



Marketing and  
Regulatory  
Programs

Amy Curran Chief Operating Officer  
ZeaKal, Inc.

RSR number 23-160-01rsr

Animal Plant  
Health Inspection  
Service

**RE: Regulatory Status Review of soybean developed using genetic engineering for Elevated photosynthesis from co-expression of an oil synthesizing enzyme and an oil encapsulating protein in green tissues, Seed-specific expression of an oil synthesizing enzyme resulting in greater seed oil accumulation, and Resistance to glufosinate by enzymatic conversion of L-phosphinothricin (L-PPT) to a non-phytotoxic form.**

Biotechnology  
Regulatory  
Services

Dear Amy Curran:

4700 River Road  
Riverdale  
MD 20737

Thank you for your letter dated August 7, 2024, requesting a Regulatory Status Review (RSR) for soybean developed using genetic engineering (modified soybean). In your letter, you described that the soybean was modified to impart increased seed oil and protein content via elevated photosynthesis from co-expression of an oil synthesizing enzyme and an oil encapsulating protein in green tissues, increased seed oil content via seed-specific expression of an oil synthesizing enzyme, and to confer resistance to glufosinate via enzymatic conversion of L-phosphinothricin (L-PPT) to a non-phytotoxic form.

The Plant Protection Act of 2000 (7 U.S.C. §§ 7701 et seq.) provides USDA authority to oversee the detection, control, eradication, suppression, prevention, or retardation of the spread of plant pests to protect agriculture, environment, and the economy of the United States. USDA, through the Animal and Plant Health Inspection Service (APHIS), regulates the “Movement of Organisms Modified or Produced through Genetic Engineering” as described in 7 CFR part 340.

Consistent with 7 CFR 340.4, APHIS reviewed your modified soybean to determine whether it is subject to the regulations in 7 CFR part 340. Specifically, APHIS reviewed the modified soybean to determine whether there is a plausible pathway by which the soybean would pose an increased plant pest risk relative to the plant pest risk posed by an appropriate soybean comparator. Based on information you provided, publicly available resources, and APHIS’ familiarity with soybean and knowledge of the trait, phenotype, and mechanism of action, APHIS considered the (1) biology of nonmodified soybean and its sexually compatible relatives; (2) the trait and mechanism-of-action of the modification; and (3) the effect of the trait and mechanism-of-action on the (a) distribution, density, or development of the plant and its sexually compatible relatives, (b) production, creation, or enhancement of a plant pest or a reservoir for a plant pest, (c) harm to non-target organisms beneficial to agriculture, and (d) weedy impacts of the plant. APHIS did not identify any plausible pathway by which your modified soybean would pose an increased plant pest risk relative to comparator soybean plants. APHIS has determined your soybean is unlikely to pose an increased plant pest risk relative to its comparators. Once APHIS determines that a plant product is unlikely to pose an increased plant pest risk relative to its comparator, and, thus, is not a plant pest or a plant that requires regulation because it is capable of introducing or disseminating a plant pest, APHIS has no authority to regulate it under 7 CFR part 340. Accordingly, your soybean is not subject to the regulations under 7 CFR part 340. APHIS’ determination that this modified plant is not subject to the regulations extends to any progeny of the modified plant that is derived from crosses with other non-modified plants or other modified plants that are also not subject to the regulations in 7 CFR part 340.

Please be advised that APHIS’ decision applies to the soybean developed using genetic engineering exactly as described in your letter. If at any time you become aware of any information that may affect our review of your modified soybean, including, for example, new information that shows the trait, phenotype, or mechanism of action is different than described in your letter, you must contact APHIS for further review of the plant at [RSRrequests@usda.gov](mailto:RSRrequests@usda.gov).

Please be advised that your plant product, while not regulated under 7 CFR part 340, may be subject to APHIS Plant Protection and Quarantine (PPQ) permit and/or quarantine requirements. For further information, you may contact the PPQ general number for such inquiries at 877-770-5990. Your plant

product may also be subject to other regulatory authorities such as the U.S. Environmental Protection Agency (EPA) or the Food and Drug Administration (FDA). Please contact EPA and FDA to enquire about the regulatory status of your product.

Sincerely,

A handwritten signature in black ink, appearing to read 'BJ', with a large, stylized flourish extending to the right.

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Bernadette Juarez  
APHIS Deputy Administrator  
Biotechnology Regulatory Services  
Animal and Plant Health Inspection Service  
U.S. Department of Agriculture

Date: January 31, 2024