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CAST

A PLAGUE ON OUR CHILDREN

Council for

Agricultural Science and Technology

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COUNCIL FOR AGRICULTURAL SCIENCE AND TECHNOLOGY (CAST)

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FOREWORD

This report was produced in response to the Public Broadcasting System's NOVA program entitled "A Plague on Our Children" that was televised nationwide on October 2, 1979. The program was viewed and evaluated in their homes by five scientists who transmitted their comments by telephone to the headquarters office of the Council for Agricultural Science and Technology (CAST), where they were received by the president and the executive vice president. The latter developed a draft of a news release, which was checked with task force members, revised, and distributed October 4.

The executive vice president then prepared a draft of this report on the basis of comments received and sent it to task force members and executive committee members for review and comment. A revised draft was later submitted to the same persons, after which the final draft was reproduced for distribution.

This report is being distributed to officials in the Public Broadcasting System and the Corporation for Public Broadcasting, to Public Educational Television Stations throughout the United States, to members of the Congressional Communications Subcommittees, to the Federal Communications Commission, to institutional supporters of the NOVA program, to institutional members of CAST, and to an additional selected list of persons. Individual members of CAST may receive a copy on request.

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On behalf of CAST, I thank members of the task force who gave of their time and talents without financial remuneration to prepare this report as a contribution of the scientific community to public understanding. Thanks are due also to members of CAST. The unrestricted contributions they have made in support of the work of CAST have financed the report.

Charles A. Black
Executive Vice President
Council for Agricultural
Science and Technology

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SUMMARY

"A Plague on Our Children," televised nationwide on October 2, 1979, by the Public Broadcasting System in its NOVA series, focused on the herbicide 2,4,5-T and its trace contaminant TCDD, on disposal of polychlorinated biphenyls (PCBs), and on the "Love Canal incident" in which people built houses on a land-fill used previously as a disposal site for various chemicals. Although the subject of toxic chemicals in the environment is an important one, much of the program was characterized by use of science out of context and omission of crucial scientific information, leading to a scientifically erroneous perception by viewers. The program was overloaded with interviews with emotional laymen whose uneducated opinions about health hazards related to chemicals would be expected to induce a similar emotional response in the viewer. Important educational opportunities in the subject matter that were not addressed by PBS include an explanation of the nature of chemicals, their margins of safety, and their importance in life; the issue of natural and man-made chemicals; the dependence of the economy and people's livelihood on chemicals of both natural and man-made origin; the nature of chemical hazards; the no-risk myth; and the realities of waste disposal.

INTRODUCTION

The intellectual quality of the output of the Public Broadcasting System (PBS) is clearly superior to that of commercial television. The NOVA series is considered one of PBS's showpieces, and one would accordingly expect to find the best in educational quality on the NOVA programs. Disappointingly, the October 2 NOVA program titled "A Plague on Our Children" was produced in such a way as to inflame the public rather than to contribute to understanding and a reasoned solution of two major problems facing society: control of weeds that threaten supplies of food and fiber, and disposal of hazardous wastes.

The October 2 NOVA program focused on two products: the herbicide 2,4,5-T (2,4,5 trichlorophenoxyacetic acid) with its trace contaminant TCDD (2,3,7,8-tetrachlorodibenzoparadioxin, often called dioxin), and polychlorinated biphenyls, known as PCBs. 2,4,5-T is controversial with regard to use, and PCBs are controversial with regard to disposal. Also reviewed was the "Love Canal incident" in which disposal of residues of a number of chemicals in a common site was the issue. This report consists of a critical commentary on the program content, with emphasis on 2,4,5-T and TCDD, and a brief review of some important educational opportunities offered by the subject matter that were not addressed by NOVA and are worthy of consideration for future coverage.

COMMENTARY ON THE PROGRAM CONTENT

2,4,5-T and TCDD

The NOVA show included a short sequence of drawings depicting the process by which the herbicide 2,4,5-T is made and the way the trace contaminant TCDD gets into it. This portion of the show was commendably educational, although perhaps not easily followed or understood by those who have not studied chemistry. 2,4,5-T is a weed- and brush-killer that requires a large dose to produce toxic effects in animals. TCDD is a highly toxic trace contaminant that currently occurs in 2,4,5-T at concentrations ranging from nondetectable (limit of detection 1 part per billion) to a maximum of 25 parts per billion according to the Environmental Protection Agency's Suspension Order of February 28, 1979 (7). The concentration of TCDD is so low that the experimental animals investigated thus far would have to ingest more than 100 lethal doses of 2,4,5-T to obtain a single lethal dose of TCDD (8).

The part of the program dealing with 2,4,5-T and TCDD led to a scientifically erroneous perception of hazards by viewers. The hazards implied by interviews with qualified scientists who supported the alarmist pattern selected for the program were not relevant to the actual hazards. The relevant knowledge of the subject was underplayed by limiting the time devoted to exposition of such knowledge, by conveying this information in the form of interviews with persons whose statements the viewer might question on the basis of conflict of interest, by omitting statements obtained in interviews with qualified independent scientists, and by following the comments on the relevant knowledge by statements from the narrator or others that would tend to discredit what was said.

A major flaw in the presentation was the message that scientists are not in agreement on the toxicity of 2,4,5-T and TCDD, and that the preponderance of active scientists in this area regard the chemicals as high-risk items. There is in fact remarkable agreement in masses of toxicological data relating to these compounds, and there is also good agreement regarding estimation of likely exposure. These estimates lead to the conclusion that there is a large margin of safety from field use of 2,4,5-T, despite the existence of the dioxin contaminant.

NOVA conveyed the erroneous impression that 2,4,5-T is highly toxic due to its trace contaminant TCDD by referring to several industrial accidents involving release of toxic amounts of TCDD from trichlorophenol plants, which were misrepresented as 2,4,5-T plants. 2,4,5-T is one of several products made from trichlorophenol. NOVA dwelt at length on the possible long-term health effects of TCDD on workers who were exposed in one of these accidents that occurred 30 years ago before the properties of TCDD were well-known. Current medical follow-up studies (2) show, however, that, among the 121 workers who developed chloracne (the characteristic symptom of mild TCDD poisoning) after the accident, there had been no excess of deaths from cancer or cardiovascular disease. We understand that a scientific paper reporting these results has been accepted by the Journal of Occupational Medicine and will be published soon. There are many other data on this subject, all of which are in substantial agreement. NOVA, however, chose to use lay perceptions of the situation as a portrayal of the scientific picture.

Much of the 2-hour NOVA program was devoted to interviews with members of the general public who expressed in emotional fashion the view that they were suffering from the effects of exposure to 2,4,5-T, TCDD, PCBs, or the chemical residues buried in the Love Canal area. Little education about scientific and technological matters can be accomplished by televising interviews with lay persons who are only superficially conversant with a subject and who testify in an atmosphere of fear.

Several undesirable consequences may be foreseen for the emotional content of the interviews regarding the effects of herbicides and other chemicals on spontaneous abortions and birth defects. Perhaps the most important of these is that, in their zeal to identify certain man-made chemicals with human health problems, people will fail to identify the real cause, and the real problems will not be solved if they are not diagnosed correctly. For example, NOVA focused on the Alsea area in Oregon, where use of the dioxin-containing herbicide 2,4,5-T in forest management is now controversial because of allegations that it produces spontaneous abortions in women. Spontaneous abortions occur normally and, as indicated in item I below, there is no substantive evidence that the incidence of spontaneous abortions in the Alsea area is excessive or that it is related to use of dioxin-containing herbicide. Nonetheless, if there is indeed an excess of spontaneous abortions due to some external cause, the focus of NOVA and the local activists on 2,4,5-T may encourage people to overlook other obvious possibilities such as poisonous plants that grow in the area.

Perhaps of equal concern with regard to NOVA's emotional interviews is a possible needless increase in reproductive failures. Pregnant women will become even more frightened about herbicides and other chemicals than before,

and some will seek therapeutic abortions and sterilizations when there is no evidence of significant exposure or risk. For example, one of the members of this task force who resides in the Oregon area where part of the October 2 NOVA show was filmed was sought out for advice by a frightened pregnant woman whose husband had been in the Vietnam war. She had been ordered by her father to have a therapeutic abortion and sterilization on the basis of what he was misled into believing was factual information on television regarding 2,4,5-T and TCDD. This is one of the tragedies that has resulted from dissemination of miseducation instead of education. The public deserves better treatment, particularly when it is helping to foot the bill.

Other effects of such programming may be predicted. One is increased pressure on regulatory agencies to make unscientific decisions that are likely to be to the detriment of society. Another is loss of credibility of both the scientific community and PBS.

Overlooked by NOVA in the process of dramatizing the hazard due to 2,4,5-T and its trace contaminant TCDD was crucial information that did not support the thesis. The following items may be mentioned:

1. The discreditation of the epidemiological study of spontaneous abortions in the Oregon area on which the Environmental Protection Agency (EPA) relied in suspending 2,4,5-T use on forests (29). This study, which formed the basis for part of NOVA's program, has been scientifically discredited by Lamm (13), Mantel (14), Newton (19), Smith (21), and Wagner et al. (30).

The most comprehensive critique was prepared by Wagner et al. (30) at Oregon State University. According to these scientists, "This critique shows that EPA reached erroneous conclusions from the Alsea II study because of: (1) failure to account for differences in the characteristics between the Study area and the Rural and Urban control areas, (2) inaccuracies in the collection of data on spontaneous abortions, (3) failure to account for marked differences in the medical practice among areas, (4) incomplete and inaccurate data on 2,4,5-T use, and (5) failure to recognize that the magnitude of the monthly variations in rates of hospitalized spontaneous abortions (HSAb) in all three areas is no greater than would be expected due to random variations. When corrections for some of these problems are applied, we find the rate of spontaneous abortions in the Study area does not appear to be related to the use of 2,4,5-T."

The EPA study was reviewed by Agriculture Canada and by Health and Welfare Canada (1). On April 19, 1979, they said, "The recently released reports that prompted the U.S. decision appear to be inadequate to support the regulatory action taken."

The Department of Public Health, Division of Public Health, New Zealand (9), said in its concluding statement released in May 1979, "It is apparent from the foregoing that the report 'Alsea II' is grossly inadequate from a number of points of view, although this critique does not claim to have dealt with them all. Because the authors of 'Alsea II' have failed to consider and discount other more likely causes of the

differences and correlations they obtained, it is felt that no weight whatsoever can be given to their conclusions."

The following two paragraphs are adequate to indicate the scientific quality of the EPA study:

2,4,5-T was used in significant quantities in 30 months of the 6-year study period, but EPA claimed a significant increase in the rate of spontaneous abortions in only one month in the controversial Alsea II study area from which the complaints about 2,4,5-T originated. In this month there were ten cases, but in eight of these the women involved were from zip code areas in which there was no known use of 2,4,5-T during the entire 6-year period (zip codes constituted the only identification of location in the study). A survey of forest industry and U.S. Forest Service personnel indicates that fewer than 150 residences out of a total population of 45,000 persons in the Alsea study area were within 1 mile of any sprayed forest area during the entire 6-year period of the study (18).

The EPA study used the rates of spontaneous abortions in the adjacent urban Corvallis area and in a rural area in eastern Oregon as controls. Herbicides containing dioxin supposedly were not used in these areas, and EPA accordingly attributed the higher rate of spontaneous abortion in the Alsea area to use of 2,4,5-T. Overlooked by EPA, however, was the fact that the average retail sales of the dioxin-containing herbicide silvex (also in the phenoxy class with 2,4,5-T) in the Corvallis area during the EPA study period were 1 pound per acre of lawn per year whereas the average application of 2,4,5-T in the Alsea area was 0.014 to 0.023 pound per acre per year, all applied remote from areas of concentrated human habitation (18).

2. EPA's disclaimer of the epidemiological study of spontaneous abortions in the Oregon area on which it relied in suspending 2,4,5-T use on forests. Several months after the emergency action taken by EPA to halt use of 2,4,5-T in forests, "EPA officials said that they no longer relied upon the Alsea studies as valid to support their earlier action" according to a report by Congressman William C. Wampler (31).

3. The interviews NOVA conducted with at least two knowledgeable university scientists who were well versed in the hazards of 2,4,5-T use. We know of two scientists, a professor of environmental medicine and a professor of forest ecology, who were interviewed for about 2 hours each, but none of the information they supplied to NOVA was used. One scientist was interviewed personally, the other by telephone. The information they provided was factual and relevant. One may infer that it was not used because it did not fit the alarmist pattern selected for the program.

4. The findings in a recent incident in which medical follow-up disclosed no significant increase in spontaneous abortions and birth defects after many persons were exposed to relatively high concentrations of TCDD in Seveso, Italy (4, 26). Alarmists were citing this incident regularly until the negative medical findings began to come in. In this incident, which was not related to herbicides, 623 pregnant women were

documented in the areas contaminated. The medical records show that the number of spontaneous abortions and the number of children born with birth defects following exposure of the pregnant women to the excessive amounts of TCDD were both normal, although increases were noted in both those exposed and those not exposed because of the improved reporting. Among the nine women from the most heavily contaminated area who underwent therapeutic abortions as a precautionary measure, no macroscopic or microscopic birth defects and no chromosomal changes were observed in the embryos. Part of the area contaminated in the Seveso incident received TCDD in quantities well over a thousand times greater than those that would be deposited by use of currently manufactured 2,4,5-T at the rate of 3 pounds per acre commonly used in forest management. The results of these observations indicate that it was extremely unlikely that the spontaneous abortions experienced by the women NOVA interviewed in the Oregon area were caused by the TCDD in the 2,4,5-T used in the vicinity.

Medical records of the Seveso incident have been discounted by certain critics as being biased due to bureaucratic mismanagement and some faulty procedures. The records could indeed have been better, but the fact is that they provide a wealth of follow-up information including clinical data on many people. The records clearly verify that the human population in the Seveso area sustained an immensely greater exposure to TCDD than could be received from herbicide application and that no reproductive problems were identified despite efforts to find them.

5. Published research (3, 6) on a serious chemical disposal accident involving TCDD. This accident occurred in Missouri in 1971, where a horse arena was treated with waste oil contaminated with TCDD from a plant that had manufactured trichlorophenol. Horses, birds, chickens, cats, dogs, and rodents died from the exposure. According to the scientists who investigated the incident, four "children and one adult frequently exposed to the arena complained of skin lesions. In at least two of the children, the lesions described were consistent with chloracne." Chloracne is the characteristic symptom of mild poisoning with TCDD. As a result of subsequent medical examination of the girl who was most seriously affected as well as her sister and mother, the examiners concluded that "our experience demonstrates that people exposed to dioxin (TCDD) can recover completely with no apparent sequelae from the toxin." To be on the safe side, they qualified their findings with the additional statement that "It remains to be determined whether the exposure to dioxin (TCDD) in these children will result in abnormal pregnancies or affect their offspring."

This incident, like the one in Seveso, Italy (item 4), had nothing to do with herbicides. The concentration of TCDD calculated in the surface inch of soil receiving the waste oil was more than 2 billion times greater than that in soil treated with 2,4,5-T herbicide at normal rates.

6. Published research (17) showing no significant increase in incidence of cleft palate among births in Arkansas areas in which considerable 2,4,5-T was used.

7. Data obtained by Oregon State University and the U.S. Forest Service (20) showing that the maximum exposure of a forest resident to 2,4,5-T in an area adjacent to an area of forest being sprayed is about one ten-thousandth of the maximum dose accepted by EPA and others as a safe level.

8. The report on 2,4,5-T, silvex, and TCDD by the EPA Administrator's Scientific Advisory Panel on pesticides (10). In response to questions from EPA, the Panel concluded that residues of these substances in water, sediment, aquatic areas, rice areas, and range areas and the potential for exposure from herbicide drift do not represent a significant human risk. EPA refrained from asking the Panel to comment on residues in forest areas. The final version of the report was dated September 26, but a draft was circulated well before this time.

9. Coverage of the military use of herbicides in Vietnam by the National Academy of Sciences (16). NOVA mentioned a National Academy of Sciences team that investigated the allegations of unfavorable human health effects of Agent Orange, a TCDD-contaminated herbicide mixture used in the Vietnam war, but did not include interviews with any of these scientists, whose report was published and submitted to the U.S. Government at Government request. The Academy team was unable to corroborate the allegations of unfavorable health effects.

Instead, NOVA featured an interview with Dr. Meselson, whose opinion about health hazards differs strikingly from the report of the National Academy of Science's team. Meselson chaired the American Association for the Advancement of Science's Herbicide Assessment Commission which in 1969 and 1970 studied the effects of the military use of herbicides in Vietnam. Although Meselson has made some personal comments, the Commission's findings regarding human health have yet to be presented for scientific review and publication.

10. A report (25) explaining the difference in exposure of persons to herbicides and TCDD in military use of herbicides in Vietnam and in forestry and agriculture in the United States. The quantities of herbicide used per acre in the United States range from one-tenth to one-fifth of those used in Vietnam, and some areas in Vietnam were treated several times. Forest areas in the United States are treated only once or twice in a 50- to 100-year cycle. The concentration of TCDD in 2,4,5-T used currently in the United States is one one-hundredth (or less) of the approximate average concentration of TCDD in the Agent Orange used in Vietnam.

11. The absence of the characteristic symptom of TCDD poisoning in Vietnam veterans. As far as is known, the characteristic symptom of mild poisoning by TCDD (known as chloracne) was not observed in American soldiers exposed to Agent Orange in the Vietnam war (15). This symptom has not been reported in humans exposed to 2,4,5-T or in animals exposed experimentally to large doses of currently produced 2,4,5-T. The concentration of TCDD is so low that the experimental animals investigated cannot tolerate enough 2,4,5-T to obtain a dose of TCDD sufficient to produce TCDD toxicity symptoms, even on a lifetime diet.

Directly following an interview with Dr. Goring who pointed out that 2,4,5-T has toxicity similar to that of aspirin, NOVA carried an interview with Dr. Streisinger, who seemingly rebutted Goring's statement by pointing out that aspirin is rapidly eliminated from the body whereas TCDD (not discussed by Goring) accumulates. Streisinger's statement is a good generalization as far as it goes, but he failed to point out (or at least NOVA did not show him explaining) that TCDD also is eliminated from the body--more slowly than 2,4,5-T or aspirin--and that the medical follow-ups of the Seveso incident (item 4) and the Missouri incident (item 5) verify that humans recover from dioxin poisoning that actually did produce definite symptoms. Streisinger failed to mention the analogy between 2,4,5-T and aspirin, and he failed to mention the virtual nonexistence of TCDD in 2,4,5-T.

PCBs

Polychlorinated biphenyls (PCBs) were given considerable attention in "A Plague on Our Children," but they are not treated at length in this review. Although they have an impact on agriculture, they have no unique uses in agriculture.

The NOVA show implied that PCBs are extremely toxic compounds in a class with TCDD. The fact is that PCBs are generally thousands of times less toxic than TCDD. PCBs are of concern because of the many millions of pounds that have been produced and are still in use and because they are persistent, slowly degradable substances. Thus, proper disposal of PCBs and PCB-containing wastes is a necessity. Exaggerating the toxicity of PCBs makes public acceptance of safe disposal methods more difficult and increases the probability that irresponsible persons will surreptitiously dispose of PCBs by inappropriate means, as in the North Carolina incident dramatized in the NOVA show.

NOVA showed Barry Commoner making the point that PCBs and other synthetic products of the petrochemical industry only substitute for products previously used because the petrochemical products can be made economically when they are produced in very large amounts. Although economics is of unquestioned importance in such matters, part of the economic benefit often results from qualities of the new synthetic products that make them more suitable for certain purposes than are the products for which they substitute. So it was with PCBs. PCBs had superior properties for the purposes for which they were used. At present, however, PCBs are not being replaced by the products for which they substituted. Rather, they are being replaced by other synthetic organic compounds that have fewer undesirable properties.

As in various other instances in which the person shown said something that contributed to the thrust of the program, even though it may have been inaccurate or out of context, Commoner's flawed perception of the state of affairs was followed by a reinforcing statement, this time from the narrator. On the other hand, when persons being interviewed said something that did not seem to fit the alarmist pattern selected for the program, the tendency for use of a discrediting device immediately following was clearly evident.

SOME EDUCATIONAL OPPORTUNITIES

Chemicals and Life

Chemicals were in existence before life developed on the earth. All tangible things are made up of chemicals. Rocks, soil, and living things are all chemicals. The air we breathe, the water we drink, the foods we eat, the clothing we wear, and the houses in which we live are all chemicals. Chemicals occur naturally in the environment and have always been used by humans for sustaining life and for protection, development, and pleasure.

Certain uses or effects of chemicals are judged to be unfavorable under some circumstances. Exposure to excessive amounts of chemicals in inappropriate ways may produce unfavorable effects on human, animal, and plant life. For example, in proper amounts and in proper places, water is essential to life, but we drown if an excess of water in the lungs prevents our access to sufficient oxygen. The point is that chemicals as such are not "bad." We simply learn to take advantage of the properties that are desirable and to avoid those that are undesirable; the immense scientific literature on the toxicology of pesticide chemicals has been generated to permit us to do this.

Natural and Man-made Chemicals

At one time, the organic chemicals produced by the vital processes of living organisms were thought to be in a different class from those produced in the laboratory. This misconception fell in 1828, when the German chemist Wöhler synthesized urea, a simple organic waste product produced by humans.

An example of the persistence of this misconception in the minds of some is the continuing reference to "chemical" fertilizers as opposed to "natural" or "organic" fertilizers. The facts are that both consist of chemicals; the chemical nutrient elements plants derive from both kinds of fertilizers are the same, if present; and the chemical form of the nutrients absorbed from the soil by plants is generally the same, whether the nutrients are supplied by one kind of fertilizer or the other. "Chemical" and "organic" fertilizers are indeed different, but the nomenclature indicated is not properly descriptive.

At present, many of the simpler organic chemicals produced by living organisms can be synthesized in the laboratory and can be produced industrially if desired. The natural and synthetic chemicals are identical. In addition, many other organic chemicals that are not known to be present in living organisms can be produced industrially if there is a need for them.

NOVA left viewers with the concept that "natural" chemicals are compatible with, and beneficial to, living things, whereas man-made chemicals are evil and inimical to living things. For example, Dr. Barry Commoner, who was given considerable time on the show, made the erroneous statement that "Every compound that's made in living things has to be compatible with life."

As his example, Commoner erroneously described DDT as a man-made chemical that is not compatible with life. DDT is an insecticide that was banned some years ago by William Ruckelshaus, when he was the Administrator of the Environmental Protection Agency. The fact is that DDT is compatible with human life in small doses--doses that are lethal to certain insects. Some insects killed by DDT are lethal to people.

Moreover, the fact is that some chemicals made by living things are produced in sufficient quantities to harm the organisms that produce them. Alcohol is an example. If enough fermentable material is present, the yeasts that form alcohol are eventually killed by the alcohol they produce.

And some chemicals produced by certain living things are toxic to other living things. Antibiotics are an example. These are chemicals produced by certain microorganisms (some now synthetically) that limit the growth of other microorganisms or actually kill them. We use the ones that are sufficiently compatible with human and animal life to produce more benefit than harm. Mycotoxins are another example. These chemicals produced by fungi (molds) may result in illness and death of animals and humans. Mycotoxins may produce birth defects, spontaneous abortions, tremors, cancers, and other effects. One of these substances, aflatoxin B_1, is the most potent, naturally occurring, cancer-producing substance known.

Poisonous plants are common, and they are frequent causes of abortion, sickness, and death of livestock, particularly those that graze on natural range vegetation. Humans also may be affected. Even plants that are eaten as human food, and are not regarded as poisonous, contain many chemicals, each of which would have detrimental effects in excess, and some of which would be poisonous in only small quantity. The Irish potato is an example. More than 150 chemicals have been identified that are produced naturally in potatoes. The group of chemicals known collectively as solanum alkaloids is poisonous to humans if ingested in quantities considerably above those we normally get in potatoes, but in earlier years when people ate more potatoes and when some of the varieties used contained more of these alkaloids than the modern varieties, there were occasional solanum-alkaloid poisonings resulting in sickness and death. Even today, if potatoes are exposed to light and turn green, the green portion may develop enough toxic material to cause serious illness if eaten in sufficient quantity.

Many opportunities exist to tell the story of natural chemicals, their use by humans, their supplementation with man-made chemicals, and the benefits and risks associated with both kinds. Facts are sometimes as strange and sensational as fiction, and facts have a lasting educational value not shared by popular misconceptions.

Chemicals and the Economy

Among the few peoples of the world that remain virtually untouched by civilization, chemicals produced by natural processes are the basis of life and of such economy as may exist. In more developed and industrialized areas, chemicals produced by natural processes are equally indispensable, but, in addition, the way of life is geared to man-made chemicals in ways people do not fully understand. The way of life is so dependent on technology involving man-made chemicals that most persons would lose their means of livelihood and many would starve, were the use of man-made chemicals to cease.

In agriculture, for example, technology has created a revolution. According to USDA Historian Wayne Rasmussen (27), farmers were 90% of the U.S. labor force in 1790. In 1978, they were only 3.3% of the labor force. Without the technology involving man-made chemicals, many fertilizers would

disappear. Most pesticides would disappear. Modern machinery would disappear. Modern transportation would disappear. Modern communication would disappear. Fresh fruits and vegetables would be available only where they were produced and in other areas close at hand. Canning would be impossible. Most of the population would be back on the farm producing food for subsistence. Diets would deteriorate. Many would die of malnutrition and its complications.

Chemicals and their manipulation in human self-interest are basic to civilization. Educational emphasis that will communicate the true situation will be productive for society. The commonly communicated message that chemicals are inherently evil and are to be banned as quickly as possible is a disservice to the public.

Chemical Hazards in Perspective

The most widespread and overriding fallacy in communicating information on chemical hazards to members of the public is the failure to recognize and explain the concepts of potency and dose or exposure. Both must be specified to provide a valid assessment of risk. A great educational opportunity exists in this regard.

Exposure is the dose or the amount of the chemical to which an individual is subjected. Dose is commonly stated in milligrams of actual chemical exposure in the body per kilogram of body weight (mg/kg). The effects of a given dose usually depend greatly on the manner of administration--all at once, small amounts at intervals, by mouth, by injection, on the skin--and this needs to be recognized.

Where poisonous effects are concerned, the term used for potency is toxicity. Toxicity is the degree that a substance is poisonous. The exposure required to produce a toxic effect is small for a highly toxic substance such as TCDD but is relatively large for a moderately toxic substance such as 2,4,5-T or aspirin. Where teratogenic and carcinogenic effects are concerned, the words for potency are teratogenicity and carcinogenicity. Some chemicals are potent teratogens or carcinogens, and some are weak teratogens or carcinogens. A "potent" chemical creates a given teratogenic or carcinogenic hazard with a small dose, and a "weak" chemical with a large dose. Where the dose is small enough, no teratogenic or carcinogenic effect can be proved experimentally with any chemical.

The theories of carcinogenicity are of special interest, especially the predominant one that has to do with alteration of the genetic code when the molecular configuration is altered by building in a carcinogen. (Dr. Streisinger was shown referring to this theory in connection with his discussion of TCDD.) This is the theory cancer specialists invoke when they argue the unproven (and probably unprovable) point that there is no safe level of a carcinogen; that is, any exposure, no matter how small, presents a risk of cancer. This same theory tells us that most of the molecular constituents in foods are carcinogens because, under proper conditions, they can be built into the molecular code, changing it to unnatural forms that may result in reproduction of cells that develop into a cancer. This theory involves one of the interesting controversies in science. The extrapolations to human exposures are all based on guesswork and unproved suppositions, and scientists argue different views

like churchmen argue different religious beliefs. But there is general agreement that 2,4,5-T, even with its trace of TCDD, has not been identified as a carcinogen.

Common table salt is a toxic chemical. In proper quantities it performs an essential function, but it is lethal if we ingest too much of it. Aspirin is a toxic chemical and a teratogen. In proper quantities, we derive benefit from it as a medicine. In excess, it is lethal. More deaths occur each year from aspirin than from pesticides. Vitamin A is a teratogen and a carcinogen in excessive quantities. In proper quantities, it is essential to life.

To argue that a particular chemical from a particular source should be banned because of its toxicity, teratogenicity, or carcinogenicity without specifying the exposure or dose and without placing the information in perspective in other respects is an exercise practiced largely by advocates and the uninformed. It is not particularly educational and often is misleading. The current controversy involving the use of nitrite in meat curing provides a good example of the importance of perspective. The Food and Drug Administration and the U.S. Department of Agriculture (12) propose to phase out the use of nitrite for curing meat because carcinogenic nitrosamines may be produced from the nitrite in cured meat, particularly bacon, and the residual nitrite may produce nitrosamines in the body and may have an independent carcinogenic action. The evidence indicates that cured meat is a minor source of exposure of the human body to nitrosamines. Recent work (11) rates the relative exposures of the U.S. population exposed to nitrosamines from various external sources in nanograms of nitrosamines per kilogram of body weight per day as follows: leather tanning, 2600; tire factory, 740; cigarettes, 240; beer, 15; automobile interiors, 9; cosmetics, 6; cooked bacon, 2. Internally the body is exposed daily to 67 to 670 micrograms of dimethylnitrosamine formed from natural sources by natural body processes; the average daily exposure of the body to volatile nitrosamines (including dimethylnitrosamine) from meat products in the United Kingdom is 0.5 microgram (22). The proportion of the human exposure to nitrite that is traceable to ingestion of cured meats in the United States has been estimated at 2% in one analysis (5) and 3% in another (22). The evidence indicates that almost all of the exposure of the body to nitrite is due to nitrite formed by natural body processes in the intestinal tract (23) and the oral cavity (24).

The public is being continually miseducated about chemical hazards, and serious consequences can and will result until the truth is communicated.

The No-Risk Myth

According to the no-risk myth, only those proposed or existing actions to which attention may be directed by the advocate in question are acceptable to society if they involve no risk. This is a fallacious philosophy that appeals to persons who are not acquainted with the risks associated with human activities, and to those who seek to take advantage of the credulity of such persons. The public lacks understanding and deserves to be informed.

Let us take 2,4,5-T as an example. 2,4,5-T is a moderately toxic chemical. It is teratogenic only to mice as far as is known. TCDD is an extremely, but not infinitely, toxic chemical. It is teratogenic to several species and

carcinogenic to laboratory rats at relatively large doses. If what has been found for these experimental animals applies to people, humans exposed to comparable doses in milligrams per kilogram of body weight are at risk of being poisoned, of producing offspring with birth defects, or of developing cancer. Scientific evidence verifies, however, that, as 2,4,5-T is used in practice, human exposures are so small in comparison with exposures required to produce these detrimental effects in animals that the estimable range of risk extends from zero to values so small as to be essentially nonexistent. By any rational estimate, society gains essentially nothing in freedom from risk in banning the use of 2,4,5-T as a means for promoting the rapid development of coniferous trees or maintaining rights-of-way. On the other hand, if society chooses to accomplish this goal by the alternative technique of cutting brush by hand, it is reasonable to inquire how much risk is involved in this practice. Accidents from axes, chain saws, and falling trees are relatively frequent, where the hand methods are used, and this risk is clearly reflected in the much higher costs of insurance for hand-cutting than for aerial application of herbicide by helicopter (28).

Eliminating the risk connected with use of 2,4,5-T thus results in a net increase in risk to society in accomplishing the goal of developing a good stand of coniferous trees. The alternative of doing nothing would also eliminate the risk but would require that society postpone the achievement of its fiber-supply goal for as much as several centuries in some instances whereas intervention in nature's process of plant succession by use of an appropriate herbicide or by selective cutting of competing broadleaf trees could accomplish the goal in a few years. Land productivity is seriously impaired when nature's methods are used. The issue between doing nothing and incurring no risk on the one hand and using a herbicide or the hand-cutting method on the other is initially economic but in the end involves a difference in human risks associated with conditions of life.

The no-risk philosophy is a thoughtless shibboleth that defeats the purpose of production and progress for human benefit. We are at risk of being poisoned, of procreating deformed offspring, and of developing cancer if we eat because food contains naturally occurring substances that produce such effects if ingested in excess. The alternative of avoiding this risk by not eating unfortunately entails a risk of a different kind.

Realistic Waste Disposal

The United States has a major problem with disposal of chemical wastes. In the view of some, the offending wastes must be disposed of with zero risk. The same philosophy is applied to radioactive wastes.

Nothing is to be gained in understanding about the real problems by televising emotional conflicts among citizens, government officials, and company officials reflecting the zero-risk proposition. We have the problem now, and decisions must be reached. What are the alternatives? What are the relative risks of the various alternatives? What are the relative costs? If we stop using toxic chemicals, what are the risks of this? What are the economics? Do we have more to lose by using the chemicals and accepting the risks of waste disposal, or would we be better off by foregoing the chemical products? These are some of the problems society must debate, the problems society must decide. Society can reach an informed decision only if the information system

supplies sound information, but the outcome is in doubt and the future is in jeopardy for all if the people are misinformed.

And, in the broader context of the risks that exist in the United States, what is the realistic risk posed by disposal of chemical wastes relative to the risk posed by occupational exposure to pesticides (there were 32 deaths from pesticides in 1973 due to all types of exposures including accidental ingestion and attempted suicides), the risk of accidents from motor vehicles (47,000 deaths in 1976), and the risk of death from nuclear attack (millions would die if a full-scale attack were made)? How much of its resources should society devote to alleviating these and other risks, and how should the resources be allocated? Alert educational organizations with concern for the real needs of the day will be out in front, exploring these problems and educating the public as an aid to rational decision-making.

CONCLUSION

Citizens need to know the real problems, the real scientific background, the real alternative solutions, and the real benefits and risks associated with these possible solutions if societal issues of the day are to be addressed with understanding and decided with reason. As a public servant, PBS has an obligation to contribute to the goal of rational decision-making on issues of the day. This obligation was not fulfilled in the show entitled "A Plague on Our Children." The miseducation in this show merely exacerbated the controversies, which are based largely on misinformation.

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two decades — from 730 million pounds of active ingredients in 1962 to almost 1.5 billion pounds in 1980 — reflecting increases in both domestic use and exports.

Within that total, the quantity of insecticides, Miss Carson's chief concern, has grown only slightly, and fungicide production has leveled off, too. But there has been an explosive growth in production and use of herbicides. Farmers and land managers have found that chemicals are the cheapest and easiest way to get rid of unwanted vegetation. And the widespread adoption of "no till" farming to halt erosion has required herbicides to kill weeds that would otherwise be eliminated by plowing.

Insecticides vs. Herbicides

By one count, the area doused with herbicides in this country jumped to 250 million acres in 1977 from 71 million acres in 1962. Herbicides now comprise the bulk of all pesticides used in this country, and experts expect the quantities to keep growing.

Opinions differ on whether herbicides pose a greater or lesser danger than the insecticides that predominated in Miss Carson's day. Some environmentalists expect herbicides to become as big a health and environmental issue in the 80's as insecticides were in the 60's and 70's. They view the controversy over Agent Orange, a mixture of chemicals used to defoliate jungles in Vietnam, as a harbinger of future battles over herbicides.

But others consider herbicides more benign than insecticides because most dissipate quickly and, while lethal to plants, are often harmless to humans, who have an entirely different biochemical mechanism. Boric acid, for example, kills vegetation but soothes the human eye. The effect seems to be random. Some herbicides are toxic to animals, others are not. The long-term health hazards of herbicides remain in dispute.

Signs of Reduced Contamination

One trend that would please Miss Carson is a shift away from the use of long-lasting chemicals toward those that dissipate more quickly in the environment. The shift has come about partly because the persistent pesticides were running into problems of insect resistance, and partly because of regulatory crackdowns and court actions. Many of the chemical "elixirs of death" that Miss Carson most deplored — such as DDT, chlordane, heptachlor, dieldrin and aldrin — have been banned

These changing pesticide patterns have led to a perceptible improvement in various indicators of environmental contamination and human health hazard.

Frederick W. Kutz, who heads pesticide monitoring programs for the Environmental Protection Agency, said that pesticide residues found in shell and fin fish, air, water, soil and food all showed signs of diminishing during the 1970's. Even Dr. Pimentel, the Cornell critic of chemical abuses, considers the environmental gains "a real accomplishment" and a boon to wildlife that was threatened with extinction. "It looks like the peregrine falcon, the eagle and the osprey are doing better than in the past," he says.

Shirley A. Briggs, a friend and colleague of Miss Carson who is executive director of the Rachel Carson Council, also rejoices that the banning of DDT from agricultural uses "has already enabled highly susceptible species, including the brown pelican and the bald eagle, to make some gains back from threatened extinction."

The most important health indicator — the body burden of pesticides found in the average American — has also registered improvement. Traces of pesticide are still found in the fatty tissue of virtually all Americans tested, but the average amount found has been decreasing, largely because the younger age groups have experienced less exposure to the persistent pesticides that are being phased out. The biggest decline has been registered by DDT, but E.P.A. officials report a perceptible drop during the 1970's in essentially all other pesticides measured in human fatty tissue as well.

Debate Over Health Effects

The health significance of this body burden remains in dispute. The view espoused by Rachel Carson and bv many environmentalists today is that the pesticide residues are bound to be harmful.

Lewis Regenstein, vice president of the Fund for Animals and author of a new book on chemical hazards, said in an interview: "On the 20th anniversary of 'Silent Spring,' pesticides and other deadly chemicals remain a greater threat than ever. We're in the midst of a cancer epidemic, a lot of it associated with toxic chemicals. Pesticides are certainly a major factor."

But an emerging consensus of cancer experts holds that there is, in fact, nothing approaching a cancer epidemic yet visible and little evidence that the explosive growth in synthetic organic chemicals is a major factor in causing cancer.

PNV - PEST ICIDES

Moves to Ease Regulations

Environmental scientists still find two health trends worrisome. Pesticide residues continue to show up in wells at various points around the nation, suggesting to some that there may be a long-term hazard from contamination of drinking water. And the environmental improvement from curbing persistent pesticides has been gained at the expense of introducing a more immediate hazard. The nonpersistent pesticides that have been substituted are more acutely toxic and pose a greater immediate health risk to the farmworkers and others who apply them.

The regulatory crackdown that Miss Carson helped stimulate appears to have lost momentum in recent months. The Reagan Administration has drastically cut back on environmental regulation, and pesticide amendments now pending in Congress would further ease the regulatory burden on the pesticide industry.

Maureen K. Hinkle, a pesticide specialist for the National Audubon Society, fears it may be time to "write the obituary for pesticide regulation." But Jack D. Early, president of the National Agricultural Chemicals Association, is relieved that "after a period of overkill and overreaction" in which "highly scientific issues were decided in the public arena rather than the scientific arena, I now think we are seeing a shift back."

Thus the use of pesticides is apt to increase. They are often cheaper and more prompt in yielding results than are alternative approaches. And they are sometimes essential. The Office of Technology Assessment, an arm of Congress, concluded that "there are many insect, disease, nematode, and weed problems for which there are no alternative control techniques to pesticides," adding that potential alternatives "may take years to develop."

And such alternatives will have to overcome the psychological appeal provided by chemical pesticides. "People like to see their enemies drop to the ground squirming," says Professor Pimentel. "It gives them a real psychological lift. They can see it happening. But if you release a few thousand natural enemies, it's quiet, you can't see or hear what happens. There's no sex appeal to that kind of control."

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LAT

91

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Idaho's Craig responds to criticism of public land sales

BOISE (UPI) — Rep. Larry Craig, R-Idaho, says Democrats and environmentalists who believe President Reagan is embarking on a bold new course by considering the sale of public lands in the West should take a hard look at the policies of the Carter Administration.

Craig said Wednesday that Jimmy Carter supported the sale of public lands when he was chief executive, and administered that policy through then-Interior Secretary Cecil Andrus.

He said Andrus, who stepped down as Idaho governor to take the federal cabinet post in 1977, disposed of 11,627 acres of federal land during his four years in office.

Those sales brought $17 million into the federal treasury, Craig said. He said during Andrus' first year as a cabinet member, the Interior Department sold 14 parcels of land. It disposed of 82 parcels in 1979, 150 parcels in 1980 and 40 parcels last year under terms arranged while Andrus was head of the resource management department, he said.

"I'm not condemning the secretary for his actions. I'm just suggesting that they (Democratic critics of the current land sales proposal) should look at their own most recent administration," the First District congressman said in a telephone conversation from his Washington office.

"We're doing the exact same thing. And it is a standard policy procedure of our government to inventory federal property to see if any of it should be sold."

Craig added he would be "very opposed" to any effort to sell public lands in Idaho which serve such functions as habitat for wildlife or recreation for state residents.

Andrus, a Boise businessman, was out of the state Wednesday and unavailable for comment. But Craig said the former Interior head has been "strangely quiet" about the current land sales controversy.

He also said the Reagan plan to inventory all property — including buildings, major equipment and land — does not mean the Republican president intends to undertake "wholesale liquidation" of acreage in Idaho and other western states. Craig said tracts of land up for possible sale are generally small and isolated.

But one Idaho Democrat who has made the sales proposal a key issue in his campaign for lieutenant governor disagrees that the Reagan plan poses no threat to residents who want continued access to public lands.

State Sen. Mike Mitchell of Lewiston said Wednesday the administration is trying to stifle information on the possible land sale.

He also said Reagan expects the federal government to receive about $17 billion from surplus-property sales. Compared to that figure, sales under the Carter regime were "a drop in the bucket," he said.

Mitchell also said the Republican in the White House has a "different attitude" regarding the public lands than did Andrus and Carter.

"Remember that this is the administration which wanted to charge fees for hunting and fishing on public lands," he said. Mitchell said extensive public hearings should be held before any land sales are approved. Those hearings, he said, will show most Idahoans oppose the plan.

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ENV - PREDATORS.

UNITED STATES DEPARTMENT OF THE INTERIOR - BUREAU OF LAND MANAGEMENT

PUBLICITY RECORD

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Submitting Office NEVADA STATE JOURNAL N 712

Ranchers discuss goals at Public Lands Council

By DOUG McMILLAN

After listening appreciatively Tuesday to Interior Secretary James Watt, cattle and sheep ranchers got down to the business at hand — poisoning coyotes, rounding up wild horses and impressing upon public land managers their rights to graze livestock on the public domain.

Those were some of the objectives discussed in Reno at the annual Public Lands Council meeting, a group formed by the National Cattlemen's and National Woolgrowers associations 15 years ago to lobby for the interests of ranchers who own grazing rights on public rangeland in the 13 western states.

After Watt delivered the keynote address, council members heard Raymond Momboisse, managing attorney of the Pacific Legal Foundation, predict that westerners might be able to use the predator control poison Compound 1080 by the end of the year.

Momboisse's conservative public interest law firm has been representing ranchers and some of the western states in hearings to try to get the U.S. Environmental Protection Agency to reregister the controversial poison for use on the public rangeland. Presidents Nixon, Ford and Carter refused to allow the use of the toxic chemical after wildlife groups complained that it indiscriminately killed non-target species such as eagles and other raptors, as well as domestic dogs.

But the Reagan administration took steps toward restoring the use of Compound 1080 when the U.S. Fish and Wildlife Service said it wants to use the chemical, and the EPA reopened the question.

"It was the opportunity you always wanted," Momboisse told the livestock leaders.

In five months of hearings and 12,000 pages of testimony, Defenders of Wildlife could only prove that Compound 1080 killed 40 non-target animals, the attorney said scornfully.

EPA Administrator Anne Gorsuch is expected to decide by late November whether to allow the use of Compound 1080.

Noting that every western state has filed "emergency requests" to use the poison, Momboisse said Compound 1080 could be "in the field" as soon as Gorsuch rules, provided her decision favors the ranchers.

The emergency requests could bypass a lengthy appeal process if wildlife groups try to change the decision, he explained.

He urged the ranchers to be sympathetic to "Anne," referring to the EPA administrator by first name, because she has had to undergo "tremendous pressure," especially from a "vicious press."

Saying that his firm has armed the Reagan Administration with a sufficient record to reinstate Compound 1080, Momboisse concluded, "I think we've won."

Public Land Council representatives also heard a report on wild horses from Constance Brookes of the Mountain States Legal Foundation, the conservative public interest law firm headed by Watt until he was appointed Interior secretary.

She said it won three important points but lost two others in a recent ruling on a case concerning mustangs in southwestern Wyoming.

The three arguments a federal district court upheld for ranchers are that the Bureau of Land Management has a specific duty to protect the range, a duty to protect wild horses themselves from overgrazing and, if wild horses multiply in excess of the numbers allowed in BLM management plans and stray onto private land, "you can require the BLM to get those horses off your land."

Mountain States lost its arguments that the government should pay ranchers for rangeland forage lost to excess wild horses and be able to "hold federal officials personally liable" if they refused to follow "the numbers of wild horses set up in wildlife management plans. Both have been appealed, Brookes said.

3

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

PUBLICITY NOTICE

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Watt delivers quips, barbs during Elko luncheon talk

Interior Secretary James Watt yesterday spoke to a luncheon gathering of about 220 Elko area residents, described as the opening campaign event for Governor Robert List, who is seeking re-election.

Watt was introduced by List, who praised the Secretary of Interior and declared Watt "demonstrates what guts is all about." Also at the head table for the luncheon address were Liz Watt Scott, the secretary's sister, and Bob Broadbent, commissioner of the Bureau of Reclamation, both of Las Vegas.

During his talk, Watt reported that List had called to his attention a problem cited by Nevada cattlemen, who complained that employees of the Bureau of Land Management (a Department of Interior agency) had been applying "pressure tactics" to cause cattlemen to make joint applications (with the federal government) for water rights in order to obtain authorization for range improvement projects. Watt pointed out this resulted in the federal government gaining a state water right through the joint application.

Watt said he and List paid a visit to the BLM district office in Elko, and discussed the situation with Rod Harris, district manager. He added that he would discuss the matter further with BLM Director Bob Burford today in Reno (where both officials were scheduled to speak at a meeting of the Public Lands Council — see separate story).

As a result of his discussion with Harris, Watt declared, "Federal funds will be used for rangeland improvements regardless of the water issue — they are not connected... BLM will not be permitted to make contingent its investment in rangeland improvements — non-water development improvements — it will not be able to connect those two..."

Watt generated a round of laughter when he added, "Rod Harris understands it vividly as of 11 o'clock (this morning)."

During his talk, Watt also described differences in attitudes between the Reagan Administration and those who oppose the goals of the administration.

He made the contrast by observing: "Those who criticize us lack compassion... The conservatives believe in people; liberals believe in government."

At other points in his address he repeated this same theme, declaring that he and other conservative Republicans are working to bring about change, because "we don't have to go along with what the Democrats have left us." He reiterated he and other members of the Reagan Administration are working for change because "...we believe in people, not in the institutions of government. We are determined to change America so that her greatness might be restored."

He added that he believes "the 1982 election is critical," and he urged support for Barbara Vucanovich, Republican candidate for Congress in Nevada's newly created northern district and a member of the audience. Watt noted that he had worked with and admired Dean Rhoads of Elko County, who was unsuccessful in his bid for the GOP nomination for the new Nevada congressional seat. He observed that Elko County had voted nearly 6-1 in favor of Rhoads over Vucanovich and he urged "every one of you who voted for Dean: We need you now to vote for Barbara."

Watt drew another enthusiastic round of laughter and applause when he quipped, regarding his support for Vucanovich, "The best place for a woman is in the House."

The federal official voiced strong support for List, declaring, "Nevada needs Bob List, and America needs Nevada to have Bob List. He is a man of integrity." He later commented, "I'll work better with Bob List than I would with his opponent."

Regarding the affairs of the Interior Department, Watt reported the national park system had been allowed to deteriorate, and he charged, "...my predecessor didn't know how to take care of the land and water."

He added, "The Democrats centralize everything... Those cuts in grazing were not made here (in Elko) and they were not made in the state. They were made in Washington by bureaucrats under political leadership."

Watt said he believes the 1982 election is critical because it represents an opportunity to elect congressmen who will support Reagan's aim to provide the political leadership that will improve relationships between federal agencies and the states, and between federal agencies and the people of the nation.

He added that a check for just over $5 million, as a payment in lieu of taxes from the Interior Department, is to be made this week in Washington and to be delivered to Carson City.

Watt also referred to the "difficult times" now in America, but urged members of his audience to follow the leadership being provided by President Reagan. He praised Reagan's ability to "stick with principle," and threw a barb at administration critics by commenting that when Reagan went to the White House unemployment stood at about eight million, and since has increased to about 10 million. "We Republicans will take care of our two million unemployed," Watt declared, "if the Democrats will take care of their eight million."

ENV. - AGRICULTURE

DOCUMENT NO. 090825 PD

OFFICE OF POLICY DEVELOPMENT

STAFFING MEMORANDUM

DID WE MAKE A RESPONSE?

DATE: 8/26/82 ACTION/CONCURRENCE/COMMENT DUE BY: 9/4/82

SUBJECT: FIFRA Amendments and Reauthorization

	ACTION	FYI		ACTION	FYI
HARPER	☐	☐	DRUG POLICY	☐	☐
PORTER	☐	☒	TURNER	☐	☐
BARR	☐	☐	D. LEONARD	☐	☐
BAUER	☐	☐	OFFICE OF POLICY INFORMATION		
BOGGS	☐	☒	GRAY	☐	☐
BRADLEY	☐	☐	HOPKINS	☐	☐
CARLESON	☐	☐	PROPERTY REVIEW BOARD	☐	☐
DENEND	☐	☐	OTHER	☐	☐
FAIRBANKS	☐	☐		☐	☐
FERRARA	☐	☐	_____	☐	☐
GUNN	☐	☐	_____	☐	☐
B. LEONARD	☒	☐	_____	☐	☐
MALOLEY	☐	☐	_____	☐	☐
MONTOYA	☐	☐	_____	☐	☐
SMITH	☐	☐	_____	☐	☐
UHLMANN	☐	☐	_____	☐	☐
ADMINISTRATION	☐	☐	_____	☐	☐

Remarks:

Do we have a position on this?

Please return this tracking sheet with your response.

Edwin L. Harper
Assistant to the President
for Policy Development
(x6515)

Chamber of Commerce of the United States of America

Washington

23 AUG 1982

August 17, 1982

TO: Members of the Senate Agriculture, Nutrition and Forestry Committee

FROM: Hilton Davis, Vice President
Legislative and Political Affairs HD

RE: FIFRA Amendments and Reauthorization (S.2620, S. 2621)

On Wednesday, August 18, the Senate Agriculture Committee is expected to vote on S. 2620 and S. 2621 to amend and reauthorize the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). On behalf of the U.S. Chamber's 256,000 members, I respectfully urge you to support these bills and oppose any amendments that might weaken them.

The Chamber supports the public's need to know and to have reasonable access to health and safety data, such as provided by FIFRA. However, current law does not protect pesticide manufacturers from potential competitive harm by disclosure of sensitive corporate data to domestic or foreign competitors. An appropriate balance between public data disclosure and protection of confidential data is needed. S. 2620 would achieve this balance and should be supported.

Passage of S. 2621 would eliminate long registration delays and unnecessary data generation requests by the states. In addition, it would require each state to review pesticide applications within reasonable time periods.

An amendment may be offered to S. 2620 which would provide for the "private right of action." This would license hundreds of private citizens to launch litigation against any company or farmer connected with pesticides and could be used for harassment, especially of farmers. Citizens currently have the right to sue for injuries under state law. Therefore, any amendments of this nature should be opposed.

I respectfully request your support of S. 2620 and S. 2621, preferably merged into one bill.

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THE WHITE HOUSE

WASHINGTON

September 3, 1982

MEMORANDUM FOR EDWIN L. HARPER

FROM: BURLEIGH LEONARD

SUBJECT: FIFRA Amendments

The following is a brief summary of major issues in the FIFRA reauthorization legislation, (H.R.5203, S.2620, S.2621) currently pending in Congress:

Section 24(a)

The Chemical Specialties Manufacturers Association (CSMA) has lobbied hard for an amendment to Section 24(a) of FIFRA that would preclude states from "arbitrary or capricious" requests of additional data from chemical registrants. Under the proposal, the Administrator of EPA would serve in a judicial capacity, determining the validity of state requests under a test of special local concerns.

For over a year, EPA officials, including Administrator Anne Gorsuch, Deputy Administrator John Hernandez, and Assistant Administrator John Todhunter have publicly and privately stated their opposition to the proposed amendment. In several appearances before the House and Senate Agriculture Committees, Dr. Hernandez and Dr. Todhunter outlined EPA's objections, both from the perspective of states' rights and the undesirability of making EPA an arbitrator of state/industry disputes. This last point is particularly relevant since the problem of unwarranted state requests has been limited to California.

OMB approved EPA's position time and again, even on occasion suggesting tougher language in several drafts of testimoney being cleared for Congressional hearings.

In the House, the 24(a) amendment advocated by CSMA was added to H.R.5203 in subcommittee with the strong support of Representative William Wampler (R-VA) and Representative William Thomas (R-CA).

When the bill was scheduled for Rules Committee consideration, OMB sent an Executive Communication stating that the Administration was opposed to H.R.5203 because of excessive authorization levels and the Section 24(a) amendment. Two days later, without consulting with EPA, OMB reversed itself, declaring that the Administration was no longer opposed to H.R.5203 on the basis of the 24(a) amendment.

Meanwhile, heavy pressure from the National Governors Association and the State Agriculture Commissioners began turning House members against the 24(a) amendment. When FIFRA finally came to the House floor on August 11, 1982, an amendment by Representative Harkin to strike the 24(a) provision won on an 250-154 vote.

In the Senate, a markup on S.2620 is scheduled for September 15, 1982. While S.2620 does not contain the CSMA amendment to 24(a), a companion bill, S.2621 (Hayakawa), does contain language similar to that proposed by CSMA. It is expected that Hayakawa will seek to add his bill to S.2620 with the support of Chairman Helms. But beyond the Chairman's support, it is doubtful that Hayakawa will have the votes to carry the amendment in Committee or on the floor.

Section 10

EPA generally supports language that would give industry added protection against the unwarranted disclosure of trade secret data through public requests to view data generated by pesticide registrants. The House language on this matter was significantly watered-down on the floor, but the remaining language was still an important change from the status quo. The Senate will likely approve stronger language, even more to industry's liking.

Section 3

Industry and EPA both support changes to Section 3 of FIFRA (identical in the House and Senate bills) that would eliminate data compensation and further streamline the registration process.

Section 16

On the House floor, Representative Leon Panetta (D-CA) was successful in amending Section 16 of FIFRAA to allow citizens a private right of action against pesticide manufacturers and applicators in Federal court. EPA, the Farm Bureau, and most Congressional Republicans opposed the provision because it is unnecessary (state law already allows for civil action against misuse) and also because it will encourage "harrassment" suits from environmental and farm worker groups.

copy to NM
env - pesticides

E (Kika) de la Garza
Chairman

William C. Wampler, Va.
Ranking Minority Member

news release

COMMITTEE ON AGRICULTURE
U.S. HOUSE OF REPRESENTATIVES
Room 1301, Longworth House Office Building
Washington, D.C. 20515

For further information: Bernard Brenner,
Press Secretary, (202) 225-2171

FOR IMMEDIATE RELEASE FRIDAY, MAY 7, 1982

WASHINGTON -- The House Agriculture Committee Thursday approved a bill (H.R. 5203) which extends authority for Federal pesticide control programs through Sept. 30, 1984, and makes a series of changes in the Federal Insecticide, Fungicide and Rodenticide Act, Committee Chairman Kika de la Garza, D-Tex., announced.

Major provisions of the legislation, which was adopted by a voice vote and will now be forwarded to the House, include:

-- Extension of authorization: The authorization would run for two fiscal years, from Oct. 1, 1982, through Sept. 30, 1984. Appropriations would be limited to $56.367 million in fiscal 1983 and to no more than 6 percent above that level in fiscal 1984.

-- Disclosure of health-safety data: The Environmental Protection Agency (EPA) would be required to issue regulations under which health and safety test data on pesticides would be available to the public, but verbatim details of the reports would not be available to pesticide firms which compete with the companies that filed the reports. The data would be open to the general public including scientists, state and Federal agencies, and public interest and labor organizations representing pesticide workers. All health and safety and environmental test information could be freely communicated and publicly discussed, but verbatim copies of studies could not be given to commercial pesticide firms. In a few cases, where health and safety date reports include innovative methods and technology, the "innovative" technique information would be disclosed only to scientists and representatives of health, environmental and labor groups which wish to conduct peer reviews or to duplicate studies.

-- Authority of the states: The bill retains the authority of states to regulate the sale or use of any Federally registered pesticide as long as they do not try to authorize any sale or use which is prohibited by EPA. But the legislation adopts new provisions affecting a state's authority to require pesticide companies to supply additional health or safety data (beyond that required by the Federal government) in the course of state regulatory operations. When dealing with a question of special local concern within a state, the state authorities could, under the bill, require pesticide producers to submit data in addition to that previously given to Federal authorities. If a pesticide firm challenges the request, the next step would depend on the type of material involved. If the challenge involved a pesticide used in the production of commercial food, fiber and feed crops, the issue would be settled entirely under state law. If other pesticides were involved, the EPA Administrator could overrule or modify the state request for data if he found it to be arbitrary or capricious. Further, if a state demanded additional data on a pesticide where there was no special local concern, EPA could also overrule or modify the state request if it was found to be arbitrary and capricious. In "special local concern" cases, a state could appeal an adverse EPA ruling in Federal court.

In addition, the bill sets time limits (60 days for re-registration of pesticides and 120 days after receipt of required data for approval of new active ingredients or a new use of a previously-registered pesticide on food crops) on the period in which states must act to approve or deny pesticide registration or re-registration applications -- but the limits do not apply in cases where the state has requested additional data linked to special local concerns.

-MORE-

-- Protection for "whistle-blowers": The bill would make it illegal to fire anyone (or take any other adverse employment action) because the employee exercised rights under the FIFRA or filed complaints about alleged violations of that law. Any employee fired or otherwise harmed in such cases could complain to the Secretary of Labor, and he could take steps including orders to reinstate an employee with back pay and/or a fine against an employer.

-- Safe working conditions: Except in cases where workers are already protected under the Occupational Safety and Health Act, the EPA Administrator is directed to develop any necessary regulations on minimum re-entry times in fields treated with pesticides, on methods of advising farm workers and others about re-entry rules, and on minimum requirements for storing, warehousing and disposing of pesticides.

-- Use of research data and related issues: The bill extends from the present 10 years to a new period of 15 years the period of exclusive use for some types of data submitted to EPA in support of applications to register pesticides. This means that if a manufacturer submits results of a costly test on a new ingredient, some other firm later seeking to register a similar product within the 15-year period could not back up its application by referring to the original test unless it had the consent of the firm which did the original research. Also, the bill requires EPA to compile and make available to the public an index of all data protected by exclusive use or compensation provisions.

Also, the bill expressly authorizes an applicant who wants to register a pesticide to submit his own research data or to cite data previously submitted to EPA, except where the previous data is protected by the exclusive use provisions. Further, the bill deals with cases where EPA calls on manufacturers to submit new research studies to support the continuation of an existing pesticide registration. In such cases, the bill sets up procedures under which manufacturers would share the cost of producing the required new data.

-- Cancellation, phasing out pesticides, and changing pesticide classification: EPA currently has authority to cancel registration of a pesticide if new evidence shows a need for such action, or to change the classification of a registered pesticide. The bill adds a third power -- to phase out use of a pesticide. Also, however, the bill provides that when EPA decides whether to issue a notice of cancellation or change in classification, the Administrator must consider an additional factor -- the impact of the possible action on agricultural producers.

-- Scientific Advisory Panel: The bill extends authority for the EPA's existing Scientific Advisory Panel to Sept. 30, 1987. The bill also provides for all comments, evaluations and recommendations made by the panel in its pesticide studies to be published in the Federal Register.

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NEWS RELEASE

United States Senate
Committee on Agriculture, Nutrition, and Forestry
Jesse Helms, Chairman

FOR - IMMEDIATE RELEASE
September 17, 1982

CONTACT: Ron Phillips
(202) 224-0013

HELMS PESTICIDE BILL ADOPTED BY AGRICULTURE COMMITTEE

WASHINGTON, D.C.--The Senate Committee on Agriculture, Nutrition, and Forestry Wednesday unanimously voted to adopt extensive amendments to the Federal Insecticide, Fungicide, and Rodenticide Act, also known as FIFRA. The provisions reported out of committee as a substitute for H.R. 5203 are essentially those contained in S. 2620, introduced by Senator Jesse Helms June 10.

Committee Chairman Helms said, "The bipartisan support for the legislation demonstrates the balance we have struck in providing sound and effective regulation of the agricultural chemical industry."

Helms said the bill is important for two reasons. "First, it provides for changes in a complex regulatory program that are necessary to maintain a system of free enterprise for the agricultural chemical industry and farmers. Healthy competition among pesticide producers is necessary to ensure the continued investment of capital into the development of new pesticides that are both safe and effective. We must continue to allow the development of products that are vital to the health of agriculture and the American people."

Senator Helms was careful to point out the fact that the legislation would not "in any way reduce the ability of the administrator of the Environmental Protection Agency to keep unsafe chemicals off of the market."

Second, Helms said the legislation is necessary to prevent the continued borrowing of American technology which creates unfair foreign competition for American industry. "This legislation will protect American jobs in American industry by protecting our industry from unfair foreign competition," said Helms.

Specific provisions of the bill include:

Registration

- The bill extends from 10 to 15 years the basic period for exclusive use for some types of registration data filed with the Environmental Protection Agency. The 15-year period of exclusive use is also applied to "additional data" requested by EPA to support an existing registration. The bill would also terminate EPA's policy of requiring registration applicants to cite all relevant data in EPA's files, and would phase out, by 1993, the current authority for registrants to use some data submitted by other companies if compensation for the use is paid.

(more)

322 Russell Senate Office Building Washington, D.C. 20510 (202) 224-2035

Protection of Trade Secret Data

- The bill retains the current ban on release of trade secret information by EPA except that it allows states to obtain some trade secret information. For information to be given trade secret protection, a data submitter must designate it as such and explain the basis for the designation when the data is first submitted. The bill also allows registrants 60 days to designate information previously submitted to EPA as trade secret. Failure to do so will result in the release of all data to the public.

- EPA may release to the public all health and safety data, except for trade secret information, subject to reasonable conditions on further copying, publication, and transfer of the data by persons who receive it. Otherwise, the data could be freely used and discussed. The bill prohibits EPA from releasing any information to pesticide producers or persons representing or working for them, and to foreign nationals who will remove the data from the U.S. without the consent of the data submitter.

- EPA may not make public any information received from a foreign government if that government requires confidential treatment as a condition for providing the information. Also, the bill allows EPA to disclose data, other than trade secret information, to foreign governments subject to an agreement with that government restricting further disclosure and use.

- The bill authorizes enforcement of the data disclosure through civil suit and through civil or criminal action by EPA.

Other Provisions

- The bill would continue the authority of States to regulate the sale and use of pesticides and would clarify that this authority is specifically reserved to the State government.

- The bill establishes procedures for States to acquire health and safety data in addition to that needed for EPA registration. The bill also establishes time limits for the processing of applications that do not involve a special local concern within the States, and provides for judicial review by Federal district courts.

- The bill makes it unlawful for an employer to take adverse employment action against a person because that person exercised any rights under FIFRA.

- The bill extends the term of the Scientific Advisory Panel of the EPA for 10 years, through September 30, 1992.

- The bill reauthorizes the FIFRA program for two years.

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United States Senate
COMMITTEE ON
AGRICULTURE, NUTRITION, AND FORESTRY
WASHINGTON, D.C. 20510
OFFICIAL BUSINESS

Jesse Helms
U.S.S.

DANNY BOGGS
OFFICE OF POLICY DEVELOPMENT
THE WHITE HOUSE
WASHINGTON, DC 20500

CAST

COUNCIL FOR AGRICULTURAL SCIENCE AND TECHNOLOGY

Headquarters: 250 Memorial Union, Ames, Iowa 50011 Telephone 515-294-2036 or 2903

May 15, 1981

American College of Veterinary Toxicologists

American Dairy Science Association

American Forage and Grassland Council

American Meat Science Association

American Meteorological Society

American Phytopathological Society

American Society for Horticultural Science

American Society of Agricultural Engineers

American Society of Agronomy

American Society of Animal Science

Aquatic Plant Management Society

Association of Official Seed Analysts

Council on Soil Testing and Plant Analysis

Crop Science Society of America

Institute of Food Technologists

North Central Weed Control Conference

Northeastern Weed Science Society

Plant Growth Regulator Working Group

Poultry Science Association

Rural Sociological Society

Society of Nematologists

Soil Science Society of America

Southern Weed Science Society

Weed Science Society of America

Western Society of Weed Science

The Honorable Danny Boggs
Office of Policy Development
The White House
Washington, D.C. 20500

Dear Mr. Boggs:

In accordance with a request from Barbara Honegger we are enclosing for your information a recent CAST report on aflatoxin and other mycotoxins that has been sent to members of the Presidential Task Force on Regulatory Relief in connection with the National Cotton Council of America's nomination of aflatoxin as a subject for regulatory relief. We hope you find the report useful.

Sincerely,

Charles A. Black

Charles A. Black
Executive Vice President

FIA-PESTICIDES

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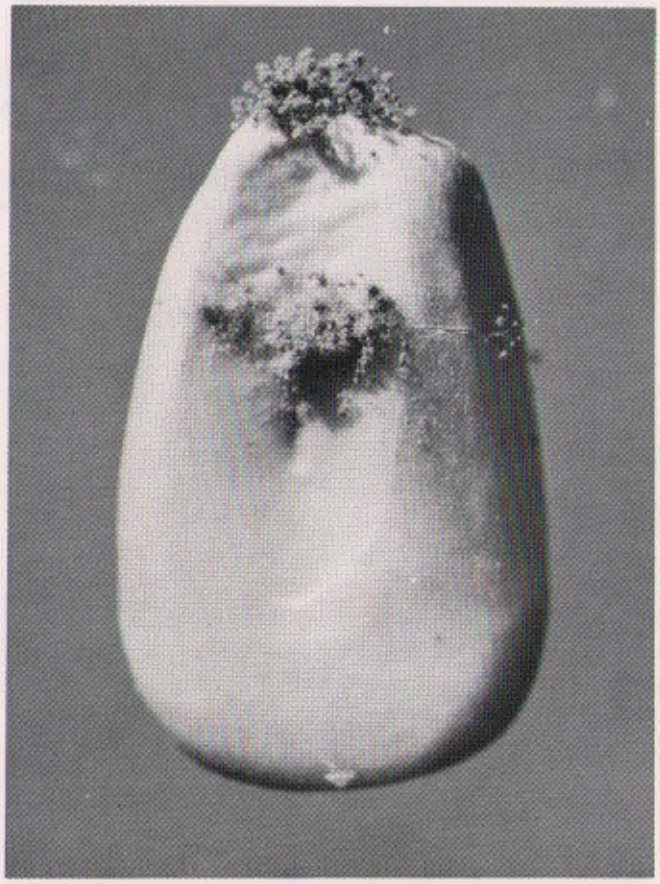
AFLATOXIN AND OTHER MYCOTOXINS:
An Agricultural Perspective



Council for
Agricultural Science and Technology
Report No. 80
December 1979

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Publication Title:
*Aflatoxin and Other Mycotoxins: An Agricultural Perspectiv*e