As one of agriculture’s most extensively studied crop protection tools, 2,4-D is currently registered for use in more than 70 nations. Over sixty years of research has proven that 2,4-D is not persistent in soil, water or vegetation, breaks down rapidly, and exhibits low acute and chronic toxicity to animals in the environment. Below is a list of various studies and reports related to 2,4-D from international regulatory organizations, such as the United States Environmental Protection Agency (EPA), the World Health Organization, the Food and Agriculture Organization of the United Nations, the Health Canada Pest Management Regulatory Agency, the European Commission Directorate General for Health and Consumers, and many others.

General information on 2,4-D
- Industry Task Force II on 2,4-D Research Data. www.24D.org

Regulatory reviews and decisions:
  http://docket.epa.gov/edkpub/index.jsp
  http://www.pmra-arla.gc.ca/english/consum/2,4-D-e.html
  http://docket.epa.gov/edkpub/index.jsp
- World Health Organization. 2,4-D in Drinking-water, Background document for development of WHO Guidelines for Drinking-water Quality. 2003
- Toxicology and potential health risk of chemicals that may be encountered by workers using forest vegetation management options. Part III: Risk to workers using 2,4-D formulations. British Columbia. Forest Practices Branch. II. Title. RC965:FS96D7 2003.
  http://www.pmra-arla.gc.ca/english/consum/2,4-D-e.html
Toxicology and Human Exposure

- Burns, CJ and GMH Swaen. 2012. Review of 2,4- dichlorophenoxyacetic acid (2,4-D) biomonitoring and epidemiology. Critical Reviews in Toxicology. Early Online 1-19.
- Bus, JS, Hammond, LE. Regulatory progress, toxicity, and public concerns with 2,4-D: Where do we stand after two decades? Crop Protection 2007; 26:266-269
- Charles et al. Chronic Dietary Toxicity/Oncogenicity Studies on 2,4-D in Rodents, Fundamental and Applied Toxicology, vol. 33, 1996.

Environmental Effects

- Wilson, RD et al., Dissipation in Field Soils after Application of 2,4-D Dimethylamine Salt and 2,4-D 2-Ethylhexyl Ester, Environmental Toxicology and Chemistry, Vol. 16(6), pp. 1239- 1246, 1997
- Wilson, RD, Armbruster, JA. The Dispersion and Dissipation of 2,4-D from Typical Aquatic Applications. April 2008.

Animal Health


Charles, JM et al., Comparative Subchronic Studies on 2,4-Dichlorophenoxyacetic Acid, Amine and Ester in Rats, Fundamental and Applied Toxicology, Vol.33, 161-165, 1996

Charles, JM et al., Developmental Toxicity Studies in Rats and Rabbits on 2,4-Dichlorophenoxyacetic Acid and its Forms, Toxicological Sciences, 60, 121-131, 2001


Mattsson, JL et al., Single Dose and Chronic Dietary Neurotoxicity Screening Studies on 2,4-Dichlorophenoxyacetic Acid in Rats, Fundamental and Applied Toxicology, 40,111-119, 1997
