

## **JOHN'S CORNER**

### **Tip of the Week:**

### **TIPS FOR DEALING WITH SLUGS AND SNAILS AND A FLOURIDE UPDATE**

*by John Ferguson*

During 2011 and 2012 very few folks had any trouble with slugs and snails due to the drought. However, this year we have been blessed with abundant rainfall and mild temperatures hence the slug and snail population has exploded.

Over the last week we had several customers asking about snail and slug control. I have also received a couple e-mails about dogs dyeing from ingesting Iron Phosphate based snail baits.

In a previous TIP I talked about how effective baby ducks were in controlling slugs and snails. Today there is another completely NON-TOXIC method that works extremely well for snails.

I was taking out the trash this morning and I noticed hundreds (thousands?) of snails up on the brick, on the woodwork and up on tree trunks. When it rains snails climb up on various structures to keep from drowning.

For years I have kept a short wood block around (2" x 4" x 18" long) just for snail control. I have discovered that snails crush easily when pressed on by the wood block. The snails were so thick this morning I could lay the wood on its side and crush 8-10 snails at one time. In a just few minutes there were hundreds of dead snails that will no longer be eating my plants. The microbes will decompose them and all the nutrients will be returned to the soil.

I have also discovered that snails are cannibalistic. I would crush a couple snails close to each other and go away. When I come back 30-40 minutes later, there are often dozens of snails packed around the crushed ones eating them. Now my crushing efficiency has greatly increased.



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If one does this a few times you can quickly reduce the snail population to a point where they do no noticeable damage to your plants.

### **FLOURIDE Update**

I am in the process of reading a couple new books on the role of all the trace elements (micro-nutrients and pico-nutrients) in nature from plants and animals to usage by industry. One of the new books is:

**Trace Elements in Abiotic and Biotic Environments, Alina Kabata-Pendias and Barbara Szteke, CRC Press, 2015, ISBN: 13:978-14822-1279-2**

The production of phosphate for use in artificial fertilizers includes high levels of fluorine (F) and has become a major environmental problem.

New research has shown that fluorine causes a loss of organic matter and humus. This organic matter and humus holds nutrients required by plants in the soil. This is sometimes referred to as the humic-mineral complex. As a result more nutrients are lost by leaching which in turn pollutes our waterways, now we have to purchase more fertilizer to replace what was lost so plants do not develop chlorosis and become weakened.

It has also been found that fluorine causes a reduction of enzymatic activity by both microbes, plants and other soil life. As a result plants do not grow as fast and are not as healthy as they could be (e.g. more susceptible to insect and disease problems).

A third issue has been discovered is that fluorine reduces the fixation of nitrogen by microorganisms. Again this requires one to purchase additional fertilizer as a result.

Additionally, as fluoride builds up in the soil it may result in improper plant growth and cause an elevated content of fluorine in plant tissue. The impact of fluoride is becoming a major ecological concern.

If a gardener want to have a healthy yard and garden they need to use ONLY organic fertilizers and do not water with municipal water unless it has been filtered to remove the fluoride (except in drought situations).



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Gardeners that have been using organic management methods for years and worked on improving their soil, rarely have the need to water their yard or garden in our area.

Note 1: Due to the toxicity of fluorine, most countries (if not all) of the world have made it illegal to add fluoride to water supplies.

Note 2: Fluoride is listed as a major chemical warfare agent by the USA military due to its extreme toxicity.

**Related:**

The Woodlands Joint Powers Agency MUDs to Hold Public Hearings Regarding Fluoridation of Water Supply. <http://wjpa.net/the-woodlands-joint-powers-agency-muds-to-hold-public-hearings-regarding-fluoridation-of-water-supply/>