

## **“Agent Orange”**

The Vietnam War was the first conflict to highlight the devastating effects of modern warfare on entire ecosystems. The U.S. military used aircraft to spray Agent Orange and other toxic herbicides over 10 percent of Vietnam in order to deprive enemy Viet Cong soldiers of thick jungle that they used for cover, whether for snipers along riverbanks or for supply roads secretly carved through the undergrowth. Other uses of Agent Orange included destroying crops that the Viet Cong relied on for food all in the name of keeping US Soldiers safe.

In the spread of deadly poisons, one of the most famous is Agent Orange. When deployed, Agent Orange kills vegetation of all types, destroying roots as well. Leaves die and fall off, transforming a thick forest into a mass of barren trees. Once green areas of vegetation turn black a sharp, unpleasant odor fills the air. This all occurs because plants subjected to Agent Orange die because the substance contains an excess of growth regulators that cause plant tissue to grow too rapidly making plants dry out.

Besides the immediate effects previously described, Agent Orange had some other consequences when looking at Vietnam's ecology after the war. The topsoil, so vital to supporting thick jungle growth, disappeared after the monsoon rains without plant life to anchor it. Invasive species of grasses appeared, hindering the re-growth of the environment's native plant life. The agricultural industry, a major part of Vietnam's economy and its people's livelihood, was ravaged. And into the soil seeped large quantities of dioxin, a deadly substance that has been linked to numerous, potentially deadly health problems. The World Health Organization has classified dioxin as a "known human carcinogen" that can damage essential bodily systems, such as the endocrine, immune and nervous systems

Far from Southeast Asia, dense forest was also a problem at CFB Gagetown. Military commanders said they needed to clear the brush in order to conduct training exercises. So the military struck an agreement with the Americans to test the defoliants. The repercussions from this decision have been affecting and hindering CFB and surrounding area residents as well as their ecosystems ever since.

In 2005, Wayne Cardinal took 14 different medications every day for his heart and respiratory ailments. The 61-year-old retired soldier was wondering if he and his fellow soldiers were sick from Agent Orange.

"I can remember guys coming in with ears all blistered up and being sent to the MIR and told, 'There's nothing wrong with you, quiet about this, this is just probably a reaction to the chemical. It won't harm you.' And many guys can relate stories like that," Cardinal says.

Recently it has been discovered that the spraying at CFB Gagetown was more extensive than previously thought. Documents show that in the summer of 1966 the military used Agent Purple. Agent Purple had more than three times the level of lethal dioxin as Agent Orange. It was also laced with arsenic. It was so bad that the Americans stopped using it in Vietnam the year before.

Although the effects on CFB Gagetown have not been as great in numbers and amounts to the residents or ecosystems as what they have been in Vietnam, the results to the ecosystems are just as much of an issue. There are still concerns today about the levels of dioxin in the soil which of course is a direct pathway to the waters systems and surrounding ecosystems.

Sources:

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