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SPRAYING WITH NO WIND IS WORSE

Last year in Arkansas multiple counties were affected by pesticide spray drift from 2,4D herbicide. There was upwards of 250,000 acres of damaged cotton and a lot of upset growers. This was likely a combination of physical drift caught in an air inversion and/or vapor drift (the spray droplets reach the target but then vaporize off the foliage or soil and then become trapped in a cool air inversion layer and move off target).

We don't raise cotton but we have an expanding vineyard industry that is very concerned about 2,4D drift. That's one reason why there is a new website called www.driftwatch.org for applicators to see those sensitive areas in the county and take caution.

Grapes and tomatoes are extremely sensitive to 2,4D drift. Research by Baskin and Walker when spraying 2,4D near tomatoes shows that 2,4D LV ester (petroleum based) did not fume or vapor drift below 75 degrees. However, at higher temperatures 90 degrees and above, significant vapor damage occurred on the plants. In contrast, 2,4D amine (water based), did not fume and damage nearby plants even above 100 degrees.

We are having a growing group of farmers that do their own spray applications. Spraying can be worse with drift when it is calm or during air inversion conditions. Small spray particles and/or fumes can move off target and do damage in a wide area.

Air inversions happen in the evenings, overnight and early mornings. You see it at the Farmland Plant when the smoke stack just hangs in the air or when dust from vehicles or farm machinery will suspend. You can see it in a morning or evening mirage. You can smell it when there was a manure application miles away. You can hear that train whistle but you are miles away. Don't spray.

I am talking about those evenings and nights with 25% less cloud cover and light to variable winds less than 3 mph. It can begin in the late afternoon, intensify throughout the night until dawn and then later dissipates into mid-morning. So 3 to 5 hours before sunset, and especially 3 to 5 hours after sunrise, can be a bad time to spray. This is when spraying in less than a 2 mph wind is worse than over 20 mph wind. An applicator that has been spraying for many hours and loses track of weather conditions, especially in the late afternoon /early evening, could have serious consequences. And this can be a situation devastating to a vineyard with 2,4D drift.

There is new proposed legislation called LB636 introduced by Senator Wallman that would affect anyone outside of city limits spraying 2,4D or phenoxyl herbicides. Applicators would be required to notify the Department of Agriculture, in writing, of the location of each application at least 72 hours prior to such application, spray within 4 miles of susceptible crops when wind is blowing at least 2 mph away from the susceptible crop. There are buffer strips of 1 and 4 miles for ground and air applications, whereby, a waiver from the producer of the susceptible crop is required.

A co-worker told me where he lives in Otoe County, the law as proposed would not allow him to apply a drop of 2,4-D spray to a single dandelion in his lawn without notifying NDA 72 hours in advance, and obtaining a waiver from 41 neighbors living within a one mile radius of his location (as per Google Earth). Interesting challenge. The first hearing is March 5th. To read the bill, go to http://tinyurl.com/ax6twgu.

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