

2,4-D: 70 Years of Cumulative Expert Reviews

2,4-D (2,4-dichlorophenoxyacetic acid) is one of the most widely used selective herbicides in North America and worldwide. Since its discovery in 1945, 2,4-D has had an enormous impact on increasing world food production while reducing food production costs. It also enjoys a remarkable health and safety regulatory approval record in the United States, Canada, Australia, Europe, South America, Asia and Africa – in total more than 90 countries.

1945	U.S. Patent No 2,390,941 is issued for 2,4-D to plant physiologist Dr. Franklin D. Jones of the American Chemical Paint Company.
1947	2,4-D is registered for use in the U.S. on crops and turf grass.
1964	54 million pounds of 2,4-D produced as farmers and homeowners alike discover the benefits of effective weed control. Studies at the time found that weeds typically destroyed 30 – 35 percent of crop yields.
1988	Beginning of reregistration data development by the 2,4-D Task Force and review by U.S. and Canadian regulators.
1996	World Health Organization completes its toxicological review of 2,4-D and determines the compound does not present a risk to human health.
2001	European Commission completes its toxicological and environmental assessment of 2,4-D and states "...that the plant protection products containing 2,4-D will fulfill the safety requirements laid down in the Directive 91/414/EEC."
2004	The Henry Ford organization in Dearborn, Michigan declares 2,4-D one of the 75 most important innovations in the previous 75 years.

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2005 Health Canada's Pest Management Regulatory Agency (PMRA) issues "Proposed Acceptability for Continued Registration" and determines 2,4-D can be used safely on lawn and turf when label directions are followed. Release of proposed decision provides for public comment and input.

2005 EPA releases 2,4-D Reregistration Eligibility Decision (RED). EPA's review of human health and environmental data concludes there is no additional evidence that would implicate 2,4-D as a cause of cancer and that it does not pose an unacceptable risk to human health when product instructions are followed.

2007 EPA determines the existing data do not support a conclusion that links human cancer to 2,4-D exposure and issues "Decision Not to Initiate a Special Review" after more than 21 years of research and agency review.

2008 PMRA issues final re-evaluation decision on 2,4-D and determines it is safe to use according to label directions.

2011 Regulatory agencies in Sweden and Denmark approve registrations for 2,4-D.

2012 EPA announced its denial of the 2008 petition by the Natural Resources Defense Council (NRDC) seeking to cancel 2,4-D registrations, stating: "After considering public comment received on the petition and all the available studies, including a state-of-the-science one-generation reproduction study, EPA is denying the request to revoke all tolerances and the request to cancel all registrations."

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2013 PMRA reviewed additional studies on chemistry, toxicology, environment, and occupational exposure finding that the data and information submitted support the regulatory decision for 2,4-D.

2014 European Food Safety Authority initial risk assessments underwent a peer review which agreed that 2,4-D is unlikely to pose carcinogenic risk to humans; registrants will continue providing additional information. EPA approves expanded use pattern in corn and soybeans, confirming its use meets modern safety standards and will be protective of the public, agricultural workers, and non-target species. "EPA has determined that this use is safe for humans and the environment when used according to the label."

2015 The United States Environmental Protection Agency concluded the Endocrine Disruption Screening Program Weight of Evidence Conclusions on the Tier 1 Screening Assays for the List 1 Chemicals. The conclusion of the Weight of Evidence evaluation is that 2, 4-D demonstrates no convincing evidence of potential interaction with the estrogen, androgen or thyroid pathways.

2015 While voting to classify 2,4-D as "possibly carcinogenic to humans" (Group 2B), the IARC review panel concluded, "there is inadequate evidence in humans for the carcinogenicity of 2,4-D" as epidemiological studies did not find strong or consistent increases in risk of NHL or other cancers in relation to 2,4-D exposure and there was limited evidence in experimental animals for the carcinogenicity of 2,4-D due to

methodological concerns regarding the positive studies.

2015

European Commission renewed the approval of the active substance 2,4-D in accordance with Regulation (EC) No 1107/2009 of the European Parliament and of the Council concerning the placing of plant protection products on the market

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