

Dawn Standke Talk on Chemicals in Food

Natural is good, Right?

She posed several questions to evoke thought and consideration that all things can be dangerous.

What makes food safe?

All foods contain substances and pesticides in our foods. Usually in small amounts. Does that make it good or bad?

The Dose makes the poison.

You need to consume enough of the poison to hurt you.

Chemicals have been found in our food.

Water is a chemical. H₂O It is made of 2 Hydrogens and 1 Oxygen.

Chemicals are the building blocks. Water contains natural minerals.

Too much water can be fatal.

You can die if you drink too much water.

In 2007 there was a contest held to win a Wii. One of the participants actually died hours later. The participant drank 2 gallons of water in three hours. Her stomach had swelled, and the DJs actually commented about it. After leaving the radio station feeling sick, dizzy and had a headache she died a few hours later.

Salt is natural. Sodium Chloride. Na + Cl. Too much salt is dangerous.

All foods have a chemical breakdown.

All-natural things that are good, Right?

These are all natural but dangerous: Tigers, Oleander, lightning.

Strychnine tree, its natural tree. It can be used as a medicine. Known as a poison. Banned in U.S. except in gopher bait.

Recommended Book: Wicked plants, plants that kill by Amy Stewart

Botulinium Toxin – botox is a natural toxin that is dangerous if not used correctly.

Some Mold is safe. Blue cheese, other mycotoxin in Rice; grains and other products.

Mycotoxin contamination is believed to lead to many deaths ever year all over the globe. Pet food is one that has been found to have mycotoxin contamination. Brand name: SportMix, Midwestern pet foods.

Bacteria & viruses cause most of our food problems in the U.S. Be safe & take seriously food cross contamination.

Alcohol is safe, right? 12-23 drinks can be fatal. It can cause cancer and is considered a Group 1 carcinogen.

Tobacco is also natural. Tobacco mosaic virus is an infection on leaves that spreads easily.

Coffee is natural, contains caffeine. Consumed at hot temperatures over 150 degrees can cause throat cancer.

Vitamin D is a natural supplement. But be careful not to take too much. If taking supplements, it can be easy to overdo this.

Avoid some supplements, Aconite, Caffeine Powder, Ephedra (Ma huang tea). *See a consumer reports list of supplements not to take.

Kale can even be lethal if you have a kidney problem.

Formaldehyde, we produce it, it exists in food, vaccines contain it.

Arsenic is a natural element; we don't need it. Rice can absorb it if grown in water containing arsenic. Tip: Cook rice like you do pasta with extra water that you can drain, it will reduce the arsenic in your meal.

Keep potatoes in a dark cool place to limit the cancer-causing elements from forming.

Bananas are high in potassium. Radio activity is from potassium

Apples, their seeds contain a compound that is in cyanide.

Potatoes generate their own pesticide solanine to keep pests at bay. The green parts or spud areas contain higher concentrations of solanine.

Don't worry about your food. The dose makes the poison.

Natural doesn't automatically mean safe.

Natural gardening

Vita B1 reduce plant transplant shock, doesn't really work but they still sell it.

DIY weed killer – vinegar, salt, soap. Don't add salt to the ground. Don't mix vinegar and bleach it makes deadly toxins. *see more info on this through a link provided at the end of the document.

Horticulture vinegar is dangerous. It can burn you.

Clove oil can be dangerous. Keep away from pets & children.

Copper fungicide is toxic to bees. If there is a build of this in the soil it is bad.

Pest Management

For organic pesticides look into integrative pest management.

- Deformed leaves in citrus trees, can be the leaf miner.
- A picture of an orange & black insect turns out to be a lady bug. These are good.
- Tomato Hornworm, lava w/ grains of rice on top are actually wasp pupa.
- See a lot of aphids w/ brown tiny holes. They are aphid mummies. Another bug laid an egg inside the aphid and killed it.
- Spray water with a strong stream to get rid of aphids.
- Foamy stuff on Rosemary are fiddle bugs hiding under the foam. It doesn't bother the rosemary. If it becomes a lot just hose it off.
- Round holes on Rose leaves are a result of a cutter bee. They take it back to build their nest.

Other Recommended Resources

At the end of the notes are a list of links to these resources and more.

- Recommended book: A natural mistake by James T MacGregor
- Gardenprofessors.com
- Food & farm discussion blog
- Science Moms Facebook page
- Google earth friendly gardens
- On the San Diego Master Gardeners side look for the earth friendly icon.
- Apply to get your garden certified healthy and get a sign for your garden.

Questions & Answers

Q - I used copper on my trees because the leaf curl is very bad. Should I stop using it?

A - No, if you try limiting how much you are using it should be ok. Once a year isn't going to make it toxic. It needs more exposure to cause problems in the soil.

Q - Cinnamon or Red pepper to keep pests away?

A - Doesn't always work.

Resource Links

Books:

Wicked Plants by Amy Stewart

A Natural Mistake by James. T. MacGregor

<https://www.linkedin.com/in/james-t-macgregor-84759125>

Never mix vinegar with bleach. Or bleach with ammonia. Or bleach and rubbing alcohol. Or Hydrogen Peroxide and Vinegar.

<https://www.buzzfeed.com/peggy/16-common-product-combinations-you-should-never-mix>

Horticultural Myths

<https://puyallup.wsu.edu/lcs/>

Garden Professors Blog

<https://gardenprofessors.com/>

SciMoms, on the web:

<https://scimoms.com/who-are-we/about/>

and on Facebook:

<https://www.facebook.com/TheSciMoms>

Other Facebook pages:

Garden Professors Blog

Food and Farm Discussion Lab

Farm Babe

Strychnine

<https://theconversation.com/strictly-strychnine-poison-in-sport-8796>

Mycotoxins

<https://www.who.int/news-room/fact-sheets/detail/mycotoxins>
<https://www.fda.gov/animal-veterinary/outbreaks-and-advisories/fda-alert-certain-lots-sportmix-pet-food-recalled-potentially-fatal-levels-aflatoxin>

Food poisoning

<https://patch.com/arizona/across-az/food-safety-101-how-prevent-food-poisoning>

Supplements

<https://www.consumerreports.org/vitamins-supplements/15-supplement-ingredients-to-always-avoid/>

Arsenic

<https://scimoms.com/arsenic-in-rice/?fbclid=IwAR1V-b8ISqIzAeAyfr2v927LW7Vn6yurhmUOCZKKKMOmlTj0IDezz2-GSSU>

Potatoes

<https://www.smithsonianmag.com/arts-culture/horrific-tales-of-potatoes-that-caused-mass-sickness-and-even-death-3162870/>

<https://www.gardengatemagazine.com/articles/vegetables/edible-plant-guide/how-to-grow-potatoes-you-can-harvest-from-summer-to-fall/>

Master Gardener Earth-Friendly Garden program

Google San Diego Master Gardeners, click on Earth-Friendly sign

Or:

<https://www.mastergardenersd.org/>

<https://www.mastergardenersd.org/earth-friendly-gardens/>

Questions, comments or ideas for a better name for my talk?

Email me at dstandke@gmail.com