

## Fluoride and National Security

[http://www.fannz.org.nz/bryson\\_griffiths\\_2.php](http://www.fannz.org.nz/bryson_griffiths_2.php)

The documentary trail begins at the height of WW2, in 1944, when a severe pollution incident occurred downwind of the E.I. du Pont du Nemours Company chemical factory in Deepwater, New Jersey. The factory was then producing millions of pounds of fluoride for the Manhattan project, the ultra-secret U.S. military program racing to produce the world's first atomic bomb.

The farms downwind in Gloucester and Salem counties were famous for their high-quality produce -- their peaches went directly to the Waldorf Astoria Hotel in New York. Their tomatoes were bought up by Campbell's Soup.

But in the summer of 1943, the farmers began to report that their crops were blighted, and that "something is burning up the peach crops around here."

Poultry died after an all-night thunderstorm, they reported. Farm workers who ate the produce they had picked sometimes vomited all night and into the next day. "I remember our horses looked sick and were too stiff to work," these reporters were told by Mildred Giordano, who was a teenager at the time. Some cows were so crippled they could not stand up, and grazed by crawling on their bellies.

The account was confirmed in taped interviews, shortly before he died, with Philip Sadtler of Sadtler Laboratories of Philadelphia, one of the nation's oldest chemical consulting firms. Sadtler had personally conducted the initial investigation of the damage.

Although the farmers did not know it, the attention of the Manhattan Project and the federal government was riveted on the New Jersey incident, according to [once-secret documents](#) obtained by these reporters. After the war's end, in a secret Manhattan Project memo dated March 1, 1946, the Project's chief of fluoride toxicology studies, Harold C. Hodge, worriedly wrote to his boss Colonel Stafford L. Warren, Chief of the Medical Division, about "problems associated with the question of fluoride contamination of the atmosphere in a certain section of New Jersey. There seem to be four distinct (though related) problems," continued Hodge;

1. A question of injury of the peach crop in 1944.
2. A report of extraordinary fluoride content of vegetables grown in this area.
3. A report of abnormally high fluoride content in the blood of human individuals residing in this area.
4. A report raising the question of serious poisoning of horses and cattle in this area.

The New Jersey farmers waited until the war was over, then sued du Pont and the Manhattan Project for fluoride damage -- reportedly the [first lawsuits](#) against the U.S. A-bomb program.

Although seemingly trivial, the lawsuits shook the government, [the secret documents reveal](#). Under the personal direction of Manhattan Project chief Major General Leslie R. Groves, secret meetings were convened in Washington, with compulsory attendance by scores of scientists and officials from the U.S. War Department, the Manhattan Project, the Food and Drug Administration, the Agriculture and Justice Departments, the U.S. Army's Chemical Warfare Service and Edgewood Arsenal, the Bureau of Standards, and du Pont lawyers. Declassified memos of the meetings reveal a secret mobilization of the full forces of the government to defeat the New Jersey farmers:

These agencies "are making scientific investigations to obtain evidence which may be used to protect the interest of the Government at the trial of the suits brought by owners of peach orchards in ... New Jersey," stated Manhattan Project Lieutenant Colonel Cooper B. Rhodes, in a memo c.c.'d to General Groves.

27 August 1945

Subject: Investigation of Crop Damage at Lower Penns Neck, New Jersey  
To: The Commanding General, Army Service Forces, Pentagon Building, Washington D.C.

"At the request of the Secretary of War the Department of Agriculture has agreed to cooperate in investigating complaints of crop damage attributed... to fumes from a plant operated in connection with the Manhattan Project."

Signed, L.R. Groves, Major General U.S.

"The Department of Justice is cooperating in the defense of these suits," wrote General Groves in a Feb. 28, 1946 memo to the Chairman of the U.S. Senate Special Committee on Atomic Energy.

Why the national-security emergency over a few lawsuits by New Jersey farmers? In 1946 the United States had begun full-scale production of atomic bombs. No other nation had yet tested a nuclear weapon, and the A-bomb was seen as crucial for U.S leadership of the postwar world. The New Jersey fluoride lawsuits were a serious roadblock to that strategy.

"The specter of endless lawsuits haunted the military," writes Lansing Lamont in his acclaimed book about the first atomic bomb test, "Day of Trinity."

In the case of fluoride, "If the farmers won, it would open the door to further suits, which might impede the bomb program's ability to use fluoride," said Jacqueline Kittrell, a Tennessee public interest lawyer specializing in nuclear cases, who examined the declassified fluoride documents. (Kittrell has represented plaintiffs in several human radiation experiment cases.) She added, "The reports of human injury were especially threatening, because of the potential for enormous settlements -- not to mention the PR problem."

Indeed, du Pont was particularly concerned about the "possible psychologic reaction" to the New Jersey pollution incident, according to a secret 1946 Manhattan Project memo. Facing a threat from the Food and Drug Administration (FDA) to embargo the region's produce because of "high fluoride content," du Pont dispatched its lawyers to the FDA offices in Washington, where an agitated meeting ensued. According to a memo sent next day to General Groves, Du Pont's lawyer argued "that in view of the pending suits...any action by the Food and Drug Administration... would have a serious effect on the du Pont Company and would create a bad public relations situation." After the meeting adjourned, Manhattan Project Captain John Davies approached the FDA's Food Division chief and "impressed upon Dr. White the substantial interest which the Government had in claims which might arise as a result of action which might be taken by the Food and Drug Administration."

There was no embargo. Instead, new tests for fluoride in the New Jersey area would be conducted -- not by the Department of Agriculture -- but by the U.S. Army's Chemical Warfare Service because "work done by the Chemical Warfare Service would carry the greatest weight as evidence if... lawsuits are started by the complainants." The memo was signed by General Groves.

Meanwhile, the public relations problem remained unresolved -- local citizens were in a panic about fluoride.

The farmer's spokesman, Willard B. Kille, was personally invited to dine with General Groves --then known as "the man who built the atomic bomb" -- at his office at the War Department on March 26, 1946. Although he had been diagnosed with fluoride poisoning by his doctor, Kille departed the luncheon convinced of the government's good faith. The next day he wrote to the general, wishing the other farmers could have been present, he said, so "they too could come away with the feeling that their interests in this particular matter were being safeguarded by men of the very highest type whose integrity they could not question."

In a subsequent secret Manhattan project memo, a broader solution to the public relations problem was suggested by chief fluoride toxicologist Harold C. Hodge. He wrote to the Medical Section chief, Col. Warren: "Would there be any use in making attempts to counteract the local fear of fluoride on the part of residents of Salem and Gloucester counties through lectures on F toxicology and perhaps the usefulness of F in tooth health?" Such lectures were indeed given, not only to New Jersey citizens but to the rest of the nation throughout the Cold War.

The New Jersey farmers' lawsuits were ultimately stymied by the government's refusal to reveal the key piece of information that would have settled the case --how much fluoride du Pont had vented into the atmosphere during the war. "Disclosure... would be injurious to the military security of the United States," wrote Manhattan Project Major C.A Taney, Jr. The farmers were pacified with token financial settlements, according to interviews with descendants still living in the area.

"All we knew is that du Pont released some chemical that burned up all the peach trees around here," recalls Angelo Giordano, whose father James was one of the original plaintiffs. "The trees were no good after that, so we had to give up on the peaches." Their horses and cows, too, acted stiff and walked stiff, recalls his sister Mildred. "Could any of that have been the fluoride?" she asked. (The symptoms she detailed to the authors are cardinal signs of fluoride toxicity, according to veterinary toxicologists.)

The Giordano family, too, has been plagued by bone and joint problems, Mildred adds. Recalling the settlement received by the Giordanos, Angelo told these reporters that "my father said he got about \$200."

The farmers were stonewalled in their search for information, and their complaints have long since been forgotten. But they unknowingly left their imprint on history -- their claims of injury to their health reverberated through the corridors of power in Washington, and triggered intensive secret bomb-program research on the health effects of fluoride. A secret 1945 memo from Manhattan Project Lt. Col. Rhodes to General Groves stated: "Because of complaints that animals and humans have been injured by hydrogen fluoride fumes in [the New Jersey] area, although there are no pending suits involving such claims, the University of Rochester is conducting experiments to determine the toxic effect of fluoride."

Much of the proof of fluoride's safety in low doses rests on the postwar work performed by the University of Rochester, in anticipation of lawsuits against the bomb program for human injury.

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