

Monsanto

FROM :
(NAME-LOCATION-RHONE) D. R. Bishop - F3EB

DATE : March 23, 1983

CC.

SUBJECT :

REFERENCE :

TO :

- R. T. Berendt - E2ND
- T. M. Bistline - E2ND
- D. L. Coleman - G2WF
- A. M. Ford - A2SA
- G. F. Fort - F3EC
- J. F. Hussey - F3EA
- G. D. Ingenthron - F3EB
- F. E. Kearney - E2SA
- W. J. McCarville - G3WG
- P. S. Park - G3WB
- G. Roush - G2WG
- J. H. Spraul - G2WF
- M. C. Throdahl - D1D
- E. Tillman - G2WF
- J. D. Wilson - G3WG

To

F.Y.I., attached letters were messengered today.

A. R. Bishop

Dan R. Bishop

Attachments

CONFIDENTIAL
SUBJECT TO PROTECTIVE ORDER.

C04140

237063

Monsanto

PUBLIC RELATIONS DEPARTMENT

Monsanto Company
800 N. Lindbergh Boulevard
St. Louis, Missouri 63167
Phone: (314) 694-1000

March 23, 1983

Mr. Eric Newhouse
Associated Press
900 N. Tucker Blvd.
St. Louis, Missouri 63101

Dear Mr. Newhouse:

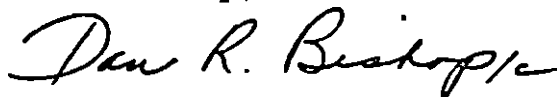
The Associated Press told half a story about Agent Orange and dioxin as it appeared in the March 18 front page of the St. Louis Post-Dispatch. The AP story concerned Vietnamese research suggesting that the offspring of men exposed to dioxin run an abnormally high risk of being born with birth defects.

What was the half of the story left untold? It was that recent Australian research on its Vietnam veterans found "no evidence that army service in Vietnam relates to the risk of fathering a child with an anomaly." Did the AP not know of this work? Other news media did. The March 18 New York Times discussed both the Vietnamese and Australian studies in the same story and correctly pointed out that "conflicting conclusions" were reached.

Apparently a conflict also exists on the reaction of American scientists who reviewed the Vietnamese research. The AP story said that these scientists "are impressed" by the work. But a February 27 article in the Washington Post stated that the U.S. researchers "concluded that none of the Vietnamese reports was scientifically valid."

I obviously don't know why the Associated Press told only half a dioxin story, but I regret that it missed the opportunity for balanced coverage of a subject so vital to our Vietnam veterans and the public, especially Missourians.

Sincerely,



Dan R. Bishop
Director, Environmental Communications

DRB:ec

Enclosures

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St. Louis Post-Dispatch
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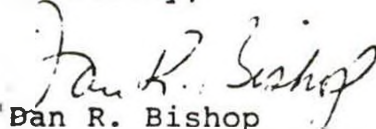
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Sincerely,


Dan R. Bishop

Director, Environmental Communications

DRB:ec

Enclosures

237065

CC: Mr. Bruce Sankey
City Editor, St. Louis Post-Dispatch

Dioxin Is Still a Mystery

A \$33-million decision despite scientific confusion

By Pete Earley

A RMY MAJ. Charlie Hubbs used to drink Agent Orange during the Vietnam War to convince reporters it was harmless.

"It tasted terrible," recalls Hubbs, now a 52-year-old resident of Camp Springs, Md., "but I haven't changed my mind." He still believes the herbicide, used to clear jungle and kill crops, hasn't damaged anyone's health, including his own.

Michael Ryan never drank Agent Orange, but the Long Island policeman was exposed to it in Vietnam. He believes it caused his 12-year-old daughter, Kerrie, to be born with 18 birth defects, including missing bones, twisted limbs, a hole in her heart and no rectum.

Their conflicting views are not only at the core of the Agent Orange dispute but central to the Environmental Protection Agency's \$33 million political decision last week to buy out the entire town of Times Beach, Mo.

The chemical that made Times Beach unfit for its 2,400 inhabitants is dioxin. Dioxin — found in Agent Orange at levels more than six times greater than that detected in Times Beach — is what many Vietnam vets charge has caused them everything from headaches to cancer to birth defects in their children. So far 16,102 vets have filed disability claims.

Moreover, some estimates have claim that as many as 165 million Americans may have been exposed to dioxins in the years they have been sprayed on forests, crops and roadsides and home gardens. The herbicides have been used to control weeds at the Washington Monument and on the White House lawn.

In yet another twist, EPA still lets chemical manufacturers sell dioxin-ridden herbicides for use on rangeland and rice — 1.3 million gallons were sprayed on rangeland last year. In fact, EPA has moved recently to ease restrictions on the dioxin contaminated herbicide, 2,4,5-T.

All these contradictions simply underscore the key point about the government's conflicting stands on dioxin: political decisions are being made more on headline appeal than on scientific evidence. The bulk of reputable science indicates simply that no one knows whether dioxin is toxic to humans and if so, how much.

Strange as it may sound after a week of reports describing dioxin as a threat to humankind, scientists are deeply divided over whether exposure to dioxin causes health problems in humans.

Consider these comments by two experts on dioxin: Drs. Samuel Epstein, a cancer researcher at the University of Illinois, and Matthew Meselson of Harvard, considered a pioneer in dioxin research.

Epstein: "The evidence is overwhelming that dioxin is carcinogenic [causes cancer] in humans."

Meselson: "Anyone who says that it is a clear and present danger cannot prove it, and anyone who asserts that it is not a danger cannot prove that either. We simply don't know."

Dioxin is formed as an unwanted byproduct when "phenoxy" herbicides are made. Just how much dioxin is formed depends upon how well the manufacturer controls the temperature and pressure when making a herbicide.

In 1979, the President's Council on Environmental Quality announced that dioxin had caused cancer in test animals when 2.2 parts per billion of their normal diet consisted of dioxin.

Pete Earley is a Washington Post national staff writer.

It caused birth defects in monkeys at doses of 2.5 parts per trillion. The council called dioxin "one of the most toxic substances ever studied."

The Centers for Disease Control in Atlanta now says dioxin at levels higher than one part per billion may be dangerous to humans.

But dioxin effects animals differently, making some scientists skeptical of comparisons with humans. For instance, the dosage needed to kill a hamster is 5,000 times greater than that needed to kill a guinea pig, according to Dr. Barclay M. Shepard, the VA's expert on Agent Orange.

Epstein claims other chemicals have been banned after causing cancer at much lower doses than dioxin. The government is stalling to avoid paying compensation, he charges.

Most of what is known about the effect of dioxin on humans is based on studies of industrial accidents, primarily one in 1949 at a chemical plant in Nitro, W. Va., and another in 1976 in Seveso, Italy.

The Nitro accident occurred when a valve popped, spraying fumes inside a building. After that mishap 121 workers developed chloracne, a skin problem caused by dioxin. Studies have documented numerous short-term effects after the accident, including nausea, headaches, blood disorders and impaired nerve function. But the symptoms diminished over a period of time and eventually disappeared. Recent studies show the death rate among the 121 men actually was lower than normal. There also were no signs that the men had developed higher rates of cancer.

At Seveso, an explosion spewed an estimated 10 ounces of dioxin over 700 acres. Within six days, 11 children had been hospitalized with skin inflammation and 175 cases of chloracne had been diagnosed. The government evacuated 212 families from homes near the plant after the dioxin level was found to be 50 parts per million. Two months later more than 2,000 small animals had died, mostly rabbits. Another 78,000 animals had to be slaughtered to prevent dioxin from entering the food chain.

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Officials reported a significant increase in birth defects in Seveso and a higher rate of spontaneous abortions. But both rates were lower than the country's national average.

In January, Vietnam invited 21 nations to send scientists there to review 60 herbicide studies by the Vietnamese. Fourteen scientists from

U.S. universities attended, but they concluded that none of the reports was scientifically valid.

The only U.S. study linking a herbicide with dioxin to human health problems was issued in 1979 by the EPA. It was prompted by Bonnie Hill of Alsea, Ore., after she and seven other women in the Alsea area suffered miscarriages several weeks after 2,4,5-T was sprayed near their homes. The study said the miscarriage rate "appears to be correlated to the amount of 2,4,5-T sprayed," prompting EPA to limit 2,4,5-T use to rangeland and rice.

More than 18 critiques of the Alsea II study have been published in scientific journals. In 1979, the British medical journal *The Lancet* described the sentiment among scientists like this: "Independent statisticians have been unable to find any evidence in the [Alsea II] data of a link between abortion and 2,4,5-T."

In 1980, the VA hired a consulting firm to review some 1,200 scientific articles about phenoxy herbicides. The study found "no evidence" that the chemicals pose "a potent carcinogenic risk" to humans. It also found no evidence that dioxin caused reproductive damage in humans.

Last October, the American Medical Association issued its 2,4,5-T and dioxin studies. It said "there is still little substantive evidence for the many claims that have been made against these compounds."

Dow has even given volunteer employees doses of 2,4,5-T to see how long it took to go through their bodies.

The VA is involved in 50 studies alone this year of Agent Orange, at a cost that will exceed \$100 million. EPA will spend another \$495,000 to study residents of Times Beach and other areas exposed to dioxin.

Suspicion remains, of course, about the VA's objectivity. Congress last year forced VA to surrender its most important study to the CDC because it said the VA had lost credibility with Vietnam veterans. The scientific dispute, however, may now be mute. "We're simply beyond that now," says Frank McCarthy, president of Agent Orange Victims International, a privately funded self-help group.

How can the government pay \$33 million to 2,400 residents of Times Beach and not feel responsible for "the healthy young men it sent to Vietnam who came back sick and diseased?" he asks.

Studies by Vietnam and Australia Conflict on Agent Orange's Effects

By PHILIP BOFFEY
Special to The New York Times

WASHINGTON, March 17 — Two studies conducted abroad have reached conflicting conclusions on whether Agent Orange, the herbicide used in Vietnam, caused birth defects for children of non-Vietnamese troops who fought in Vietnam.

A study by Vietnamese scientists reported an increase in abnormalities in children of North Vietnamese women whose husbands served in South Vietnam and thus were potentially exposed to Agent Orange.

But a study of Australian veterans of Vietnam found "no evidence that army service in Vietnam relates to the risk of fathering a child with an anomaly." The Australian Government praised the study.

It was not clear to scientists in this country why the studies reached such opposite conclusions, or what the relevance of either might be to whether Agent Orange caused birth defects for American servicemen's children.

U.S. Study Being Conducted

The national Centers for Disease Control in Atlanta is trying to determine if there was any increase in defective American children of veterans.

The Vietnamese study was discussed in January in Ho Chi Minh City at a symposium attended by American scientists. A report of that conference, now circulating in American scientific circles, says the group was "very much impressed," but stops short of endorsing the Vietnamese findings.

Arthur B. Westing, an ecologist from Hampshire College in Amherst, Mass., who helped organize the conference,

said of the Vietnamese results, "There is no precedent for it in the international literature." Birth defects from by toxic agents usually mean the mother, not than the father, has been exposed.

American experts on Agent Orange said they were withholding judgment until they saw the full data and analysis for both studies. The Veterans Administration said the Australian study appeared well conducted. It reported "persuasive evidence that Vietnam service has not been associated with any important increase in the risk of birth defects."

Fri., Mar. 18, 1983

ST LOUIS POST-DISPATCH

Vietnamese Link Dioxin, Birth Defects

WASHINGTON (AP) — American scientists say they are impressed by Vietnamese research suggesting that the offspring of men who are exposed to dioxin run an abnormally high risk of being born with birth defects.

Rep. Thomas A. Daschle, D-S.D., chairman of Vietnam Veterans in Congress, said that the Vietnamese investigations strengthen the case for legislation he has proposed. It would award disability benefits to veterans suffering certain diseases they believe are related to the dioxin in Agent Orange.

Published American research has yet to find a link between exposure to dioxin and birth abnormalities, miscarriages or stillbirths.

Based on a survey of 40,000 families, the Vietnamese findings on the after-effects of the spraying of Agent Orange in Vietnam were presented at a conference in Ho Chi Minh City (formerly Saigon) Jan. 13-20.

Scientists from several countries, including the United States, attended the conference. Reports from the meeting are beginning to circulate among scientists in this country.

Some of the Americans who were there said the studies struck them as worthy of attention.

"I don't think anyone deliberately fudged the data," says one who attended, Maureen Hatch, a reproductive epidemiologist at

Columbia University's School of Public Health.

Dr. John Constable, a plastic surgeon from Massachusetts General Hospital who also attended, said, "I am persuaded that this is sufficient evidence that unnecessary exposure to dioxin should be rigorously avoided."

Asked what could account for the contradiction between American and Vietnamese research, Samuel Epstein, an epidemiologist from the University of Illinois School of Public Health, said birth defects occurred so rarely that many thousands of people must be investigated before valid conclusions can emerge. He said most Americans

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Defects

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studies involved too small a group.

The Vietnamese doctors said they had found that women from North Vietnam whose husbands stayed in the North during the war ran significantly less risk of having "unfavorable outcomes of pregnancy" than women whose husbands may have been exposed to Agent Orange in the South, the only place where it was sprayed. That suggests that the cause of the difficulty was transmitted in the husband's sperm to his wife.

Between 1965 and 1971, about 12 million gallons of Agent Orange were sprayed in South Vietnam to expose communist sanctuaries in the jungles. Vietnam veterans have suspected that their exposure to the herbicide while they fought the war increased their risk of having children with birth defects.

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