



April 4, 2017

Ms. Linda Irokawa-Otani
Department of Pesticide Regulation
1001 I Street/P.O. Box 4015
Sacramento, CA 95814/95812
Sent via email: dpr16004@cdpr.ca.gov

Re: DPR 16-004 Pesticide Use Near Schoolsites

Dear Ms. Irokawa-Otani:

We are submitting the following comments on behalf of the California Almond Industry regarding modifications to the text of the proposed changes in the regulations of sections 6690, 6691, 6692, and 6693 of Title 3, of the California Code of Relations.

We stand by our comments submitted during the proposed rule's original 45-day comment period (re-attached below) and remain opposed to the proposed rule and its modified text. We have requested data supporting the contention that this is a necessary regulation, but nothing new has come forward. There are extensive risk assessments and risk mitigation requirements based on stringent scientific standards that registrants already follow, and growers implement, costing 100s of millions of dollars for compliance. This rule harms the whole foundation of any chemical regulatory process -whether pesticides, human or veterinary drugs, or food additives.

As an industry, we remain committed to the health and safety of everyone living and working in our communities. That said, accurate timing of pesticides is a critical component in the integrated pesticide management approach promoted by ABC, DPR and our partners in Extension. Unnecessarily and inappropriately limiting applicator decisions that are based on multiple variables risks reducing production and increasing damage to the trees, thereby contributing to higher food waste and human food safety risk. Despite wayward pesticide use regulatory schemes like this proposed rule, we will continue to invest in basic and applied research and programs regarding integrated pest management and work to support implementation of best practices in every almond orchard in the state.

We are extremely disappointed that the California Department of Pesticide Regulation (DPR), despite its history, reputation and credibility in regulatory health risk assessment and existing legal and regulatory mitigation options, remains focused on chasing

“perceived” risk and restrictions that are extremely burdensome on farmers and cannot be shown in any measurable way to reduce risk at or near school sites.

Since the modified text only makes narrow changes to the original proposed rule we have expectations that the Final Statement of Reasons will contain substantive support, reasoning and response in regards to the issues we raised in our original comment.

The Lack of Science and Logic of the Proposed Rule

Again, DPR has not conducted a risk assessment showing that ALL pesticide applications near schools pose an unmitigated health risk. Proximity to a school or child day care facility appears to be the only criteria considered. Without risk assessments, this proposed rule has no scientific merit or basis. Without a solid scientific foundation, a precedent is set of rulemaking due to perception, not fact. We continue to be very concerned regarding the slippery slope that DPR is perched on regarding credible regulatory health risk assessment and mitigation – especially when the risk basis for the proposed rule is two health studies that DPR’s own Initial Statement of Reasons says shouldn’t be used for predictive purposes, or that the identified acute illnesses would be prevented through since passed regulation, or enforcement of existing rules. While the 2010 California Department of Public Health study “provided data on pesticide use practices” it states that “study results cannot be used to predict possible health impact.” The 2011 study (Lee et al.) documents illnesses connected with off-target pesticide drift that occurred 10-16 years ago, but DPR readily admits they would be mitigated through pesticide-use and labeling regulations existing at the time or since adopted.

Deletion of 48 Hour Notice Requirement

We support the deletion of the proposed section 6693, described in The Notice of Modifications to Text of Proposed Changes. It appears that DPR is applying a cost to benefit formula to their analysis for deleting the section. The notice states that the deletion is supported due to economic reasons, e.g. “potential” liability and work load of school administrators and re-direction of resources for enforcement and response to inquiries by county agricultural commissioners. We request that DPR provide information in regards to the economic cost/benefit threshold for “potential” liability, workload and re-direction of resources that supported deletion of the proposed section. It is confusing when a health study that states it cannot be used to predict health impact is used to support the regulation but on the other hand sections are deleted due to “potential” liability and work load costs.

The Healthy School Act Risk Assessment

Again, if DPR believes that only agricultural pesticide applications near schools pose an unacceptable health risk to children, then it is not clear – other than their exclusion from the Healthy School Act -why the proposed rule excludes protecting children that attend private school or unlicensed day care and doesn't address non-agricultural pesticide applications. Does DPR have data to suggest that the unidentified health risk they are mitigating to the entire population of school children is sufficiently decreased by only regulating agricultural pesticides around public schools and licensed day care facilities?

Alternative Agreement

The public workshops and drafting of this proposed rule occurred at what we hope is the end of a 5-year drought cycle. We provided information in our original comment regarding the critical timing of almond bloom sprays during rain events. We also concluded that more than 15,000 acres of almonds could be regulated by this rule based on geospatial analysis of where schools are in relationship to almond orchards. DPR estimates that only 9,933 acres of ag land will be impacted by this rule. Despite the opinions provided in DPR's economic studies, a University of California Cooperative Extension almond production specialist has communicated that a 25% crop loss is possible when missing just one bloom spray. We raised the issue of the negative impact of the proposed rule's restrictions to protecting almonds during bloom and rain events. DPR's colleagues at the California Air Resources Board can likely confirm that we should plan on future patterns exactly like we've seen in the Winter/Spring of 2017, rain events that were declared "states of emergency" by Governor Brown. Since this modification of text did not address any of these issues we can only assume that DPR is not truly aware of the significance of rain events and what they mean to the cultivation of almonds across the entire state- especially application of bloom sprays.

Almond growers must have an alternative route to compliance to this rule during extreme weather and/or extraordinary pest and disease events. To reiterate, we appreciate the thought behind the flexibility provided by the proposed Section 6691(f). However, this subsection clearly re-enforces the fact that this proposed rule is not based on rigorous regulatory risk assessment, but is rather regulatory politics. We recommend that DPR ensure that alternative agreement compliance provide a pathway to address agronomic needs during extreme local weather, county or state disasters or extraordinary pest and disease events.

Similarly, the rule has no provisions for modifications or innovation in spray technology. The Almond Board of California has been investing in research on ways to improve spray

efficacy and minimize spray drift for more than 5 years now. There is nothing in the rule that allows the spray ban to be re-visited should improved spray technologies be developed.

The Economic Impact

We provided comment regarding the incompleteness of the assessed economic impacts resulting from the proposed rule in our original submittal. We also understand that ERA Economics provided comment specifically in regards to studies used to support the rule's economic impact statement and its conclusion. We recommend that DPR seriously reevaluate their finding of no significant economic impact on businesses due to the proposed rule, based on the list of issues we previously identified. Furthermore, the rule should be clear that the proposed rules provisions do not pertain to post-harvest applications including fumigants.

Leadership – School Siting

In our original comment, we provided analysis of the California Department of Conservation reports that indicated that in the last twelve years over 2,450 acres of farmland in just 15 agricultural counties were converted to schools. In 2016, Californians passed a \$9 billion-dollar school bond to fund improvements and construction of school facilities for K-12 schools and community colleges. When will the California Environmental Protection Agency (CalEPA) and DPR engage the issue of siting new schools on and around ag land? If DPR's rule regarding pesticide applications near school sites is adopted – shouldn't the economic loss due to the regulation be recognized in the cost of developing a new school site? We recommend that Cal EPA and DPR lead on this issue within the Administration and the legislature instead of just passing on costs to farmers and ranchers due to perceived risks.

Again, in conclusion, clearly, there is no need for this proposed rule. In the United States, the EPA has responsibility for registering pesticides, and as part of their assessments considers all potential harm to bystanders. If the risk assessment indicates concerns, the EPA puts risk mitigation measures into place such as buffer zones, weather restrictions, or applications restrictions. Similarly, in California, DPR conducts specific risk assessments and if there are concerns, implements risk mitigation measures. Again, no new risk assessments have been performed on the pesticides and fumigants that may fall under this regulation. There is no evidence that existing rules, regulations and mitigations are providing an insufficient degree of protection, thereby necessitating this rule.

The proposed rule, even if slightly improved, still hurts agriculture and now because of the modifications, to a lesser extent school officials and county ag commissioners. It will

serve to further deteriorate relationships between the rural and suburban/urban communities. For this reason and those stated above and in our original comment, we respectfully request that DPR withdraw this proposed rule as it results in unnecessary, redundant state restrictions that are already being met through existing state and federal laws and regulations. At the very least, the proposed rule should be delayed until a scientific risk assessment is completed for each and every potential compound applied by growers near schools and specific mitigations measures, if needed, can be implemented.

Sincerely,



Kelly Covello
President



Gabriele Ludwig, Ph.D.
Consultant to the Almond Alliance

December 9, 2016

Ms. Linda Irokawa-Otani
Department of Pesticide Regulation
1001 I Street/P.O. Box 4015
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Sent via email: dpr16004@cdpr.ca.gov

Re: DPR 16-004 Pesticide Use Near School sites

Dear Ms. Irokawa-Otani:

We, the Almond Alliance of California (Almond Alliance), are submitting comments on behalf of the California Almond industry including the Almond Board of California (ABC) regarding the proposed rule on agricultural pesticide use near schools and child daycare centers. We recognize the importance of our pesticide regulatory system in the United States and California in regards to public and environmental health. The California Almond industry has actively invested in basic and applied research in regards to pest management and the facilitation of the industry's movement to lower risk pest management practices.

However, we oppose the proposed rule as it is not based on any scientific risk assessment, it is based purely on fear and purported risk. The whole point of a regulatory agency such as the California Department of Pesticide Regulation (DPR) is to review the science and make decisions balancing the risks to society of using pesticides with the benefits society reaps from their use. This proposed regulation upends 40+ years of pesticide regulation by assuming all pesticides have the same level of risk which is scientifically incorrect and that our current state and federal pesticide registration and pesticide use programs are not effectively identifying and mitigating risk. As proposed, this regulation will not improve safety but will only unnecessarily impose practical and economic hardship on California farmers, school officials, and the county agricultural offices.

About the Almond Industry

The Almond Alliance and the ABC work together to provide regulators with a better understanding of how specific issues impact the California almond industry.

The Almond Alliance is an association representing the California Almond industry and is organized to promote the interests of its members. Our members represent over 80% of the California Almond industry based on volume.

The ABC is a grower-enacted Federal Marketing Order under the supervision of the United States Department of Agriculture (USDA) representing over 6,800 almond growers and 100+ almond handlers. The ABC engages in production/environmental research to support almond growers and handlers as well as carrying out a broad-based market development program to create demand in domestic and international markets. Research data and industry facts generated by the ABC have been incorporated into these comments.

For the 2015-2016 crop year, the farm gate value of California Almonds was \$5.3 billion from approximately 890,000 bearing acres. Per the USDA's National Agricultural Statistics Service, there were 1,110,000 total acres for the 2015 growing season. U.S. almonds are exclusively grown within the Central Valley of California.

How Pesticides Are Applied in the Orchard

The main mechanism for applying pesticides and some fertilizers is the use of air blast sprayers. Timing of these applications play a primary function in the application process. With newer, generally lower risk compounds, accurate timing of materials is much more critical than it used to be. If not timed correctly, the pests may not be controlled. In addition, sprays need to be timed around weather, particularly wind conditions, irrigation, and when staff/equipment are available. Restricting a growers' ability to apply needed control measures makes pest management more complex and less reliable, resulting in loss of production. Also, in instances where aerial application is required, nighttime application which is highly dependent on visual navigation will certainly be less accurate and/or safe in darkness. Relying solely on weekend application may not be possible due to weather and resource restrictions.

For almonds, there is a very narrow window during bloom for fungicide sprays. Growers must work between rain storms and when the ground is sufficiently dry to allow application of ground sprays. If not applied at the correct time, bloom disease can easily reduce yields by over 25 percent and that can necessitate additional unplanned crop year use of pesticides. This can also lead to crop loss in future crop years. Poor pest control leads to both reduced production and increased insect damage which contributes to higher food waste and human food safety risk.

Navel Orange Worm (NOW) is a major pest for almonds that requires precise timing for control, especially given that the insecticides available for NOW control use soft based chemistry. NOW damage to almond kernels has been directly correlated to aflatoxin presence in almonds which is a food safety concern. Control of NOW in the orchard is a key component to our industry's integrated pest management and food safety programs.

The Lack of Science and Logic of the Proposed Rule

Banning the application of most pesticide applications within ¼ mile of public schools and licensed child day care facilities Monday through Friday between 6 am and 6pm is an unnecessary step for the protection of the community. There has been no new science showing new or additional risks that need to be mitigated.

Traditionally, pesticide regulations have been about balancing the benefits gained by society from their use with the potential harm to people and/or the environment. To assess this balance requires the use of risk assessments that not only look at the relative toxicity but also the chances of exposure. However, in this case, DPR has not conducted a risk assessment showing that pesticide applications near schools pose an unmitigated pest risk. Proximity to a school or child day care facility appears to be the only criteria considered. Without risk assessments, this proposed rule has no scientific merit or basis. Without a solid scientific foundation, a precedent is set of rulemaking by public opinion and perception, not fact.

Twelve Hours-A-Day, Monday through Friday, Twelve Months-A-Year

It appears that DPR has determined – despite their own conclusion that risk to children due to pesticide applications near schools is “quite low” and despite the lack of a risk assessment - that when children are at school or day care that they are exposed to an unknown health risk that must be mitigated. Does DPR have any data to document the actual population at risk, the risk the population is being exposed, the specific chemical which presents the risk, the health risk that exposure causes, or the mitigation that a twelve-hour, Monday-Friday, 12 months of the year restriction will provide?

This proposal is essentially stating that DPR and the United States Environmental Protection Agency’s (EPA) risk assessments and risk mitigation requirements are not protective enough thus the need for the proposed rule. If that is truly the case then the assessments need to be redone, pesticide by pesticide – not with a rule that judges a compound like *Bacillus thuringensis* as equally risky as say an organophosphate, fumigant or for that matter fertilizers. How will DPR, the Agricultural Commissioner and the grower explain to school administrators why the foliar application of a micronutrient occurred during the day or wasn’t properly noticed? The arguments put forward are strained, to say the least, to meet the expectation for the outcome – the rule. They truly harm the whole foundation of any chemical regulatory process -whether pesticides, human or veterinary drugs, or food additives.

The Healthy School Act Risk Assessment

If DPR believes that most pesticide applications near schools posed a health risk to children, then it is not clear – other than their exclusion from the Healthy School Act -why the proposed rule excludes children that attend private school or unlicensed day care? Does DPR have data to suggest that the unidentified health risk they are mitigating is sufficiently decreased to the entire population of children attending school or in unlicensed day care – by only regulating around public schools and licensed day care facilities?

Persistent Concern Not Health Risk

The proposed rule’s Initial Statement of Reason (ISR) clearly identifies that the rule is being driven by concern vs. identifiable risk:

Nevertheless, concerns about the risks associated with pesticide use at or near schools and child day care facilities have persisted through the years due to children’s potentially increased sensitivity and exposure.

Since DPR has identified “persistent concern” as a driver for the proposed rule does it have any data on how the ¼ mile restriction and ongoing reporting requirements will mitigate “persistent concern?”

DPR’s Own Workshop Summary Supports that the Proposed Rule is Unnecessary

In the rule’s workshop summary document, DPR provided their conclusion that pesticide application near schools was “quite low” and that the risk they identified was mitigated:

That conclusion is based upon DPR’s continuous monitoring data for detecting pesticides in air, surface water, groundwater, and food. DPR analyzed the data to evaluate the potential risk, and most of the monitoring data thus far indicates the risk to children is quite low. There are exceptions, such as fumigants, and DPR established additional requirements such as buffer zones to address the higher risk.

Has DPR’s conclusion changed regarding the level of risk to children due to pesticide application around schools or that theirs or EPA’s current registration and pesticide use programs are not effectively mitigating the higher risks that they have identified?

The ISR Strongly Supports that the Proposed Rule is Unnecessary

A primary reference that DPR bases the supposed need for these new regulations is a 2010 California Department of Public Health study that “provided data on pesticide use practices,” but also states that “study results cannot be used to predict possible health impact.” Does DPR have any additional information regarding the health impact of California registered pesticides applied lawfully near schools?

A primary reference to the identified “risk” the proposed rule is mitigating is Lee et al. (2011) a study of acute illness connected with off-target pesticide drift. While the study does document reported pesticide illness connected to off-site spray drift that occurred 10-16 years ago, DPR readily admits that the EPA and their own pesticide-use and labeling regulations adopted in the interim would mitigate the exposure. Does DPR believe that theirs and the EPA’s current health risk mitigation are not sufficient to protect the health of children at school sites and at licensed child care facilities?

The same question can be asked about DPR and EPA’s fumigant mitigation strategies. Since December 1, 2012, California growers, as well as growers nationwide, have been using the EPA’s Phase II Fumigant Labels which include restrictions around schools as well as other “difficult-to-evacuate” sites (daycares, nursing homes, prisons, etc.) in planning applications to their crops. Does DPR believe that theirs and the EPA’s current health risk mitigation are not sufficient to protect the health of children at school sites and at licensed child care facilities?

The specific federal conditions-of-use around schools are dictated by the buffer zone distance associated with the planned application. Under this system, growers have the ability to manage school proximity restriction impacts on their farming operations by utilizing fumigant application options that reduce the buffer zone distances. Having flexibility to manage buffer zone distances allows growers to manage impact of proximity restrictions to difficult-to-evaluate sites. The ISR supports the fact that federal regulations (labels) on fumigant applications near schools and other difficult-to-evacuate sites would have prevented the illnesses reported in Lee et al. (2011) likely because they’re been workable for applications and growers, largely due to the flexibility afforded by the federal labels. Again, more support for the lack of a need to adopt this proposed rule.

In the ISR, DPR states the quarter mile restriction is based, again, on the findings of Lee et al. (2011) that saw most drift incidents occurring within 1 mile of the non-compliant application. Then follows to say that:

However, most if not all of the illnesses in California more than one-quarter mile from the application were from fumigations that

occurred prior to the adoption of buffer zones and other restrictions enacted in 2010 and later that may have prevented those illnesses.

Since DPR's conclusion is that buffer zones and restrictions would have prevented the illnesses more than ¼ mile – we can only assume that illnesses that occurred within a ¼ mile were due to drift of non-fumigants. Is that true? Lee et al. (2011) appears to report that most drift incidents connected to illness in California were fumigants – which again would likely be prevented now due to buffer zones and other restrictions – and make adoption of this rule unnecessary.

Five Drift Incidents Near Schools from 2005-2014

In the case of DPR's own database, it reflects illnesses associated with a total of 5 incidents over the 10 years, with one incident occurring every two years. Does DPR have any data in regards to any other illnesses due to other types of pesticide applications near schools during 2005-2014? Or the total number of types and number of pesticide applications near schools during the same period?

While the ISR states that the proposed rule would likely prevent the reported drift incidents, it would also be important to know if those five drift incidents occurred before or after the EPA and DPR registration and pesticide use restrictions that are noted in the ISR as likely preventing the incidents reported in Lee et al. (2011)?

The ISR also doesn't provide information in regards to the year, the county, the crop, the material, the type of application and the reported illnesses associated with the five drifts incidents? It may be the case that the illnesses were caused by a drift of a single type of material and unique application that presented a high risk that has subsequently been addressed by EPA's and DPR's regulatory processes. Or that they occurred due to pesticide use violations that are easily addressed through outreach and education or focused pesticide use enforcement actions.

It is also very significant that 20% of the pesticide drifts causing illness at schools are attributable to a registered pesticide that is approved for use in organic agriculture. How has EPA or DPR addressed the risks attributed to the 20% of the pesticide drifts that caused illness at schools from 2005-2014?

Pesticide Use Enforcement Alternative vs. Effective Prohibition

The ISR's reliance on Lee et al. (2011) to identify "risk" is noted, but we also would point out the same reference also indicates that over 93.2% of the

non-occupational illnesses caused by drift – were the result of violations of state and federal pesticide use regulations. Since Lee et al. (2011) is being used to substantiate the proposed rule, can DPR identify the cause of the drift that cause the other 6.8% of the non-occupational illnesses? And if the cause of the drift can be identified, in DPR’s opinion has subsequent EPA and DPR registration and pesticide use regulations likely mitigated the risk of the event occurring again?

Since Lee et al. (2011) clearly identified that most illness was due to violation of existing regulation, can DPR provide a reason why enhanced enforcement of existing regulation wasn’t offered as an alternative?

No Data Shown

The ISR cites Lee et al. (2011) to substantiate the need for the proposed regulation with an estimation of 1.6 drift events causing 11.8 cases of illness per 100,000 pesticide applications. The reference itself states “no data not shown” in regards to their estimate. It is concerning that the report would include a report summarizing data that is not available. Has DPR reviewed the data to confirm the estimate is correct?

Monday through Friday Year-round?

A quick review of Mondays through Fridays on a single school district’s 2016-2017 calendar tallies 81 holiday and out-of-session days and 181 in-session days. The ISR does not provide any substantive information on how DPR determined it needed to restrict applications or require notifications Monday through Friday year-round. If the school or license day care is not scheduled to be open on a weekday, how does DPR justify the restriction and notification requirements for every weekday year-round?

Alternative Agreement

While we appreciate the thought behind the flexibility provided by the proposed Section 6691(f), this subsection clearly re-enforces the fact that this proposed rule is not based on rigorous regulatory risk assessment, it’s regulatory politics. How is an operator of a property, the principal of a school, an administrator of a day care facility or a commissioner able to determine just by “agreeing” that an alternative application will provide the same level of protection as provided by the proposed restrictions? Our conclusion is that this proposed rule has no scientific basis in risk assessment because a prestigious regulatory agency like DPR appears to be ok with an alternative agreement where risk assessment and mitigation determinations are made simply by agreement of at least two non-expert third parties.

It is puzzling that the ISR offered organic practices as an example of what should be considered as qualifying for an alternative agreement. Certainly, DPR is aware that there are many registered pesticides that are allowed for use in organic production, and it is our understanding that this rule would apply to organic sprays in addition to conventional sprays as we are not aware of an exemption for organic sprays within the proposed regulation. Is it just that they're being applied to "organic production" that allows for its consideration in an alternative agreement? That is surprising since Lee et al. (2011) – a primary reference in support of the proposed rule - lists the top ten major pesticide drift events that caused illness in the eleven states from 1998-2006. One of the ten occurred in 2005, caused by a ground spray in California organic oranges. On one hand the pesticide drift data being cited to support this proposed regulation suggests that not all organic production practices are safe and then on the other hand DPR suggests that organic production practices can be used as an equivalent to meet the proposed regulation's restrictions? Lee et al. (2011) and DPR's illness database appear to support the conclusion that organic practices or organically approved materials themselves shouldn't be a determinative factor in the alternative agreement process. We also would recommend that DPR be the arbitrator of whether an alternative agreement can provide the same level of protection that is required by the proposed rule.

Low-risk or Not?

The proposed rule categorizes and treats the application of registered low-risk pesticides that are used in California organic and conventional production as a significant health risk to school children. For example, sulfur, a registered pesticide approved for use in organic agriculture will be considered an equivalent health risk to school children as materials applied by fumigation. How does that make sense in terms of risk assessment and risk mitigation? DPR is proposing to integrate regulatory politics into their scientific based regulatory process and final rules which frankly puts our whole pesticide regulatory system and California's State Organic Program on a slippery slope. The reaction to "persistent concern" regarding pesticide application has resulted in a rule that will open the door to turning even organic agricultural practices upside down due to regulatory politics.

Production of Agricultural Commodities

The rule as proposed seeks to restrict pesticide applications to produce an agricultural commodity near a school or day care facilities. 3 CCR Section 6000, defines "agricultural commodity" as an unprocessed product of farms, ranches, nurseries and forests (except livestock, poultry and fish). As DPR is aware, there are multiple points on and off farm where pesticide applications occur to an unprocessed agricultural commodity. Our review

of the ISR and our interpretation of the intent of the restrictions imposed by the proposed rule are to pesticide applications prior to and during growing of an agricultural commodity and not for post-harvest purposes. The rule should be clear that the proposed rules provisions do not pertain to post-harvest applications.

Fumigants

The proposed rule specifically mentions that the rule will apply to all fumigants. Our understanding is that it applies only to soil fumigants not to fumigants applied post-harvest. This is not clear from the current language and we request clarification from DPR on whether the term fumigant strictly means soil fumigant

Notifications

We fail to see what and who benefits from the information provided by forcing growers to notify schools of all potential pesticide applications at the beginning of the year and multiple days prior to specific types of applications. Currently, it is up to the schools to decide what to do with the information. They themselves have noted that they have no idea what to do with the information. There is no ability to communicate relative risk or lack thereof from the applications. And it just provides more work and more uncertainty to the schools. The trial programs to date in Kern and Monterey counties have not proven to create either better understanding or communications between parties. We believe the school notification requirements as proposed will only increase and intensify the persistent concern regarding pesticide application that is noted in the ISR.

Other Pesticide Applications Near Schools

We also question why only the agriculture sector is being required to make these notifications and not landscape service, pest control or homeowner pesticide applications within the 1/4-mile buffer?

Does DPR have any data – monitoring or otherwise regarding pesticide use and drift from landscape, pest control or homeowner pesticide applications near schools?

The Economic Impact

We fundamentally disagree with the ISR's finding and evidence in support of no significant impact on business pursuant to Government Code Section 11346.2(b)(5)(A). The finding cannot be made with the evidence presented in the ISR. It is of interest that it took three economic reports for DPR to evaluate the economic impact of the proposed rule – first reporting that the proposed rule would cause major economic impact to the final report supporting a conclusion of no significant impact.

The ISR states that “DPR relied on a report prepared for the California Department of Food and Agriculture (CDFA) by the Department of Agricultural & Resource Economics at UCD (Report).” We believe that DPR’s no significant impact conclusion is flawed based on the following:

- **Selective Counties Analyzed.** The Report only focused on case study counties with the highest production value of grapes and almonds but failed to consider the broader economic impact in counties with higher acreage surrounding schools where urbanization is occurring at a higher rate. While the Report may be very accurate for what was studied, we do not believe that DPR’s finding of no significant economic impact can be made by extrapolating their conditions statewide.
- **Weather in Select Counties Analyzed.** The Report does evaluate weather patterns during bloom over the last 10 years to assess how often spraying would be limited by weather. However, the analysis didn’t look at weather conditions in the Sacramento Valley, where rain during bloom is more common and more frequent. It looked at Stanislaus County and Kern County, which only get about 60% to 20% of the rainfall of say Butte County. The assessment severely underestimates the geography and almond acreage at risk due to inclement weather and at economic risk due to the proposed rule. We also would point out that predicting economic risk based on past weather conditions may be risky itself as the predicted advance of global warming will likely result in California’s annual precipitation shifting to rainfall vs. snow and will be more unpredictable across the entire state. While the Report may be very accurate for what was studied, we do not believe that DPR’s finding of no significant economic impact can be made by extrapolating their conditions statewide.
- **Limited Crops Analyzed.** The Report focuses on only two crops, almonds and grapes. While these are the most valuable crops in the Central Valley, it doesn’t account for other predominant crops like berries, peaches, nectarines, pears, cherries, walnuts, pistachios, citrus, nursery stock and other perennials. While the Report may be very accurate for almonds and grapes, we do not believe that DPR’s finding of no significant economic impact can be made by extrapolating their conditions statewide.
- **Almond Acreage.** The Report from our review underestimates the almond acres potentially affected by the proposed regulation. Our analysis indicates that over 15,000 acres of whole almond orchards are potentially affected by the proposed regulation. We can accurately identify the boundaries of all almond orchards in the state through access to an almond orchard GIS database which can be accessed at <http://www.almonds.com/growers/resources/crop-forecasts#almond-industry-maps>. Our acreage is likely underreported because the ¼ mile buffer was measured from a discrete point – which was the street address of the school or child care facility. The affected acres would likely grow using the exact boundaries of the schools or child care facilities. In addition, while the Report may have accurately reported the almond acreage that falls into the ¼ mile buffer – it’s very likely a grower will notify and treat the entire crop is contiguous to the crop that falls into

the ¼ buffer. It is very unlikely that a grower will expend the resources and expense to treat the buffer acreage separately. We therefore included whole almond orchards affected by the ¼ mile buffer. While the Report's modeling may be sound, we do not believe the authors have the most accurate data in regards to the location or the almond acreage that will be affected by the rule. We do not believe that DPR can make a finding of no significant economic impact due to the proposed rule until the almond acreage used in any economic impact studied is verified with our data.

- **Zero Yield Impact Conclusion.** The Report assumes, based on interviews with experts that “there will be zero yield impact from losing one spray.” We are interested to know who and how the unnamed experts made the determination as we are very familiar with the current research in regards to pest management in almonds and with the experts working in the field. The Report does look at one of the more timing-sensitive periods for pesticide applications in almonds – that is fungicide applications during bloom for the modelled impact. Bloom is very susceptible to fungal pathogens and occurs from roughly mid-February through mid-March, which is typically still the rainy season for the Central Valley. If there are storms close together during bloom, growers have a very limited time to get fungicide sprays on as it can't be raining during the application and they the ground dry enough to drive on (some resort to aerial in those situations), and even as it stands currently growers struggle to get all of the orchards protected in time (at least in normal rainfall years).

One expert that we're aware of from the University of California's (UC) Extension Service, David Doll, the Nut Crop Pomology Farm Advisor for Merced County reports that even a single fungicide application is critical and that a Butte County orchard that missed just one spray during full blossom suffered over 50% brown rot blossom infection. A blossom disease epidemic and significant crop loss attributed to missing only one fungicide application puts into doubt that missing appropriate timing for one application has no significant economic impact. The conclusion that missing one spray has a zero yield impact is further thrown into doubt by the fact that experienced growers are applying a spray that the report concludes is a waste of time and money. Why would experienced growers who are guided by experts at both the USDA and UC waste time and money on an unneeded spray? We do not believe that DPR's finding of no significant economic impact can be made based on the assumption that missing one spray will have zero yield impact due to the proposed rule.

Farm Revenue Losses. The Report appears to focus only on revenue losses. A more appropriate measure is farm profitability (net income). Net income accounts for price and yield variability that can have dramatic impacts on the effect of a regulation in any given year. In particular, farm-level net income impacts can quantify differences in the ability to absorb additional regulatory costs across different types of growers (e.g. large vs small growers). DPR assumes that all growers are equally equipped, staffed and serviced to change their spray regimes to spray after 6 pm or to the weekend. Nearly 75% of almond growers are 100 acres or less, thus they don't have multiple sprayers, and crew to do spraying just at night or they rely on neighbors/custom spray operations which would be pressed to handle their own and other customers spraying at night or on weekends. At a

minimum the assessment needs to address the costs for additional spray equipment and overtime labor to complete the jobs at night or on the weekend, and should reflect recently passed state legislation that is increasing minimum wage (SB3) and modifying ag overtime laws (AB1066). We do not believe that DPR's finding of no significant economic impact can be made without using farm profitability to determine economic impact.

Other Economic Impacts

- **Land Values.** We believe DPR has missed a significant economic impact to businesses by ignoring the likely decrease in land values surrounding schools and day care facilities due to the proposed rule. Each of the studies commissioned to evaluate the economic impact of the rule report direct and indirect losses to the acreage surrounding schools. If an acre of farmland is and will suffer a predictable economic loss due to the rule – it follows that the per acre value of that asset will decrease. We believe losses due to land values devaluation will be significant and should be accounted for in the economic impact analysis. We do not believe that DPR's finding of no significant economic impact can be made without considering the economic impact to land values due to the proposed rule.
- **Quarantine, Pest Eradication and Control.** The USDA and the CDFA regularly quarantine places and commodities throughout the state due to pest infestations. The marketability of a quarantined crop is dependent on precise types and timing of quarantine pesticide applications that if they are missed can cause up to a 100% loss because the commodity cannot be shipped. In addition, several USDA/CDFA programs make pesticide applications for pest eradication and pest control purposes. Missing a precisely timed and type of pest eradication or pest control treatment – puts entire regions or the entire state at risk for costly quarantines and infestations or destruction of infested hosts if the eradication or control is not effective. We do not believe that DPR's finding of no significant economic impact can be made without considering the economic impact to restricting pesticide application required by government quarantine, pest eradication and control programs.
- **Land Use Planning.** Since it's obvious that land values around schools will likely decrease due to the direct and indirect economic impact of the proposed rule – the rule itself will incentivize school development on irrigated agricultural land. A review of Department of Conservation field reports document that over that last 12 years (2004-2014) over 1,570 acres of irrigated farm land plus over 880 acres of range or other land where converted to schools – and that is just in 15 counties of the state. It is a fact that new schools are becoming new neighbors to working farmland not the other way around. The result of our land use planning and economics of building schools is that more and more schools exist in farming areas – and that fact now causes significant economic risk to a farmer within ¼, ½ or a mile away from a school. Who is going to pay for a grower's loss of net income and devaluation of their land asset because a school district builds a new school nearby?

If the overall result for growers is an inability to farm their crops, more land will be sold to developers causing a negative impact to air quality as agricultural land produces 60 percent less greenhouse gas emissions than developed land as reported by American Farm Land Trust (<https://www.farmland.org/our-work/where-we-work/california>). This certainly is not the goal of the administration. Also, with the continued drought causing increased costs to growers to produce crops in California, additional financial burdens resulting from this proposed regulation would make selling the land to developers a more attractive option than farming under these conditions.

Protecting Children

The laudable goal of this rule is to protect children. However, the protection proposed is against fear of harm, not any assessed risk. Most California growers live amongst their orchards, vineyards, fields. That is where they raise their children and where many of them were raised. Over 90% of almond growers are family operations. If one flies above the Central Valley, one sees many a home hidden amongst the orchards. Thus, these same pesticides that are considered a risk to children at school – if these risk were real – would pose a risk to the growers' children at home. Again, the fundamental logic of this proposed rule doesn't hold and undermines years of chemical regulations throughout the world.

California can rightly and proudly point to one of the more rigorous pesticide regulatory processes – both at the state and at the local level. DPR conducts their own pesticide risk assessments on top of the ones conducted by EPA's Office of Pesticide Programs to account for California specific conditions. California is unique in having the County Agricultural Commissioner System that provides local oversight, education, and enforcement of pesticide applications and regulations. Thus, California is one of the state's least likely to have misapplications, and when something occurs there are immediate enforcement and industry learnings from the incidents.

In conclusion, clearly, there is no need for this proposed rule. In the United States, EPA has the responsibility of registering pesticides and as part of their assessments considers all potential harm to bystanders. If the risk assessment indicates concerns, EPA puts risk mitigation measures into place such as buffer zones, weather restrictions, or applications restrictions. Similarly, in California, DPR conducts specific risk assessments and if there are concerns, implements risk mitigation measures. Again, there have not been risk assessments taken on the pesticides and fumigants that may fall under this regulation.

The proposed rule hurts agriculture, school officials, and county ag commissioners serving to deteriorate relationships between the rural and suburban/urban communities. For this reason and those stated above, we respectfully request that DPR withdraw this proposed rule as it results in unnecessary redundant state restrictions that are already being met through existing state and federal laws and

regulations. At the very least, the proposed rule should be delayed until a scientific risk assessment is completed for each and every potential compound applied by growers near schools and specific mitigations measures if needed can be implemented.

Sincerely,



Kelly Covello,
President, Almond Alliance



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