

Proposed Groundwater Standards

Wis. Admin. Code NR 140
Cycle 10



Clothianidin

How is it used in Wisconsin?

Clothianidin is a neonicotinoid insecticide used to kill insects. Agricultural uses include seed treatments and spraying leaves to protect crops like corn, soybeans, snap beans, potatoes, grains (wheat, barley, and canola), and fruit. Common residential and commercial uses include sprays and traps for control of bedbugs, ants, flies and other insects, and soil drenches for use on flowers, trees, and shrubs. It was first registered by the U.S. Environmental Protection Agency in 2003.

What are some products that contain this substance?

Clothianidin is the active ingredient in more than 30 products sold in Wisconsin, most of which have agricultural uses. Some common agricultural products include Acceleron, Poncho-Votivo, and Prosper FX. Some residential products include Crossfire Bedbug Concentrate, Raid Foaming Spray, and BioAdvanced Science 12-Month Tree and Shrub Protect and Feed Concentrate.

Who manufactures this substance?

Bayer CropScience was the original manufacturer of clothianidin. Others include BASF, EI du Pont de Nemours and Company, Valent, and others.

Why has this substance been recommended for establishment of groundwater standards?

There is currently no standard for clothianidin in Wisconsin. The Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) has tested for it since 2008. Clothianidin has been detected in:

- 214 out of 1,979 private drinking wells tested
- 432 of 934 samples collected from monitoring wells near agricultural fields

Use of any pesticide substance in agriculture means there is a chance for an accidental spill. Clothianidin's high potential for mobility could impact groundwater. A standard will help homeowners and state agencies make decisions about ongoing water use and potential public health concerns.

What are the proposed standards?

- Enforcement standard: 1,000 µg/L (micrograms per liter)
- Preventive action limit standard: 200 µg/L

Has this substance been detected above the proposed groundwater standards?

No. The highest concentration detected in a private well was 3.88 µg/L, and in a monitoring wells was 3.43 µg/L.

Where can I find more information?

- Information about this and other neonicotinoid insecticides: <https://datcp.wi.gov/Documents/NeonicotinoidReport.pdf>
- Health-based standards: <https://www.dhs.wisconsin.gov/water/gws.htm>
- NR 140 rule process: <https://dnr.wi.gov/topic/Groundwater/NR140.html>

Who do I contact for questions?

DATCP Groundwater Specialist
(608) 224-4503
datcpgw@wisconsin.gov

This fact sheet provides general information for this pesticide ingredient. A groundwater quality standard has been proposed for this substance in accordance with state law (Wis. Stat. § 160).

