Regulatory Update: Recent Issues with Dicamba in the US, Bengal Dayflower Quarantine in SC

Tim M. Drake Jr., Ph.D.
Clemson University Department of Pesticide Regulation
September 1, 2016
Concern was raised at the EPA due to a high level of complaints related to the alleged misuse of dicamba in 2016.

Dicamba is an active ingredient in many herbicides used to control broadleaf weeds and woody plants.

Misuse complaints were sent to the EPA from several states (Alabama, Arkansas, Illinois, Kentucky, Minnesota, Missouri, Mississippi, North Carolina, Tennessee, and Texas). Missouri had the most reported incidents with crop damage (117), with 142,000 acres of crops being affected.

Crops most damaged have been peaches, tomatoes, cantaloupes, watermelons, rice, cotton, peas, peanuts, alfalfa, and soybeans.

Problems have resulted from the illegal or off-label uses of herbicides containing this active ingredient on dicamba-tolerant cotton or soybeans adjacent to or near other susceptible crops.
At this time, the US EPA has not registered any herbicide containing dicamba for application at planting or over the top of growing cotton or soybean plants. This includes crops genetically modified to be dicamba-tolerant. Therefore, any application of dicamba products in this manner during the growing season of cotton or soybeans is unlawful.
What can happen if dicamba is misused?

• Misuse of any pesticide is a violation of FIFRA. Any such misuse can result in enforcement actions including civil penalties, fines, criminal prosecution, and imprisonment.

• Severe damage to adjacent crops, unlawful residues on harvested crops, federal confiscation and destruction of affected crops on which no post-harvest tolerances have been set for dicamba.

• The potential loss of this active ingredient as an agricultural herbicide.
Will dicamba herbicides be available for use on tolerant crops?

- Possibly, the EPA is considering this. However, in light of the problems observed during the 2016 growing season, this may be reconsidered.
- In the Spring of 2016, EPA issued a proposal to register dicamba to control weeds in cotton and soybeans that have been genetically engineered to tolerate dicamba. The final decision will be based on evaluating comments received during the comment period, and the current investigations of alleged crop damage related to the off-label use of dicamba.
South Carolina Benghal Dayflower Quarantine

• The invasive plant species Commelina benghalensis, commonly known as Benghal Dayflower, has been discovered in several locations in South Carolina.
• This plant is considered to be a serious threat to agricultural production in the state, and shipment of produce out of SC.
• A quarantine has been put into effect for SC, and a specific area in Dorchester County is considered to be infested. Also, one area in Aiken County (near Jackson) falls under the quarantine restrictions at this time. Several farms have been affected.
• All farms where Benghal Dayflower has been identified are under compliance agreements at this time, and are working under the direction of the quarantine.
Spreading Dayflower vs. Benghal Dayflower

Commelina diffusa

Commelina benghalensis
Spreading Dayflower vs. Benghal Dayflower

Commelina diffusa

Commelina benghalensis
Spreading Dayflower vs. Benghal Dayflower

Commelina diffusa

Commelina benghalensis
Regulated Articles in the Quarantine

Regulated articles include:

- Any living part of the *C. benghalensis* plant, including seeds, vegetative parts, roots and stolons.
- Soil, whether on commodities, seed, equipment, mulch, compost, decomposed manure, humus, muck peat, separately or with other things, sand and gravel from infested areas.
- Any crop above or below ground, including hay, grown and harvested from infested areas.
- Any farm tool, including hand tools, crates, boxes, burlap bags, and other farm products containers used in planting, growing or harvesting of crops in or from infested areas.
- Mechanized equipment used for cultivating, planting, harvesting, or moving soil in or from infested areas.
- Any other products, articles, or means of conveyance, including livestock, of any character, whatsoever, not covered by the above when it is determined by an inspector that they present a hazard of spread of benghal dayflower and the person in possession thereof has been so notified.
Other Provisions of the Quarantine

- Certificates are required to move any regulated article off a quarantined area.
- Any equipment being moved off an infested area must be cleaned and inspected.
- Regulated materials can be moved for scientific purposes / experimentation as long as a special permit is issued.
- Compliance agreements will be put into place between the regulatory agency and the person(s) responsible for the land within the area of quarantine.
- State inspectors are authorized to inspect, without warrant, any person or conveyance moving within the state upon probable cause when it is believed that benghal dayflower may be transported by such person or conveyance. Inspectors are authorized to seize, destroy, or otherwise dispose of articles found to be moving in violation of the regulations.
- Penalties may be imposed on any entity not complying with the quarantine. Any person violating the regulations shall be guilty of a misdemeanor, and upon conviction, be punished by law or fined.
Surveys are continuing in South Carolina, and the good news is that there have been no new finds of benghal dayflower this year outside of the areas currently under quarantine.