

Center of Excellence for Regulatory Science in Agriculture Workshop

Incorporating the benefits of precision application into risk assessment and risk mitigation of pesticides September

Workshop Draft Agenda

Executive Summary

Precision Application of pesticides is gaining acceptance by North American growers at a rapid pace. Precision application methods range from banded application to “smart” identification of the target pest and spraying in real time. Precision application is one form of Precision Agriculture, a broader field that encompasses the use of data to improve efficiency in the use of agricultural inputs and to increase productivity, quality, profitability, and sustainability. This workshop is designed to address the challenges and opportunities related to the adoption and use of precision application of pesticides as it relates to risk assessment. By some estimates, application of pesticides through smart systems can reduce pesticide input by about 75% compared to broadcast application and has broad applicability in crop settings and other use sites. While the adoption of precision application is high in herbicide applications, there are also smart sprayers to apply fungicides, insecticides, and other foliar products.

Currently, regulatory risk assessments do not account for the pesticide exposure reductions from the adoption of precision application technologies. This workshop will bring stakeholders from the government (regulatory and research), the pesticide industry, academia, equipment manufacturers, and grower groups together to understand the current and future state of precision application, including current challenges in adoption, considerations in regulatory risk assessment and risk mitigation, and future opportunities.

Goals of the Workshop

The overall goal of the workshop is to develop a set of multi-stakeholder consensus recommendations, which will:

- Provide a path forward towards incorporating the benefits of precision application into pesticide risk assessment and risk mitigation;
- Lead to improved cooperation and collaboration among stakeholders to leverage available data and information regarding emerging technologies in precision application; and,
- Support the development of strategies to increase producer engagement and adoption of precision application technologies to maximize economic benefits and sustainability.

Expected Outcomes

- Increased understand of the current state of the science and emerging trends in Precision Application Technology and potential regulatory implications
- Identify opportunities to incorporate the benefits of precision application technologies into the pesticide risk assessment and risk mitigation.

- Identify research, models, tools, and datasets needed for developing a framework to consider precision application in the pesticide regulatory process.