

SUBJECT: COMMENTS ON THE SEPTEMBER 28, 2021 DRAFT RISK MANAGEMENT DIRECTIVE FOR 1,3-DICHLOROPROPENE AND RESPONSES

Under Food and Agricultural Code (FAC) section 14023(f), the Director of the Department of Pesticide Regulation (DPR) “shall determine, in consultation with the Office of Environmental Health Hazard Assessment (OEHHA), the State Air Resources Board (CARB), and the air pollution control or air quality management districts in the affected counties, the need for and appropriate degree of control measures. Any person may submit written information for consideration by the director in making determinations on control measures. The director’s written determination and any formal written comments made by the consulting agencies shall be made available to the public.” Pursuant to FAC section 14023(f), DPR provided OEHHA, CARB, and the air pollution control and air quality management districts with a proposed risk management directive (RMD) for 1,3-dichloropropene (1,3-D) on September 28, 2021. Pursuant to a Memorandum of Understanding, DPR also consulted with the California Department of Food and Agriculture (CDFA) on the proposed risk management directive (RMD). The following is a summary of comments from these agencies and DPR’s responses. DPR did not receive any comments from the air pollution control or air quality management districts.

Office of Environmental Health Hazard Assessment (October 11, 2021)

“OEHHA concurs with the proposed reference concentration of 55 parts per billion to address acute exposure of non-occupational bystanders to 1,3-D. However, OEHHA understands that in evaluating mitigation measures, DPR will rely on air modeling. In a few recent incidents, the results of air modeling underestimated what was detected by 24-hr air monitoring. This should be considered and addressed in evaluating mitigation measures for acute exposures. We look forward to discussing this issue further with DPR.”

DPR Response:

DPR appreciates OEHHA's comment and agreement on the reference concentration to address acute exposure of non-occupational bystanders to 1,3-D. DPR looks forward to working with OEHHA and others to discuss best practices for incorporating air modeling results.

California Air Resources Board (October 7, 2021)

“Based on air monitoring results in recent years, we agree that there is a need to mitigate acute exposure to 1,3-D. We understand that DPR’s proposed target concentration to protect children from acute health effects is 55 parts per billion (ppb) over a 72-hour period (based on health studies). While we understand the basis for this target concentration, we suggest that DPR work with OEHHA to develop a 24-hour target concentration so that ambient air samples of 24 hours in duration may be used to evaluate if the target concentration is being exceeded. A 24-hour sampling duration has historically been used for ambient monitoring of 1,3-D. We look forward to working with your staff to review proposed mitigation measures.”

DPR Response:

DPR appreciates CARB's comment and agreement on the reference concentration to address acute exposure of non-occupational bystanders to 1,3-D. As noted in the comment, the 72-hour reference concentration is based on the 1984 Stott et al. study. DPR agrees that there is a discrepancy between the 72-hour health-based reference concentration and the air monitoring sampling period of 24 hours, and will consider how best to reconcile those differences in discussion with our partner agencies.

California Department of Food and Agriculture (October 12, 2021)

“1,3-D is a fumigant used to control nematodes, disease organisms, and insects in the soil. 1,3-D is usually applied as a pre-plant treatment, either injected into the soil or applied through drip irrigation. CDFA completed an economic analysis of 1,3-D mitigation scenarios in the townships in DPR's 1,3-D pilot program, and submitted it to DPR in April 2021. The analysis indicates that based on those townships, restrictions will increase pest management costs for the crops considered: sweet potato, fruit and nut tree crops, and grape.

The application methods in the mitigation scenarios in the 8-12-20 Pilot Program Draft issued by DPR increased the treatment cost per acre for perennial crops by amounts ranging from \$10 per acre (deeper injection) to around \$240 per acre (simultaneous 18- and 30-inch injection plus high soil moisture irrigation) and increased costs per acre for annual crops from \$10 per acre (deeper injection) to \$204 per acre (high soil moisture irrigation). Many fields near occupied structures would need to alter application methods or reduce application block sizes to maintain buffers at the 100-ft. minimum for 1,3-D.

Not all fields would come into compliance using only deeper injection and would need to use a more costly application method. Total costs would depend on affected acreage and the least-cost application method. High soil moisture may be accomplished partially through rain; otherwise, the cost of irrigation water will significantly influence the cost of application methods requiring high soil moisture and costs will vary across applications as a result.

CDFA appreciates the opportunity to provide comments on this proposed regulation. We look forward to continued collaboration with DPR on understanding the economic effects of pesticide regulations.”

DPR Response:

CDFA's comments generally do not pertain to whether the regulatory target concentration and dose selected in the proposed RMD are appropriate and necessary to protect human health. DPR appreciates the preliminary economic analysis conducted by CDFA as a part of the 1,3-D pilot program, and looks forward to further consultation with CDFA on the refined analysis concurrent with the development of mitigation measures.