

# New Paraquat Handling and Use Regulations



## Key Points to Remember

- Updated labeling and requirements for herbicide products containing paraquat are in place as of November 14, 2019.
- Purchasers, applicators, mixers, loaders, or tank cleaners of herbicide products containing paraquat must be certified applicators.
- Purchasers, applicators, mixers, loaders, or tank cleaners must complete paraquat training ([www.usparaquattraining.com](http://www.usparaquattraining.com)).
- Specialized paraquat training must be completed every 3 years with 100% score on exam at end of training.

Paraquat dichloride is often simply referred to as “paraquat” and is one of the most common herbicide active ingredients in the United States (US-EPA, 2019). The active ingredient paraquat is sold under a variety of trade names; however, Gramoxone is the most popular product. All herbicide products containing paraquat registered in the United States are designated as restricted use pesticides (RUPs) by the United States Environmental Protection Agency (EPA). This means these products may only be used by trained certified applicators.

Paraquat is essential for weed control in Mississippi agriculture, and it is used in preplant herbicide programs in all major row crops (Bond et al., 2018). Paraquat is also used as a harvest aid in soybeans. Additionally, no herbicide products containing paraquat are registered for homeowner or residential use.

Paraquat is toxic to humans if ingested (US-EPA, 2019). Since 2000, multiple deaths in the United States have resulted from accidental ingestion of paraquat. Many of the reported deaths resulted from illegal transfer of paraquat to beverage containers that were later mistaken to contain drinkable liquid. Toxicity cases also indicate paraquat is corrosive to eyes and skin.

The EPA implemented new regulations and label updates in 2016 to emphasize paraquat toxicity and reduce exposure to workers who mix, load, and apply herbicide

products containing paraquat. Manufacturers were required to have updated labels that emphasize paraquat toxicity in place by November 14, 2019. These label updates include:

- Highlighting paraquat toxicity and disseminating supplemental warning materials emphasizing risks associated with herbicide products containing paraquat.
- Restricting the use of herbicide products containing paraquat to certified pesticide applicators only.
- Requiring specialized, EPA-approved training for certified applicators who mix, load, or apply herbicide products containing paraquat.
- Implementing new closed-system packaging to prevent transfer or removal of the pesticide except directly into proper application equipment.

Under the new regulations, only certified applicators may come in contact with herbicide products containing paraquat (US-EPA, 2019). Individuals may no longer mix, load, or apply herbicide products containing paraquat working under the supervision of a certified applicator. For information on how to become a certified applicator in Mississippi, visit the MSU Extension Pesticide Applicator Certification page.

The specialized paraquat training required for certified applicators is hosted by the National Pesticide Safety Education Center (NPSEC) and can be completed at [www.usparaquattraining.com](http://www.usparaquattraining.com). The training addresses paraquat toxicity, new label requirements and restrictions, and consequences of misusing herbicide products containing paraquat. The certification is good for 3 years once an applicator has completed the training and scored 100% on the exam at the conclusion of the training video.

After completing the specialized paraquat training and successfully completing the exam, certified applicators will receive a certificate stating they have completed the requirements to be certified to mix, load, or apply herbicide products containing paraquat. Certified applicators will need this documentation and current licensing to purchase herbicide products containing paraquat.

## References

- Bond, J., Lawrence, B., Bararpour, T., Dodds, D., Golden, B., Irby, T., Larson, E., & Reynolds, D. (2018). 2019 weed management suggestions for Mississippi row crops. Mississippi State University Extension Publication 3171 (pp. 19–23).
- United States Environmental Protection Agency (USEPA). (2019). Paraquat dichloride. <https://www.epa.gov/ingredients-used-pesticide-products/paraquat-dichloride>. Accessed: December 4, 2019.

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