

Drift Regulation in the Central Valley; Will This Fix It?

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The central valley of California is one of our nation's richest and most productive agricultural regions. But to say that it produces a great bounty each year would be only half of the story. The central valley produces a diverse mix of vegetables, nuts, fruits, grains, fiber, and pulse crops, all growing in close proximity to one another and many requiring different pest remedies, at different times of the year. The diversity of crops coupled with close neighbors and an assortment of different herbicide products challenges our ability to limit or prevent drift. Overwhelmingly, herbicide applications are done with precision and contact only the intended weed/field. But other times, under the wrong conditions, neighboring crops are damaged.

During the 80's and 90's drift problems seemed dynamic: high one year, down the next seven or eight. Of course, if you were the recipient of someone else's drift then any given year could have been bad. Still, many different approaches to managing and limiting drift were tried by the agriculture industry. There was Continuing Education required of PCA's, applicators, and pilots. Chemical industry reps calibrated spray rigs, preached on drift control and even gave out free "low-drift" nozzles. For the aerial applicators, fly-ins were required annually by some counties. These fly-ins were intended to assess the accuracy of both the pilot and his plane's set up. They were effective at that and were picked up by local ag and community media as an interesting story, combining agriculture and environmental stewardship. Some of the "solutions" yielded better results than others, and sometimes it was hard to tell what was working and what wasn't. This was because the bad drift year always seemed to come only every-so-often. Was what we implemented to combat the problem really working? Seven or eight years of success and then the bottom falls out. What went wrong?

Well, when you're talking about drift, everyone has an opinion why it happened and what could/should have been done differently to avoid it. There's an old saying that goes something like this, "We must always think about things, and we must think about things as they are, not as they are said to be." This couldn't be truer when discussing what causes drift. Stick around long enough and you'll hear all manner of opinions. Interestingly, the Spray Drift Task Force (SDTF), formed in 1990 by 38 agriculture chemical companies in response to the U.S. Environmental Protection Agency spray drift data requirements, released a detailed report on the leading causes of agriculture spray drift in the mid 1990's. The findings were widely heralded and supported by the large and diverse group of research participants and others. Incredibly though, many among us have forgotten the SDTF results and have proffered new reasons for drift. Like I said, stick around long enough and you'll hear the same things over and over again. Just wait awhile!

The Spray Drift Task Force summarized their extensive research this way: “Overall, the SDTF studies confirm conventional knowledge on the relative role of the factors that affected spray drift. Droplet size was confirmed to be the most important factor. The studies also confirmed that the active ingredient does not significantly affect spray drift.

The physical properties of the spray mixture generally have a small effect relative to the combined effects of equipment parameters, application technique, and the weather. This confirmed that spray drift is primarily a generic phenomenon, and justified use of a common set of databases and models for all products.” They reported that “drift levels could be minimized by: (a) applying the coarsest droplet size spectrum that provides sufficient coverage and pest control, (b) continuing the standard practice of swath adjustment, (c) controlling the application height, (d) using the shortest boom length that is practical, and (e) applying pesticides when wind speeds are low,” http://www.agdrift.com/PDF_FILES/aerial.pdf.

In spite of conclusive evidence about what causes drift and how to control it, we still had years where things didn’t go as planned. In what some opined was due to frustration and necessity, the Fresno County Agriculture Commissioner’s (CAC) finally took the bull by the horns in 2004. The previous year had been a tough one. Again, close proximity, different crops, and a need to control weeds resulted in a number of drift complaints needing investigation by the Ag Commissioner’s office. Some other central valley Ag Commission offices were tuned into the process too.

New “regulations” were going to be required, since all else seemed to have yielded, at best, spotty results. The Fresno CAC drafted a proposed permit and solicited input from all the stakeholders involved. Aerial and ground applicators, growers, grower and applicator associations, chemical company representatives, and regulatory staff all participated in the input process. The Fresno CAC scheduled public hearings throughout the summer of 2005 and lively discussion ensued at each meeting. Finally, the competing interests were able to reach a consensus about what needed fixing and what didn’t. After all was said-and-done, the Fresno CAC released their final permit requirements and conditions, *Herbicide Application Restrictions*, dtd, November 17, 2005. Other central valley counties, Kings, Madera, and Tulare, followed up with their own permit requirements and conditions. Hopefully, these new permit conditions will be the real thing. After all, we’re off to a good start; according to the Fresno CAC office, as of July there were no drift incidents in Fresno County in 2006.

Contact the CAC’s office in the county of interest for more information on herbicide application restrictions and permits required.