

Exposure and Interaction:

Policy Perspectives on the Use of Multiple Pesticides

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The Road Ahead

- Typical Mixing Scenarios
- Testing: Policy and Process
- Risk Assessment: Authority and Obligation
- Risk Management: Standards and Strategies
- Additional Recommendations and Conclusions

Mixture Scenarios

- Pesticide Products Sold as a Mixture

- On-Site Mixtures: Field Mixing and Sequential Applications

- Ad Hoc Mixtures: Application on Adjacent Sites



Products
"Used" in
Combination

Testing:

Pesticide Products Sold as a Mixture

- Existing law authorizes testing of pesticide products that are mixtures, and in fact....
- Existing law requires testing of mixtures when necessary to perform a “thorough and timely evaluation”

Testing:

Products Used in Combination

- Recommend a Two Step Process for Testing Decision
 - Is there a reasonable, scientifically-based hypothesis of interactive effects?
 - If so, perform appropriate testing or adopt stringent default management measures
- Who decides depends on the mixture scenario....

Making the Testing Determination

Mixing Scenario

- Pesticide Products Sold as a Mixture



- Foreseeable Products "Used" in Combination



- Other Field Mixing/Sequential or Adjacent Application



Relevant Regulator

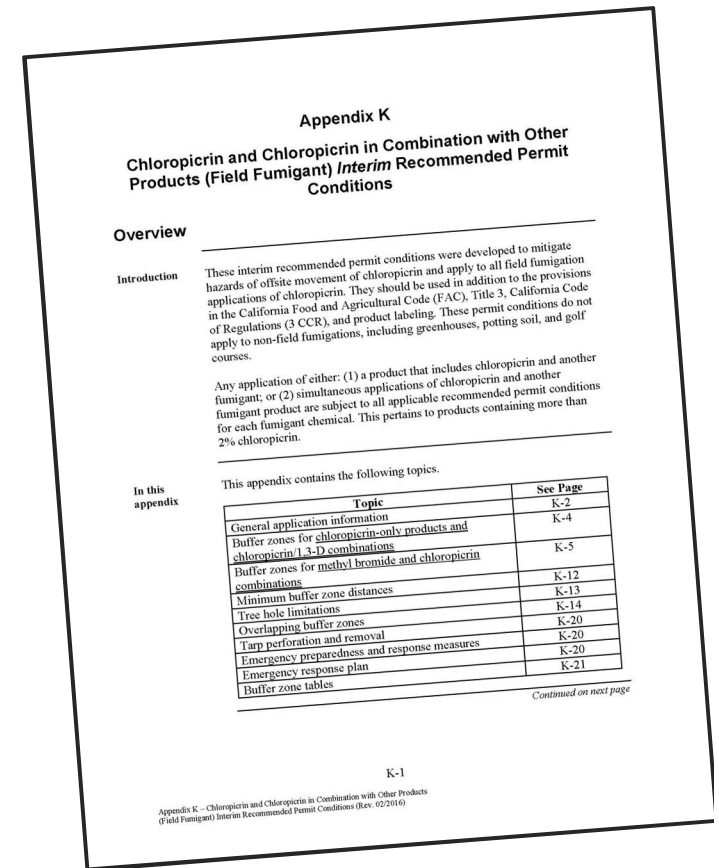
- DPR as part of the registration process
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- County Agricultural Commissioner (CAC) as part of Restricted Material Permitting

Risk Assessment

- Food and Agricultural Code mandates orderly, thorough and timely evaluation process
- California Environmental Quality Act explicitly requires DPR and/or CAC to identify and evaluate cumulative impacts of pesticide use.
 - Despite functional equivalence certification, the program must meet the substantive requirement of cumulative impacts evaluation

Risk Management

- Must take into account risks associated with interactive effects in crafting risk management measures
- Measures will look much like standard approaches to risk management:
 - Labeling
 - Lower exposure limits based on probabilistic models or uncertainty factors
 - Use restrictions in registration or in CAC permits



Additional Recommendations

- Establish a Task Force to develop policies and procedures
 - including criteria for “reasonable, scientifically-based hypothesis of interactive effects”
- Develop listing/databases of potential interactive effects of known common mixtures
- Revise restricted material permit application process
 - Increased CAC consultation with DPR on mixtures
 - Increased cross-county coordination regarding adjacent field applications
 - Increase 24 hour review period for NOI for products used in combination

Questions and Discussion

