

Straight Talk about 2,4-D Herbicide

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 more than 90 countries including the United States, Canada, and member states of the European Union.

Discovery in 1945

The original patent on 2,4-D was issued in 1945 to Dr. Franklin D. Jones, a plant physiologist. Dr. Jones was working with the naturally occurring plant auxin, indole acetic acid (IAA). Since IAA proved too unstable to work effectively, Dr. Jones developed a synthetic version of IAA – namely 2,4-D. IAA is present in all plant matter and humans ingest it daily whenever fruit, vegetables and cereals are consumed. Recognizing its importance, in 2004 The Henry Ford organization in Dearborn, Michigan identified 2,4-D as one of the 75 most important innovations in the previous 75 years. Few discoveries of any variety have done as much to increase food production throughout the world.

Benefits

- 2,4-D provides homeowners, agriculture, aquatic resource, forestry and green space managers with a time-proven and low cost product for a wide variety of uses and some of the least resistance of any herbicide.
- It is applied to protect yield in crops such as wheat, corn, rice, soybeans, potatoes, asparagus, pome fruits, stone fruits and nuts.
- The use of 2,4-D in the agricultural sector has enabled an increase of no-till farming practices, which reduces soil erosion and lowers the sector's carbon footprint.
- 2,4-D safely controls weeds in turf grass, invasive species in aquatic and environmentally sensitive areas, maintains and protects right-of-ways, and guards infrastructure against structural damage caused by harmful vegetation.
- 2,4-D eliminates broadleaf weeds from range and pastureland without damaging desirable grasses that livestock feed upon. Also, it is used to protect native grass species against invasive weeds.
- A 1996 U.S. Department of Agriculture study concluded that if 2,4-D were no longer available, the cost to growers and other users in terms of higher weed control expenses, and to consumers, in the form of higher food and fiber prices, would total *\$1.6 billion annually* in the U.S. alone.


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years

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RESEARCH
DISCOVERY

Myths versus Facts

Myth: 2,4-D causes cancer.

Fact: After rigorous scientific study over several decades, not a single regulatory agency in the world mandated with protecting public health identifies 2,4-D as a human or animal carcinogen.

Myth: 2,4-D is an endocrine disruptor.

Fact: The claim of 2,4-D being an endocrine disruptor is not supported by the scientific evidence. There is no evidence of cancer in animal tests, no evidence of reproductive toxicity, no evidence of birth defects, it does not metabolize in the body, it is rapidly excreted and it is not persistent in the environment.

Myth: 2,4-D is banned in some countries.

Fact: 2,4-D is registered for use in more than 90. The most recent country to approve its continued sale and use was Sweden in 2011. In some countries, the market size or product use restrictions do not warrant the cost of maintaining registrations.

Myth: Pesticide regulators do not consider the potential exposure to bystanders.

Fact: The EPA and other pesticide regulators consider potential exposure to a given pesticide from all sources, including diet, drinking water and contact with treated areas like lawns. Registration is only granted if the pesticide meets the strict health and safety standards set by the EPA, which take all of these areas into consideration.

Myth: Regulatory agencies base their decisions on studies paid for by pesticide companies.

Fact: Regulatory decisions regarding 2,4-D are based on an enormous body of research that has been conducted by some 300 independent EPA Good Laboratory Practices (GLP) accredited laboratories in concert with studies and reports published in scientific journals as well as other foreign nation and international organization reviews. EPA carefully reviews all studies for GLP compliance; an intentional GLP violation is a violation of federal law, a felony.

After rigorous analysis of the relevant scientific data, expert panels and government agencies mandated with protecting human health and the environment all reach the same conclusion: **2,4-D is acceptable for use according to label directions.**

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