Pesticide Law and Regulation Updates

Linda White
Oregon Department of Agriculture
March 4, 2015
2013 Temporary Rule prohibiting the use of any product containing dinotefuran on any plants, regardless of application method (ended December 24, 2013)
ODA required New Linden Language on Products

As a condition of 2014 product registration

“Do not apply this product, by any application method, to linden, basswood or other Tilia species in the State of Oregon”

150 imidaclorpid products

10 dinotefuran products
Pollinator Health – ODA Temporary Rule Due to Bee Deaths

2014 Temporary Rule prohibiting the use of any product containing dinotefuran or imidaclorpid on linden trees, regardless of application method (ends December 23, 2014)
Administrative Rule – Active as of February 27, 2015

http://www.oregon.gov/ODA/programs/Pesticides/RegulatoryIssues/Pages/PollinatorIssues.aspx

Prohibiting the use of dinotefuran, imidacloprid, thiamethoxam and clothianidin on Linden trees, by any application method
Pollinator Health Task Force

- 10 member committee
- (a) Study proposed and enacted pesticide regulations from other states and countries that are more protective of pollinator health than US EPA.
- (b) Study education and outreach plans that have been successful in other states.
- (c) Evaluate the effectiveness of applicator licensing.
- (d) Identify possible funding streams for efforts to promote or protect pollinator health.
- (e) Investigate how other states gather data on bees or other pollinating insects.
- (f) Evaluating existing best management practices for applying neonicotinoids in a manner that avoids harming pollinating insects.
Pollinator Health Task Force

Final document of recommendations
https://olis.leg.state.or.us/liz/2013I1/Committees/TFP/H/2014-10-27-10-00/MeetingMaterials

Recommendations for protecting pollinator health
- Reinstatement of PURS
- Development BMPs
- Develop a State Pollinator Plan
- Increase applicator training
- Prohibit the use of certain neonicotinoids on lindens
- Increase pollinator health outreach and education
How to Protect Pollinators

- Use the least toxic pesticide
- Follow the pesticide label
- Look at RT and ERT values
What are RT and ERT Values?

“residual toxicity” – the length of time the residue of a pesticide product remains toxic to bees after application

“extended residual toxicity” – the length of time that pesticide residues are expected to cause 25% mortality for longer than 8 hours after application

Will often vary with formulation
NET CONTENTS 5 POUNDS

For control of sucking and chewing insects infesting cotton, cucurbits, fruiting vegetables, grape, head & stem brassica, leafy vegetables, and potato.

Active Ingredient: By Wt.
*Dinotefuran ................. 20%
Other Ingredients ............ 80%
Total ......................... 100%

*N-methyl-N’-nitro-N’’-(tetrahydro-3-furanyl)methyl]guanidine

EPA Reg. No. 33657-17-59639
EPA Est. 67545-AZ-01

KEEP OUT OF REACH OF CHILDREN
CAUTION
SEE NEXT PAGE FOR ADDITIONAL PRECAUTIONARY STATEMENTS.
ENVIRONMENTAL HAZARDS

This pesticide is toxic to shrimp. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in water adjacent to treated areas. Do not dispose equipment washwaters or rinsate into a natural drain or water body. Do not contaminate water when disposing of equipment washwaters or rinsate.

This compound is toxic to honey bees. The persistence of residues and potential residual toxicity of dinofuran in nectar and pollen suggest the possibility of chronic risk to honey bee larvae and the eventual instability of the hive.

This product is toxic to bees exposed to treatment for more than 38 hours following treatment. Do not apply this product to blooming, pollen-shedding or nectar-producing parts of plants if bees may forage on the plants during this time period, unless the application is made in response to a public health emergency declared by appropriate state and federal authorities.

Dinofuran and its degradate, MNG, have the properties and characteristics associated with chemicals detected in ground water. The high water solubility of dinofuran, and its degradate, MNG, coupled with its very high mobility, and resistance to biodegradation indicates that this compound has a strong potential to leach to the subsurface under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination. Periodic monitoring of shallow ground water in the use area is recommended.
ENVIRONMENTAL HAZARDS
This pesticide is toxic to shrimp. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in water adjacent to treated areas. Do not dispose equipment washwaters or rinsate into a natural drain or water body. Do not contaminate water when disposing of equipment washwaters or rinsate.

This compound is toxic to honey bees. The persistence of residues and potential residual toxicity of dinofuran in nectar and pollen suggest the possibility of chronic risk to honey bee larvae and the eventual instability of the hive.

This product is toxic to bees exposed to treatment for more than 38 hours following treatment. Do not apply this product to blooming, pollen-shedding or nectar-producing parts of plants if bees may forage on the plants during this time period, unless the application is made in response to a public health emergency declared by appropriate state and federal authorities.

Dinofuran and its degradate, MNG, have the properties and characteristics associated with chemicals detected in ground water. The high water solubility of dinofuran, and its degradate, MNG, coupled with its very high mobility, and resistance to biodegradation indicates that this compound has a strong potential to leach to the subsurface under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination. Periodic monitoring of shallow ground water in the use area is recommended.
FOR FOLIAR AND SYSTEMIC CONTROL OF LISTED INSECTS IN COMMERCIAL AND RESIDENTIAL LANDSCAPES AND INTERIORSCAPES, NON-BEARING FRUIT AND NUT TREES, RESIDENTIAL APPLE AND PEAR TREES, TURFGRASS AND OTHER SITES WHERE PLANTS ARE GROWN FOR ORNAMENTAL, AESTHETIC AND CLIMATE MODIFICATION PURPOSES

Active Ingredient
*Clothianidin............................................... 50.0%
Other Ingredients........................................... 50.0%
Total............................................................ 100.0%
*(E)-1-(2-chloro-1,3-thiazol-5-ylmethyl)-3-
methyl-2-nitroguanidine

EPA Reg. No. 59639-152
EPA Est. 39578-TX-01©, 67545-AZ-01©,
Superscript is first letter in lot number.

KEEP OUT OF REACH OF CHILDREN
CAUTION
SEE BELOW FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

FIRST AID
If swallowed: Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 800-892-0099 for emergency medical treatment information.

PERSONAL PROTECTIVE EQUIPMENT (PPE):
Some of the materials that are chemical-resistant to this product are barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride, or viton, selection category A. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.
ENVIRONMENTAL HAZARDS

This product is toxic to aquatic invertebrates. Do not apply when weather conditions favor drift from treated areas. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not apply where runoff is likely to occur. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwater or rinsate.

This product is toxic to bees exposed to treatment and for more than 5 days following treatment. Do not apply this product to blooming, pollen-shedding, or nectar-producing parts of plants if bees may forage on plants during this time period.

PROTECTION OF POLLINATORS (continued)

Bees and other insect pollinators can be exposed to this pesticide from:

- Direct contact during foliar applications, or contact with residues on plant surfaces after foliar applications.
- Ingestion of residues in nectar and pollen when the pesticide is applied as a seed treatment, soil, tree injection, as well as foliar applications.

When using this product take steps to:

- Minimize exposure of this product to bees and other insect pollinators when they are foraging on pollinator attractive plants around the application site.
- Minimize drift of this product onto beehives or to off-site pollinator attractive habitat. Drift of this product onto beehives or off-site to pollinator attractive habitat can result in bee kills.

Information on protecting bees and other insect pollinators may be found at the Pesticide Environmental Stewardship website at: http://pesticidestewardship.org/pollinatorprotection/Pages/default.aspx.

Pesticide incidents (for example, bee kills) should immediately be reported to the state/tribal lead agency. For contact information for your state/tribe, go to: www.aapco.org/officials.html. Pesticide incidents should also be reported to the National Pesticide Information Center at: www.npic.orst.edu or directly to EPA at: beekill@epa.gov
ENVIRONMENTAL HAZARDS

This product is toxic to aquatic invertebrates. Do not apply when weather conditions favor drift from treated areas. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not apply where runoff is likely to occur. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwater or rinsate.

This product is toxic to bees exposed to treatment and for more than 5 days following treatment. Do not apply this product to blooming, pollen-shedding, or nectar-producing parts of plants if bees may forage on plants during this time period.

PROTECTION OF POLLINATORS

APPLICATION RESTRICTIONS EXIST FOR THIS PRODUCT BECAUSE OF RISK TO BEES AND OTHER INSECT POLLINATORS. FOLLOW APPLICATION RESTRICTIONS FOUND IN THE DIRECTIONS FOR USE TO PROTECT POLLINATORS

Look for the bee hazard icon in the Directions for Use for each application site for specific use restrictions and instructions to protect bees and other insect pollinators.

This product can kill bees and other insect pollinators.

Bees and other insect pollinators will forage on plants when they flower, shed pollen or produce nectar.

PROTECTION OF POLLINATORS (continued)

Bees and other insect pollinators can be exposed to this pesticide from:

• Direct contact during foliar applications, or contact with residues on plant surfaces after foliar applications.
• Ingestion of residues in nectar and pollen when the pesticide is applied as a seed treatment, soil, tree injection, as well as foliar applications.

When using this product take steps to:

• Minimize exposure of this product to bees and other insect pollinators when they are foraging on pollinator attractive plants around the application site.
• Minimize drift of this product onto beehives or to off-site pollinator attractive habitat. Drift of this product onto beehives or off-site to pollinator attractive habitat can result in bee kills.

Information on protecting bees and other insect pollinators may be found at the Pesticide Environmental Stewardship website at: http://pesticidestewardship.org/pollinatorprotection/Pages/default.aspx.

Pesticide incidents (for example, bee kills) should immediately be reported to the state/tribal lead agency. For contact information for your state/tribe, go to: www.aapco.org/officials.html. Pesticide incidents should also be reported to the National Pesticide Information Center at: www.npic.orst.edu or directly to EPA at: beekill@epa.gov
Pollinator Resources

- EPA RT Data for Growers & Beekeepers

- EPA – Protecting Pollinators
  - [http://www2.epa.gov/pollinator-protection](http://www2.epa.gov/pollinator-protection)

- Oregon State Beekeepers Association
Endangered Salmonids
Current Status of Lawsuit Driven Buffers
How you may feel after this information!
January 30, 2001
The Washington Toxics Coalition (WTC), in association with other groups, filed suit against the EPA for failing to consult under Section 7 of the Endangered Species Act with the National Marine Fisheries Service (NMFS) with respect to salmonids and pesticides.

Last summer a Notice of Intent to sue was released, today the suit was filed.
Endangered Species Lawsuits
Early History

• **In 2002, the court** found that EPA violated its obligations under the Endangered Species Act.

• **Court ordered EPA to complete the effects determinations for 54 pesticides and consult with USFW and/or NMFS as appropriate.**

• **In 2004, Court Ordered** streamside no-spray buffer zones as a protective measure (**not on labels**) for all 54 pesticides.
Court Ordered Buffers
OR, WA and CA

Buffers around salmon-bearing streams
- 60 feet for ground applications
- 300 feet for aerial applications
- Some exceptions

Buffers remain in effect until:
A determination is made that consultation is not needed, or The consultation is completed (i.e.. BiOp completed)

EPA and SLAs do not have authority to enforce a court ordered buffer requirement
After EPA determined that in Oregon, 26 of the 54 pesticides were likely to “effect” listed salmonids.

EPA initiated consultation with National Marine Fisheries Service (NMFS) (completed December 2004)
However, NMFS did not develop the required Biological Opinions (BiOp’s) and they were sued

NMFS is sued for failure to consult with EPA under “NCAP et al. v. NMFS, No. 07-1791 RSL”

July 2008, NMFS settles lawsuit and agrees to complete consultations for 37 pesticides on a court-ordered schedule for salmon and steelhead listed as endangered.
NMFS First Two Biological Opinions

2008 – Three organophosphates
- Chlorpyrifos, Diazinon and Malathion
  - Mandates buffers off 500 ft. for ground and 1000 for aerial applications

2009 – Three carbamates
- Carbaryl, Carbofuran and Methomyl
  - Mandates buffers of 50-600 ft. for ground and 1000 ft. for aerial applications

** Court Ordered Buffer no longer in effect once BiOp is issued **
EPA did not totally agree with NMFS and did not implement NMFS buffer mandates.

EPA proposed using a system called **BulletinsLive!** To calculate buffers.

**BulletinsLive!** was never implemented for court ordered buffers. (More on **BulletinsLive!** later!)

Result – EPA was sued again!
August 15, 2014 – Federal Court issued a Stipulated Injunction

Reinstated the Interim Buffers for:
- Chlorpyrifos
- Malathion
- Diazinon
- Carbaryl
- Methomyl
Chlorpyrifos, Diazinon, Malathion, Carbaryl and Methomyl

- 60 ft. buffers for ground
- 300 ft. buffers for aerial

Propargite (comite), Fenbutatin oxide, Diflubenzuron (Dimilin), 1, 3-D, Racemic metolachlor, Prometryn and Bromoxynil

BiOps are pending

Initial interim Buffers apply
What Does This Mean for You?

- Chlorpyrifos, Diazinon, Malathion, Carbaryl and Methomyl
- 60 ft. buffers for ground
- 300 ft. buffers for aerial

- Propargite (comite), Fenbutatin oxide, Diflubenzuron (Dimilin), 1, 3-D, Racemic metolachlor, Prometryn and Bromoxynil
- BiOps are pending
- Initial interim Buffers apply
Buffers under 2014 Stipulated Injunction

Buffer zones will remain in place until EPA has completed implementation of any mitigation actions, based on reinitiated consultations with NMFS.

The reinitiated consultation will be nationwide in scope and will include 2,000 listed species!

Reinstated buffers are not included on labels – but are part of a final court order.

EPA has started Salmon Mapper.
Salmon Mapper

“Salmon Mapper” – Pesticide Use Limitations in California, Oregon and Washington State

The "Salmon Mapper" GeoPlatform Application is intended to assist pesticide users' understanding of the spatial extent of certain pesticide use limitations to protect endangered or threatened salmon and steelhead in:

- California;
- Oregon; and
- Washington.

The hydrologic data used in this interactive map application were downloaded from the:

- National Hydrography Dataset (NHD) in California, managed by the U.S Geological Survey (USGS); and
- StreamNet Dataset in Washington and Oregon, managed by the Pacific States Marine Fisheries Commission.

Pesticide users should visit this site prior to the time of pesticide use to determine whether the Court-ordered limitations apply to your use of a specific pesticide.

To determine specific waters and pesticide use limitations that may apply to your use of a pesticide, from the list at the right:

1. Select the state in which you intend to apply a pesticide;
2. Select the specific pesticide active ingredient you intend to use; and
3. Click the "Submit" button.

Questions regarding the "Salmon Mapper" may be submitted by email to EPA's Endangered Species mailbox.
The "Salmon Mapper" GeoPlatform Application is intended to assist pesticide users' understanding of the spatial extent of certain pesticide use limitations to protect endangered or threatened salmon and steelhead in:

- California;
- Oregon; and
- Washington.

The hydrologic data used in this interactive map application were downloaded from the:

- National Hydrography Dataset (NHD) in California, managed by the U.S Geological Survey (USGS); and
- StreamNet Dataset in Washington and Oregon, managed by the Pacific States Marine Fisheries Commission.

Pesticide users should visit this site prior to the time of pesticide use to determine whether the Court-ordered limitations apply to your use of a specific pesticide.

To determine specific waters and pesticide use limitations that may apply to your use
Do not type in county name. OK to type in zip code or address.

Or you can click on county of interest
Example of Linn County, OR map
Streams that are in red need to be buffered

Can enter address or location, such as rural school
Example of when address is typed in (ODA Building is next to creek that needs to be buffered)

**Pesticide chlorpyrifos**
Segments with Limitations
- Limitation 1
  - County
  - State

(Navigation note: Press the "shift" key and click and drag to draw a rectangle around an area and zoom in.)

- Do not use within 20 yards of salmon-supporting waters for ground applications or for any applications of a granular formulation.
- Do not use within 100 yards of salmon-supporting waters for aerial applications of other formulations. No buffer applies when used in cattle ear tags.

NOTE: Salmon-supporting waters include all relevant estuaries in addition to the streams noted here.
Threatened Species

Streaked Horned Lark

Golden Eagle
Endangered Species - BulletinsLive!

Two

- Endangered species protection
- Enforceable bulletins

http://www.epa.gov/oppfead1/endanger/
Questions????

Linda White
Oregon Department of Agriculture
Pesticides Program
503-986-4752
lwhite@oda.state.or.us