CHEMTRAIL ECOLOGY

BIO

The author has a MS degree in Zoology, BS in Forestry, and minors in other natural sciences, such as biology, fishery science, chemistry, geology, wildlife management, botany, watershed management, recreation management, soil science, conservation, and ecology. He is retired after 35 years in public service in conservation of resources.

INTRODUCTION

The most obvious thing about chemtrails from jets is the tainting of the sky to an overall whitish hue instead of a normal blue color. The ostensible reason is geo-engineering to combat global warming/climate collapse and reduce heat levels. This paper deals briefly with the problem of barium, strontium, and aluminum particles when they hit the ground and the ecological effects. Information was gathered from reputable national or international organizations and their websites, not from blogs and opinions.

BARIUM

Thankfully, this alkaline metal is mostly very heavy and inert BaSO4, but it accumulates in bones. While the present data appears to say barite has no effect, I advise caution because we have never seen so much of it applied so fast to the land before. This element has no biological value, but can be very toxic in some forms/amounts. We do not know how much is toxic over extended periods, but any abnormal particulate in the air contributes to lung cancer. Commonly, it appears in rat poison as BaCO3.

STRONTIUM

This gray soft metal is also mostly inert, and accumulates in bones. It will replace bone calcium if concentrated. Documented cases of human poisoning are mostly children. Adult poisoning occurs in cases of poor nutrition, with general weakening and debilitation of the nerves and skeletal system. Symptoms often appear like osteoporosis, and are unusual in America. This metal has no biological value, but can be toxic or cancerous in large doses. We do not know how much is toxic over extended periods.

ALUMINUM

This gray soft metal is very chemically active, especially if concentrated. Documented cases of human poisoning are suspected. Usually it is in cases of poor nutrition, with general weakening and debilitation of the nerves and skeletal system. Generally it is suspected in Parkinsonism and "mystery neural diseases." This metal has no biological value, but can be toxic if concentrated. We do not know how much is toxic over time.

Cautious people generally have begun avoiding aluminum cookware and food containers, particularly beverages. While not obviously deadly like lead, cadmium, or mercury, this metal is pervasive in our society and thus deserves more attention as a probable cause of dementia, antisocial behavior, or emotionalism.

Chemically, this metal in chemtrails comes down in micron-sized particles that immediately get absorbed into the biosphere. The effect is immediate, but the amount is small so the effect is not readily seen. The effect is permanent because there is no way to get an elemental particulate form like this out of soils in the ecosystem. Some aluminum is naturally present in some local soils, at about 10,000 ug/l or 1% being normal. We do not know the effect of permanently increasing aluminum in our farms and gardens.

In the soil, aluminum chemically acts as a buffering compound. Due to the peculiar structure of the element with a positive valence like calcium, aluminum molecules and ions can act to neutralize acids or acidify bases. Aluminum hydroxide is popularly used for acid indigestion

because of its amazing capacity to drive any acidic environment to neutral and not overly so to basic. This makes it an excellent buffering molecule which is deadly to our ecological life systems. Wherever a life form must live in an acidic soil, the aluminum drives the soil to neutral and destroys that life. If a life form must live in a basic soil, the aluminum drives the soil acidic and destroys that life. Normally, this effect on our normally acidic soils does not cause catastrophic results. The result is more like epidemics or epizootics happening frequently because of possible aluminum side effects.

As a life-destroying element, aluminum is subtly effective. It quietly eliminates animals and plants until somebody notices things are not like they used to be. The ecology shifts to something less habitable to human life, but not badly enough to directly kill people. A simplified ecosystem is unsafe to human life, but a diverse one is where humanity thrives, and aluminum dust is simplifying the system by eliminating diversity of life forms.

Here is a summary of the aluminum effects in soil and water:

- Deteriorates soil structure, makes it massive and simple, not "garden soil."
- Destroys beneficial soil life forms, such as good bacteria, bugs, fungi.
- Changes vitamin and protein of some crops, esp. tomatoes, rice, and potatoes.
- Makes some crops more vulnerable to disease and pest bugs.
- · Prevents some crops from absorbing some minerals from the soil.

SUMMARY

The chemtrails will eventually and subtly and irreversibly affect our agricultural crops. As population increases and food gets more expensive, this degeneration of agriculture will synergize with other social ills to bring serious consequences to the ecology of this planet, especially in the forested and lightly acidic soils of the agricultural lands.

PROPOSED CREATIVE SOLUTION

Chemtrails could be a violation of the Clean Air Act, so write an EIS and disclose effects.

Replace chemtrails with an amendment to the Clean Air Act. Remove most controls for slash burning of any cellulose product, e.g. forest logging slash, bio-fuels wood, paper, crop residues, etc. without dangerous chemicals in them. The human race has dealt with forest fire smoke for millennia, and we can breathe and filter it out. Let natural smoke be a common low-level particulate in our skies, not harmful chemicals or huge fires.

Francis Mangels, 926-0311 for questions, this version 7/22/08.