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SELECTED BIBLIOGRAPHY OF THE
PHENOXY HERBICIDES

IV. Ecological Effects

R. W. Bovey and J. D. Diaz-Colon*

Introduction

This is the fourth publication in the series "Selected Bibliography of the Phenoxy Herbicides." Three previous bibliographies regarding fate, dioxin, and toxicology were published in 1976 and 1977.

The beneficial effects of the phenoxy herbicides, when properly used, are well established. Ecological changes and population shifts of organisms in the treated environment as a result of phenoxy herbicide use are of widespread concern. In this bibliography we have attempted to provide some of the more pertinent references relating to phenoxy herbicide use and environmental effects. Research papers related to the interactions of microorganisms and phenoxy herbicides will be provided in the next bibliography.

References are listed in alphabetical order according to senior author's name. A subject numerical index, consisting of seven sections, is provided. Each section represents a phenoxy herbicide and the ecosystem affected. Available literature on other subjects (comments, legal aspects and gubernatorial hearings) is covered under subsection "Miscellaneous."

Each Arabic numeral in the subject index identifies a reference in the alphabetical list of authors. For references published in languages other than English, the abbreviated form of the particular language is enclosed in parentheses after the title. A list of the abbreviated and complete names of languages and a list of the abbreviated and complete names of periodicals, together with their place of origin, are also provided. If English abstracts for the references are available, the abstract sources are included after the listed reference.

*Respectively, research agronomist and agricultural research technician, Agricultural Research Service, U. S. Department of Agriculture, and The Texas Agricultural Experiment Station (Department of Range Science).

List of Abbreviated Sources

Agrokhimiya	Agrokhimiya (Moscow, USSR)
Agron. J.	Agronomy Journal (Madison, Wis.)
Allg. Forst. Jagdztg.	Allgemeine Forst- und Jagdzeitung (Frankfurt, W. Germany)
Allg. Forstztg.	Allgemeine Forstzeitung (Vienna, Austria)
Am. Inst. Chem. Eng., Symp. Ser.	American Institute of Chemical Engineering, Symposium Series (New York, N.Y.)
Ann. Entomol. Soc. Am.	Annals of the Entomological Society of America (Baltimore, Md.)
Anz. Schaedlingskd., Pflanz. Umweltschutz	Anzeiger fuer Schaedlingskunde, Pflanzen- und Umweltschutz (Berlin, Germany)
Araneta Res. J.	Araneta Research Journal (Rizal, Philippines)
Biol. Conserv.	Biological Conservation (Barking, England)
Biologico	Biologico (Sao Paulo, Brazil)
BioScience	BioScience (Washington, D.C.)
Blyttia	Blyttia (Oslo, Norway)
Bolsa Cer.	Bolsa de Cereales (Buenos Aires, Argentina)
Bull. Entomol. Res.	Bulletin of Entomological Research (London, England)
Bull. Entomol. Soc. Am.	Bulletin of the Entomological Society of America (College Park, Md.)
Bull. Environ. Contam. Toxicol.	Bulletin of Environmental Contamina- tion and Toxicology (New York, N.Y.)
Can. J. Bot.	Canadian Journal of Botany (Ottawa, Canada)
Can. J. Plant Sci.	Canadian Journal of Plant Science (Ottawa, Canada)
CAST	Council for Agricultural Science and Technology (Ames, Iowa)
Chem. Eng. News	Chemical and Engineering News (Washington, D.C.)
Chem. Senses Flavor	Chemical Senses and Flavor (Dordrecht, Netherlands)

Citrograph	Citrograph (Los Angeles, Calif.)
Clin. Toxicol.	Clinical Toxicology (New York, N.Y.)
Conserv. Found. Lett.	Conservation Foundation Letter (Washington, D.C.)
Contrib. Ist. Rec. Agrar. Milan	Contributi, Istituto di Recerche Agrarie, Milan (Milan, Italy)
Diss. Abstr. Int.	Dissertation Abstracts International (Ann Arbor, Mich.)
Dokl. Vses. Akad. Skh. Nauk	Doklady Vsesoyuznoi Akademii Sel'skokhozy Aistvennykh Nauk (Moscow, USSR)
Down Earth	Down to Earth (Midland, Mich.)
Ecology	Ecology (Durham, N.C.)
Environ. Chem.	Environmental Chemistry (London, England)
Environment	Environment (St. Louis, Mo.)
Environ. Sci. Technol.	Environmental Science and Tech- nology (Washington, D.C.)
Gesunde Pflanz.	Gesunde Pflanzen (Frankfurt, W. Germany)
Gig. Sanit.	Gigiena i Sanitariya (Moscow, USSR)
Glean. Bee Cult.	Gleanings in Bee Culture (Medina, Ohio)
Health Aspects Pestic.	Health Aspects of Pesticides, Abstract Bulletin (Chamblee, Ga.)
Hyac. Control J.	Hyacinth Control Journal (Fort Lauderdale, Fla.)
Hydrobiologia	Hydrobiologia (The Hague, Netherlands)
Indian J. Agric. Sci.	Indian Journal of Agricultural Sciences (New Delhi, India)
Ind. Veg. Manage.	Industrial Vegetation Management (Dow Chemical Co., Midland, Mich.)
J. Am. Soc. Agron.	Journal of the American Society of Agronomy (Geneva, N.Y.)

J. Anim. Ecol.	Journal of Animal Ecology (Oxford, England)
J. Appl. Ecol.	Journal of Applied Ecology, The (Oxford, England)
J. Econ. Entomol.	Journal of Economic Entomology (Baltimore, Md.)
J. For.	Journal of Forestry (Washington, D.C.)
J. Int. Inst. Sugar Beet Res.	Journal of the International Insti- tute for Sugar Beet Research (Tirlemont, Belgium)
J. Invertebr. Pathol.	Journal of Invertebrate Pathology (New York, N.Y.)
J. Range Manage.	Journal of Range Management (Denver, Colo.)
J. Sci. Food Agric.	Journal of the Science of Food and Agriculture (London, England)
J. Water Pollut. Control Fed.	Journal of the Water Pollution Con- trol Federation (Washington, D.C.)
J. Wildl. Manage.	Journal of Wildlife Management (Washington, D.C.)
Khim. Sel'sk. Khoz.	Khimiya v Selskom Khoziastive (Moscow, USSR)
Latv. PSR Zinat. Akad. Vestis	Latvijas PSR Zinatnu Akademiya Vestis (Riga, USSR)
Lesn. Khoz.	Lesnoe Khozyaistvo (Moscow, USSR)
Nachrichtenbl. Dtsch. Pflanzen- schutzdienst	Nachrichtenblatt des Deutschen Pflanzenschutzdienstes (Berlin, Germany)
Natur. Hist.	Natural History (New York, N.Y.)
N.Dak. Farm Res.	North Dakota Farm Research (Fargo, N.Dak.)
Norsk Vet. Tidsskr.	Norsk Veterinaer-Tidsskrift (Oslo, Norway)
N.Z. J. Agric. Res.	New Zealand Journal of Agricultural Research (Wellington, New Zealand)
Okla. Agric. Exp. Stn. Bull.	Oklahoma Agricultural Experiment Station, Bulletin (Stillwater, Okla.)
Outlook Agric.	Outlook on Agriculture (Bracknell, England)

- Pa. Game News
 Pennsylvania Game News
 (Harrisburg, Pa.)
- Parasitica
 Parasitica
 (Gembloux, Belgium)
- Parasitology
 Parasitology
 (Cambridge, England)
- Pestic. Abstr.
 Pesticides Abstracts
 (Washington, D.C.)
- Pesticides
 Pesticides
 (Bombay, India)
- Pestic. Monit. J.
 Pesticides Monitoring Journal
 (Atlanta, Ga.)
- Pochvovedenie
 Pochvovedenie
 (Moscow, USSR)
- Pol. Arch. Hydrobiol.
 Polskie Archiwum Hydrobiologii
 (Warsaw, Poland)
- Proc. Br. Weed Control Conf.
 Proceedings of the British Weed Control Conference
 (Droitwich, Worcestershire, England)
- Proc. Eur. Weed Res. Council, Int. Symp. Aquat. Weeds
 Proceedings of the European Weed Research Council, International Symposium on Aquatic Weeds
 (Oxford, England)
- Proc. North Cent. Weed Control Conf.
 Proceedings of the North Central Weed Control Conference
 (Omaha, Nebr.)
- Proc. Northeast. Weed Control Conf.
 Proceedings of the Northeastern Weed Control Conference
 (Farmingdale, N.Y.)
- Proc. Northeast. Weed Sci. Soc.
 Proceedings of the Northeastern Weed Science Society
 (College Park, Md.)
- Proc. Okla. Acad. Sci.
 Proceedings of the Oklahoma Academy of Science
 (Stillwater, Okla.)
- Proc. Pa. Acad. Sci.
 Proceedings of the Pennsylvania Academy of Science
 (Easton, Pa.)
- Proc. South. Weed Conf.
 Proceedings of the Southern Weed Conference
 (St. Louis, Mo.)
- Proc. South. Weed Sci. Soc.
 Proceedings of the Southern Weed Science Society
 (Athens, Ga.)
- Prog. Fish Cult.
 Progressive Fish and Culturist
 (Washington, D.C.)
- Purdue Univ., Agric. Exp. Stn., Res. Bull.
 Purdue University, Agricultural Experiment Station, Research Bulletin
 (Lafayette, Ind.)
- Purdue Univ. Water Resour. Res. Cent., Tech. Rep.
 Purdue University Water Resources Research Center, Technical Report
 (W. Lafayette, Ind.)

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| Qual. Plant-Plant Foods Hum. Nutr. | Qualitative Plantarum - Plant Foods
for Human Nutrition
(The Hague, Netherlands) |
| Queensl. J. Agric. Anim. Sci. | Queensland Journal of Agricultural
and Animal Sciences
(Brisbane, Queensland, Australia) |
| Rangem. News | Rangeman's News
(Denver, Colo.) |
| Residue Rev. | Residue Reviews
(New York, N.Y.) |
| Rev. For. Fr. | Revue Forestiere Francaise
(Nancy, France) |
| Schriftenr. Ver. Wasser-Boden-
Lufthyg. | Schriftenreihe des Vereins fuer
Wasser-Boden- und Lufthygiene
(Berlin, Germany) |
| Sci. Agric. | Scientific Agriculture
(Ottawa, Canada) |
| Science | Science
(Washington, D.C.) |
| Tansuiku Suisan Kenkyusho Kenkyu
Hokoku | Tansuiku Suisan Kenkyusho Kenkyu
Hokoku
(Tokyo, Japan) |
| Tea Q. | Tea Quarterly
(Talawakele, Ceylon) |
| Tex. Agric. Exp. Stn., Misc.
Publ. | Texas Agricultural Experiment Station,
Miscellaneous Publication
(College Station, Tex.) |
| Trans. Am. Fish. Soc. | Transactions of the American Fisheries
Society
(Washington, D.C.) |
| U.S. Dep. Agric. Tech. Bull. | U.S. Department of Agriculture, Tech-
nical Bulletin
(Washington, D.C.) |
| U.S. Fish Wildl. Serv., Cir. | U.S. Fish and Wildlife Service, Cir-
cular
(Washington, D.C.) |
| U.S. For. Serv., Pac. Northwest
For. Range Exp. Stn., Res.
Notes | U.S. Forest Service, Pacific North-
west Forest and Range Experiment
Station, Research Notes
(Portland, Oreg.) |
| U.S. For. Serv., Res. Note | U.S. Forest Service, Research Note
(Washington, D.C.) |
| U.S.N.T.I.S., AD Rep. <u>or</u> PB Rep. | U.S. National Technical Information
Service, AD Report <u>or</u> PB Report
(Springfield, Va.) |
| Vestn. Skh. Nauki | Vestnik Sel'skokhozyaistvennoi Nauki
(Moscow, USSR) |

Wall St. J.	Wall Street Journal (Silver Spring, Md.)
Wasserwirtsch.-Wassertech.	Wasserwirtschaft-Wassertechnik (Berlin, Germany)
Water Res.	Water Research (Oxford, England)
Weed Abstr.	Weed Abstracts (Oxford, England)
Weed Res.	Weed Research (Oxford, England)
Weed Sci.	Weed Science (Champaign, Ill.)
Z. Pflanzenkr. Pflanzenschutz	Zeitschrift fuer Pflanzenkrank- heiten und Pflanzenschutz (Stuttgart, W. Germany)

Language Abbreviation

Bg - Bulgarian	No - Norwegian
Cs - Czech	Pl - Polish
De - German	Pt - Portuguese
Es - Spanish	Ru - Russian
Fr - French	Sh - Serbo-Croatian
Ja - Japanese	Sv - Swedish
Nl - Dutch	

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1. Adler, C. A. 1973. The limitations of science in environmental tissues. P 21-22. In Ecological Fantasies. Green Eagle Press; New York, N.Y. 350 p.
2. Advisory Committee on 2,4,5-T. 1971. Report of the Advisory Committee on 2,4,5-T to the Administrator of the Environmental Protection Agency. 76 p. Weed Abstr. 21(5):417, 1972.
3. Aksenov, V. B. and I. V. Poluboyarinova. 1970. Hygienic study of the soil in connection with the use of 2,4-D herbicide. Gig. Sanit. 35 (3):102-103. Health Aspects Pestic. 4:10, 1971.
4. Allebone, J. E., R. J. Hamilton, and B. Ravenscroft. 1975. Environmental organic chemistry of 2,4-dichlorophenoxyacetic acid. Environ. Chem. 1:160-190.
5. Allen, M. G. and F. R. Stovell. 1970. Herbicides as an aid to conservation and amenity. Proc. Br. Weed Control Conf. 10:1063-1070.
6. Almeida, W. F. 1974. Toxicological aspects of the herbicides 2,4-D and 2,4,5-T. (Pt.) Biologico 40(2):44-51. Pestic. Abstr. 9(8): 563, 1976.
7. Almeida, W. F. 1975. Toxicological aspects of the herbicides 2,4-dichlorophenoxyacetic acid and 2,4,5-trichlorophenoxyacetic acid in animal toxicity. (Es.) Bolsa Cer. 102(2890):3-8.
8. Anderson, A. E. 1960. Effects of sagebrush eradication by chemical means on deer and related wildlife. Federal Aid in Wildlife Restoration, Project W-38-R-13, Deer-Elk Investigations Work Plan 7, Job No. 1. Colorado Game and Fish Department. 73 p.
9. Andrusaitis, G. P. 1972. Environmental effects of pesticides. (Ru.) Latv. PSR Zinat. Akad. Vestis 4:44-49. Health Aspects Pestic. 6(3): 114, 1973.
10. Anonymous. 1968. The MRI report draws some conclusions with confidence ... but does not draw others, which would be unreliable. Environ. Sci. Technol. 2(3):176.
11. Anonymous. 1970. Notes on 2,4,5-T. Rangem. News 2(3):8.
12. Anonymous. 1971. Ban on defoliants 2,4-D and 2,4,5-T, Environment - Planning and Conservation in Sweden. No. 16:1-3. Swedish Information Services; 825 Third Avenue, New York, N.Y.
13. Anonymous. 1971. Environmental Agency decides total ban on DDT. 2,4,5-T is not needed at present. Wall St. J., p 10-11; 19 March 1971.

14. Anonymous. 1971. Toward less emotion in pesticide policy. Chem. Eng. News 49(40):17.
15. Anonymous. 1971. 2,4,5-T: The strange bedfellow. Citograph 56(5): 133-134.
16. Anonymous. 1972. Herbicides. Pesticides 6(12):55-56. Health Aspects Pestic. 6(9):460-461, 1973.
17. Anonymous. 1972. Recommendations of the 2nd International Symposium "Chemical and Toxicological Aspects of Environmental Quality." P 252-253. In Environmental Quality and Safety, Vol. 1. Academic Press; New York, N.Y. Pestic. Abstr. 7(10):646, 1974.
18. Anonymous. 1975. Great habitat for ducks Wildlife thrives in rice land. White River J. (Des Arc, Ark.); 21 August 1975.
19. Anonymous. 1975. Herbicides in Vietnam and the United States. CAST 2(4):51-53.
20. Anonymous. 1975. Joint opinion of the Biologische Bundesanstalt Braunschweig and the Federal Department of Health in Berlin concerning application of herbicides in forests. (De.) Allg. Forstztg. 30(45):976-978. Pestic. Abstr. 9(2):71, 1976.
21. Anonymous. 1976. Pesticides control program is in trouble. 8 p. Conservation Foundation Letter. 1717 Massachusetts Ave., N.W., Washington, D.C. 20036.
22. Anonymous. 1976. Spraying foe accused of firing at helicopter. Minneapolis Tribune (Minneapolis, Minn.); 3 August 1976.

B

23. Barrons, K. C. 1969. Some ecological benefits of woody plant control with herbicides. Science 165:465-468.
24. Batianoff, G. N. and W. H. Burrows. 1973. Studies in the dynamics and control of woody weeds in semi-arid Queensland. 2. *Cassia nemophila* and *C. artemisioides*. Queensl. J. Agric. Anim. Sci. 30:65-71.
25. Beaven, G. F., C. K. Rawls, and G. E. Beckett. 1962. Field observations upon estuarine animals exposed to 2,4-D. Proc. Northeast. Weed Control Conf. 16:449-458.
26. Berthold, W. 1970. Investigations on the enzyme activities of herbicide-treated vineyard soils. (De.) P 295-297. Summaries of Papers; 7th International Congress of Plant Protection. Paris, France; 21-25 September 1970. Weed Abstr. 20(5):375, 1971.
27. Best, L. B. 1972. First-year effects of sagebrush control on two sparrows. J. Wildl. Manage. 36(2):534-544. Health Aspects Pestic. 6(1): 16, 1973.

28. Biggar, J. W. 1970. Pesticide movement in soil water. P 107-119. In International Symposium on Pesticides in the Soil: Ecology, Degradation and Movement. Mich. State Univ., E. Lansing, Mich. Weed Abstr. 21(3):255, 1972.
29. Blaisdell, J. P. and W. F. Mueggler. 1956. Effect of 2,4-D on forbs and shrubs associated with big sagebrush. J. Range Manage. 9:38-40.
30. Bliev, Yu. K. and L. M. Kozlova. 1972. The effect of different rates of herbicides on soil fertility. (Ru.) Khim. Sel'sk. Khoz. 10(11): 850-853.
31. Bliev, Yu. K. 1973. Effect of herbicides on the biological activity of soils. (Ru.) Pochvovedenie 7:61-68. Weed Abstr. 23(10):258, 1974.
32. Bliev, Yu. K. 1973. The effects of dalapon and 2,4-D amine on the nutrient status of different types of soil. (Ru.) Agrokhimiya 10(1):112-117. Weed Abstr. 23(1):23, 1974.
33. Bramble, W. C. and W. R. Byrnes. 1958. Use of a power-line rights-of-way by game after chemical brush control. Pa. Game News 29(9):19-23.
34. Bramble, W. C. and W. R. Byrnes. 1972. A long-term ecological study of game food and cover on a sprayed utility rights-of-way. Purdue Univ., Agric. Exp. Stn., Res. Bull. 885:1-20. Health Aspects Pestic. 6(8): 408, 1973.
35. Brooker, M. P. and R. W. Edwards. 1974. Aquatic herbicides and the control of water weeds. Water Res. 9(1):1-14. Pestic. Abstr. 9(9):621, 1976.
36. Brown, R. M. 1969. Herbicides in forestry. J. Sci. Food Agric. 20: 510-512.
37. Buffington, J. D. 1974. Assessment of the ecological consequences of herbicide use along transmission line rights-of-way and recommendation for such use. U.S.N.T.I.S. Rep. Anl/Es-34; April 1974; 45 p.
38. Butler, P. A. 1963. Commercial fisheries investigations. P 11-25. In Pesticide-Wildlife Studies. A review of fish and wildlife service investigations during 1961 and 1962. U.S. Fish Wildl. Serv., Cir. No. 167.
39. Butler, P. A. 1963. Commercial fishery investigations. P 22-28. In Pesticide-Wildlife Studies. A review of fish and wildlife service investigations during the calendar year. U.S. Fish Wildl. Serv., Cir. No. 199.
40. Butler, W. A. 1974. In re: 2,4,5-trichlorophenoxyacetic acid (2,4,5-T). Prehearing Brief, I.F. & R. No. 295, U.S. Environmental Protection Agency, Before the Hearing Examiner. 18 January 1974. 18 p.

41. Carlson, R. 1962. Surface waters and underground seas. P 39-83 & 199-216. In Silent Spring. Houghton Mifflin Co.; Boston, Mass. 368 p.
42. Carter, M. C., J. W. Martin, J. E. Kennamer, and M. K. Causey. 1975. Impact of chemical and mechanical site preparation on wildlife habitat. Down Earth 31(2):14-18. Weed Abstr. 25(6):198, 1976.
43. CAST. 1975. The phenoxy herbicides. Weed Sci. 23(3):253-263. Pestic. Abstr. 599, 1976.
44. Chapman, B. 1974. Sponsors of Science Inc. on the safety of 2,4,5-T and dioxin. Clin. Toxicol. 7(4):413-421. Pestic. Abstr. 8(7):433, 1975.
45. Chen, M. Y. 1974. Effects of herbicides and repeated burns on the understory vegetation of loblolly-shortleaf pine forests on hilly terrain. Diss. Abstr. Int. 35(3):1141B-1142B.
46. Chessin, M. 1969. Controversial uses of herbicides. Letters. Science 166(3903):310.
47. Coffman, J. 1976. Protester who fired rifle found not guilty. Minneapolis Tribune (Minneapolis, Minn.); p 1; 11 November 1976.
48. Coffman, J. 1976. Seaver claims he aimed gun to miss spraying helicopter. Minneapolis Tribune (Minneapolis, Minn.); p 7A; 6 November 1976.
49. Cope, O. B. 1966. Contamination of the freshwater ecosystem by pesticides. J. Appl. Ecol. 3(Suppl.):33-44.
50. Cope, O. B., E. M. Wood, and G. H. Wallen. 1970. Some chronic effects of 2,4-D on the bluegill (*Lepomis macrochirus*). Trans. Am. Fish. Soc. 99(1):1-11.
51. Cowell, B. C. 1965. The effects of silvex on aquatic vegetation and plankton in Central New York farm ponds. Down Earth 21(1-2):19-20.
52. Cowell, B. C. 1965. The effects of sodium arsenite and silvex on the plankton populations in farm ponds. Trans. Am. Fish. Soc. 94:371-377.
53. Cronin, E. H. and D. B. Nielsen. 1972. Controlling tall larkspur on snowdrift areas in the subalpine zone. J. Range Manage. 25(3):213-216.

D

54. Davis, B. N. K. 1965. The immediate and long-term effects of the herbicide MCPA on soil arthropods. *Bull. Entomol. Res.* 56:357-366.
55. Davis, F. S. 1973. 2,4,5-T. *Am. Inst. Chem. Eng., Symp. Ser.* 69 (129):269-278. *Weed Abstr.* 23(8):181, 1974.
56. Davis, F. S. 1974. Toxicology, persistence, and mobility of phenoxy herbicides in the environment. P E3-E16. U.S.N.T.I.S., AD Rep. A002 568. 143 p.
57. Day, B. E. 1972. Agricultural chemicals and range management. *Down Earth* 27(4):11-13.
58. Decker, E. 1959. The use of herbicides in nature sanctuary management. *Proc. Northeast. Weed Control Conf.* 13:372-376.
59. Dempster, J. P. 1974. The influence of pesticides on the crop fauna occurring above ground. *J. Int. Inst. Sugar Beet Res.* 6(1):1-5. *Weed Abstr.* 23(4):79, 1974.
60. DeWitt, J. B., W. H. Stickell, and P. F. Springer. 1963. Herbicides used for control of eurasian watermilfoil. P 83. *In Pesticide-Wildlife Studies. A review of fish and wildlife service investigations during 1961-1962.* U.S. Fish Wildl. Serv., Cir. No. 167.
61. Dominick, D. D. 1974. Environmental Protection Agency - 2,4,5-trichlorophenoxyacetic acid. Statement of Issues. *Down Earth* 29(4): 23.
62. Dominick, D. D. 1974. Environmental Protection Agency - 2,4,5-trichlorophenoxyacetic acid. Statement of Issues. *Ind. Veg. Manage.* 6(1):7.
63. Dost, F., J. Witt, M. Newton, and L. A. Norris. 1975. A discussion on herbicides. *J. For.* 73(7):410-412.
64. Dost, F., J. Witt, M. Newton, and L. A. Norris. 1975. Statement on 2,4,5-T and TCDD. *J. For.* 73(7):410-412.
65. Dowler, C. C., F. H. Tschirley, R. W. Bovey, and H. L. Morton. 1970. Effect of aerially-applied herbicides on Texas and Puerto Rico forests. *Weed Sci.* 18(1):164-168.
66. Dutta, T. R., J. Prasad, and R. P. Singh. 1972. Evaluation of herbicides for submerged weeds in Chambal and Bhakra-Nangal canal systems. *Indian J. Agric. Sci.* 42(1):70-75.

E
—

67. Eijsackers, H. 1975. Effects of the herbicide 2,4,5-T on *Onychiurus quadricellatus* Gisin (Coll.). P 481-488. In Progress in Soil Zoology. Proceedings of the 5th International Colloquium. J. Vanek (Ed.). Arnhem, Netherlands.
68. Elwell, H., W. E. McMurphy, and P. W. Santelmann. 1970. Burning and 2,4,5-T on post and blackjack oak rangeland in Oklahoma. Okla. Agric. Exp. Stn., Bull. No. 675.

F
—

69. Fagerstone, K. A., H. P. Tietjen, and G. K. LaVoie. 1977. Effects of range treatment with 2,4-D on prairie dog diet. J. Range Manage. 30(1):57-60.
70. Feldman, I., M. K. McCarty, and C. J. Scifres. 1968. Ecological and control studies of musk thistle. Weed Sci. 16(1):1-4.
71. Ferguson, D. E. 1972. The new evolution. Environment 14(6):30-35. Health Aspects Pestic. 6(1):2, 1973.
72. Folmar, L. C. 1976. Overt avoidance reaction of rainbow trout fry to nine herbicides. Bull. Environ. Contam. Toxicol. 15(5):509-514. Pestic. Abstr. 9(9):625, 1976.
73. Fox, C. J. S. 1964. The effects of five herbicides on the numbers of certain invertebrate animals in grassland soil. Can. J. Plant Sci. 44:405-409.

G
—

74. Gall, A. and J. R. Dogger. 1967. Effect of 2,4-D on the wheat stem sawfly. J. Econ. Entomol. 60(1):75-77.
75. Galston, A. W. 1974. The ungreening of South Vietnam. Natur. Hist. 83(6):10, 12, 14. Pestic. Abstr. 8(2):79-80, 1975.
76. Gangstad, E. O., P. W. Zimmerman, A. E. Hitchcock, H. Kirkpatrick, Jr., T. T. Earle, T. T. McClure, W. S. Stokes, F. S. Davis, D. P. Schultz, W. W. Barnes, J. A. Foret, and N. R. Spencer. 1974. Aquatic-use patterns for 2,4-D dimethylamine and integrated control. U.S.N.T.I.S., AD Rep. A002 568. 143 p. Pestic. Abstr. 9(3):184, 1976.
77. Gaylor, J. and A. Houser. 1962. Three years' results with silvex for aquatic plant control in Oklahoma. Down Earth 18(3):2-4.
78. Giban, J. 1972. Does the use of weedkillers in forestry pose a threat to game? (Fr.) Rev. For. Fr. 24(6):421-428. Weed Abstr. 23(7):150, 1974.

79. Gilliam, M., L. J. Wickerham, H. L. Morton, and R. D. Martin. 1974. Yeasts isolated from honey bees, *Apis mellifera*, fed 2,4-D and antibiotics. *J. Invertebr. Pathol.* 24(3):349-356. *Pestic. Abstr.* 8(12):837, 1976.
80. Godan, D. 1970. The effect of herbicides on *Drosophila melanogaster* Mg. P 778-779. *In* Summaries of Papers. 7th International Congress of Plant Protection. 21-25 September 1970. Paris. *Weed Abstr.* 20(6):437-438, 1971.
81. Grossbard, E. 1971. The effect of repeated field applications of four herbicides on the evolution of carbon dioxide and mineralization of nitrogen in soil. *Weed Res.* 11(4):263-275. *Weed Abstr.* 21(4):338, 1972.

H

82. Hansen, D. J., E. Matthews, S. L. Nali, and D. P. Dumas. 1972. Avoidance of pesticides by untrained mosquitofish, *Gambusia affinis*. *Bull. Environ. Contam. Toxicol.* 8(1):46-51. *Health Aspects Pestic.* 6(6):316, 1973.
83. Harker, T. L. 1973. *In re: 2,4,5-T. Respondent's First Pretrial Brief.* FIFRA Consolidated Docket No. 295. U.S. Environmental Protection Agency, Before the Administrator. 53 p.
84. Harp, G. L. and R. S. Campbell. 1964. Effects of the herbicide silvex on benthos of a farm pond. *J. Wildl. Manage.* 28(2):308-317.
85. Haven, D. 1963. Mass treatment with 2,4-D of milfoil in tidal creeks in Virginia. *Proc. South. Weed Conf.* 16:345-350.
86. Hawksworth, D. L. 1974. Man's impact on the British flora and fauna. *Outlook Agric.* 8(1):23-28. *Pestic. Abstr.* 8(12):795-796, 1976.
87. Heddergott, H. 1971. Public protest against plant protection. (De.) *Gesunde Pflanz.* 23(1):11-15. *Health Aspects Pestic.* 4:604-605, 1971.
88. Herzel, F. 1972. Evaluation of the threat to water by pesticides. (De.) *Schriftenr. Ver. Wasser, Boden, Lufthyg., Berlin-Dahlem* 37:17-20. *Pestic. Abstr.* 7(3):127, 1974.
89. Hirst, E. and H. Bank. 1971. Striking the balance. *Environment* 13(9):34-41.
90. Hooper, F. N. 1953. The effect of applications of pelleted 2,4-D upon the bottom fauna of Kent Lake, Oakland County, Michigan. *Proc. North Cent. Weed Control Conf.* 15:41.

91. House, W. B., L. H. Goodson, H. M. Gadberry, and K. W. Dockter. 1967. Assessment of ecological effects of extensive or repeated use of herbicides. Final Report. Processed for Defense Documentation, Defense Supply Agency. AD 824-314. U.S. Department of Commerce, National Bureau of Standards. 369 p.
92. Houser, A. 1963. Loss in weight of sunfish following aquatic vegetation control using the herbicide silvex. Proc. Okla. Acad. Sci. 43:232-237.
93. Hull, A. C., Jr. 1971. Effect of spraying with 2,4-D upon abundance of pocket gophers in Franklin Basin, Idaho. J. Range Manage. 24: 230-232.
94. Hunter, J. H. and A. L. Young. 1972. Vegetative succession studies on a defoliant-equipment test area, Eglin AFB Reservation, Florida. Technical Report AFATL-TR-72-31. Pyrotechnics Branch; Flame, Incendiary and Explosives Division, Air Force Armament Laboratory, Eglin Air Force Base, Fla. 32540. 25 p.
95. Hurlbert, S. H. 1976. Secondary effects of pesticides on aquatic ecosystem. Residue Rev. 57:81-148.

J

—

96. Johnson, D. R. 1964. Effects of range treatment with 2,4-D on food habits of rodents. Ecology 45(2):241-249.
97. Johnson, D. R. and R. M. Hansen. 1969. Effects of range treatment with 2,4-D on rodent populations. J. Wildl. Manage. 33(1):125-132.
98. Johnson, M. G. 1965. Control of aquatic plants in farm ponds in Ontario. Prog. Fish Cult. 27:23-30.
99. Jones, L. S., O. E. Anderson, and C. Dowler. 1974. Effects of herbicides in a crop-herbicide rotation on sulfur oxidation in Tifton soil. Agron. J. 66(6):744-747. Pestic. Abstr. 9(1):32, 1976.

K

—

100. Kearney, P. C. 1970. Herbicides in the environment. P 1-15. In FAO International Conference on Weed Control. Weed Sci. Soc. Am., Special Committee - Eds., Univ. Calif.; Davis, Calif. Weed Abstr. 20(6):436, 1971.
101. Keith, J. O., R. M. Hansen, and A. L. Ward. 1959. Effect of 2,4-D on abundance and foods of pocket gophers. J. Wildl. Manage. 23(2): 137-145.
102. Kenaga, E. E. 1975. The evaluation of the safety of 2,4,5-T to birds in areas treated for vegetation control. Residue Rev. 59:1-19. Pestic. Abstr. 9(3):188, 1976. Weed Abstr. 25(11):386, 1976.

103. King, C. C. 1964. Effects of herbicides on honeybees. *Glean. Bee Cult.* 92:230-233 & 251.
104. Kramer, D. and G. Schmaland. 1974. Herbicide residues in water bodies: Problems of water economy as a consequence of the application of pesticides. (De.) *Wasserwirtsch.-Wassertech.* 24(5): 161-167. *Pestic. Abstr.* 7(11):714, 1974.
105. Krefting, L. W. and H. L. Hansen. 1963. Use of phytocides to improve deer habitat in Minnesota. *Proc. South. Weed Conf.* 16:209-216.
106. Krefting, L. W. and H. L. Hansen. 1969. Increasing browse for deer by aerial applications of 2,4-D. *J. Wildl. Manage.* 33(4):784-790.
107. Kudzin, Yu. K., A. V. Fisyunov, N. A. Chernyavskaya, and A. Ya. Makarova. 1973. The change in the nitrate content of a typical chernozem soil under the influence of mineral fertilizers and pesticides. (Ru.) *Dokl. Vses. Akad. Sel'sk. Nauk* 9:13-15. *Weed Abstr.* 23(8):184-185, 1974.

L
—

108. Lawrence, H. 1971. Herbicide changed for forest spraying. *Evening Tribune (San Diego, Calif.)*; p A-5; 23 June 1971.
109. Laycock, W. A. and T. A. Phillips. 1968. Long-term effects of 2,4-D on lanceleaf rabbitbrush and associated species. *J. Range Manage.* 21:90-93.
110. Leonard, J. W. and S. A. Cain. Undated. The role of herbicides in wildlife management. Michigan Wildlife and University of Michigan; from *Adv. Bot.*; Univ. Toronto Press, Sect. 12. p 1422-1426.

M
—

111. Mackenthun, K. M. and L. E. Keup. 1972. Water pollution - freshwater macroinvertebrates. *J. Water Pollut. Control Fed.* 44(6):1137-1150. *Health Aspects Pestic.* 6(8):440, 1973.
112. Madel, W. 1970. Herbicides and conservation in the Federal Republic of Germany. *Proc. Br. Weed Control Conf.* 10:1079-1088. *Weed Abstr.* 20(5):371, 1971.
113. Maier-Bode, H. 1972. Zur 2,4,5-T Frage. (De.) *Anz. Schaedlingskd., Pflanz. Umweltschutz* 45(1):2-6. *Health Aspects Pestic.* 5(6):264, 1972.
114. Maier-Bode, H. 1973. Residues and side-effects of herbicides in forest protection. (De.) *Anz. Schaedlingskd., Pflanz. Umweltschutz* 46(2):17-24. *Health Aspects Pestic.* 7(2):57, 1974.

115. Marker, E. 1974. Growth regulating substances and the effect of 2,4,5-T on natural vegetation. (Sv.) *Blyttia* 32(2):123-130.
116. Marquiss, R. W. 1972. Soil moisture, forage, and beef production benefits from gambel oak control in southwestern Colorado. *J. Range Manage.* 25(2):146-150.
117. Marshall, C. D. and C. W. Rutschky, III. 1974. Single herbicide treatment: Effect on the diversity of aquatic insects in Stone Valley Lake, Huntingdon Co., PA. *Proc. Pa. Acad. Sci.* 48:127-131.
118. Martin, R. P. 1965. Effects of the herbicide, 2,4,5-T, on breeding bird populations. *Proc. Okla. Acad. Sci.* 46:235-237.
119. Martinov, E. N. 1970. The effect of preparations of the 2,4-D group on wild warm-blooded animals. (Ru.) *Lesn. Khoz.* 6:57-59. *Weed Abstr.* 21(2):174, 1972.
120. Matida, Y., Y. Furuta, H. Kumada, H. Tanaka, M. Yokote, and S. Kimura. 1975. Effects of some herbicides applied in the forest to the freshwater fishes and other aquatic organisms-I. Survey on the effects of aerially applied sodium chlorate and a mixture of 2,4-D and 2,4,5-T on the stream community. *Tansuiku Suisan Kenkyusho Kenkyu Hokoku* 25(1):41-53.
121. Maxwell, R. C. and R. F. Harwood. 1958. Increased reproduction of aphids on plants affected by the herbicide 2,4-dichlorophenoxyacetic acid. *Bull. Entomol. Soc. Am.* 4:100.
122. Maxwell, R. C. and R. F. Harwood. 1960. Increased reproduction of pea aphids on broad beans treated with 2,4-D. *Ann. Entomol. Soc. Am.* 53:199-205.
123. Medvedev, A. N. and V. F. Burmistrov. 1972. The effect of some herbicide mixtures on the biological activity, the dynamics of nutrients and on the water content in soil. (Ru.) *Vestn. Skh. Nauki* 15(2): 88-93. *Weed Abstr.* 23(3):61, 1974.
124. Montgomery, M. L. and L. A. Norris. 1970. A preliminary evaluation of the hazards of 2,4,5-T in the forest environment. U.S. For. Serv., Pac. Northwest For. Range Exp. Stn., Res. Note, PNW-116. 10 p. *Weed Abstr.* 20(6):438, 1971.
125. Montgomery, M. L. and L. A. Norris. 1972. A preliminary evaluation of the hazards of 2,4,5-T in the forest environment. *Ind. Veg. Manage.* 4(1):19-22.
126. Morre, D. J. 1974. Brush control along agricultural drainage ditches: Environmental safety and efficacy of herbicide formulations. Purdue Univ. Water Resour. Res. Cent.; Tech. Rep. No. 49; 108 p.

127. Mullison, W. R., F. B. McGilvrey, E. W. Whitney, J. Steenis, and E. O. Gangstad. 1973. Aquatic plant control program. Tech Report 5-Silvex. U.S.N.T.I.S., AD Rep. 769 583. 139 p.
128. Mullison, W. R. 1970. Effects of herbicides on water and its inhabitants. *Weed Sci.* 18(6):738-750.
129. Mullison, W. R. 1972. Ecological effects of herbicides. *Down Earth* 28(2):21-24. *Health Aspects Pestic.* 6(1):8, 1973.

N

130. Nalewaja, J. D., L. W. Mitich, and A. Dexter. 1971. Herbicides in North Dakota's environment. *N. Dak. Farm Res.* 28(4):25-28. *Weed Abstr.* 20(6):436, 1971.
131. Nenaïdenko, G. N., V. K. Baluev, A. M. Blinov, and B. N. Onokhin. 1973. The simultaneous application of chlormequat and 2,4-D. (Ru.) *Khim. Sel'sk. Khoz.* 11(5):377-379. *Weed Abstr.* 23(8):186, 1974.
132. Newbold, C. 1975. Herbicides in aquatic systems. *Biol. Conserv.* 7:97-118. *Pestic. Abstr.* 8(9):584-585, 1976. *Pestic. Abstr.* 9(4):272, 1976. *Weed Abstr.* 25(4):118-119, 1976.
133. Newton, M. 1975. Constructive use of herbicides in forest resource management. *J. For.* 73(6):329-336.
134. Newton, M., L. A. Norris, F. Dost, and J. Witt. 1975. A discussion on herbicides. Statement on 2,4,5-T and TCDD. *J. For.* 73(7):410-412.
135. Niering, W. A. 1968. The effects of pesticides. VI. P 101-122. In *Environmental Problems - pesticides, thermal pollution and environmental synergisms.* B. R. Wilson (Ed.). J. B. Lippincott and Co.; Philadelphia and Toronto. 183 p.
136. Niering, W. A. and R. H. Goodwin. 1974. Creation of relatively stable shrublands with herbicides: Arresting "succession" on rights-of-way and pastureland. *Ecology* 55(4):784-795.
137. Niering, W. A. and R. H. Goodwin. 1975. Creation of relatively stable shrublands with herbicides: Arresting "succession" on rights-of-way and pastureland. *Down Earth* 31(3):26-32.
138. Noguchi, K. and A. Nakazawa. 1972. Studies on the effects of herbicides on soil environment - effects on soil nitrification. (Ja.) *Weed Res. (Japan)* 12:64-68. *Weed Abstr.* 22(10):259, 1973.

O
—

139. Oka, I. N. and D. Pimentel. 1976. Herbicide (2,4-D) increases insect and pathogen pests on corn. *Science* 193:239-240.

P
—

140. Palmer-Jones, T. 1964. Effect on honey bees of 2,4-D. *N.Z. J. Agric. Res.* 7:339-342.
141. Pate, B. D., R. C. Voigt, P. J. Lehn, and J. H. Hunter. 1972. Animal survey studies of Test Area C-52A, Eglin AFB Reservation, Florida. Technical Report AFATL-TR-72-72. Pyrotechnics Branch; Flame, Incendiary and Explosives Division, Air Force Armament Laboratory, Eglin Air Force Base, Fla. 32540. 141 p.
142. Peters, E. J. and J. F. Stritzke. 1971. Effects of weed control and fertilization on botanical composition and forage yields of Kentucky bluegrass pasture. *U.S. Dep. Agric., Tech. Bull. No. 1430.* 28 p.
143. Pierce, M. E. 1958. The effect of the weedicide Kuron upon the flora and fauna of two experimental areas of Long Pond, Dutchess County, N.Y. *Proc. Northeast. Weed Sci. Soc.* 12:338-343.
144. Pimentel, D. 1971. Ecological effects of pesticides on non-target species. Executive Office of the President, Office of Science and Technology. June 1971. 220 p.
145. Pimentel, D. 1971. Evolutionary and environmental impact of pesticides. *BioScience* 21(3):109.
146. Plumb, T. R., L. A. Norris, and M. L. Montgomery. 1977. Persistence of 2,4-D and 2,4,5-T in chaparral soil and vegetation. *Bull. Environ. Contam. Toxicol.* 17(1):1-8.
147. Pravda, O. 1973. The effect of herbicides on freshwater fauna. (De.) *Hydrobiologia* 42(1):97-142. *Weed Abstr.* 22(12):320, 1973.
148. Pryde, P. R. 1971. Soviet pesticides. *Environment* 13(9):16-24.
149. Putnam, L. G. 1949. The survival of grasshopper nymphs on vegetation treated with 2,4-D. *Sci. Agric.* 29:396-399.

R
—

150. Radosevich, S. R., P. C. Passof, and O. A. Leonard. 1976. Douglas fir release from tanoak and pacific madrone competition. *Weed Sci.* 24(1):144-145.
151. Raleigh, S. M. and R. E. Patterson. 1948. Rodent injury on 2,4-D preemergence-treated corn. *J. Am. Soc. Agron.* 40:472-473.

S
—

152. Schedler, J. 1976. The influence of the herbicide "Hedonal TM" (MCPA + 2,4,5-T) on grassland. (De.) Z. Pflanzenkr. Pflanzenschutz 83(12):758-766.
153. Scifres, C. J. and R. H. Haas. 1974. Vegetation changes in a post oak savannah following woody plant control. Tex. Agric. Exp. Stn., Misc. Publ. No. 1136. 11 p.
154. Scrivani, P. and F. Voia Gera. 1970. Information and considerations on the degree of danger from herbicides. (It.) Contrib. Ist. Rec. Agrar. Milan, p 41-45. Weed Abstr. 20(6):436, 1971.
155. Skokova, N. N. 1975. Side-effect of arboricides used in forests upon warm-blooded animals. P 168-172. In 8th International Congress of Plant Protection, Vol. 2. Papers at Sessions, Moscow.
156. Smith, G. E. and B. G. Isom. 1967. Investigation of effects of large-scale applications of 2,4-D on aquatic fauna and water quality. Pestic. Monit. J. 1(3):16-21.
157. Southwood, T. R. E. and D. J. Cross. 1969. The ecology of the partridge. III. Breeding success and the abundance of insects in natural habitats. J. Anim. Ecol. 38:497-509.
158. Springer, P. F. 1957. Effects of herbicides, fungicides on wildlife. P 87-106. In North Carolina Pesticide Manual. Compiled for Pesticide School. 10-11 January 1957. North Carolina State College; Raleigh, N.C.
159. Stark, H. E., J. K. McBride, and G. F. Orr. 1975. Soil incorporation/biodegradation of herbicide Orange. I. Microbial and baseline ecological study of the U.S. Air Force Logistics Command Test Range, Hill Air Force Base, Utah. Final Report. TECOM Project No. 5-CO-213-000-015. U.S. Army Dugway Proving Ground; Dugway, Utah. 73 p.
160. Sutterlin, A. M. 1974. Pollutants and the chemical senses of aquatic animals - perspective and review. Chem. Senses Flavor 167-178. Pestic. Abstr. 8(10):691-692, 1976.

T
—

161. Tabler, R. D. 1968. Soil moisture response to spraying big sagebrush with 2,4-D. J. Range Manage. 21:12-15.
162. Tharaldsen, J. 1973. Water pollution due to spraying with 2,4,5-T for brush control. (No.) Norsk. Vet. Tidsskr. 85(5):277-279. Pestic. Abstr. 7(12):775, 1974.

163. Tietjen, H. P., C. H. Halvorson, P. L. Hegdal, and A. M. Johnson. 1967. 2,4-D herbicide, vegetation, and pocket gopher relationships, Black Mesa, Colorado. *Ecology* 48(4):634-643. *Weed Abstr.* 20(1):56, 1971.
164. Tomkins, D. J. and W. F. Grant. 1974. Differential response of 14 weed species to seven herbicides in two plant communities. *Can. J. Bot.* 52(3):525-533.
165. Tomkins, D. J. 1976. Effects of herbicides on wild plants at chromosomal, population, and community levels. *Diss. Abstr. Int.* 36: 5925B. *Pestic. Abstr.* 9(10):726, 1976.
166. Tschirley, F. H. - (Chairman), W. Binns, C. Cueto, B. C. Eliason, H. W. Heggstad, G. H. Hepting, P. F. Sand, and R. F. Stephens. 1970. Investigations of spray project near Globe, Arizona. Investigation conducted February 1970. *Mim.*, U.S. Dep. Agric., Office of Science and Education. 29 p.

U
—

167. U.S. Department of Agriculture. 1971. Report on status of knowledge regarding 2,4,5-T. Office of Science and Education. *Mim.*, 24 p.
168. U.S. Department of the Interior. 1963. Pesticide-Wildlife Studies. A review of fish and wildlife service investigations during 1961 and 1962. *U.S. Fish Wildl. Serv., Cir. No. 167.* 109 p.
169. U.S. Department of the Interior, Fish and Wildlife Service, Fish-Pesticide Research Laboratory. 1975. Annual progress report 1974-1975. Columbia, Mo. 24 p. *Weed Abstr.* 25(6):197, 1976.
170. U.S. Senate. 1970. Effects of 2,4,5-T on man and in the environment. Hearing Before the Subcommittee on Energy, Natural Resources, and the Environment of the Committee on Commerce. U.S. Senate, Ninety-First Congress, Second Session; 7 and 15 April 1970. Serial 91-60.

V
—

171. Van Himme, M. 1974. Environmental consequences of herbicide use. (NL.) *Parasitica* 30(3):87-99. *Pestic. Abstr.* 8(12):808-809, 1976.
172. Vicario, B. T. 1972. A study on the effect of pesticides (2,4-D ester, agroxone 4, and malathion) on the phosphorus, potassium, calcium and total nitrogen levels in Novaliches clay loam soil. *Araneta Res. J.* 19(2):103-114. *Weed Abstr.* 24(12):347, 1975.
173. Von Horn, A. 1974. Studies on the effect of growth-regulator herbicides on game birds, particularly pheasants. (De.) *Nachrichtenbl. Dtsch. Pflanzenschutzdienst* 26(10):154-155. *Weed Abstr.* 24(8): 220, 1975.

W
—

174. Walker, C. R. 1963. Toxicological effects of herbicides on the fish environment. Proceedings of the Eighth Annual Air and Water Pollution Conference; University of Missouri, Engineering Series. Bull. No. 2, 17-34.
175. Walker, C. R. 1971. Chemicals and their effect on our aquatic environment. Proc. South. Weed Sci. Soc. 24:39-57.
176. Walker, C. R. 1971. The toxicological effects of herbicides and weed control on fish and other organisms in the aquatic ecosystem. Proc. Eur. Weed Res. Council., 3rd Int. Symp. Aquat. Weeds. P 119-127. Weed Abstr. 21(3):250, 1972.
177. Ward, A. L. 1973. Sagebrush control with herbicide has little effect on elk calving behavior. U.S. For. Serv., Res. Note RM-240. 4 p. Weed Abstr. 23(9):217, 1974.
178. Way, J. M. 1969. Toxicity and hazards to man, domestic animals, and wildlife from some commonly used auxin herbicides. Residue Rev. 26:37-62.
179. Webster, J. M. and D. Lowe. 1966. The effect of the synthetic plant-growth substance, 2,4-dichlorophenoxyacetic acid, on the host-parasite relationships of some plant-parasitic nematodes in monoxenic callus culture. Parasitology 56:313-322.
180. Webster, J. M. 1967. Some effects of 2,4-dichlorophenoxyacetic acid herbicides on nematode-infested cereals. Plant Pathol. 16:23-26.
181. Wellenstein, G. 1975. Biological and eco-toxicological problems regarding aerial application of derivatives of phenoxyacetic acids in forests. (De.) Qual. Plant.-Plant Foods Hum. Nutr. 25(1):1-20. Pestic. Abstr. 9(7):490, 1976.
182. Wellenstein, G., M. Eichner, and W. Scholl. 1975. Residue problems after application of hormonal herbicides in forestry. (De.) Allg. Forst. Jagdztg. 146(3/4):63-72.
183. Wellford, H., L. Huber, and J. Edes. 1970. Petition for review of an order of the Secretary of Agriculture, U.S. Court of Appeals, for the District of Columbia Circuit, No. 24,434. 51 p.
184. Wettasinghe, D. T. 1971. The effect of the use of herbicides for the control of weeds on the environment. Tea Q. 42(4):201-205. Weed Abstr. 22(4):73, 1973.
185. Whitney, E. W., A. B. Montgomery, E. C. Martin, and E. O. Gangstad. 1973. The effects of a 2,4-D application on the biota and water quality in Currituck Sound, North Carolina. Hyac. Control J. 11: 13-17. Weed Abstr. 23(5):101, 1974.

186. Whitney, E. W., R. D. Estes, R. O. Smitherman, and E. O. Gangstad. 1974. Effects of silvex on aquatic biota. *Hyac. Control J.* 12: 20-24. *Weed Abstr.* 24(5):125, 1975.
187. Wierzbicka, M. 1974. Haemolymph concentration in cyclopoida copepodids during active and resting stage and the effect of 2,4-D sodium salt. *Pol. Arch. Hydrobiol.* 21(2):269-273. *Pestic. Abstr.* 9(7):514, 1976.
188. Wierzbicka, M. 1974. Influence of 2,4-D sodium salt on the survival of some copepoda species. *Pol. Arch. Hydrobiol.* 21(2):275-282. *Pestic. Abstr.* 9(7):514-515, 1976.
189. Wojtalik, T. A., T. F. Hall, and L. O. Hill. 1971. Monitoring ecological conditions associated with wide-scale applications of DMA 2,4-D to aquatic environments. *Pestic. Monit. J.* 4(4):184-203.
190. Wojtalik, T. A., T. F. Hall, and L. O. Hill. 1971. Monitoring the effects of wide-scale application of 2,4-D for milfoil control. *Hyac. Control J.* 9(1):4.

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191. Young, A. L. 1974. Ecological Studies on a Herbicide-Equipment Test Area (TAC-52A), Eglin AFB Reservation, Florida. Technical Report AFATL-TR-74-12. Environics and Flame Munitions Branch; Flame, incendiary and Explosives Division, Air Force Armament Laboratory, Eglin Air Force Base, Fla. 32540. 141 p.
192. Young, A. L., C. E. Thalken, W. E. Ward, and W. J. Cairney. 1974. The ecological consequences of massive quantities of 2,4-D and 2,4,5-T herbicides. Summary of a five-year field study. Paper presented to the Weed Science Society of America; 14 February 1974; Las Vegas, Nev. 6 p. *Weed Abstr.* 24(4):87, 1975.
193. Young, A. L., C. E. Thalken, and W. E. Ward. 1975. Studies of the ecological impact of repetitive aerial applications of herbicides on the ecosystem of test area C-52A, Eglin AFB, Florida. Technical Report AFATL-TR-75-142. Department of Chemistry and Biological Sciences. U.S. Air Force Academy, Colo. 80840. 127 p.
194. Young, A. L., C. E. Thalken, and W. E. Ward. 1975. Summary: Studies of the ecological impact of repetitive aerial applications of herbicides on the ecosystem of test area C-52A, Eglin AFB, Florida. Technical Report. Submitted October 1975 to the Environics and Human Factors Office, Air Force Armament Laboratory, Eglin Air Force Base, Fla. 32540. 4 p.

195. Zimin, V. B. 1971. The effect of arboricides on the useful fauna. (Ru.) P 92-97. In Fertilizers and Herbicides in Forestry in the Northern Part of European USSR. V. I. Shubin and R. M. Morozova (Eds.). Leningrad, USSR, Nauka.
196. Zinchenko, V. A., T. V. Osinskaya, and N. A. Prokudina. 1969. The effect of herbicides on the biological activity of the soil. (Ru.) Khim. Sel'sk. Khoz. 7(11):850-853. Weed Abstr. 20(5):374-375, 1971.