



CALIFORNIA WALNUT COMMISSION

101 Parkshore Drive, Suite 250

Folsom, CA 95630-4726

(916) 932-7070

Fax: (916) 932-7071

info@walnuts.org

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1,3-Dichloropropene (1,3-D) Proposed Rulemaking Formal Comments

Attn: Julie Henderson, Department of Pesticide Regulation

PO Box 4015, Sacramento, CA 95812-4015

Email: dpr22005@cdpr.ca.gov

RE: 1,3-Dichloropropene (1,3-D) Proposed Rulemaking Formal Comments

Dear Director Henderson:

The California Walnut Commission (CWC) is writing to express support for communities and people of impact, the continued safe, practical use and availability of 1,3-Dichloropropene (1,3-D). 1,3-D is critically important to U.S. walnut production. The CWC represents the California walnut industry, comprised of over 4,500 family farms and 76 handlers that generate more than 85,000 jobs directly and indirectly, and just over \$1 billion in farm gate product value. Walnuts are California's ninth largest valued agricultural commodity and 99% of English walnuts grown in the United States are produced in California.

Walnut growers require access to new and emerging technologies in order to stay competitive. Therefore, the CWC strongly supports safe and responsible product usage of what is currently proven effective and available. Effective pest management is one of many critical components of producing a successful walnut crop. Walnut growers utilize 1,3-D as part of their responsible pest management programs due to the exceptional nematode pest control it offers during the pre-plant process protecting new walnut plantings. Current walnut trees are very sensitive to infection by root lesion nematode and as little as one nematode per 250 cubic centimeters (cc) of soil can damage walnuts. Further, preplant soil treatments are currently the most effective way to protect new walnut plantings. Alternative treatment options are either not as effective, face challenges to control nematode pest pressures, or face regulatory hurdles themselves. 1,3-D is one of the most important tools in the grower toolkit to responsibly manage pests and prevent economic crop losses of the long-term investment in a climate friendly walnut orchard.

Without practical access to 1,3-D, walnut growers will have no alternative treatment options available. This will be detrimental to future US walnut production and the industry as a whole. Furthermore, while the current regulatory proposal makes significant progress from previous iterations, there are a number of items to offer sound, beneficial solutions on, which include: scientific basis of the mitigation measures, seasonal restrictions and new soil moisture requirements, and setback distances.

Scientific Basis of Mitigation Measures

As a leading crop in the state, representing California agriculture, we have a strong interest in ensuring that the proposed regulations are developed through a consistent, comprehensive, and robust analysis of all available science.

To that end, we are concerned that the concentration limits for non-occupational bystanders cited as the basis for the Department's proposed mitigation measures – 0.56 ppb (70-year average) for cancer risk and 55 ppb (72-hour average) for acute effects – are predicated on an outdated risk assessment that does not consider more recent scientific evidence and data.

The U.S. Environmental Protection Agency is conducting a pesticide registration review for 1,3-D using a weight of evidence (WOE) analysis peer reviewed by a panel of subject matter experts. This analysis concludes that the currently manufactured form of 1,3-D is not mutagenic or carcinogenic below certain doses.¹ This finding challenges the validity of previous risk assessments used to establish health protective exposure levels, including the Department's risk assessment last updated in 2016 of which is the basis for this proposed regulation. We request that the Department update its 1,3-D risk assessment using a current WOE analysis before completing this rulemaking. This will ensure that the proposed mitigation measures, while still conservative in the context of toxicological endpoints, would deliver public health benefits commensurate with the economic harm they would impose on the agricultural sector. It would also allow for conformity in regulatory outcomes that don't put California farmers at a competitive disadvantage and thereby impact food supply and consumer prices.

Seasonal Restrictions and Soil Moisture Requirements

In the regulations, the Department proposes to increase soil moisture requirements from 25% to 50% of field capacity and offer three options to comply: (1) irrigate with three inches of water 48 to 72 hours prior to fumigation, (2) determine the soil moisture content using the feel and appearance method, or (3) determine the soil moisture using a soil moisture sensor.

We would like to offer our concern that this increased saturation requirement will result in an inefficient use of historically scarce water supplies. Confronting the impacts of the current extreme drought conditions and implementation of the Sustainable Groundwater Management Act (SGMA), the proposed regulation would further constrain farmers' decision making and may, require them to choose between proper and appropriate pest management or irrigation. Should they choose not to reallocate water supplies for this requirement and wait for natural precipitation events, they may be ineligible for application, disrupt fertigation timelines, or be significantly constrained by the other mitigation measures obligated by this rulemaking. More concerning, it is not clear what effects such moisture level may have on efficacy. Most likely efficacy in suppressing nematodes will be reduced, as previous research has identified levels that are required for efficacious treatments.²

This soil moisture requirement is more challenging to achieve when compounded by the expanded seasonal restrictions. Extending the seasonal restriction from December to November through February means infrequent natural precipitation events are not likely able to be utilized to meet the soil moisture requirement. Even more importantly, it may not allow for responsiveness to pest issues (anticipated or actual), complicates application management with lower application blocks and lead to applications at inopportune times when conditions are not ideal agronomically. Some crops, such as walnuts and other tree nuts, are best planted in late fall (November) with relatively mild weather, after typically late October rain events have subsided and soil is appropriately drained. Therefore, as an alternative, the Department could expand their seasonal allowances, allowing soil moisture requirements to be better met by natural precipitation times, and allow growers to work with irrigation specialists to determine the appropriate soil moisture content within a more practical moisture range.

Setback Distances

We would like to offer our appreciation to the Department for clarifying that "non-residential agricultural buildings, including barns, livestock facilities, sheds and outhouses," are not by default considered an occupied structure and therefore subject to the specified setback requirements. As you are aware, these types of agricultural structures are rarely occupied and if so, for very short time periods.

¹ Hayes, Nelson and Kirman, Peer review of a cancer weight of evidence assessment based on updated toxicokinetics, genotoxicity, and carcinogenicity data for 1,3-dichloropropene using a blinded, virtual panel of experts. *Critical Reviews in Toxicology*, February 2021.

² APPROVED TREATMENT AND HANDLING PROCEDURES TO ENSURE AGAINST NEMATODE PEST INFESTATION OF NURSERY STOCK, California Department of Food and Agriculture, [NIPM Item #7 \(ca.gov\)](#)

However, we would like to respectfully offer concern regarding the setback distances, which as proposed, will prove very impactful to farm operations. As is the case with setbacks or buffer zone requirements, depending upon the severity of the required distance, implementing them will lead to untreated rows resulting in production loss or crop quality issues. It may also allow soil borne pests to move freely in expanded setbacks and migrate to new areas or parcels requiring greater applications than otherwise anticipated. At a time when many California farms are at a watershed financial moment (managing input costs, lack of availability, resource scarcity, and supply chain challenges), these restrictive conditions will contribute more pressure, pushing some out of business. This is especially true for small or mid-sized farms, those urban adjacent, or for cropping systems and crop types particular sensitive to pest pressures for which there are no alternatives to 1,3-D.

Moreover, we would like to provide comment on multiple application circumstances. The current methodology used to establish setback distances from single application blocks appears grounded in risk-based principles and applies available localized data to models capable of accounting for important variables that can influence emission rates (for example, chemical properties, soil characteristics and application methods) and dispersion of emissions to predict airborne concentrations of 1,3-D at adjacent occupied structures. We generally support this science-based approach and agree that it yields defensible results for single application blocks.

However, we do not support the Department's proposed regulations which forego this approach in instances where two or more applications would occur at different locations within 36 hours and the buffer zones for individual application blocks overlap or touch. In these instances, the DPR is applying excessively conservative or worst-case assumptions for the data driven inputs and modeling used to establish the setback distances for single application blocks. In most cases, applying these assumptions to the setback tables in the proposed regulation will either result in the maximum setback distance (500 feet) or impose de facto use prohibitions for all affected application blocks. We share in the Department's desire to be health protective, but actions must be based on scientifically valid standards, especially when it has data and modeling tools that are capable of predicting the impact of contemporaneous applications at off-site receptor locations. Therefore, we request the Department apply the same methodology it proposes for determining setbacks from single application blocks to determine setbacks from overlapping application blocks.

In closing, 1,3-D is critically important to U.S. walnut production. Walnut growers and PCAs who provide product recommendations strictly follow state, federal and local regulations ensuring that products are safely and responsibly used in accordance with label guidelines. The CWC appreciates the efforts conducted by the CDPR and the opportunity to communicate the importance of 1,3-D to the industry, and lack of efficacious alternatives available.

The CWC strongly supports the continued access to 1,3-D by U.S. walnut growers with environmentally safe and practical regulations in place for the future. Thank you for your consideration on this important matter. We look forward to working together towards an even greater environmentally sound, climate resilient and sustainable future for Californians and all involved.

Respectfully submitted,

Joshua Rahm

Director, Technical & Regulatory Affairs
California Walnut Commission