EFFECT OF A NEONICOTINOID MIXTURE ON THE AQUATIC INVERTEBRATE COMMUNITY

Neonicotinoid insecticides are the most commonly used insecticides in the world today. These insecticides are routinely found in Washington State surface waters, often as mixtures and at low concentrations. In this study, we are investigating the potential effects of the three most commonly detected neonicotinoids in our surface water, imidacloprid, thiamethoxam and clothianidin, on aquatic invertebrate communities.

What we’re doing
- Establish replicated aquatic invertebrate communities.
- Expose these communities to each neonicotinoid separately and as a mixture.
- Evaluate the effects of these insecticides on these communities.

How we’re doing it
We are conducting a research study at WSU Puyallup where we are exposing aquatic invertebrate communities to these insecticides.

WHY IS THIS ISSUE IMPORTANT
These insecticides are routinely found in Washington State surface waters, but we don’t know whether they cause damage to aquatic organisms. It is therefore important to determine whether neonicotinoids are a threat to our aquatic ecosystems.

WHAT YOU CAN DO
If you apply neonicotinoid insecticides, be sure to follow the label as this will reduce the amount of these chemicals enter water systems. If possible, reduce the amount applied or switch to less hazardous pesticides.

ABOUT
In 2009, the Washington State Legislature passed legislation to create the Washington Stormwater Center (WSC) as a partnership among business, government, and academics. WSC was charged to protect Washington’s waters through improvements in integrated NPDES education, permit technical assistance, stormwater management, evaluation of new stormwater technologies, and stormwater research. The WSC was established in 2010 as a joint center between the Washington State University, Puyallup Research and Extension Center and the University of Washington-Tacoma, Urban Waters center.

FOR MORE INFORMATION
http://entomology.wsu.edu/blog/faculty/research-extension/stark/
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