



# NEONICOTINOID PESTICIDE USE IN CUCURBIT VEGETABLE CROPS

Title 3, California Code of Regulations (3 CCR) sections 6990 through 6990.16

**WHAT:** The Department of Pesticide Regulation (DPR) has adopted regulations to limit neonicotinoid pesticide product use in the production of certain agricultural commodities. The new regulations apply to soil and foliar applications of products containing clothianidin, dinotefuran, imidacloprid, and thiamethoxam. The regulations do not apply to neonicotinoid use in non-agricultural (e.g., structural or home use) or non-production agricultural (e.g., parks, cemeteries) settings, or to seed treatment applications.

**WHY:** Pollinators, such as honeybees, are critical to growers and the entire agricultural industry, as well as to the consumers of the commodities produced. Neonicotinoid pesticide products may present hazards to honeybees and other pollinators. Pollinators can be exposed to neonicotinoids, through contact with residues or by ingesting contaminated pollen or nectar since neonicotinoids are systemic pesticides that move through the plant's tissue. DPR adopted these regulations to protect pollinators from risks from exposure to neonicotinoids in agricultural crops.

**HOW:** To mitigate these identified risks to pollinators, these new regulations have crop-specific rate and application timing restrictions. Statewide, the regulations are expected to reduce the amount of neonicotinoid pesticides used and acres treated.

## PRODUCTS IMPACTED

As of June 2023, there are over 50 products covered by the new regulations. Below are the top neonicotinoid products used in cucurbit vegetable crops for each active ingredient. This information was compiled using publicly available data by products with the highest number of applications in 2022. The identification of these products is intended for educational purposes only to inform growers and applicators of the most commonly used pesticide products in cucurbit vegetable crops that would be subject to DPR's neonicotinoid regulations.

1. Clothianidin: Belay Insecticide (EPA Reg. No. 59639-150-AA)
2. Dinotefuran: Venom Insecticide (EPA Reg. No. 59639-135-AA)
3. Imidacloprid: Admire Pro Systemic Protectant (264-827-ZA), Macho 4.0 (EPA Reg. No. 42750-140-ZA), Wrangler Insecticide (34704-931-AA)
4. Thiamethoxam: Actara (EPA Reg. No. 100-938-ZA), Platinum 75 SG (EPA Reg. No. 100-1291-ZA)

## IMPORTANT NOTES:

Product labels will not be updated with these requirements. Those selling, recommending, buying, or using these products should be aware of these regulations. Growers and applicators must follow the new regulations if applicable. These regulations apply in addition to any requirements found on neonicotinoid product labeling. In the event of a conflict between labeling requirements and these regulations, the strictest requirement must be followed.

## Examples of Cucurbit Vegetable Crops

- Balsam apple, balsam pear, bitter melon
- Chayote
- Citron melon
- Cucumber
- Gherkin
- Gourd, edible
- Pumpkin
- Muskmelon (includes cantaloupe honeydew, etc.)
- Summer squash (includes zucchini)
- Winter squash (includes butternut, acorn, spaghetti)
- Watermelon



California Department of  
Pesticide Regulation

**Before making any agricultural applications of neonicotinoids, BEE sure to review the regulations!**  
Please scan the QR code to view the regulation text.

Revised September 2024



### 3 CCR SECTION 6990.5. NEONICOTINOID USE ON CUCURBIT VEGETABLES

Unless the application is exempted by section 6990(c), the following restrictions apply “

#### 1. BLOOM PROHIBITION

Application of a neonicotinoid is prohibited during bloom, with the exception of soil applications of dinotefuran. Soil applications of dinotefuran may be applied during bloom. The term "bloom" means the period from the onset of flowering until petal fall is complete. It is important for growers to know their crop and local climate.

#### 2. TOTAL MAXIMUM COMBINED APPLICATION RATE

If both soil and foliar application methods are used on the same crop, or if multiple neonicotinoid active ingredients are applied to the same crop, a total maximum combined application rate of 0.736 lbs. active ingredient (ai)/Acre (A)/season may be applied, provided: (1) Soil application rate must not exceed 0.536 lbs. ai/A/season; and (2) Foliar application rate must not exceed 0.2 lbs. ai/A/season.

#### 3. RATE AND TIMING RESTRICTIONS (EXCEPT AS NOTED IN 4.)

Except as noted below, if managed pollinators will be used within the growing season, the application rate and timing restrictions listed in the following table apply.

#### 4. EXCEPTIONS (CUCUMBERS AND MELONS)

Cucumbers - If managed pollinators will be used for cucumbers, then foliar applications of Dinotefuran, Imidacloprid, and thiamethoxam are prohibited. For foliar applications of clothianidin and soil applications of all neonicotinoids, the rate and timing restrictions in the table below apply.

Melons - If managed pollinators will be used for melons, then foliar applications of clothianidin are prohibited. For soil applications of dinotefuran, imidacloprid, and thiamethoxam, and foliar applications of all neonicotinoids, the rate and timing restrictions in the table below apply.

Active Ingredient	Soil Application		Foliar Application	
	Maximum Application Rate	Required Timing	Maximum Application Rate	Required Timing
Clothianidin	0.2 lbs. ai/A/season	Apply only from pre-planting until primary side shoot formation	0.2 lbs. ai/A/season	Apply only from pre-planting until bloom
Dinotefuran	0.536 lbs. ai/A/season	None	0.172 lbs. ai/A/season	Apply only from pre-planting until bloom
Imidacloprid	0.172 lbs. ai/A/season	Apply only from pre-planting until fifth true leaf on the main stem unfolded	0.172 lbs. ai/A/season	Apply only from pre-planting until bloom
Thiamethoxam	0.172 lbs. ai/A/season	Apply only from pre-planting until fifth true leaf on the main stem unfolded	0.172 lbs. ai/A/season	Apply only from pre-planting until bloom

For crops other than cucumbers and melons: if managed pollinators will not be used with the crop **and** the crop is not in bloom, then a single soil or foliar application of one active ingredient following label instructions is allowed without additional restrictions.

#### EXEMPTIONS FROM THE REGULATIONS – Section 6990(c)

1. An application made to an agricultural commodity grown inside an enclosed space, insect exclusionary structure/ netting
2. An application made to address a local emergency or to control a quarantine pest
3. An application allowed under an active “Section 18” Emergency Exemption
4. An application authorized for research purposes to support a proposed amendment to these regulations

**The product labeling must still be followed!**

For questions contact your local County Agricultural Commissioner:  
[www.cdpr.ca.gov/exec/county/countymap](http://www.cdpr.ca.gov/exec/county/countymap)

For more information on the regulations, visit the following links:  
[www.cdpr.ca.gov/neonicotinoiduse/](http://www.cdpr.ca.gov/neonicotinoiduse/)  
<https://www.cdpr.ca.gov/docs/legbills/rulepkgs/22-001/22-001.htm>