

Assembly Bill 1963

Assembly Bill 1963 seeks to ban the use of paraquat by California farmers, an essential herbicide approved by the U.S. Environmental Protection Agency (USEPA) and the California Department of Pesticide Regulation (CDPR). Bill proponents have relied on unsubstantiated claims and incomplete scientific data to support their cause. This document sheds facts on several myths that have permeated about AB 1963.

MYTH

Paraquat is subject to the same regulations as other herbicides.

FACT

Paraquat is subject to unique and unprecedented restrictions. State and federal regulators have created a strict process to ensure the safe application of paraquat that includes the following mandates: Only a state-certified applicator can handle or apply paraquat; a paraquat specific safe handling training through the National Pesticide Safety Education Center taken before using paraquat and retaken every three years; specially designed closed system packaging; as a designated restricted material, all use requires a permit from county agricultural commissioner and advanced notification.

MYTH

Scientific studies show a causal link between paraquat and Parkinson’s Disease.

FACT

The hypothesis that paraquat causes Parkinson’s is not, and has never been, accepted in the medical community or peer-reviewed science. According to a USEPA review from earlier this year, “After a thorough review of the relevant studies, the Agency concluded that the weight of evidence was insufficient to link paraquat exposure from pesticidal use of U.S. registered paraquat products to PD in humans.”ⁱ

In a 2024 court order, a federal judge found that the plaintiffs’ expert’s attempts to link paraquat to Parkinson’s relied on “unscientific cherry-picking” and used methodology that was “unclear, inconsistently applied, not replicable, and at times transparently reverse-engineered.” The opinion also noted that the expert’s paraquat Parkinson’s “causation theory has not been adopted or independently validated in any peer-reviewed scientific analysis.”ⁱⁱ

MYTH

California farmers have access to alternative herbicides that can perform as effectively as paraquat.

FACT

Paraquat has unique benefits to farmers and other tools to control weeds come with limitations and environmental tradeoffs. Paraquat is a contact herbicide that acts quickly, doesn’t damage crop roots, controls a broad spectrum of weeds and is approved for use on many small acre crops where few herbicides are allowed. Loss of paraquat would accelerate weed resistance to the few broad-spectrum herbicides available. Without paraquat, growers would have to increase their use of multiple, less broadly effective herbicides while struggling to control damaging weeds.

MYTH

Paraquat was banned from use on golf courses in 2021 because it is toxic.

FACT

Paraquat has not been banned, nor has it ever been approved, for use on golf courses in the US. A review of 30 years of registration decisions did not turn up an approved golf course use, or a cancellation of this use. Any request for use on golf courses would have to undergo the same thorough pre-market approval process as an agricultural use. In any case there would be little reason to use paraquat on golf courses since it has limited use in turf management.

⊗ MYTH

Federal and state regulators have not sufficiently reviewed paraquat safety or acted to address potential risks.

⊙ FACT

Paraquat has undergone recent, science-based and extensive review by state and federal regulators who have created thorough regulations for safe handling. USEPA recently undertook a review of the latest science by a team of subject matter experts to ensure paraquat meets safety standards which included a literature review, human health and ecological risk assessments, and multiple, focused reviews of claims raised by the bill's proponents.

In 2016, USEPA did identify concerns with accidental ingestion from illegally removing paraquat from its container and took strong steps to further prevent mishandling. Its conservative assessment of health risks also led to new requirements to further protect applicators and bystanders in 2021.

In California, CDPR reviewed and approved paraquat labels with new safety requirements in 2021 and 2023. CPDR has also undertaken an additional review of information submitted in comments in 2022 and will take any next steps indicated by its review.

⊗ MYTH

Farmworkers have died as the result of using paraquat.

⊙ FACT

There is no evidence of fatalities resulting from authorized use of paraquat. Strict regulations are in place to ensure safety for farmworkers and their communities when paraquat is applied. Workers are protected by a comprehensive system that includes mandatory permits, required protective equipment, limits on how many acres an applicator can treat, mandatory reentry intervals, mandatory training and certification, mandatory warning information, mandatory drift mitigations and more.

California's Pesticide Incident Reporting (CASPIR) system allows anonymous, 24-hour bilingual reporting of pesticide incidents. Registrants are required by law to report certain adverse effects to USEPA.

To prevent paraquat from illegal use and handling, USEPA has limited its use to certified applicators, required paraquat specific safety training, and required special closed system packaging.

⊗ MYTH

Paraquat Moves Away from Fields and Harms Nearby Communities

⊙ FACT

Paraquat is not drift prone, and its strict application requirements protect communities in addition to farmworkers and bystanders. A California Air Resources Board Study of 318 samples during peak application season found no detections of paraquat. To further minimize the potential for drift, there are requirements for droplet size, application height limits, wind speed restrictions and buffers. Paraquat is not used in air-blast sprayers. It is against use requirements to apply paraquat in a way that will contact workers or other persons, either directly or through drift. Paraquat binds tightly to soil and becomes inert and USEPA does not consider dust a significant source of potential exposure.

⊗ MYTH

Other countries have banned paraquat already, so California should follow suit.

⊙ FACT

The combined regulatory oversight of USEPA and California create an environment where paraquat can be used safely, applicators are trained and licensed, and pesticide laws and regulations are enforced. Other nations with highly respected regulatory systems such as Australia, Japan, and New Zealand allow paraquat use. Most countries that have banned paraquat have done so to prevent intentional ingestion.

¹ Environmental Protection Agency (EPA). (2024, January 30). EPA's Preliminary Supplemental Consideration of Certain Issues in Support of its Interim Registration Review Decision for Paraquat. Retrieved from [regulations.gov](https://www.regulations.gov)
² <https://www.syngenta.com/sites/syngenta/files/2024.04.17%20Order%20granting%20Daubert.pdf>