TM has been in operation.

Please contact Steve Blunt at 303-239-4178 or by email at steve.blunt@ag.state.co.us if you have any questions regarding *driftwatch*TM.

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