



The United Sludge-Free Alliance

Basic Information

When the Sludge Hits the Fan

By Darree Sicher

What is sludge? Why should you care?

For just one moment, think of everything that gets flushed or rinsed down the drain in your home. In America, household human waste, cleaners, poisons, soaps, and pharmaceutical mix together to combine with the waste of every business, industry, school and hospital to create a toxic stew that collects at one of over 16,000 waste water treatment plants (WWTP). Include in this mix the leachates from landfills, Superfund sites, and other industrial clean-up projects. The role of the waste water treatment plant is to separate the sewage solids from the liquids after treating with chemicals, minerals, squeezing and heating in order to release the water back into our communities. The solid by-product remaining after the water is removed from the sewage is called sludge or biosolids. In the 1980's, the sludge industry changed their name from "Federation of Sewage Workers Association" to the cozier "Water Environmental Federation" and made the shift of re-naming sewage sludge to the term "biosolids".

Under federal law, known as the 503 rule, the nine elements that the US Environmental Protection Agency (EPA) require for testing to determine if sewage sludge is "safe" to apply to the land that supplies our food and the source of our water are arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, selenium, and zinc plus "indicator pathogens" E. coli or salmonella. Toxic elements that have been found in sludge but do not require testing include: dioxin, flame retardants, plutonium, radiation, endocrine disruptors, steroids, medications, Teflon, antifreeze and PCB's. Over eight million tons of sewage sludge created annually in America is land applied. The sludge industry, paid to remove our waste from the communities of America, has quietly eased its way onto our open space and farmlands.

Of the thousands of chemicals, pathogens, heavy metals, pharmaceuticals, and bacteria compressed into sludge, testing varies from once a month to once a year, depending on the size of the WWTP. Although the EPA then classifies Class A sludge as "pathogen-free" and Class B sludge as "pathogen-reduced" (based on only nine elements and two pathogens) no substantial studies have EVER been conducted by federal, state, or local officials to determine if sludge is safe for human use. Municipalities pay a hefty sum for sewage haulers to dispose of the sludge, with some of the largest sewage disposal companies making millions of dollars annually to find a place to throw America's sewage waste.

So, what happens to all that sludge? Since ocean dumping was stopped in the United States by environmental groups in the 1980's, because of the dead zones the sludge created in our oceans, disposal options most often used in America include landfill, incineration, and "land application". What is "land application"? Because of measurable amounts of elements like nitrogen and phosphorous, the sludge industry and government bodies overlook the toxins in sludge and market the sewage by-product as fertilizer. Class A sludge is spread in our parks, golf courses, playgrounds, and forests and sold to the gardening public as bagged fertilizer. The amount of sludge that is land applied varies from state to state depending on how strict the state laws are. Under the 503, each state may make stricter laws.

Class A sludge is marketed, and delivered free of charge, to thousands of farmers in 26 states as a fertilizer option. As the price of fuel and petroleum based fertilizers squeeze farm budgets and farmers are only told of the benefits of free sludge, the temptation to apply sludge to farmland increases. Food crops may be grown in fields treated with Class A sludge without testing the soil or the products for levels of pathogens, heavy metals, or pharmaceuticals in spite of the fact that plants uptake nutrients and toxins from the soil.

Meat and dairy animals may graze in fields treated with Class A sludge without testing the product in spite of the fact that heavy metals, hormone mimickers and chemicals collect in muscle and fat tissue.

Class B sludge, with measurable amounts of the EPA nine elements and pathogen, requires a farmer to apply for a permit to “recycle” the sludge onto the farmland. Food products must maintain a waiting period between the time of sludging and growing, while non-food products may be grown directly on Class B sludged land. Although easily ignored, the nutrient/toxin uptake in products like hay or cotton should not be underestimated. Hay products are fed to meat animals and livestock or used to grow food products and cotton seed is used to create food quality oil. Again, testing is done to “prove” the nutrient value of sludge for plants, but no substantial scientific studies has been done on the hazards or safety of sludge on human health. While towns and cities struggle to control high levels of toxins, bacteria and hormone mimickers in their municipal water supply and homeowner’s private wells come up polluted, suspicions turn to the corporate sludging industries, which shrug shoulders and say, “Prove it!” There is no state or national data collection of health or safety concerns from citizens and communities that are forced to accept sewage sludge.

Plants aren’t the only thing growing from sludge. Illnesses and health problems -including nausea, vomiting, burning eyes, congestion, various infections, and respiratory problems - have been recorded and continue to grow in communities throughout the country where sludge is applied. Three deaths are linked to land application of sludge. When the sludge is dry, and the dust can be inhaled by any resident or passing commuter, the smell is relatively mild. When the rains come or the sludge is wet the smell, akin to rotting flesh, can gag the sturdiest stomach or instigate asthma attacks in adults and children. Every community surrounded by sludged properties, struggles to protect themselves. Elected officials and the Environmental Protection Agency (EPA) are unwilling to change the laws that allow and promote the relentless flinging of Americas toxic goo on lands that provide our food and water. Sludge is not a farm or environmental issue – sludge is a health and safety issue.

Even those who do not live in farm communities question the safety of our food and water supply. When our meats are tainted, our tomatoes are laced with salmonella, our spinach is rife with E. Coli and milk from one Georgia farmer tested 120 higher than legal limit for thallium – a substance found in rat poison – America is beginning to recognize that something is seriously wrong. Scientific studies and warnings are ignored or changed to support a system that encourages pollution transfer on a massive scale, at the detriment of America’s health and democracy. Should we be fighting to prove that we are being poisoned by an obvious pollution source or should we be re-evaluating our sewage sludge disposal options as an alternative energy source? Asking serious questions about responsibilities of our disposal system and its connection to our food and water sources is just the beginning of recognizing our role in what happens next to our health, wealth and happiness. Are you ready to get involved? What is your food and water safety worth? What future will our children inherit?