Chemical Factsheet

Paraquat/Paraquat dichloride

General Information

- Fact Sheet: Paraquat.pdf
- Product Names:
  Cyclone (Syngenta) formulated with Carfentrazone
  Gramoxone (Syngenta)
  Marman (Marman)
  Quik-Quat (Drexel)
  Herbiquat (Marman USA)
  Parazone (Makhteshim)
  Bonfire (United Phosphorus)
  Helmquat (Helm Agro US)
  Dynaquat (Source Dynamics)
- Chemical Class: Quaternary nitrogen herbicide
- Uses: Preplant or preemergence weed control on vegetables, grains, cotton, grasses, sugar cane, peanuts, potatoes, and tree plantation areas; postemergence around fruit crops, vegetables, trees, vines, grains, soybeans, and sugar cane; during the dormant season on clover and other legumes; as a desiccant or harvest aid on cotton, dry beans, soybeans, potatoes, sunflowers, and sugar cane; and as a post harvest desiccant on staked tomatoes; applied to pine trees to induce resin soaking. non-crop areas include public airports, electric transformer stations and around commercial buildings.
- Alternatives: Organic agriculture, Least-toxic weed control
- Beyond Pesticides rating: Toxic

Health and Environmental Effects

See citations at end of document.

- Cancer: Likely (**1**)
- Endocrine Disruption: Not documented
- Reproductive Effects: Yes (**2**)
- Neurotoxicity: Yes (**3**, **4**, **5**)
- Kidney/Liver Damage: Yes (**6**)
- Sensitizer/ Irritant: Yes (**6**)
- Birth/Developmental: Not documented
- Detected in Groundwater: Yes (**6**)
- Potential Leacher: Likely (**7**, **8**)
- Toxic to Birds: Yes (**6**)
- Toxic to Fish/Aquatic Organisms: Yes (**9**, **10**, **11**)
- Toxic to Bees: Likely (**12**)

Additional Information

- Regulatory Status:
  - EPA Reregistration Eligibility Decision (RED) signed (8/1997)

- Supporting information:
  - Beyond Pesticide Comments (March 2025)
  - Beyond Pesticide Comments (March 2024)
  - Extoxnet Paraquat Factsheet (Extension Toxicology Network)
  - PAN Pesticides Database: Paraquat dichloride (Pesticide Action Network)
  - Adverse Health Effects Caused by Paraquat (Public Eye)
- Studies [compiled from the Pesticide-Induced Diseases Database]
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  - Cellular injury leading to oxidative stress in acute poisoning with potassium permanganate/oxalic acid, paraquat, and glyphosate surfactant herbicide. Wijerathna, T.M., Mohamed, F., Gawarammana, I.B., Wunnapuk, K., Dissanayake, D.M., Shihana, F. and Buckley, N.A., 2020. Environmental toxicology and pharmacology, 80, p.103510.
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Gateway Health and Environmental Effects Citations

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