



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs  
Registration Division (7505P)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

EPA Reg. Number:

42750-313

Date of Issuance:

3/1/23

NOTICE OF PESTICIDE:

Registration  
 Reregistration  
(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

QUIZALOFOP 1E

Name and Address of Registrant (include ZIP Code):

Blake H. Cowen  
Product Registration Manager, NA  
Albaugh LLC  
c/o Albaugh LLC  
1525 NE 36th Street  
Ankeny, IA 50021

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) with the following terms and conditions:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:

Shaja B. Joyner, Product Manager 20  
Fungicide-Herbicide Branch  
Registration Division 7505T

Date:

3/1/23

3. This product registration and the registered new use of quizalofop-P-ethyl on wheat containing the QPE-resistant AXigen trait will **automatically expire on March 1, 2030**, unless the Agency amends this condition otherwise.
4. You must develop and follow an Herbicide Resistance Management Plan as described in Appendix A.
5. You must submit annual reports to the Agency by January 15<sup>th</sup> of each year beginning in 2024, as outlined in Appendix A Section D, "Reporting Component," until the Agency amends this condition otherwise.
6. Submit one copy of the revised final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following confidential statement of formula (CSF):

If you have any questions, please contact Ernest Kraka by phone at (202)-566-2811, or via email [kraka.ernest@epa.gov](mailto:kraka.ernest@epa.gov).

Enclosure

Appendix A – Herbicide Resistance Management Plan and Reporting Requirements for Use of Quizalofop-P-ethyl on AXigen Wheat

## APPENDIX A

### **Herbicide Resistance Management Plan and Reporting Requirements for Use of Quizalofop-P-ethyl on AXigen Wheat**

Albaugh, LLC (“Albaugh”) must comply with the following:

#### A. *Educational Component*

1. Develop and implement an education program for users of this product that identifies appropriate best management practices (BMPs) to avoid and control weed resistance, and convey to users the importance of following BMPs.

The following are examples of BMPs:

#### Crop selection and cultural practices

- Understand the biology of the weeds present.
- Use a diversified approach towards weed management focused on preventing weed-seed production and reducing the number of weed seeds in the soil seed-bank.
- Emphasize cultural practices that suppress weeds by using crop competitiveness.
- Plant into weed-free fields, keep fields as weed-free as possible, and note areas where weeds were a problem in prior seasons.
- Incorporate additional weed-control practices whenever possible, such as mechanical cultivation, biological management practices, crop rotation, and weed-free crop seeds, as part of an integrated weed-control program.
- Do not allow weed escapes to produce seeds, roots, or tubers.
- Manage weed seed at harvest and post-harvest to prevent a buildup of the weed seed-bank.
- Prevent field-to-field and within-field movement of weed seed or vegetative propagules.
- Thoroughly clean plant residues from equipment before leaving fields.
- Prevent an influx of weeds into the field by managing field borders.
- Fields should be scouted before application to ensure herbicide and application rates will be appropriate for the weed species and weed sizes present.
- Fields should be scouted after application to confirm herbicide effectiveness and to detect weed escapes.
- If resistance is suspected, treat weed escapes with a different mechanism-of-action herbicide or use non-chemical methods to remove weed escapes.

#### Herbicide selection

- Use a broad spectrum soil-applied herbicide with a mechanism of action that differs from this product as a foundation in a weed control program.
- A broad-spectrum weed-control program should consider all of the weeds present in the field. Weeds should be identified through scouting and field history.
- Difficult-to-control weeds may require sequential applications of herbicides with alternative mechanisms of action.

- Fields with difficult-to-control weeds should be rotated to crops that allow the use of herbicides with alternative mechanisms of action.
  - Apply full rates of this herbicide for the most difficult to control weeds in the field. Applications should be made when weeds are at the correct size to minimize weed escapes.
  - Do not use more than two applications of this herbicide or any herbicide with the same mechanism of action within a single growing season unless mixed with another mechanism of action herbicide with overlapping spectrum for the difficult to control weeds.
  - Report any incidence of non-performance of this product against a particular weed species to Albaugh or its representatives.
2. Include at least one written communication to users of this product each year regarding herbicide-resistance management.
  3. Provide a copy of the education materials to EPA upon request.

***B. Field Detection and Remediation Components***

1. If any user informs Albaugh or its representatives of a lack of herbicide efficacy in a weed species listed on product labeling, then Albaugh or its representatives must make an effort to evaluate the field for suspected resistance to this product by applying the criteria below, as set forth in Norsworthy, *et al.*, “Reducing the Risks of Herbicide Resistance: Best Management Practices and Recommendations” *Weed Science* 2012 Special Issue: 31-62;

*Criteria for Determining Suspected Herbicide Resistance*

- 1) *Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; and/or*
  - 2) *A spreading patch of non-controlled plants of a particular weed species; and/or*
  - 3) *Surviving plants mixed with controlled individuals of the same species.*
2. If one or more of the above criteria are met, then:
    - a. Provide the user with specific information and recommendations to control and contain suspect weeds, including re-treatment and/or other non-chemical controls, as appropriate. If requested by the user, Albaugh will become actively involved in implementation of weed control measures.
    - b. Request, at the time of the initial determination that one or more of the above criteria are met and prior to any application of alternative control practices, that the user provide access to the relevant field(s) to collect specimens of the suspect weeds (potted specimens or seeds) for potential further evaluation in the greenhouse or laboratory, and to collect such specimens if possible (or, alternatively, request that the user provide such specimens to Albaugh at Albaugh’s expense).

- c. Conduct greenhouse or laboratory studies to confirm resistance as soon as practicable following sample collection, if technically feasible.
  - d. To the extent possible, contact or visit the user in an appropriate timeframe after implementation of the additional weed control measures in order to evaluate success of such measures.
  - e. If the additional weed control measures were not successful in controlling the suspected-resistant weeds, then:
    - i. Work with the user to determine the reason(s) why the additional control measures were unsuccessful;
    - ii. Offer to provide technical expertise on how to control and contain the suspected-resistant weeds, including re-treatment and/or other non-chemical controls, as appropriate; and
    - iii. Report annually the inability to control the suspected-resistant weeds to relevant stakeholders.
3. Keep records of all field evaluations for suspected resistance for a minimum of three years, and provide a copy to EPA upon request.

*C. Evaluation Component*

1. Conduct annual surveys to determine whether users have encountered any perceived issues with non-performance or lack of efficacy of this product, and if so, how users have responded. This survey must be based on a statistically-representative sample of users. The sample size and geographical resolution should be adequate to allow analysis of responses within regions, between regions, and across the United States.
2. Analyze the survey results each year, and modify the following for the upcoming growing season, as appropriate:
  - a. Efforts aimed at achieving compliance with BMPs;
  - b. Responses to incidents of suspected weed resistance and confirmed weed resistance; and
  - c. The education program. At the initiative of either EPA or Albaugh, both parties shall consult about possible modifications to the education program.

*D. Reporting Component*

1. Submit reports to EPA by January 15<sup>th</sup> of each year, beginning in 2024, with information on:
  - a. Annual sales of this product by state;

- b. Annual sales of wheat seed containing AXigen trait by state;
  - c. The current education program. The first report shall include the current education program and its associated materials. Subsequent annual reports shall include updates of any aspect of the education program and associated materials that have materially changed since submission of the previous annual report;
  - d. Summary of efforts aimed at achieving compliance with the BMPs;
  - e. Investigation and remediation of cases on suspected-resistant weeds. Summary of determinations as to whether any reported lack of herbicide efficacy was due to suspected-resistance, any follow-up actions taken, and if available, the final outcome (e.g., evaluation of success of additional weed control measures) regarding each case of suspected-resistance. The annual report shall list the cases by county and state;
  - f. Summary of the status of any laboratory and greenhouse testing performed by or at the direction of Albaugh, in response to cases of suspected-resistance, performed in the previous year. Data pertaining to such testing need not be included in the annual reports, but such data must be made available to EPA upon request; and
  - g. The annual survey, including whether users are implementing herbicide resistance BMPs, and a summary of Albaugh's annual review and any modifications based on the survey results.
2. Following submission of the annual report, Albaugh shall meet with EPA at EPA's request in order to evaluate and consider the information contained in the report.