

NEWS FROM THE WONDERFUL WORLD OF SOIL AND PLANTS

By John Ferguson

Subject: trees and rain food safety cryptobiosis

We have an ongoing heat wave and drought and no one wants to be outside, hence this is a good time to get caught up on some educational videos.

Bob Randall, PhD shared this link with me on how trees make rain. For years I have read about this concept but it was in an abstract sort of way. This short video made it come alive. After the video there is a link to many of the scientific research papers that it was based on for those that want additional information.

Andrew Millison teaches permaculture at Oregon State University and the combination of those three facts means that he can produce a ton of great videos on permaculture topics. Given that we are now in a 42nd day without rain and very hot weather, his discussion on the role of trees and rainfall is interesting and useful.

Permaculture Instructor Andrew Millison explains how trees are connected to water in the atmosphere as well as water flowing through the landscape. <u>This video</u> articulates the amazing role that trees play to ecosystem and climate health, and how their removal causes the drought-flood cycle.

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We have talked about the problems and poor quality of our food system many times and why we need to grow as much of our own food as possible.

There is a new documentary on Netflix called "Poisoned: The Dirty Truth About Your Food." This film is shedding light on our food system and just how safe it really is... or is it?

<u>Poisoned: The Dirty Truth About Your Food</u>, looks at the American food industry, often touted as "the safest in the world," and examines the ongoing problem of deadly foodborne illness.



The documentary reveals interviews with victims' families and industry experts, including Sarah Sorscher, JD, MPH with the Center for Science in The Public Interest.

The film also highlights how previous federal action has dramatically reduced incidences of food poisoning, such as when the USDA banned *E coli* from ground beef in the 1990s.

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"The truth is, our food is nowhere near as safe as it should be," says Sorscher.

"Regulators and the food industry have not done enough to mitigate deadly pathogens like STEC *E. coli* and *Salmonella*. We continue to be sickened and die at unacceptably high rates due to contaminated foods as a result."

Now, we have an opportunity to make a similar change in poultry. The USDA has proposed a rule to ban dangerous forms of *Salmonella* contamination in some raw poultry, following the same model used in ground beef.

Note: The documentary did not mention it, but another source of pathogens is using sewage sludge (a.k.a. biosolids) as fertilizer in growing conventional food. See the following links for more information on the dangers of sewage sludge products (a four part series).

- Bio-Solids or Sewage Sludge Revealed Part 1
- Bio-Solids or Sewage Sludge Revealed Part 2
- Bio-Solids or Sewage Sludge Revealed Part 3
- Bio-Solids or Sewage Sludge Revealed Part 4

The video below is also on the problems with our food supply and aimed at a younger audience.

<u>In today's episode</u>, we look at America's food system, why corn is in nearly everything we eat, how factory farms are bad for consumers and the environment, and why greed makes it so hard to eat healthy.

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A reader sent me an article from The Wall Street Journal on a survival method used by microbes and some animals called "cryptobiosis."

Researchers discovered in 2016 that creatures (microbes) frozen in ice or permafrost for 24,000 years could be revived. These are rotifers (microscopic aquatic creatures) and tardigrades (water bears) that can go into a form of suspended animation and stop all metabolic processes till things improve.

Researchers have now discovered a nematode (a small microscopic worm) in Siberian permafrost frozen for 46,000 years and was revived. This is a new record for animals.

The mysteries of God's creation are amazing.

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