Environmental Protection Agency (EPA) Before the Administrator, In re: 2,4,5-Trichlorophenoxyacetic Acid FIFRA Docket No. 295, Initial Witness List of the United States Department of Agriculture
UNITED STATES OF AMERICA
ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE ADMINISTRATOR

In re: 2,4,5-Trichlorophenoxyacetic Acid
FIFRA Docket No. 295

INITIAL WITNESS LIST OF THE
UNITED STATES DEPARTMENT OF AGRICULTURE

Pursuant to the Administrative Law Judge's Procedural Order of March 11, 1974, the United States Department of Agriculture (USDA) hereby submits the following initial list of witnesses and narrative summaries of their expected testimony together with a list of proposed documents and exhibits.

The witnesses will be divided into the following subject-matter groupings:

1. Rule of reason.
2. Chemical properties of 2,4,5-T.
3. Range land uses of 2,4,5-T.
4. Forestry uses of 2,4,5-T.

1. "Rule of reason" witnesses.

The following group of witnesses will address what we believe to be the most crucial aspect of the 2,4,5-T administrative proceeding, that is the implementation of a "rule of reason" in deciding the questions concerning the various uses of 2,4,5-T as well as other chemical substances.
Dr. Detlev Bronk
Rockefeller University
1230 York Ave.
New York, New York 10021

Dr. T. C. Byerly
6-J Ridge Road
Greenbelt, Maryland 20770

Dr. Frederick Coulston
Director, Institute of Experimental Pathology
Albany Medical College
Albany, New York 12201

Mr. Carl Djerassi
Zocon Corporation
975 California Ave.
Palo Alto, California 94304

Dr. Lee A. DuBridge
2355-3A Via Mariposa
West Laguna Hills, California 92635

Dr. Richard Hall
11350 McCormick Road
Hunt Valley, Maryland 21031

Dr. Wayland J. Hayes, Jr.
Professor of Biochemistry
School of Medicine
Vanderbilt University
Nashville, Tennessee 37332

Dr. Dale R. Lindsay
Associate Director
Medical and Allied Health Education
Duke University
Durham, North Carolina 27701

Dr. Bernard S. Schweigert
Chairman Department of Food Science and Technology
University of California
Davis, California 95616

Dr. Kenneth V. Thimann
Professor of Biology
Thimann Laboratory
Division of Natural Sciences
University of California at Santa Cruz
Santa Cruz, California 95060
2. Chemical properties of 2,4,5-T.

Philip C. Kearney  
Pesticide Degradation Laboratory  
Agricultural Environmental Quality Institute  
Agricultural Research Service  
USDA, Agricultural Research Center-West  
Beltsville, Maryland  20705

Dr. Kearney will describe the persistence of 2,4,5-T and the dioxin TCDD in soils. Dr. Kearney is also leader of the pesticide group in the Department of Agriculture that has had primary responsibility for dioxin research in the environment. He has published on the persistence of TCDD in two soils at three concentrations. He has also summarized the existing literature and published on the persistence of 2,4,5-T under a variety of soil and climatic conditions.

Exhibits or documents:

Kearney, P. C., E. A. Woolson, A. R. Isensee, C. S. Helling, Tetrachlorodibenzodioxin in the Environment: Sources, Fate, and Decontamination. USDA ARS.

Dr. Plimmer will describe the breakdown of chlorinated dibenzo-p-dioxins in sunlight. Dr. Plimmer is an authority on the photochemical behavior of pesticides.

Dr. Fries will testify on his studies on the retention and excretion of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) fed to rats.

Dr. Woolson will testify on pesticides possibly containing 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) and dioxin residues in Lakeland sand from massive aerial application of 2,4,5-T. Dr. Woolson is an analytical chemist with extensive experience working on the chlorinated pesticides. The contaminant TCDD arises in the manufacture of certain pesticides which have as a precursor 2,4,5-trichlorophenol.
Dr. Isensee will testify on TCDD uptake and translocation by plants, and the distribution and bioaccumulation of TCDD in aquatic model ecosystems.

Dr. Helling will testify on his experiments on leaching in soils of 2,4,5-T and the dioxin TCDD.

3. **Range land uses of 2,4,5-T.**

Dr. J. R. Baur
Department of Range Science
Texas A & M University
College Station, Texas 77843

Dr. Baur will testify as to residues of 2,4,5-T in livestock and range grasses.
Exhibits or documents:


Dr. Rodney W. Bovey
Department of Range Science
Texas A & M University
College Station, Texas 77843

Dr. Bovey will testify on field evaluations of herbicides for brush control, absorption and translocation of 2,4,5-T, 2,4,5-T residues in plants and soils, and the effect of 2,4,5-T on the growth and anatomy of plants.

Exhibits or documents:


Bovey, R. W. and Merkle, M. G. 1970. Persistence of Picloram in Texas Soils, Texas Agricultural Experiment Station, PR-2822.

Mr. Boykin will testify on investment costs of livestock operations in the Southwest region. He will evaluate the impact of 2,4,5-T on the livestock operations and will analyze the effect different levels of control have on investment return. He will also talk about his study of the economics of aerial spraying of mesquite with 2,4,5-T as a range improvement practice and the significance of such spraying on beef production.

Exhibits or documents:

Boykin, Charles, Jr., Costs of Rootplowing and Seeding Rangeland, Rio Grande Plain, March 1960, Publication of Texas Agricultural Experiment Station - MP 425.

Mr. Charles E. Fisher
Texas A & M University Agricultural Research and Extension Center
Lubbock, Texas

Mr. Fisher will describe his work with ranchers in 20 locations in southern and western Texas in their effort to control brush on rangeland. He has been working with 2,4,5-T since 1945.
Exhibits or documents:


Dr. Howard Greer
Department of Agronomy
Oklahoma State University
Stillwater, Oklahoma 74074

Dr. Greer will testify as to the use of 2,4,5-T on the range lands in Oklahoma where there are approximately 11 million acres of land covered with woody species of plants. 2,4,5-T is used for the treatment of blackjack oak and post oak, as well as for the control of brush such as wild blackberry and persimmon. Dr. Greer will testify on the effectiveness of 2,4,5-T and the feasibility of alternatives.

Exhibits or documents:

Wayne Hamilton  
Chaparoosa Ranch  
P. O. Box 187  
LaPryor, Texas  

As manager of one of the largest ranches in Texas, Mr. Hamilton will describe his experience with 2,4,5-T to control brush in the Rio Grande plains area, its economic effect on livestock production and its effect on wildlife habitats.

Garlyn O. Hoffman  
Department of Range Science  
Texas A & M University  
College Station, Texas 77843  

Mr. Hoffman is a brush and weed control specialist who will describe his research into all methods of control for woody plants in Texas. He will testify to the acreage of brush controlled in Texas since 1940, describe the research demonstration projects of the County Agricultural Agents. He will also describe a study he conducted for EPA of cattle grazed on rangeland immediately after spraying with 2,4,5-T.

Exhibits or documents:


Hoffman, G. O., Brush and Weed Control Acreages in Texas, Texas A & M University, College Station, Texas, March 1973.

Mr. Holmer will describe his experience with 2,4,5-T as an Herbicide Specialist with the Texas Department of Agriculture. He will introduce cost/benefit information from surveys of ranchers whom he advises in the State of Texas.

Mr. Manigold will describe his work monitoring pesticides in the streams of the western United States.

Exhibits or documents:


Rupert D. Palmer  
Department Soil and Crop Sciences  
Texas A & M University  
College Station, Texas  77843

Dr. Palmer will describe his experience with the use of 2,4,5-T to control early indigo and in rights-of-way. Dr. Palmer has also been involved with 2,4,5-T in his work in woody plant control as an Agricultural extension agent and as Coordinator of publications on weed brush control for the State of Texas.

Dr. Elroy J. Peters  
Research Agronomist, USDA  
Department of Agronomy  
University of Missouri  
Columbia, Missouri  65201

Dr. Peters will testify as to the use and effectiveness of 2,4,5-T on oak, hickory, and associated species in Missouri. He will compare the effectiveness of 2,4,5-T with other herbicides and provide data on increases in forage production and the impact of 2,4,5-T on beef production.

Ernest Snook  
State Range Specialist  
Soil Conservation Service, USDA  
USDA Building  
Farm Road  
Stillwater, Oklahoma  74074

Mr. Snook will testify as to the brush control problems in Oklahoma and the acres treated with herbicides.
Dr. Stritzke will testify as to the performance of herbicides for brush control and the breakdown of herbicides in the soil. More specifically, Dr. Stritzke will testify as to (1) the pests that 2,4,5-T controls, (2) the cost, timing, and rate of application of 2,4,5-T for brush control in Oklahoma, (3) alternative methods (including no control) and the economics, effectiveness, and ecological soundness of these methods.

Exhibits or documents:


Doug Waldrup, General Manager
Spade Ranches
Box 2763
Lubbock, Texas 79401

As manager of one of the largest ranches in Texas, Mr. Waldrup will describe his experience with 2,4,5-T as a method of controlling brush on rangeland. He will also testify on the effect of 2,4,5-T on the economy of beef production and the improvement of wildlife habitats on his ranch where brush has been cleared by 2,4,5-T use.
4. Forestry uses of 2,4,5-T.

Dr. Homer A. Brady
Alexandria Forestry Center
Southern Forest Experiment Station
2500 Shreveport Highway
Pineville, Louisiana 71360

Dr. Brady will describe the role of 2,4,5-T in Southern Forest Management. More than one-third of the nation's timber comes from southern forests. The timber species are weak competitors for light, water, and nutrients, therefore competition must be controlled. 2,4,5-T is useful for site preparation, pine seedling release, and removal of competition. It is less expensive than mechanical site preparation and can be used in areas where machines cannot operate. Dr. Brady will testify on the feasibility of alternatives to 2,4,5-T as well as the effectiveness and safety of 2,4,5-T.

W. F. Currier
U.S. Forest Service
517 Gold Avenue, S.W.
Albuquerque, New Mexico 87102

Mr. Currier will testify as to the necessity of a plant control program for the forest lands of New Mexico and Arizona. He will discuss plant ecology and the relationship of man's intervention and associated disturbances to plant succession. In discussing a plant control program, Mr. Currier will testify as to the specific plants needing control for which there is no comparable herbicide substitute for 2,4,5-T. The cost, effectiveness, environmental impact, and limitations of alternative methods of control will be discussed.
Dr. Henry J. Gratkowski
Plant Ecologist
Pacific Northwest Forest and
Range Experiment Station
U.S. Forest Service
P. O. Box 3141
Portland, Oregon 97208

Dr. Gratkowski will testify on the need for the use of herbicides in the forests of the United States, and the safety and economy of using 2,4,5-T. Dr. Gratkowski will discuss the various plant communities, each with its own distinctive combination of environmental conditions, trees, shrubs, and other vegetation. The effectiveness of 2,4,5-T will be discussed as well as the feasibility of alternatives.

Exhibits or documents:


Dr. Ken Holtje  
Branch Chief, Water Quality  
U.S. Forest Service  
Rm. 800, 633 W. Wisconsin Ave.  
Milwaukee, Wisconsin  53203  

Dr. Holtje was testify on water quality monitoring for selected herbicides following aerial application in the north central states. Dr. Holtje will discuss the results of monitoring studies and the techniques employed in conducting the studies.

Jay R. Law  
Timber Staff Officer  
U.S. Forest Service  
P. O. Box 937  
Rolla, Missouri  65401  

Mr. Law will testify as to the necessity of 2,4,5-T use in the forests of the central United States. He will discuss the effectiveness of 2,4,5-T as well as the feasibility of alternatives.

Dr. Logan A. Norris  
Pacific Northwest Forest and Range Experiment Station  
3200 Jefferson Way  
Corvallis, Oregon  97331  

Dr. Norris will testify as to 2,4,5-T persistence in the forest floor, adsorption on the forest floor, residues in forest streams, and the toxicity of TCDD to aquatic organisms.
Exhibits or documents:


Peter A. Theisen
U.S. Forest Service
P. O. Box 3623
Portland, Oregon 97208

Mr. Theisen will testify as to the use of 2,4,5-T for woody plant control by the Forest Service, Pacific Northwest Region. Mr. Theisen will discuss the application of 2,4,5-T, the effectiveness of 2,4,5-T, and the feasibility of alternatives.

Respectfully Submitted,

Raymond W. Fullerton
Margaret Bresnahan Carlson
Alfred R. Nolting

Attorneys for the Secretary of Agriculture

March 21, 1974
Certificate of Service

I hereby certify that copies of the foregoing List of Witnesses filed by Intervenor Secretary of Agriculture were served this date either by hand or by mailing the same, postage prepaid, to all parties of record as follows:

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Dated: March 21, 1974