Bee Protection Labeling Statements

Interprets FAC sections 12973, 29102, and 29103; 3CCR sections 6000, 6614 and 6650.

Approved State program

Food and Agriculture Code (FAC) section 29102 states: "The director shall adopt regulations necessary to minimize the hazard to bees, while still providing for the reasonable and necessary application of pesticides toxic to bees to blossoming plants." "The regulations may also include provisions for timely notification of apiary owners of proposed pesticide applications, and limitations on the time and method of application of the pesticides and the pesticide used."

Additionally, FAC section 29103 states: "Failure of a beekeeper to remove hives from a specific location…after notification …shall not prevent the application of pesticides to blossoming plants if consistent with the pesticide's labeling and regulations. When the pesticide applicator has complied with the notification…the applicator shall not be liable for injury to bees that enter the area treated during or after the application."

Interpretation of U.S. EPA statements

U.S. EPA recommends specific bee caution statements on pesticide labeling. DPR has analyzed these statements and offers the following interpretative guidance.

U.S. EPA allows for some flexibility in bee protection labeling statements, so some pesticides may have bee protection labeling statements that differ from the U.S. EPA recommended statements found in their Label Review Manual (LRM). Some of those differences can have a significant impact on the requirements that apply, as discussed below. Some labeling refers to a state program that provides for the protection of bees. California's statutory and regulatory bee protection requirements meet that labeling provision.

Drift effects

Relative to the term "drift" used in mandatory bee caution statements, "drift" implies deposition outside of the treatment area rather than within the target site. It is acknowledged that some drift is a common occurrence. Substantial drift is always prohibited by FAC section 12972. A violation of this labeling phrase occurs when an applicator fails to exercise due care and bees on neighboring property are damaged by drift, under the stated conditions on the labeling.

The applicator must always use discretion when making an application. It is the responsibility of the applicator to comply with the pesticide's labeling and regulations and to consider the potential impacts of the application. Any application resulting in damage to bees off-site could be a violation of *FAC section 12973* (use in conflict with labeling) or Title 3, California Code of Regulations (3CCR) section 6614.

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Bee Protection Labeling Statements, Continued

Residual toxicity

Pesticides toxic to bee are those that include the words "toxic to bees" on labeling, regardless of modifying words such as "highly" or "moderately." Residual toxicity (RT), as specified on the labeling, is the period of time after completing a pesticide application until there is minimal toxic effect to bees. *Title 3, CCR section 6650 contains standards relating to bee activity.*

When data submitted by the registrant shows that RT is prolonged, the U.S. EPA LRM-recommended bee protection statements for both bee toxicity group I (highly toxic) and bee toxicity group II (toxic) labeling contains the directional statement, "Do not apply this product if bees are visiting the treatment area." For pesticides that are highly toxic to bees, there is an additional statement relating to drift onto blooming crops or weeds.

The intent of this labeling statement is to prohibit applications when the RT period specified on the labeling will extend into the subsequent bee activity periods.

Note: Most products do not show RT times on labeling.

When data submitted by the registrant shows that residual toxicity is NOT prolonged, the U.S. EPA LRM-recommended bee protection statements for both bee toxicity group I (highly toxic) and bee toxicity group II (toxic) labeling contains the directional statement, "Do not apply this product while bees are actively visiting the treatment area." For pesticides that are highly toxic to bees, there is an additional statement relating to drift onto blooming crops or weeds. Some interpretation of the meaning of the word "actively" and how it affects the requirement is required.

The intent of this labeling statement is to have applications made when bees are not active and the hazard to bees is minimal by the next active period when the bees may visit /enter the area treated. Bees are "actively visiting" when they are physically present.

Bee hazard information

More information on evaluating bee hazards is available in:
How to Reduce Bee Poisoning from Pesticides at
http://extension.oregonstate.edu/catalog/pdf/pnw/pnw591.pdf.
This document provides useful information but is not an enforceable standard unless specifically included, in whole or part, in permit conditions.

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Bee Protection Labeling Statements, Continued

Agreed upon standards

One of the primary purposes of the statutory bee protection program provisions is to bring the operator of the property to be treated and the owner of the bees into a site-specific discussion of the potential risks and impacts. Often, these discussions result in an "agreed standard" for interpreting the impact on bees with the potential to visit the site versus impacts of applying available mitigations. In effect, the parties, whether individuals or industry groups, most directly impacted and closest to the scene, interpret the labeling provisions in a manner agreeable to both. DPR recommends that, as a general rule, these site-specific, interpretative agreements be honored and accepted for labeling enforcement purposes.

To be acceptable, any agreed standard must:

1. Be mutually agreed upon by relevant parties without coercion.
2. Create a documented standard for acceptable levels of "bee visitation" through such mitigation practices as timing, dosage, method of application, amount of bloom, or other factors to minimize the number of bees exposed.
3. Contain terms that are measurable/enforceable, so that it can be clearly determined whether the agreement was honored by all parties involved.
4. Convey the terms to the County Agricultural Commissioner in advance of any application.

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Bee Protection Labeling Statements, Continued

Example of labeling statements: Variation 1

When the pesticide product labeling states: "This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not **apply** this product, or allow it to drift to **blooming** crops or weeds, if bees are **visiting** (or actively visiting) the treatment area."

Interpretation:
The first sentence is advisory. It provides facts or information about the product. Advisory labeling statements do not create a specific enforceable obligation upon the user. The second sentence is a mandatory statement. Mandatory statements address how the product must be used or handled and generally, must be followed to avoid a violation. However, before this mandatory statement can be interpreted, the term "visiting" must be defined. Merriam-Webster's Collegiate Dictionary, 11th edition, on page 1398, defines "visiting" as "to go to see or stay at (a place) for a particular purpose." Title 3, CCR section 6650 defines "inactive" as from one hour after sunset to two hours before sunrise (night time and twilight hours) or when the temperature is below 55 degrees Fahrenheit (°F). Use the above criteria to establish that bees are "active" and can potentially be "visiting" (or foraging) during daylight and twilight hours between two hours before sunrise to one hour after sunset when the temperature is above 55°F. During this time, it is still necessary to determine if bees are visiting in sufficient numbers to be significantly impacted by the application.

Based on the above definition of the term "visiting," the mandatory bee caution statement above is interpreted as follows.

Pesticide products with this labeling statement can be applied to a crop:

1. That is not "blooming" under an established or agreed upon standard.
2. That is blooming when bees are inactive.
3. That is blooming when bees are active provided the threshold is below the criteria in an established or agreed upon standard for "visiting."

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Bee Protection Labeling Statements, Continued

Example of labeling statements: Variation 2

"This product is toxic to bees exposed to treatment for 3 hours following treatment. Do not **apply** this pesticide to **blooming**, pollen-shedding or nectar-producing parts of plants if bees may **forage** on the plants during this time period. The 3-hour limitation does not apply if the applicator operates in a state with a formal, state-approved bee protection program, and the applicator follows all applicable requirements of the state-approved program designed to ensure that managed bees are not present in the treatment area during this time period."

Interpretation:

The first and third sentences are advisory. The first sentence provides information that the product is toxic to bees exposed to treatment for 3 hours following treatment. The third sentence informs the user that the 3-hour limitation does not apply if the applicator operates in a state with a formal, state-approved bee protection program (such as California), and the applicator follows all applicable requirements of the state-approved program designed to ensure that managed bees are not present in the treatment area during this time period. These advisory labeling statements do not create a specific enforceable obligation upon the user.

The second sentence is a mandatory statement. This mandatory statement addresses how the product must be used or handled to avoid a violation.

However, this statement prohibits application to blooming plants only if bees may forage during a specific 3-hour time period. Furthermore, this mandatory statement (limitation) does not apply in a state (such as California) with a bee protection program. In effect, the mandatory limitation is cancelled by the third advisory sentence. As written, no part of this statement is enforceable in California. Notwithstanding the above statement, the applicator must use discretion when making the application to a crop during a bloom period when bees are considered active (or actively foraging). It is the responsibility of the applicator to be aware of the pesticide's labeling and regulations, and to evaluate the potential impacts of the application. Any application resulting in a bee loss could be a violation of 3CCR section 6614.

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Bee Protection Labeling Statements, Continued

Example of labeling statements: Variation 3

"This product is toxic to bees exposed to treatment for 3 hours following treatment. Do not apply this pesticide to blooming, pollen-shedding or nectar-producing parts of plants if bees may forage on the plants during this time period."

Interpretation:
The first sentence is advisory. The first sentence provides information that the product is toxic to bees exposed to treatment for 3 hours following treatment. The second sentence is a mandatory statement. This mandatory statement addresses how the product must be used or handled to avoid a violation. This statement prohibits use of this product during the blooming period if bees are likely to forage on plants within 3 hours. However, before this mandatory statement can be interpreted, the term "forage" must be defined. Merriam-Webster's Collegiate Dictionary, 11th edition, on page 488, defines "forage" as "to wander in search of…collect…food."

Based on the above definition of the term "forage," this mandatory bee caution statement is interpreted as follows.

Pesticide products with this labeling statement can be applied to a crop:

1. That is <u>not</u> "blooming," under an established or agreed upon standard.
2. That <u>is</u> blooming when bees are <u>inactive</u>.
3. That <u>is</u> blooming when bees are <u>active</u> provided the threshold is below the criteria in an established or agreed upon standard for "foraging."