# IOWA

#### State Hygienic Laboratory Iowa Biomonitoring Program

## **Neonicotinoid Insecticides**

**Neonicotinoid** (nee-oh-nik-uh-ti-noyd) **Tested in:** Urine and Water **Reported in:** Water Only

#### Learn how you can protect yourself and your family.



### Are there unsafe levels of neonicotinoids in water?

Scientists have not determined if there are levels of neonicotinoids that could be considered unsafe in water. If you are concerned about your test results, continue to the next section to learn how you might reduce neonicotinoids in your water.



### Is it possible to remove neonicotinoids from drinking water?

Yes, you may be able to reduce the amount of chemicals in your water. First, it is important to find out how chemicals may be getting into your water. We recommend that you contact your county's environmental health department or a well specialist. They may want to test your water for bacteria or nitrate or look at your well for any damage. Testing for bacteria or nitrate may be available for free through your county.

You may also be able to install an in-home treatment system to reduce chemicals in the water you drink. Not all treatment systems remove all chemicals. Talk to a water treatment specialist to determine the best options for the chemical(s) that may have been found in your water tests.



### Will exposure to neonicotinoids harm my health?

We do not know all the ways that neonicotinoid insecticides can harm your health. We do know that exposure to neonicotinoid insecticides may harm your

nervous system



### Are there other ways I could limit my exposure to neonicotinoids?

If you will be applying neonicotinoid insecticides or in an area where these chemicals may have been applied, you should:

- Follow all manufacturer safety precautions.
- Wear protective clothing.
- Wash clothes separately after coming in contact with chemicals.
- Do not wear shoes into the home after coming in contact with chemicals.
- Limit access to chemically treated areas until the product has completely dried. It is especially important to keep children and pets away from the area.

#### What are neonicotinoids?

Neonicotinoids are among the most widely used insecticides in the world. Neonicotinoids are useful for protecting a broad range of crops from insect damage. We are testing for the neonicotinoids that are commonly used in lowa: acetamiprid, clothianidin, imidacloprid, and thiamethoxam. We are also testing for two additional compounds that are created when these chemicals break down over time: 5-hydroxyl-imidacloprid and n-desmethyl-acetaiprid.

#### Where can I find more information?

https://pubmed.ncbi.nlm.nih.gov/32267911/