Preventing Dicamba Drift

Situation Update:

Production Agriculture

July 3, 2017

Overview

Damages caused by misapplication of dicamba herbicides can be severe and extremely costly. It is imperative that pesticide applicators strictly follow these best management practices to reduce the potential for off-target dicamba.

Best Management Practices.

- **Only use Engenia or Xtendimax**. These low-volatile formulations are the only approved products for post-emergence applications. Older, generic formulations of dicamba are highly volatile and very likely to move off-target.
- **Only tankmix with labeled products**. Tankmixes can affect the size of the droplets that leave the spray tip as well as degree of volatility.
- **Only use labeled nozzles**. Do not use flat fan or other nozzles that produce very small droplets, which take longer to reach their target.
- **Keep the spray boom low**. The higher the boom, the more time the spray droplet is in the air where it can be moved by winds.
- **Avoid spraying in a temperature inversion**.
- **Communicate with neighbors**.

Spotting an Inversion

A temperature inversion occurs when air temperature rises with altitude. In other words, cooler air is closer to the ground. In West Tennessee we experience temperature inversions almost every day in June and July. Temperature inversions can start as early as 3:30 p.m. and last until 8 a.m. the following day.

Signs of an inversion include fog, heavy dew on leaves, or dust hanging in the air. In an inversion, tiny spray droplets will hang in the cooler air, often for hours. When the inversion lifts, the droplets could move anywhere.

Any formulation can drift during a temperature inversion, including Engenia and Xtendimax.

Limit Sequential Applications

The best way to avoid dicamba drift is to stop using it. For mid- to late-season reapplications, there are effective alternatives for both cotton and soybean.

Cotton

We recommend glufosinate in dicamba-tolerant cotton for follow-up applications. Our research has shown glufosinate to be very effective in controlling Palmer amaranth that escapes a dicamba application.

Soybean

In areas where Palmer amaranth pressure is not extreme, a fomesafen-based herbicide program should be sufficient. Recent research has found that a sequential fomesafen application is very effective in controlling Palmer amaranth that survives an earlier dicamba application – even in PPO-resistant populations. *Please be aware that dicamba applications in Xtend soybeans are not allowed after first flower (R1).*

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