

# Are BIOSOLIDS safe for our farmlands and FOOD?

In nearly 70 counties, across the State of North Carolina, farmers are having sewage sludge (aka, BIOSOLIDS) from wastewater treatment plants spread on their farmland. It is given to farmers free of charge to be used as a fertilizer because of its high nutrient content that make crops GROW.

But, did you know that:

**The Federal Clean Water Act defines sewage sludge as a “pollutant” [33USC 1462 (6)].**

Sewage sludge contains nutrient-rich matter, bacteria, viruses, parasites, heavy metals, pharmaceutical drugs, steroids, disinfectants, and leachate from landfills – among other toxic contaminants.

Commonly found disease-causing microbes in sludge include 18 human viruses (including Hepatitis A, Polio); 19 parasites (Cryptosporidium, Giardia) and 31 bacteria (Salmonella, E. coli., methicillin-resistant Staphylococcus aureus (MRSA).

A recent EPA study found that sewage sludge from 74 wastewater treatment plants contained high levels of toxic chemicals including endocrine disrupting compounds found to destroy the reproductive systems of fish and other aquatic life.

Studies of earthworms in fields where sewage sludge was applied found the worms contained disinfectants, fragrances, antibiotics, detergent metabolites, pharmaceuticals, flame retardants and other compounds.

Livestock and dairy animals ingest large amounts of soil when grazing, and sludge contaminants can end up in food and milk produced from animals grazed on sludge-applied lands.

Cancer-causing dioxins, PCBs, pesticides from runoff, flame retardants and heavy metals found in sludge can bio-accumulate in human fat tissue as well as in animal fat and milk.

Food crops (carrots, potatoes, lettuce, spinach, and grains) grown on sludge-applied land can absorb heavy metals – such as cadmium and lead – and be readily taken up by plants eaten by humans and fed to domestic animals.

Plants can continue to take up heavy metals for decades, if not centuries. Some synthetic chemicals, arsenic, mercury and disease-causing microbes can be blown onto plants or aerosolize, settling on food crops, forests, landscaping, lawns, and surface water.

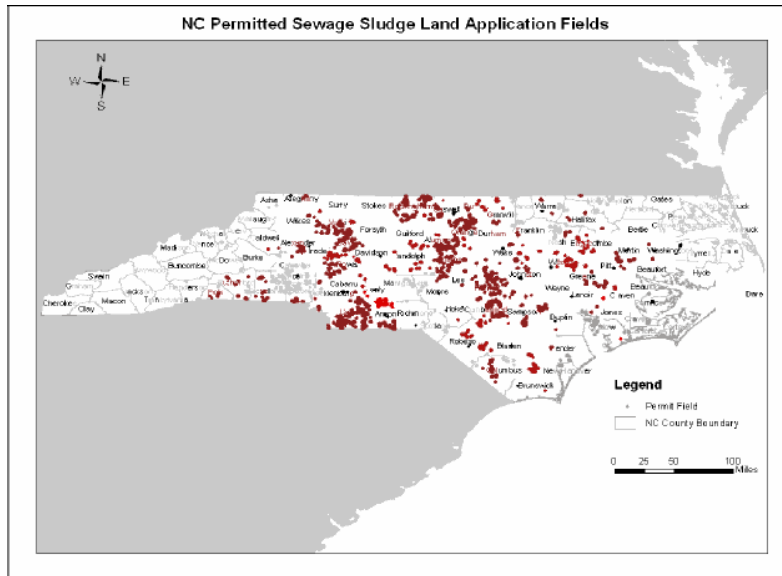
Some European countries such as Switzerland, the Netherlands, the United Kingdom, and Germany prohibit or significantly limit the use of sewage sludge on agricultural land.

In 2008, two dairy farmers in Georgia were awarded compensation after the deaths of hundreds of dairy cattle and loss of hundreds of acres of productive farmland as a result of thallium (rat poison) found in sewage sludge used as a fertilizer.

At least eight major food companies prohibit buying produce grown on land that spread with sewage sludge including Dole Foods, Inc., Del Monte, H.J. Heinz, Western Growers, General Foods, Kraft Foods, Campbell Soup Company, Progresso, Nestle USA, Martha White, Haagen Dazs, and others.

\*References: Institute for Agriculture and Trade Policy, Food and Health Program, *Smart Guide On Sludge Use and Food Production*, 2009.

**In 2006, Dr. Ellen Harrison, researcher at the Cornell Waste Management Institute, one of the nation’s premier agricultural research institutions, stated that “spreading of Class B sewage sludge on farmlands should be banned immediately.”**



- In NC over 50 million tons or 12 trillion gallons of sewage sludge are spread on farmlands each year.
- In Union County over 1 1,000-acres of farmland are being spread with sewage sludge.
- In Orange County almost 3,000-acres of farmland are spread with sewage sludges from 5 different wastewater treatment plants.
- Sewage sludge spreading is occurring in critical watersheds in NC. NC DENR/DWQ has no information as to the location of these sites.

## Sludged land = Sludged food

Land filling, incineration, and ocean dumping. All of these methods have been used to get rid of our society's waste stream. Ocean dumping of sewage sludge from wastewater treatment plants was banned in 1988 because it was found to be destroying marine habitat. Wastewater treatment plants needed other options to get rid of sludge. One year later the EPA implemented the 503 rules that allowed the spreading of sewage sludge on farmlands because of its high nutrient content. In 1991, the term BIOSOLIDS was chosen from more than 250 names in a contest sponsored by a national federation of wastewater treatment plant operators aimed at making sewage sludge more appealing to farmers—and the public.

Since its massive public relations make-over armed with information about the benefits of using biosolids, spreading sewage sludge on farmlands has become the #1 way for municipalities to get rid of sewage sludge. Private industry makes millions in profits contracting with municipalities to haul and spread sludge. Farmers receive sewage sludge free of charge, and are not informed about the thousands of toxic contaminants present in sewage sludge that are not removed or required to be tested by treatment plants.

We do not know what the long-term effects will be from pollutants found in sewage sludge on our farmlands, our health and our children's future. While our population expands, our waste continues to increase. Farmlands are shrinking to make way for more roads and development. We need to find safer, better ways to dispose of our waste rather than spreading it on precious, finite farmlands.

## Blue Ridge Environmental Defense League

www.BREDL.org PO Box 88 Glendale Springs, North Carolina 28629 BREDL@skybest.com (336) 982-2691