

BEFORE THE DIRECTOR OF THE
DEPARTMENT OF PESTICIDE REGULATION
STATE OF CALIFORNIA

In the Matter of the Decision of
the Agricultural Commissioner of
the County of Sacramento
(County File No. ACP-SAC-06/07-030)

Docket. No. 168

Revised Decision

Alexander Ag. Flying Service
Stephen D. Allen
P.O. Box 500
Walnut Grove, CA 95690

Appellant/

Procedural Background

Under Food and Agricultural Code (FAC) section 12999.5 and section 6130 of Title 3, California Code of Regulations (3 CCR), county agricultural commissioners may levy a civil penalty up to \$5,000 for certain violations of California's pesticide laws and regulations.

After giving notice of the proposed action and providing a hearing, the Sacramento County Agricultural Commissioner (CAC) found that the appellant, Alexander Ag. Flying Service (AAFS), violated 3 CCR section 6600(d) warranting a fine of \$1,000, 3 CCR section 6600(e) warranting a fine of \$1,000, and 3 CCR section 6614(b)(1) warranting a fine of \$5,000. The CAC imposed a total penalty of \$7,000 for the three violations.

AAFS appealed from the commissioner's civil penalty decision to the Director of the Department of Pesticide Regulation (Department). The Director has jurisdiction in the appeal under FAC section 12999.5.

Standard of Review

The Director decides the appeal solely on the record before the Hearing Officer. In reviewing the commissioner's decision, the Director looks to see if there was substantial evidence, contradicted or uncontradicted, before the Hearing Officer to support the Hearing Officer's findings and the commissioner's decision. The Director notes that witnesses sometimes present contradictory testimony and information; however, issues of witness credibility are the province of the Hearing Officer.

The substantial evidence test requires only enough relevant information and inferences from that information to support a conclusion, even though other conclusions might also have been reached. In making the substantial evidence determination, the Director draws all reasonable inferences from the information in the record to support the findings, and reviews the record in the light most favorable to the commissioner's decision. If the Director finds substantial evidence in the record to support the commissioner's decision, the Director affirms the decision.

Factual Background

On September 21, 2006, AAFS made an early morning aerial application of Di-Syston, registration number 264-734, to 297 acres of asparagus owned by Joe Sanchez Farms on Grand Island, Sacramento County.

The Di-Syston label bears the signal word, "Danger," and states, "Poisonous if swallowed, inhaled, or absorbed through the skin. Rapidly absorbed through the skin. . . . Do not breathe fumes or spray mist." The listed symptoms of poisoning are, "A sense of 'tightness' in the chest. Sweating. Contracted pupils. Stomach pains. Vomiting and diarrhea." The California "24(c) Supplemental label" has a Restricted Entry Interval of 26 days.

On the morning of September 21, 2006, 14 fieldworkers were in an apple orchard owned by Ferreira Estates, approximately one-quarter mile to the west and southwest of the treated asparagus field. During the AAFS aerial application in the adjacent asparagus field, all of the 14 fieldworkers left the orchard due to the strong pesticide odor. The record shows that 4 of the 12 fieldworkers (interviewed on October 10, 2006), stated that they experienced nausea, coughing, gagging, or could "taste the chemical." The record shows that none of the interviewed fieldworkers felt any drift. Between 12:30 p.m. and 1:00 p.m. that same day, the fieldworkers returned to the apple orchard to continue their work. The only Ferreira Estates employee that received medical treatment was Mr. JFH¹. The record conflicts as to whether or not Mr. JFH threw up during the aerial application while in the apple orchard.

During the September 21, 2006 AAFA application, 34 other fieldworkers were working in nearby orchards owned by Darcy, Hutchison & Pettigrew, Inc. (DH&P). Between 7:00 a.m. and 7:30 a.m., these field workers reported to Mr. Alfonso Casias, the foreman for DH&P, that they smelled a strong chemical odor. The DH&P fieldworkers were working in orchards approximately one mile southwest from the application site. Ultimately, 33 of the DH&P fieldworkers went to Methodist Hospital for evaluation. While at Methodist Hospital, fourteen of the 33 fieldworkers interviewed stated that they experienced nausea, slight headache, dry irritated throat, irritated eyes or tingling tongue. 19 of the fieldworkers reported no symptoms.

At the hospital, 5 of the DH&P fieldworkers were decontaminated by Sacramento County Hazmat crews. The need to maintain custody of the fieldworkers' clothing for testing was not communicated to the hospital. As a result, the clothing was returned to the farmworkers by the hospital to avoid issues of liability, and no clothing samples were taken.

In the next seven days, 29 foliage samples were taken from the Ferreira Estates apple orchard². The test results showed 4 of the 29 samples tested positive for the active ingredient in Di-Syston, disolfulton, and seventeen samples tested positive for the breakdown product from

¹ The actual name of the treated fieldworker is not mentioned due to privacy concerns.

² Twelve samples were taken by the Department's Worker Health and Safety staff, fourteen samples were taken by the Department's Enforcement staff, and three samples were taken by CAC staff.

Di-Syston, disulfoton sulfone. The pattern of the positive samples were random and were not in a gradient pattern. There is information in the record that explains that typical drift patterns have higher concentrations of the active ingredient closest to the application site with diminishing concentrations as the samples are taken further away from the application site.

Appellant's Contention

The appellant contended that the wind direction was away from the apple orchards thus made it impossible for the application to cause the drift, and that the test results of the various concentrations of the drift were not consistent with typical drift patterns. The appellant contends that the positive test results found in the apple orchard was a result of either volatilization of the active ingredient, or that the residual in the soil from the previous Di-Syston applications were blown into the apple orchard by the subsequent high winds. The appellant contends that breakdown products do not demonstrate that the pesticide applied was the direct cause of the deposition of such breakdown products. The appellant contends that it presented several witnesses who testified as to the prevailing wind speed and direction on the day of the application, which contradicted the testimony given by the CAC's witnesses. The appellant contends that he did not drift and that due care was exercised at all times during the application.

3 CCR Section 6600(d)

3 CCR section 6600(d) provides in relevant part, "Each person performing pest control shall . . . [p]erform all pest control under climatic conditions suitable to ensure proper application of pesticides."

There is information in the record that at the application site the winds were calm; 2-3 miles per hour at the time of the application. Mr. Stephen D. Allen, the applicator, testified that he "smoked" each pass and that his smoke from his airplane drifted away from the apple orchards. Mr. Allen's testimony that he "smoked" on each pass was corroborated by the testimony of Mr. Joe Sanchez who was near the site during the application.

The primary arguments made by the appellant during the hearing were that the drift pattern found was not the typical diminishing gradient, that the wind was consistently blowing away from the apple orchard, and that the active and breakdown substances found on the foliage in the apple orchard was either a consequence of volatilization or was contaminated dust blown by earlier applications of Di-Syston made to the treated asparagus field in 2005 and earlier.

Ms. Terrell Barry's expert testimony provided detailed and scientifically plausible reasons for both the random pattern of the drift, and explained why the climatic conditions under which the application occurred (early morning, light winds) fit a textbook scenario for the drifting of the "fine" droplets of the applied spray solution. See Certified Hearing Transcript (CHT) page 341, lines 16-21. Ms. Barry's experience in drift patterns was well documented in the record.

Mr. John Ross, a board-certified toxicologist, was not an expert in drift patterns. Mr. Ross' explanation of volatilization of the Di-Syston and/or dust contamination of the apple orchards conflicted with both testimony given by Ms. Barry, and with exhibits 21, 22, and 23.

The record shows that the spray nozzles used by Mr. Allen were for airspeeds under 120 miles per hour. Mr. Allen testified that his airspeed was 125 miles an hour. Ms. Barry testified that the nozzles used by Mr. Allen could produce "driftable fines," droplets that are 150 microns and below. Ms. Barry also testified that the small droplets could "go easily 1,200 meters to a mile or more off-site, depending on wind conditions." Ms. Barry's expert testimony was the only information in the record that explained how the active ingredient and the breakdown products were deposited into the apple orchard and why the drift pattern was not that of the diminishing gradient. See CHT, page 340, beginning on line 7.

Reasonable inferences from this information are that the application was performed during climatic conditions that allowed the tank mix via "driftable fines" to drift onto the adjacent apple orchard, as the test results demonstrated.

3 CCR Section 6600(e)

3 CCR section 6600(e) provides in relevant part, "Each person performing pest control shall . . . [e]xercise reasonable precautions to avoid contamination of the environment."

There is information in the record that the apple orchard tested positive for both the active ingredient found in Di-Syston, disulfoton, and the breakdown product, disulfoton sulfone. Mr. Allen used smoke on every pass to monitor the winds speed and direction; nonetheless, the adjacent orchard tested positive for the pesticide being applied. Some of the fieldworkers in the apple orchard stated that they experienced nausea, coughing, gagging, or could "taste the chemical." The appellant offered evidence during the hearing that the fieldworkers were reacting to the added warning agent ingredients in the Di-Syston, or the mercaptans³. Ms. Barry testified that primary drift of the "driftable fines" from the aerial application contained the whole tank mix and not just the mercaptans.

Reasonable inferences from this information are that the aerial application contaminated the adjacent apple orchards by drift.

3 CCR Section 6614(b)(1)

3 CCR section 6614(b)(1) provides in relevant part, "Notwithstanding that substantial drift would be prevented, no pesticide application shall be made or continued when . . . [t]here is a reasonable possibility of contamination of the bodies or clothing of persons not involved in the application process."

There is information in the record that no clothing or person of any of the fieldworkers were taken. However, the record shows that Mr. Allen was not aware of the presence of the fieldworkers, as the foliage in the apple orchard obscured his vision from the air. Whether or not

³ Mercaptans is the added chemical to make the smell of the pesticide extremely noticeable.

Mr. Allen would have made the application if he knew that people were working in the adjacent orchard is academic; nonetheless, given the positive results of the sampled foliage, it is reasonable that some of the fieldworkers were drifted on. It is noted that there is expert testimony in the record that "driftable fines" would not be felt when the drift occurred due to the tiny size of the droplets; hence, the testimony from the various fieldworkers that they were not drifted on was explained scientifically. There is testimony in the record that the fieldworkers experienced symptoms consistent with exposure to Di-Syston, an organophosphate.

Reasonable inferences from this information are that at least one of the fieldworkers was drifted on during the application by AAFS, and that several fieldworkers experienced symptoms consistent with exposure to an organophosphate.

Conclusion

The record shows the commissioner's decision is supported by substantial evidence and there is no cause to reverse or modify the decision.

Disposition

The commissioner's decision is affirmed. The commissioner shall notify the appellant how and when to pay the \$7,000 fine.

Judicial Review

Under FAC section 12999.5, the appellant may seek court review of the Director's decision within 30 days of the date of the decision. The appellant must file a petition for writ of mandate with the court and bring the action under Code of Civil Procedure section 1094.5.

**STATE OF CALIFORNIA
DEPARTMENT OF PESTICIDE REGULATION**

By:  Dated: 3 March, 2010
Mary-Ann Warmerdam, Director