

Synthesis of Feedback Provided on
“Draft Roadmap to Sustainable Pest Management in California”

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Introduction to the Stakeholder Input Synthesis

This document is a high-level summary of input received through a targeted stakeholder input process and is intended to give WG and USub members a snapshot of the breadth of input received on the draft Roadmap. DPR staff managed the feedback process, consolidated and reviewed the feedback data, and created this condensed, high-level summary of themes and key points contained in the feedback. Full copies of the information submitted through letters, surveys, and conversations were also provided to the members. This synthesis does not include detail such as rationales for key points made; examples listed to illustrate a point; specific comments asking for inclusion of content already part of the roadmap (e.g., “The state should fully fund CDFA infrastructure that was precipitously cut in 2011”); personal, non-actionable opinions about issues not directly addressed in the roadmap; statements of agreement with specific clauses of the roadmap; or the details of proposed wholesale rewrites of entire sub-sections.

Contributors

Below is a list of organizations that provided comments. Some individual comment letters were submitted in aggregate and were based on WG and USub member conversations.

- Almond Alliance of California
- Bay Area Clean Water Agencies (BACWA)
- California Agricultural Commissioners and Sealers Association
- California Association of Pest Control Advisors (CAPCA)
- California Department of Fish & Wildlife
- California Farm Bureau Federation agriculture coalition letter (23 organizations)

- California Rice Commission
- California State Parks
- California Stormwater Quality Association
- Californians for Pesticide Reform/Pesticide Action Network
- CalTrans
- Community Alliance with Family Farmers
- County Agricultural Commissioners (6 individual letters)
- Crop Life America and RISE (Responsible Industry for a Sound Environment)
- Department of Water Resources
- Household Commercial Products Association
- National Resource Defense Council
- Office of Environmental Health Hazard Assessment
- Pest Control Operators of California
- Pro Farm Group Inc
- SF Bay Regional Water Quality Control Board
- State Water Resources Control Board
- Syngenta
- Western Growers Association
- Western Plant Health
- 18 individual submissions

Overarching Themes

Readability/Clarity

- Too long – need to refine and prioritize recommendations.
- Challenging to follow.

Missing References/Point of Reference

- Need to be clear that many goals (eg, human health and safety, ecosystem resilience, agricultural sustainability, community wellbeing, and economic vitality) are already being promoted.
- Implies that actions aren't already happening (for example, farmers already are stewards of the land).
- Roadmap implies insect pests, rather than broader types of pests (weeds, microbes, etc).
- Roadmap does not acknowledge the public good resulting from the prudent use of pesticides, particularly in urban settings.
- "System" should only refer to farming systems; recommend another word for assemblages of knowledge or institutions.
- Need to reference science-based and/or peer-reviewed work.
- Needs more focus on pest management and use of biodiversity-based systems and biological control, rather than pesticide management.
- Recognize preeminence of CA regulation of pesticides.
- Emphasize what's currently working.
- Need to address urban parallel to ag.

Governmental Impacts

- Identify what types of processes (legislative, regulatory, or independent changes) are needed to implement.
- Need clarity on if this is requiring expansion of government (new regs) or not. Concerns about large government approach to solve this challenge.
- Roadmap states, "Urban Subgroup work did not explicitly focus on forests, transportation corridors, parks, habitat management, aquatic weed control and disinfectants." However, this is inconsistent relative to recommendations for state agencies or impacts to water supply.

Content Gaps

- Needs more details on financial assistance and incentives.
- Lacks specific details.
- Need broader inclusions from more groups.
- The Roadmap should include a plan for protecting communities most impacted by agricultural pesticides and should note that in the interim, before any reduction targets are met, the state needs to develop and implement a plan to protect communities from ongoing acute and chronic impacts of pesticide exposure.
- Add focus area of “Risk reduction for farmers, farmworkers, and agricultural communities”, including goals of “Longer restricted entry times after pesticide application to reduce farmworker exposure to residues” and “Buffer zones and additional no spray areas.”
- Add focus area of “Land tenure and access to Indigenous communities for traditional stewardship.”
- Given overall strength of the existing program, question the rationale for major systems changes – recommend pursuing incentives as a priority.
- Emphasize urban pesticide use that highlights key urban societal issues and addresses knowledge gaps.

Introduction/Appendices

- Amend co-benefits for SPM in Agriculture:
 - Add nutrient management to A on page 10.
 - Make a bulleted, rather than numbered list.
 - Recognize the use of pesticides as a tool for managing pests.
 - Add “G. Bringing new pest control technology and products to market H. Protect the economic profitability of farmers is sustained.”
 - Add “Improving air and water quality and water conservation”
- Include more references in this section to biodiversity.
- Suggest revisions to the guiding principles under Appendix 7.

Timelines

- Timelines of process overall not well defined – want clear, specific, measurable, and achievable goals.
- “Shorten the implementation timeline to 2035 or earlier”. Should also include interim implementation benchmarks at 4 year intervals.
- Would like to see more about the priorities and the order in which to achieve them.
- Many recommendations also have timelines that are unreasonable and do not consider the time needed for on-farm change, policy changes, budgets, research, registration, scientific findings, etc.
- Goals are not in alignment. For example, introduction of new effective, feasible alternatives to high-risk pesticides by 2030 does not allow enough time for adoption by other 2030 goals.

Climate Change

- Concern about negative climate impacts of the roadmap on climate in the absence of sufficient information (eg, how applications of pesticides overlap with greenhouse gas emissions/fuel use/etc.)
- Suggest a more robust life cycle analysis.
- Section should note that the production and use of pesticide chemicals negatively impacts the climate footprint of CA’s agricultural sector.

- Reference that climate change may increase growth of non-native grasses, which can threaten infrastructure or increase fire risk.

Organic Agriculture

- Organic agriculture should be highlighted in this report.
- Do not include organic acreage as a metric because of concerns for certain products used.
- Goals for steadily increasing acres in organic should be included, not as an endorsement of the National Organic Standards, but because it is already pushing transition and a powerful driver in the marketplace.
- Set a goal in the Roadmap that 30% of California agricultural land is farmed organically by 2030.

Definitions

- Need to clearly define scope of “pests”
- Scope of “alternative low-risk” products is too narrow.
- Add more definitions regarding biologicals/biological control/etc.
- Add definitions on “traditional” agronomic practices.
- Add definition for “safer alternative”.
- Define terms such as “socially equitable and just” and “economically viable”

Definition of Sustainable Pest Management (includes Appendix 6)

- Need definitions of SPM that are descriptive (as currently in the Roadmap), as well as operational at the program and field level. A program level definition would likely take the form of a checklist for the review of projects. A field-level definition is challenging because of no one-size-fits-all approach. Could be locally-specific BMPs.
- Define on the first page, and include examples within the first 10 pages of the report.
- Clearly recognize that SPM incorporates IPM; could instead promote IPM, and recognize enhancing features from SPM.
- Needs effort to make the most economical solution.
- Advocate the need for a broad biological and technological approach to SPM.
- Prefer “systems-based” and “effective”, over “holistic”.
- Adopt UC IPM definition of IPM.
- SPM is not an end point, but rather an ongoing process in a spectrum of continual improvement that integrates an array of practices and products aimed at creating healthy, resilient ecosystems, farms, communities, cities, landscapes, homes, and gardens. SPM is about stepping back and looking at the interconnectedness of pest pressures, [biological control,] ecosystem health, and human wellbeing. Should be inclusive of all stakeholders that are invested in and impacted by pest management.
- How does this reflect federal and state determinations of safety and efficacy?
- Suggestions for Examples of SPM:
 - Include “monitoring pest populations and weather conditions” as an overall requirement, rather than as a cultural practice.
 - Support integrated methods, such as mowing, grazing, and burning.
 - Add solarization under physical controls.
 - Add insecticides to “SPM and chemical pesticides”

- Delete reference to “no till farming, minimum, or reduced tillage” under cultural practices.
- Include biological controls as a strategy
- Organic agriculture

Funding

- Insufficient funding to implement various goals
- Needs more discussion
- Oppose increases in registration fees
- Should consider state funding as this is a state priority; mill assessment and registration fees are already under pressure.
- Pest prevention and exclusion programs in California have been severely underfunded; want to see adequate and sustainable funding for these programs.

Goals

I. 2050 Goals Overall

a. Where did you see value?

- i. Significant support for goals overall.

b. Where did you see concerns?

- i. Concerns raised about baseline, measurability, and 90% goal (what is being measured to, how does this reflect past success, apparently arbitrary)
- ii. No context for how goal levels were set.
- iii. Concerns about timelines (too long, or lacking a defined action plan)
- iv. Concerns these will force regrettable substitutions
- v. California already has a robust regulatory program – justification for these requirements are lacking.
- vi. Concerns about impacts of goals on viability of crop production, including quantity and quality, as well as impacts to consumer.
- vii. Goals not aggressive enough (eg, complete elimination of pesticides)
- viii. Do not distinguish between agricultural and urban settings.
- ix. Need to conduct a needs assessment for all goals.

c. What suggestions do you have?

- i. Need a goal for 90% increase in pesticide registration.
- ii. Establish interim goals before 2050, and begin data collection in 2023.
- iii. Consider “substantial reductions” in places where you can’t quantify.
- iv. Want a firm commitment by DPR to implement the goals.
- v. Incorporate biodiversity objectives in pest reduction goals

- vi. Ensure all stated goals apply to pesticide-treated seeds.
- vii. Very aspirational, and may impact supply/production/export.
- viii. Include mechanisms for monitoring reduction of pesticide loads to waterways.
- ix. How would the goals impact systems that cross agricultural, non-production agricultural, and urban settings (such as water storage)?
- x. Ensure goals are applicable in urban areas.
- xi. Consider ecosystems (e.g., aquatic toxicity and endangered species protection) in addition to human endpoints.

II. "90% reduction in acute and chronic pesticide-related human illnesses."

- a. **Describe what your contacts agreed with or saw value in regarding this goal.**
 - i. General agreement that reducing health impacts is an important goal.
- b. **Share the concerns your contacts had with this goal or to highlight what your contacts felt was missing from this goal.**
 - i. Unrealistic and arbitrary; vague.
 - ii. Need improved context and statistics.
 - iii. Can't define or measure baseline, so hard to implement.
 - iv. 2050 is too far in the future - need a more measurable, nearer term goal.
- c. **Offer specific ideas your contacts had to improve or build on this goal.**
 - i. Recommend 2040 as a target, with improved data collection in 2023.
 - ii. Establish a more realistic goal, or one that is more focused on specific settings with specific data sources.
 - iii. Acute illness is a better goal than chronic illness.

III. "90% reduction in pesticide residuals in offsite water, land, and air."

- a. **Describe what your contacts agreed with or saw value in regarding this goal.**
 - i. Support goal; some commodities have already worked to do this through voluntary means.
 - ii. DPR already does work in this area relative to air and water.
- b. **Share the concerns your contacts had with this goal or to highlight what your contacts felt was missing from this goal.**
 - i. Need additional guidance on how to measure and define.
 - ii. 90% seems unrealistic and arbitrary.
 - iii. Presence does not mean risk. Pesticide residuals could also mean organic product residuals.
 - iv. May be more effective to focus on problematic pesticides. For example, existing programs have already achieved significant reductions.

- v. Should reference both urban and rural areas.
- vi. 2050 is too far out.
- vii. Clarify if this is “in general” or above screening levels.

c. **Offer specific ideas your contacts had to improve or build on this goal.**

- i. Provide user incentives to obtain this goal
- ii. Goal should be 90% reduction in residuals for specific chemicals of concern as identified by an established, scientifically based prioritization process
- iii. We suggest focusing on risk-based rather than exposure- or hazard-based outcomes (ie, pesticides, with characteristics more likely to lead to widespread ecological contamination).
- iv. Measure biodiversity as an important goal.
- v. Need to contextualize relative to existing screening levels.
- vi. Goal should be 2030, with data collection beginning in 2023.
- vii. Focus on “problematic” or “priority” pesticides instead of all pesticides
 - a) For example, those that have monitoring results that exceed aquatic benchmarks, pesticides linked to toxicity in surface waters, and pesticides with urban 303(d) listings
- viii. Suggested interim goal: 50% reduction of restricted material, water contaminating and Toxic Air Contaminant pesticides by 2030; 75% reduction of pesticides that are restricted material, water contaminating, Toxic Air Contaminants, carcinogens, reproductive and developmental toxics, and/or endocrine disruptors by 2040

IV. “90% reduction in pesticide residues on food that are in excess of the permissible tolerance.”

a. **Describe what your contacts agreed with or saw value in regarding this goal.**

- i. California has made significant strides on food safety.
- ii. This is already a priority for California, and it is well on track for meeting the goal.
- iii. This should be a priority without an additional program in place. DPR currently already tests agriculture commodities being imported into California for consumption. There is data already showing that there are products being used on some imported commodities that are not even allowed on those crops here in the US or that some imports contain pesticide residues that are above permissible limits.
- iv. Support for an increase in organic produce.

b. **Share the concerns your contacts had with this goal or to highlight what your contacts felt was missing from this goal.**

- i. Further efforts by California in this area would be redundant. California already has high compliance rates, especially when compared to imported produce.

- ii. Would this Draft propose that California should expect a 90% improvement in a 98% compliance rate--a 0.018% improvement?
- iii. Distinguish between illegal and legal residue?

c. Offer specific ideas your contacts had to improve or build on this goal.

- i. Need to specify California grown or all produce.
- ii. What is the enforcement mechanism?
- iii. Maintain current CA-product compliance rate and pursue a 90% residue reduction in non-domestic products.
- iv. Should test more produce to find out if food is safe to distribute.

V. "90% reduction in the use of a yet-to-be-defined group of pesticides"

a. Describe what your contacts agreed with or saw value in regarding this goal.

- i. Elimination of low efficacy pesticide products such as bug bombs
- ii. A major reduction of pesticides is critical.
- iii. Many concerns are addressed with newer pesticide registrations.
- iv. Reduced risk pesticides are not defined in the Roadmap. The U.S. EPA has been very loose with this category. DPR has been more restrictive which is commendable and should be maintained.

b. Share the concerns your contacts had with this goal or to highlight what your contacts felt was missing from this goal.

- i. Requires a clear definition.
- ii. Lack of easily accessible information for users to find non-chemical control methods
- iii. The feasibility of 90% depends on the targeted chemicals.
- iv. Cannot support a goal of 90% reduction in use of pesticides. That goal is an arbitrary number and does not reflect a lack of alternatives.
- v. Must focus on risk, not just hazard. Should take into account existing risk assessment processes.
- vi. Must consider hazard, in alignment with the precautionary principle.
- vii. Need to define statistics.
- viii. Need to consider a wide range of impacts (human health and ecosystem, compliance with other environmental laws)
- ix. Will requirements result in less economic incentive to register new pesticides?
- x. Softer chemistries are used more frequently than conventional chemistries. Need a discussion of tradeoffs.
- xi. This coalition does not support a use reduction goal, regardless of pesticide class, particularly in the absence of any criteria. Goal does not reflect broader regulatory structure.
- xii. Clarify that reduction does not mean banning pesticides.
- xiii. Support inclusion of Prop 65, as those pesticides have undergone stringent scientific review.

- xiv. Ambiguity is problematic.
- xv. Need input from growers on what pesticides will be targeted for reduction.

c. **Offer specific ideas your contacts had to improve or build on this goal.**

- i. Too open ended – consider new pesticides as registered.
- ii. More outreach to point of sale sites, education opportunities in high schools and colleges
- iii. Consider the context of a pesticide’s use in making decisions.
- iv. Highlight where significant progress has been made.
- v. Use hazard lists / start with a hazard-based approach, as a way to prioritize replacement pesticides.
- vi. Consider an authorized materials list of pesticides.
- vii. Consider specific reductions based on certain classes (eg, 50% reduction in synthetics by 2030; 100% reduction in neonics by 2030; 50% reduction in RMs and TACs by 2030, 75% by 2040; elimination of all pesticides not on “National List of Allowed and Prohibited Substances” under organic regulations by 2050)
- viii. 25% reduction in fumigants by 2050 is reasonable.
- ix. Evaluate the goal periodically.
- x. Ensure new products that are hazardous as not registered.
- xi. Require DPR to register alternatives to 90% of the “high risk” products by 2050. As a part of this goal, DPR should develop a model for risk reduction, like the model used for groundwater monitoring, and identify “high risk” products through this approach.
- xii. Clarify goal for a 90% reduction in pesticide use where there are multiple effective, affordable, and available alternatives.
- xiii. Need to consider broader use of biocontrol.
- xiv. Reference signal words to define.
- xv. Consider exceptions for invasive species.

VI. “A significantly expanded health and environmental monitoring infrastructure that enables accurate metrics for all of the above.”

a. **Describe what your contacts agreed with or saw value in regarding this goal.**

- i. Support an expanded state-wide environmental monitoring infrastructure, including urban areas.
- ii. DPR and other agencies with responsibility for monitoring and ensuring public and environmental health are conducting the appropriate level of monitoring to protect the public and the environment.
- iii. Monitoring is an excellent idea to tell us which pesticides are affecting health.

b. **Share the concerns your contacts had with this goal or to highlight what your contacts felt was missing from this goal.**

- i. Clarify that this goal should include urban areas.
- ii. Concern is how to measure the health and environmental monitoring.

- iii. Human and animal health benefits should also be monitored. (i.e. the cost of SPM implementation might be covered by savings in healthcare costs)
 - iv. It will be difficult to monitor water, air, and land over large areas.
 - v. Need to describe what needs to be changed in existing monitoring systems and why.
- c. **Offer specific ideas your contacts had to improve or build on this goal.**
- i. Link to existing monitoring programs (state and local level, eg including POTW networks)
 - ii. This will need to be developed on a community-by-community basis with majority voices stemming from impacted communities.

VII. “An expanded biosecurity and pest prevention program that has succeeded in proactively preventing the establishment of new invasive species.”

- a. **Describe what your contacts agreed with or saw value in regarding this goal.**
- i. Prevention is the key to keep new and current invasive species out of California.
 - ii. Economic impact of this goal is high.
 - iii. Applaud the proposal to expand pest exclusion and prevention.
 - iv. Challenging to accomplish, particularly with the globalized economy pests are finding their way into the US more easily.
 - v. Invasive, non-native weeds and other pests pose a significant threat to biodiversity; prevention is key to addressing this.
 - vi. Highest priority area
- b. **Share the concerns your contacts had with this goal or to highlight what your contacts felt was missing from this goal.**
- i. Specifics on how to implement this program in a way so as not to overly burden those involved
 - ii. The use of the word “prevention” is confusing here because the word is also used elsewhere with regard to pest-proofing in urban areas
 - iii. Underfunded and understaffed for decades.
 - iv. Need improved protocols and response.
 - v. Eradication is not a realistic goal; should focus on reducing pest populations below a certain level.
 - vi. Increasing biosecurity needs to be at the center of this effort; biodiversity is at the core of resilient agroecology. can impact goods movement and threaten ag viability.
- c. **Offer specific ideas your contacts had to improve or build on this goal.**
- i. Expand and fully staff border inspection check points, expand point of sale site inspections, in collaboration with multiple agencies.
 - ii. Find a different word than prevention, such as “mitigation” or “preparedness”

- iii. Include response and recovery plans from new and introduced invasive species either through natural or intentional introduction.
- iv. Include public education.

VIII. “Every farm, regardless of crop type or size, has equal and adequate access to the support and resources necessary to develop and implement their own SPM system in a way that effectively manages pests, minimizes adverse impacts to humans and the environment, and is economically viable for both farmers and consumers.”

a. **Describe what your contacts agreed with or saw value in regarding this goal.**

- i. Clearly recognize that SPM incorporates IPM, which is already extensively used, under a bigger umbrella that integrates California pest management (pest prevention and eradication) and urban pest management.
- ii. The focus on inclusivity of resource distribution is highly valued

b. **Share the concerns your contacts had with this goal or to highlight what your contacts felt was missing from this goal.**

- i. Reframe the negative perception of agriculture and highlight existing work using language such as “continue to make strides toward”
- ii. Eligibility of state support needs to focus on historically underserved and marginalized producers, rather than entities that are already able to self-supply these resources.
- iii. The program needs to be equitable no matter the size of the crop type or size. Also, no matter the farm type or size.
- iv. Will be challenging, if not impossible, to measure due to lack of specificity of what is SPM
- v. Goal should also specify maintenance of yield and crop quality, esp. re. food security

c. **Offer specific ideas your contacts had to improve or build on this goal.**

- i. Better reference that this builds on existing systems.
- ii. Clarify that this document is to promote the SPM practice and education and not to introduce more regulation to the farming industry.
- iii. Set goals for ensuring that pest management tools will be provided or increased as the result of implementing the Roadmap.
- iv. Equitable distribution of resources, starting first with BIPOC, LGBTQIA+, and small farmers. A cap based on Adjusted gross income may be helpful.
- v. Several farms have conservation programs in place to manage benefits to wildlife. Without the crop, the wildlife would not thrive. There could be a connection to wildlife management and the SPM through communication and coordination with the entities involved.
- vi. The WG should add “maintaining yield” and “crop quality” in the conclusion of this goal.

- IX. "Sustainable pest management practices are being implemented on 90% of farms and at least 90% of crop acreage in California."
- a. **Describe what your contacts agreed with or saw value in regarding this goal.**
 - i. I agree with the broad goal of moving pest management practices in a sustainable direction, but totally disagree with the way it is presented here.
 - ii. Support implementation; want to consider organic adoption as well.
 - iii. Builds on existing practices.
 - iv. Agree, and many come from Mexico and the south with a lot of wisdom about removing pests safely
 - b. **Share the concerns your contacts had with this goal or to highlight what your contacts felt was missing from this goal.**
 - i. Challenge to define a universal definition/litmus test for SPM usage.
 - ii. Arbitrary, unmeasurable metric as a systems approach.
 - iii. 2050 is too far out
 - iv. Sustainability is not a clear definition.
 - v. Nothing is missing, except wondering how it will be funded.
 - vi. Does this include rangeland and fallowed land?
 - vii. Concern about how progress will be measured
 - c. **Offer specific ideas your contacts had to improve or build on this goal.**
 - i. May need to be more indirect, such as incorporating SPM principles into specific programs.
 - ii. Recognize that many farmers are already stewards of the land.
 - iii. Suggest the recommendation read "SPM is adopted as the de facto pest management theory for California farming"
- X. "All California residents have equitable access to information and resources necessary to understand and effectively implement SPM."
- a. **Describe what your contacts agreed with or saw value in regarding this goal.**
 - i. Makes for a healthier environment, less impact on resources, creates a better educated population who will prevent pest issues before they occur
 - ii. Applaud educating and regulating non-licensed users.
 - b. **Share the concerns your contacts had with this goal or to highlight what your contacts felt was missing from this goal.**
 - i. A reliable and consistent source of information on the subject is necessary to support the goal.
 - ii. Go beyond language translation on pesticide labels.
 - iii. Consider cost effective control in urban areas.
 - iv. How will outreach be conducted to all Californians?

- v. This is very vague. What information does it pertain to? Who is the audience? Where is it presented?
 - vi. The urban pesticide users are not regulated the same as agriculture. Several urban users do not read the label or use products in excess of the label directions.
 - vii. Master Gardener training should also be updated with SPM.
 - viii. Residents should understand their responsibilities to act in a manner that doesn't undermine or negatively impact their farming neighbors.
- c. **Offer specific ideas your contacts had to improve or build on this goal.**
- i. More outreach including college and industry training
 - ii. There needs to be a public-private partnership in order to reach all Californians. All languages utilized in California must be used.
 - iii. Increase education of the public that want to apply chemicals on their properties and near sensitive sites.
 - iv. Some mention of urban pesticide user should be added to the goal. Otherwise the goal appears to be linked to pesticide notification.
 - v. This should include information for buying SPM produced goods as well as how to manage pests in urban environments.
 - vi. The state should improve information sharing and tools to identify and report invasive pests and diseases to the state/county agricultural commissioner.

Advancing SPM in Ag and Urban Settings

- I. "Update California's pest prevention and exclusion systems."
- a. **Describe what your contacts agreed with or saw value in regarding this focus area.**
- i. Expand staff and training to local ag commissioners, provide enforcement actions that would deter those who do not comply.
 - ii. Important focus area, should be a top priority
 - iii. Applaud Expansion of pest exclusion and prevention
 - iv. The document does not provide sufficiently clear separation between pesticide use for pest eradication efforts as a part of preventing establishment of invasive pests and pest management for established pests."
 - v. Restoring and bolstering funding to detection programs. Funding innovation for detection. Engaging growers in biosecurity. Funding HRPE sounds good. Prioritizing interdepartmental collaboration and communication. Enhanced interpretation for the public. It all seems reasonable based on the amount of information provided.
- b. **Share the concerns your contacts had with this goal or to highlight what your contacts felt was missing from this focus area.**

- i. Using the word “prevention” here is confusing because it is used elsewhere in the document for a different context.
- ii. Urge review of specific details of CDFA’s program.
- iii. The timelines are too distant. All goals must be between 2025-2030. Eradication is rarely a reasonable goal, therefore the emphasis instead should be on preventing pests and when necessary, managing pests below economic thresholds.
- iv. Continue to increase the budget in CDFA Pest Exclusion programs on crop imports, post office locations, FedEx locations, UPS locations, etc.
- v. We are concerned about what appears to be a complete separation between urban pest control practices and agriculture.
- vi. Consider the impacts of fallowing.
- vii. Biodiversity monitoring requires baseline inventories and then ongoing monitoring.

c. Offer specific ideas your contacts had to improve or build on this focus area.

- i. More funding at local level increase training for industry provide incentives to industry to comply
- ii. Use substitute language
- iii. Include a quantifiable percentage.
- iv. An assessment of existing online/software resources needs to happen prior to the development of new technological apps, etc.
- v. Increase "Fine" options to if importers continue to bring in problem shipments.
- vi. The WG should address the need for the emergency use of pest control tools, including by the state, in eradicating pests in urban settings so they do not impact agriculture. The report provides support for more “Farm-Scale efforts,” but does not call for more urban population education. We recommend language be added that recognizes the importance of urban populations to participate.
- vii. While the original appropriation to CDFA was \$33 million, we believe this recommendation should be expanded to reflect value in 2022 dollars.
- viii. Change state efforts timeline from 2030 to 2025. Change farm-scale efforts timeline form 2040 to 2030. Suggest replacing "prevent and eradicate" with "prevent further proliferation" in state efforts goal.
- ix. Consider existing technological tools.
- x. Develop and further invest in the CA Biodiversity Institute’s new DNA barcoding technology which gives us powerful tools for using environmental DNA (eDNA) to survey and monitor.

II. “Improve California’s pesticide registration and continuous evaluation.”

a. Describe what your contacts agreed with or saw value in regarding this focus area.

- i. Improving the registration and review process would hopefully discover and remove products that have significant impacts on resources and public health
- ii. Happy to see language about fast-tracking safer alternatives and the annual report proviso on suggested re-evaluations

- iii. Strongly supports the intention to improve the registration and re-evaluation processes.
- iv. Prioritizing finding alternatives to high risk pesticides.
- v. Coordinating with EPA and streamlining the review process.
- vi. Including guidance on resistance management when reviewing registrations.
- vii. Improving DPR's registration process, next to recommendation #19, is one of the most important ways to facilitate the adoption of SPM.
- viii. Support a greater number of concurrent reviews with U.S. EPA, where possible, and support additional resources to be provided to identify alternative chemistries.
- ix. Regarding continuous evaluation, DPR's system should be constantly evolving based on new scientific findings and protocols that can be applied in a regulatory setting.
- x. Inefficiency of reviews have kept new products out of the market, leaving fewer options for California growers and applicators to effectively control current and emerging pest pressures, and resistance management.
- xi. I like that the report acknowledges that the historic practice of assessing new products against a long-established industry standard cocktail of chemicals is counter-productive to advancing SPM.

b. Share the concerns your contacts had with this goal or to highlight what your contacts felt was missing from this focus area.

- i. California's registration process is already the most rigorous in the world.
- ii. Funding to support this goal – long and expensive process.
- iii. No representation of an expert in pesticide registration
- iv. Must consider urban use patterns and transport pathways.
- v. Need more description on how to deregister hazardous, unnecessary products, particularly for urban retail.
- vi. Focuses on registered pesticides – what about non-pesticide alternatives?
- vii. Removing tools will impact growers and rural communities.
- viii. Need to affirm the necessity of thorough evaluation.
- ix. US EPA reduced risk category insufficient; DPR currently has an appropriately higher bar for review that should be maintained.
- x. Removing efficacy requirements could lead to approval of products that don't work.
- xi. Disclose the number of registered products each year grouped by agricultural versus consumer use products.
- xii. US EPA reevaluation process is ongoing and sufficient.
- xiii. Recommend that the workgroup reconsider this recommendation and instead encourage the adoption of all new low-risk products, practices and technologies and not try to artificially direct where those new products will come from; concern about incentivizing development from small organizations given capital needed to get products to market.
- xiv. Include timeline commitments for review for RMs, water contaminants, and TACs, and timelines to review 4(a), 25(b), and biologically-based products.
- xv. Include timeline commitments for registration review, similar to federal PRIA program.

- xvi. Do not agree with bifurcated system; DPR should improve registration for all products. Needs to be comprehensive.
- xvii. Definition of high risk or low risk is challenging.
- xviii. Annual reports should not lag significantly due to complex data analysis; release needs to be streamlined to stay current.

c. Offer specific ideas your contacts had to improve or build on this focus area.

- i. Increase registration fees and possibly create a "user" fee to adequately fund this.
- ii. Expedite evaluation and re-evaluation of pesticides that have been scientifically linked to aquatic toxicity in wastewater effluent and other urban concerns.
- iii. Suggest adding additional urban considerations to the "Priority Actions", such as different application surfaces, impacts to water pollution, and other impacts.
- iv. Employ a precautionary approach when "fast tracking" alternatives to high-risk pesticides and identifying "reduced risk alternatives"
- v. Timelines should be more aggressive.
- vi. Registration should consider cumulative burden borne by agricultural communities.
- vii. Include in DPR prioritization system. Assign staff resources and develop a streamlined process for product removal.
- viii. DPR needs to install a specific time-bound process for each step of pesticide registration. This should include both new, low-risk, and a re-evaluation process for pesticides already registered and in use. This should be able to be executed without additional, but with a shifting of, resources.
- ix. If removing efficacy requirements, need to identify how to address crop losses resulting from use of those products. Also consider how efficacy is evaluated.
- x. Specify initial priorities for high risk pesticides.
- xi. Risk assessments should build on US EPA work.
- xii. Expedited review of a narrow focus on one segment of pesticides is a missed opportunity to improve the system more generally.
- xiii. Expedited process to remove specific urban products directly linked to problems.

III. "Strengthen coordinated SPM leadership structures."

a. Describe what your contacts agreed with or saw value in regarding this focus area.

- i. General support for collaboration and coordination across relevant state agencies.
- ii. A properly-resourced and -coordinated effort is key to success.
- iii. Support the regional collaboration efforts as being critical for farmer transition to SPM and needs to be given greater priority. Much research has been done on the efficacy of peer-peer learning of agriculturalists.

b. Share the concerns your contacts had with this goal or to highlight what your contacts felt was missing from this focus area.

- i. The creation of the multistakeholder group is critical but needs refining. Expanding the role of the existing PMAC is not appropriate.
- ii. Consider unique needs in different settings (eg, urban and agricultural).
- iii. Prioritize SPM education over penalty-based pesticide enforcement
- iv. County Ag Commissioners are not explicitly included, and/or not clearly communicated.
- v. Request equal representation of stakeholders on SPM committees.
- vi. Clarity around definitions will help with implementation.
- vii. Do not support additional regulatory authority for DPR or an expanded role.
- viii. Need greater transparency in current DPR funding and staffing.
- ix. Ways in which co-benefits among leadership entities will be recognized, evaluated, and communicated, especially the economic implications of this, are not thoroughly discussed.

c. Offer specific ideas your contacts had to improve or build on this focus area.

- i. Need an explicit role for other state agencies that regulate areas impacted by this roadmap.
- ii. Need to define relative roles - some of the suggestions in the roadmap are more appropriate for CDFA to lead than DPR.
- iii. Need dedicated resourcing to support multi-stakeholder group's decisions (esp. scientific basis). Group should include a charter.
- iv. Include more resources for urban use.
- v. Need to better include local groups organizing to solve big issues.
- vi. Pest management strategic plans are good – how to include PCAs and conventional industry.
- vii. Require publicly funded regional insectaries, that must coordinate in SPM for parks, community and school gardens, and street trees.
- viii. Reference other initiatives (EO 82-20, 30x30), the importance of biodiversity, and that addressing exotic species with a range of tools is critical to achieving these objectives.
- ix. Strongly recommend separate urban and agricultural work groups that will have vastly different stakeholders to respond to vastly different priorities and research needs.
- x. Prioritizing compliance from private businesses and citizens is challenging, but important! It might be worth explicitly stating how this would be achieved.
- xi. Regional pest management could include SPM field scouts, and should include CSU and community colleges.
- xii. Need to consider overlapping state priorities.
- xiii. Support the idea of a State Lands Working Group to support opportunities and challenges of implementing SPM.

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IV. "Enhance knowledge, research, and technical assistance."

a. Describe what your contacts agreed with or saw value in regarding this focus area.

- i. More county extension agents needed, more research from universities needed on various pest issues.
- ii. Generally supportive, and recognize significant cuts in previous years.
- iii. Support strong inclusion of community colleges; Cooperative Extension
- iv. Support BIFS funding.
- v. Framing of introductory paragraph should recognize TA transition is to support move toward biological input and biodiversity-based farming.
- vi. Support enhancing resources to expand public and private capacity for SPM and agriculturally necessary research.
- vii. Creating a clear and accessible educational, career and training pathways to becoming a licensed PCA through UC/CSU capacity building. .

b. Share the concerns your contacts had with this goal or to highlight what your contacts felt was missing from this focus area.

- i. Need to recognize that many currently used practices do not have sustainable alternatives, and that this takes significant time.
- ii. Research needs to be farmer led, rather than researchers engaging and integrating farmers.
- iii. Neither a tripling of the current SPM-trained farm advisors, nor a doubling of 2021 funding levels will be sufficient to install the substantial increase of TA providers to reach the 2030 goals stated above.
- iv. There currently is a shortage of Farm Advisors to cover all crops in CA and meet the basic needs for growers. SPM could be a component of the Farm Advisor training.
- v. Need to consider all pests (rather than insect pests which are currently overly emphasized), particularly new invasive weeds which threaten ecological health and biodiversity.
- vi. Flag: Suggestions for wholesale rewrite of framing of introduction and priority action A made.
- vii. An action such as tripling the number is meaningless at this phase.
- viii. Public and private research must be complimentary; need more detail on the public-private research foundation proposed.
- ix. Funding levels for peer-to-peer networks are too low, and timelines are too short.
- x. Chemical pesticides are not alternatives; need a greater emphasis on non-chemical alternatives.

c. Offer specific ideas your contacts had to improve or build on this focus area.

- i. Increase grant cycles – current timeline is insufficient.
- ii. Increase funding to universities and ag commissioners

- iii. Support biologicals, new technology, and indigenous-knowledge-led initiatives: Consider a new technology support for GE-crops with tolerance to abiotic and biotic stressors.
- iv. Build extensive consulting force through cooperative extension.
- v. Reinstate interdisciplinary, multi-campus, well-funded commodity-based work groups.
- vi. Need for specific attention to Improved application technology (e.g. drones); Agronomic practices; Biocontrol; Plant breeding (resistant plant varieties); Healthy soils; Nature based solutions (NbS); Regenerative ag; entomology (include monitoring of ecological communities, including biodiversity metrics and ecological food webs/networks)
- vii. Put more money into the UC Cooperative Extension program that supports agriculture in California be more "sustainable" in their livelihoods.
- viii. We recommend investing in research on pest thresholds, more frequent updates to the UC IPM guidelines, and translating the UC IPM guidelines into Spanish.
- ix. Ask for collaborations with USDA and ag experiment station faculty to try to develop strategies for managing pests that don't rely on pesticides; have CDFA integrate grower success stories.
 - a) Flag the problem that the materials don't work well or at all.
 - b) Suggest revitalizing statewide spray training and calibration programs. Incentivize tech companies to develop better spray technology for permanent crops.
 - c) Add staff support for existing CE personnel, and ensure new funding is ongoing, not one-time.
 - d) Build weed science expertise in the Central Valley waive continuing education fees for UC to hold continuing education meetings to help the license holders.
 - e) Be sure to acknowledge historical knowledge by farmers as comparable knowledge from Indigenous populations
- x. TA should integrate research and traditional knowledge, and be tailored to help farmers at different stages of transition. Carry out a (brief) analysis of existing staff and funding capacity to clearly understand the gap to be funded.
- xi. Increase leverage for significantly better funding to WMA's.
- xii. Train UC Farm Advisors and all licensed agricultural advisors in monitoring and identification of pest and natural enemy populations and assessment of biological control as a ratio of natural enemies to a key pest that may result from the intervention with habitat enhancement, cultural practices, and/or tools that increase the natural enemy to pest ratio to suppress the pest below economic injury levels and in monitoring for disruption of biological control by biological as well as synthetic chemical pesticides whether intended, or through drift or fog-born movement, certain ants, invasive species and concomitant 'eradication' programs, cropping practices with low diversity, cultural practices, and other impacts that help or disrupt biocontrol.
- xiii. Learning support tools need to include (1) knowledge bases integrating science and experience, and (2) model-based game approaches that will teach the "effects of agroecological practices on biodiversity and ecosystem services." (Duru, et al (2015), p. 1275). Page 31 Launch a public-private SPM Foundation: It seems sketchy to plan for such an entity to be a funnel

for federal funds unless it's guaranteed to meet the criteria for transparency and inclusion. Ensure science centered on public good not profit. .

- xiv. Identify an investment range for Alliance grants, as a range is identified for BIFS grants. Share results of these projects in a culturally competent manner with farmers, making a business case—reducing costs, reducing inputs, improved marketing potential, etc. Peer to peer networks can best be expanded by using existing trusted networks like trade association, commodity groups, not building new ones. Technological responses generated by UC and other research entities should be highlighted and enabled (laser weeding, autonomous tractors, app-based systems for monitoring and schedules).
- xv. Edits suggested to the intro paragraph. We also suggest all timelines in the "enhance extension and education" goal should be 2030. Regarding UC farm advisor and research extension funding: timeline is needed for this increase of TA funding. Neither a tripling of the current SPM-trained farm advisors, nor a doubling of 2021 funding levels will be sufficient to install the substantial increase of TA providers to reach the 2030 goals stated above. A cursory inventory of UCCE advisors indicates there are fewer than 10 specialized IPM TAPs across the state. A doubling would not even cover one advisor per county. A recommendation is to do a (brief) analysis of existing staff and funding capacity to clearly understand the gap to be funded. For leveraging university capacity for SPM education: This needs to include training programs for farmworkers who are interested in transitioning to SPM work such as pest level scouts. With regard to the SPM research foundation, there is already ample funding for chemical technologies. However, the other identified areas are in need of an increase of research funding.
- xvi. For Farmer-to-Farmer Learning: it will be beneficial to engage crop and/or scale-specific growers (e.g., citrus growers or small-scale diversified growers) to evaluate how SPM can be ideally practiced for these different crops at these different scales. A model to emulate for this is the Lodi Rules program. We suggest some sample piloting of specific working groups as realistic tests of Roadmap alignment . Need more specifics for means to support small-scale growers and disadvantaged growers. For Outreach: Add a need for a communication plan relative to emerging low risk solutions. One plan could be to prioritize investment and communication about economical and effective low risk solutions in extension events by UCCE and other extension agencies. In particular, extension about biological control should be prioritized.
- xvii. More details on what the UC and CSU systems, in partnership with growers and industry, can be doing to conduct true IPM or SPM research will be important. It shouldn't be an us (chemicals) vs them (biologicals) paradigm. In fact, true SPM research and deployment likely would extend the commercial shelf life of many chemicals via reduced chemical loads in the environment (hazard x exposure) and resistance management. Adding some examples of such success stories would be good. MBI has been involved in some of this "bio-unite" strategies, e.g. Grandevo integrated into a long-standing chemical program to reduce pesticide residues and to manage resistance in the control of SWD in berries (IR-4 research) and using Venerate as seed treatment to control nematode and insect pests in corn, cotton and soy, replacing abamectin as a nematicide and reducing the use of neonics as an insecticide.

V. "Align Pest Control Advisors with SPM."

a. Describe what your contacts agreed with or saw value in regarding this focus area.

- i. Many pest management decisions are made by Pest Control Advisers, aligning them with SPM will greatly increase the odds of them adopting SPM goals
- ii. The separation of sales and services for PCAs would be a significant change to the system.
- iii. Suggest a certification or CE units for SPM
- iv. Supportive of overall goal.
- v. Requiring all PCAs to become trained in SPM is a priority action. Need more 'alternatively minded and freshly educated specialists' for non-toxic innovation to be utilized. Basic training on which insects are beneficials is required.

b. Share the concerns your contacts had with this goal or to highlight what your contacts felt was missing from this focus area.

- i. Educating PCAs is fine, but keep in mind the practices have to be economically feasible to growers.
- ii. No incentives for Pest Control Advisers to adopt SPM, additional work for those who do
- iii. Need to make sure applicators are competent for applying restricted use pesticides.
- iv. Training and additional certifications will not address conflict of interest relative to financial compensation of PCAs. PCAs should be prohibited from receiving commissions.
- v. Disagree with allegations that PCA recommendations are based on products over service. The entire PCA relationship with farmers is based on long-term service, not sales. All recommendations made, regardless of employment, must be science-based.
- vi. Release of information about who compensates is a violation of privacy. The SPM report recommends that PCAs be incentivized to promote SPM by 2030. Incentivized how? We ask for clarification on what this means. The SPM would require a new category to be added to the PCA license.
- vii. Rather than a new category to the PCA license, should broaden flexibility of CEUs. Need to address how currently licensed PCAs would come into compliance.
- viii. Previous addition of a biocontrol category by DPR was unsuccessful due to strong opposition of stakeholders.
- ix. There needs to be a focus on understanding ecological principles, interactions and population dynamics of beneficial and pest species, as well as the role of and how to measure farm biodiversity.
- x. Include PCAs as active and respected players in the information pipeline especially in the area of field research, educational programs, and individualized grower assistance and follow up.
- xi. Need clarity on whether this is a requirement or optional, and better clarity on incentives.
- xii. Support increased innovation and knowledge for SPM for PCAs; expansion beyond this group must be considered in light of Federal requirements.
- xiii. Additional Actions, Item C: Not accurate that a comprehensive document covering all chemical, biological, and cultural approaches is a current gap in the system. UC IPM has put out Pest Notes for decades that include biological, cultural, mechanical, and chemical options to manage pests, although improvements can always be made.

- xiv. Proposed changes make it harder to get CE, and take away the incentive to stay up-to-date.
- xv. Recommendations by a licensed PCA (including a site review) are prohibited from being performed virtually.

c. Offer specific ideas your contacts had to improve or build on this focus area.

- i. Provide incentives to Pest Control Advisers to adopt SPM
- ii. Add a habitat management category to licenses
- iii. New category for CE should include a focus on ecological principles, population dynamics of beneficial and pest species, and role of farm biodiversity.
- iv. Add need to consult with SPM educators/entomology professors in designing CE course content and PCA exams.
- v. Pest Control Advisers should be prohibited from receiving commissions for selling pesticides.
- vi. Add more flexibility to approved educational courses.
- vii. Recommend the WG consider the new license category be voluntary, for PCAs only and that SPM continuing education be incorporated into the existing requirements.
- viii. Make all course material for PCAs (during relicensing or otherwise) available free of charge and expedite resources for testing sites and coursework offerings, and consider ways to address weak test takers and current PCAs with lived experiences contributing to their relevance.
- ix. Specifically call out organic agriculture as something to be promoted by PCAs.
- x. Suggest mentorship program for SPM PCA.

VI. [“Reduce economic risks for growers transitioning to SPM.”](#)

a. Describe what your contacts agreed with or saw value in regarding this focus area.

- i. Agree that the success of implementing SPM recommendations is assuring that farmers are not negatively impacted financially and that they are not burdened with additional regulatory mandates.
- ii. We appreciate the acknowledgment of the challenges CA growers face. However, no grower succeeds today with a "business as usual" mindset.
- iii. Goal 2 could be valuable and Goal 3 is excellent. Goal 1 not.
- iv. We appreciate the WG and Department’s recognition that risk is inherent in farming and more prevalent when instituting change. The state should lead through demonstration and strongly support an SPM requirement for public land management. We agree that a “carrot” approach is the most expeditious and efficient means to influence change.

b. Share the concerns your contacts had with this goal or to highlight what your contacts felt was missing from this focus area.

- i. California should not establish a goal like assuring that “by 2030 every farmer in California has access to a suite of effective and feasible alternative pesticides” until these tools are actually registered by DPR, and agricultural institutions and UC CE are fully funded. Higher impacts in first several years, and input costs in CA can be double those in other states.

- ii. Economic risk is on a continuum; current practices to spray regardless of a need is problematic.
- iii. Covering the cost of lost yields may not be the full costs incurred from transitioning to SPM. Failure to fulfill buyer expectations threatens the viability of long-term contracts, employee retention, and commodity pricing.
- iv. Many farmers may already be conducting SPM in all but name only, and if they cannot show demonstrable changes from current practices, they may not be eligible for assistance. It is important to find a pathway for all farmers and offer rewards where warranted.
- v. Need to consider aligning with existing agricultural programs, including crop insurance, some of which require attending to pest issues immediately. The California Insurance Commissioner does not engage in agricultural loans or tax deductions, but rather could be the State Treasurer or iBank, if at all. SPM practices would need to demonstrate a greater profit or return on investment for loan to be repaid. This draft contradicts the rules of the crop insurance system. Federal crop insurance does not cover losses if farmers do not take adequate action/precautionary measure to mitigate against pests and diseases or pest presence. Also, discretion is held by the adjuster. Failure to attend to pest issues immediately would make farmers ineligible.
- vi. Goal 1 should be: By 2030, every grower in California has access to a suite of effective and feasible alternatives to all synthetic pesticides.
- vii. We suggest building out a more clear framework for SPM incentives, conducting an early pilot, and making sure that the incentive programs are easy to access and are not overly burdensome.
- viii. Will this financial support and incentives be industry funded through mill or will the state seek non-grower funded source?
- ix. Concern that the state agency goal is too aggressive, given the baseline is not well defined and state contracting/budgeting may not allow for this rapid of a transition.
- x. Connecting financial compensation for yield reductions due to SPM does not makes sense. If done correctly, this should improve financial status.
- xi. Achieving 100% IPM on state lands by 2030 is daunting for land management, particularly without an operational definition of SPM. Need to consider health and safety, availability of alternatives, and other environmental impacts/tradeoffs.
- xii. Non-agricultural state-owned land is typically natural lands, which seems to be outside of the definition of the roadmap. Given the many differences between agricultural or urban applications and those on natural lands, the Roadmap should better consider those systems before adding requirements.

c. Offer specific ideas your contacts had to improve or build on this focus area.

- i. There are three kinds of SPM definitions needed: 1) Descriptive, 2) Operational - program level and 3) Operational -field level. (1) is provided earlier; the other two are not provided but are critical. A program-level definition would be used to review grant proposals, for designing the SPM Transition Initiative, for reviewing/modifying the state's public lands policies, for fleshing out land tenure incentives, guiding research programs, and possibly (?) for identifying investment opportunities. A program-level definition would likely take the form of a checklist, along with necessary caveats and exceptions, that can be used by various committees or agencies in their reviews of projects. Field-level SPM definitions present a big challenge: There is no one-size-fits all definition that can be used.

- vii. We believe that the Draft should state emphatically that these costs should not be borne by farmers but rather be public costs.
- ii. Financial assistance to facilitate SPM transition needs to be targeted, temporary, and not duplicate Federal programs.
- iii. By 2030, 100% of lands owned and leased by the State of California implement SPM, 30% of which are organic. By 2030, 30% of all CA agriculture is organic.
- iv. There needs to include a pathway for the State to restore land access and autonomous tenure to Indigenous communities for land stewardship and cultural and traditional practices.
- v. The goal for public lands under SPM should be more explicit to require, rather than promote, SPM on public land by 2030.
- vi. Include an “out clause” included to respond to immediate and relevant pests and diseases.
- vii. Consider grant or cost-share programs to support the purchase of new technologies.
- viii. We urge the working group to encourage large-scale investment in enhancing existing organizational, research and extension infrastructure.
- ix. It’s critical that Resource Conservation Districts be a primary source of Technical Assistance.
- x. More details on how information on these incentives and financial safety nets will be disseminated and eligibility is needed. Eligibility should include lessees and have a Adjusted Gross Income cap.
- xi. Regarding Goal 3: By 2030, 100% of lands owned and leased by the State of California implement SPM, 30% of which are organic. Add goal 4 of: By 2030, 30% of all CA agriculture is organic.
- xii. FFAR and USDA have a project titled "Advancing 21st Century IPM" to develop comprehensive IPM policy and programming, and develop a public-private partnership to support the transition to and adoption of more sustainable agricultural practices.
- xiii. Recommend state lands goals, which cover areas beyond agriculture, be set by a convening of state agencies.

VII. “Activate markets to drive SPM.”

- a. **Describe what your contacts agreed with or saw value in regarding this focus area.**
 - i. This focus area can be a powerful force in moving the state’s practices in the right direction.
 - ii. Establishing and enacting purchasing criteria will essential
 - iii. We support the supply of healthy food choices for state run institutions. The goal seems conflicted by forcing the market to drive SPM and then adding farmworker and environmental protections.
- b. **Share the concerns your contacts had with this goal or to highlight what your contacts felt was missing from this focus area.**
 - i. The goal for expanding SPM in retails markets, suggesting that SPM will become a commonplace term or branding, is unrealistic and should not be the goal.
 - ii. There are already an overwhelming amount of sustainability certification labels. The purchasing criteria should not attempt to create a new labeling system, nor compete with the organic market.

- iii. Many consumers will move to lower priced out-of-state or foreign products if SPM goals result in unfunded mandates that impact California farm prices.
 - iv. How would farmers, wholesalers or aggregators submitting bids on contracts demonstrate they are producing or sourcing in accordance with SPM if it is a set of principles or theories that exist on a spectrum?
 - v. The interim procurement standards can't just include certification programs, as they are pay to play, and many small and BIPOC farmers cannot afford the certifications but do some of the practices.
 - vi. The criteria should encompass a spectrum of SPM, including organic agriculture. The criteria should also not compete with the organic market.
 - vii. Many K-12 schools serve students prepackaged, precooked meals due to the lack of kitchens in schools districts. Must increase capacity of schools to purchase whole foods.
- c. **Offer specific ideas your contacts had to improve or build on this focus area.**
- i. Delete the retail markets goal. It is just not doable in many ways.
 - ii. Center organic agriculture, an existing and proven systems-based holistic solution, in the "Activate Markets" strategy, including a goal for steadily increasing organic acreage, and in the design guidance.
 - iii. The criteria should encompass a spectrum of SPM, including organic agriculture.
 - iv. The SPM implementation needs to remain optional.
 - v. The WG should set a target to increase California-grown commodities state purchases by 50% and then increase California and SPM grown by a higher percentage.
 - vi. The state should empanel a multistakeholder group to evaluate broader barriers to access for California farmers in the state procurement system. This farmer-led group should include distributors, processors, wholesalers, state agency representatives, etc.
 - vii. The Department, or another agency, evaluate and report out the true cost differential between producing SPM and non-SPM agricultural commodities. Such information can be helpful to inform an appropriate bid preference amount.
 - viii. Consider including a reference about certified organic production, and having conventional producers transition to certified organic.
 - ix. Consider adding a requirement for Department of General Services to purchase as specified percentage of CA certified organic products in their bidding contracts, as well as for school food procurement, and include language within purchasing standards and any related areas.

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VIII. "Enhance data collection."

- a. **Describe what your contacts agreed with or saw value in regarding this focus area.**

- i. Improving data collection for non-agricultural pesticide use is a very attainable and powerful goal
 - ii. Non-agricultural pesticide use represents about 80% of all use in the state, yet little is understood about unlicensed urban use.
 - iii. Support expansion of PUR and sales databases. One of the most important recommendations in the entire document
 - iv. I think the biggest issue that CA has when it comes to pesticide uses is the over counter sales.
 - v. Strong support for obtaining and analyzing data to characterize urban pesticide use.
- b. Share the concerns your contacts had with this goal or to highlight what your contacts felt was missing from this focus area.**
- i. It is highly unlikely that the pesticide sales database could be adapted to record locations of sales and other factors - this language should be removed.
 - ii. We do not support inputting the geographical information associated with pesticide application; more specific information will raise privacy concerns.
 - iii. Data collection surveys should include wastewater collection systems.
 - iv. Include online sales to consumers in data collection.
 - v. Guidance suggesting "surveys" was concerning. Data on use and users must be grounded in pesticide sales data, which is available to DPR staff by product. The process must be robust and diverse, with many elements to capture the diversity of urban users and use types.
 - vi. It seems difficult to motivate private citizens and retailers to comply with reporting.
 - vii. If an information gap in urban pesticide use exists, the state should not set into motion impactful policy initiatives or policy prescriptions without first gathering the data. Other policy prescriptions should be delayed until after the data is collected, unless the policy is independent of the data being collected.
- c. Offer specific ideas your contacts had to improve or build on this focus area.**
- i. Urban data collection should consider specific urban uses, locations, and transport pathways that lead to aquatic toxicity. This should consider POTWs and online retail sales.
 - ii. Surveys could target specific groups, like building managers, restaurant owners, etc. instead of the general public, as so much of unknown pesticide use is by these groups.
 - iii. CA needs to develop a system to capture the over the counter sales through a point of sale data capture.
 - iv. How will data be checked, validated, enforced?
 - v. Guidance section should be revised to de-emphasize surveys in favor of other data sources.

IX. "Advance research and outreach."

- a. **Describe what your contacts agreed with or saw value in regarding this focus area.**

- i. By advancing research and outreach one will create more management strategies and better outreach will ensure field staff have the information they need.
- ii. This and all the urban IPM goals are extremely important and lacking in our current systems.
- iii. Applaud! Education and providing support would be the best approach to shift this paradigm.
- iv. Prioritizing research into urban IPM. Focusing on consumer products and pesticide use. Working towards flexibility in funding.

b. Share the concerns your contacts had with this goal or to highlight what your contacts felt was missing from this focus area.

- i. Urban residents are the main cause of bringing in exotic fruit, plant material, and livestock that carry invasive species in California.
- ii. Prioritize and support for biological control for structural pests such as cockroach and termite for which parasites and pathogens are available. Promote borate based baits and dust for cockroach and ant management.
- iii. Provide more context/intent for Design Guidance re role of consumer products in structural pest control. Does this mean more funding for consumer related programs?
- iv. Urban SPM research and outreach requires a more fleshed out plan. Starting a public outreach campaign in 2024 prior to other goals being met may be confusing since the general public won't have the infrastructure or resources available to implement.

c. Offer specific ideas your contacts had to improve or build on this focus area.

- i. Cross-reference appendices 4&5.
- ii. Increase funding
- iii. With respect to outreach, need to consider how to reach diverse communities and cultures in urban areas.
- iv. Increase funding into the UC Cooperative Extension program to help advance research in IPM and also Outreach.
- v. Urban SPM grants should be awarded with full transparency and not at the discretion of a specific agency or stakeholder.
- vi. Focus on farmer-led regional insectaries with a public SPM mandate that also supports monitoring and biological control
- vii. Recommend stronger focus on social media, narrowly-targeted messages, SPM focus, that is paired with regulatory activity.

X. "Make SPM the preferred choice for both licensed and unlicensed users."

a. Describe what your contacts agreed with or saw value in regarding this focus area.

- i. By having licensed and unlicensed users use SPM there will be a dramatic impact on environmental resources and public health
- ii. Especially support important actions: Creating a separate certification or license + training materials for large property managers, and creating criteria for SPM certifications.

- iii. We support the department advancing SPM in schools, including a category for school.
- iv. Important to provide educational outreach to retail locations so that they can assist the consumer on the smart use of these products.

b. Share the concerns your contacts had with this goal or to highlight what your contacts felt was missing from this focus area.

- i. Challenges to get unlicensed users to adopt this as there is little opportunity for outreach, and training information to get to them.
- ii. To be effective, the public awareness campaign must focus on specific, priority issues identified by the multi stakeholder group.
- iii. Develop outreach materials showing economic benefit from low risk and biological control options when the whole system is considered.
- iv. A number of institutions work on efforts focused on some of this work, including some in California. The state should ensure it is coordinating outreach with these groups and not duplicating efforts aligned with state goals.
- v. Recommendation to prohibit store employees from providing advice may be subjective, challenging to enforce, and open stores to legal liability.
- vi. Reporting mechanisms for concerns about pesticide use or pest problems could be abused if not narrowly tailored.

c. Offer specific ideas your contacts had to improve or build on this focus area.

- i. Create a “Healthy Schools Act” equivalent for housing.
- ii. Reference appendices 3-5.
- iii. Provide more outreach and information to users.
- iv. Combine public awareness campaign with urban SPM outreach, and don’t brand SPM.
- v. For Advancing SPM at school sites, the focus should be on integrating the broader SPM goals into the school IPM programs.
- vi. Urban outreach should consider human health impacts from antimicrobial resistance.
- vii. IPM and alternatives to pesticides need to be the primary focus of outreach messages.
- viii. Pair outreach with removal of most dangerous and toxic pesticides from retail shelves.
- ix. Master Gardener training should also be updated with SPM
- x. Recommend working with local agencies on SPM certification.
- xi. Include licensing and certificates through SPCB, ISA, and others include SPM.

XI. [“Refocus urban design, building codes, and regulations to enhance pest prevention.”](#)

a. Describe what your contacts agreed with or saw value in regarding this focus area.

- i. By designing out pest problems from the start, this will reduce pest management activities

- ii. I think this is maybe the most groundbreaking and consequential of the proposals in this document. There are clear pathways to success here, with direct public health and environmental benefits. It is unique and wide ranging.
 - iii. Incorporating pest prevention education into all aspects of building and landscape design. Many of the project managers, architects, builders and landscape professionals I interact with aren't thinking about pest prevention.
- b. Share the concerns your contacts had with this goal or to highlight what your contacts felt was missing from this focus area.**
- i. Enforcement capabilities by local agencies
 - ii. Drought tolerance is not linked to pest deterrence - suggests differently on p. 48, priority action D.
 - iii. Achieving 100% IPM on state run properties by 2030 is daunting.
 - iv. Green the city with roof gardens, vertical gardens, and pocket gardens to enhance biodiversity, reduce heat island effect, and provide back drop for natural biological control of pests
 - v. Enforcing requirements on building code could have a disproportionate impact on low income property owners who have structures that are almost hopelessly out of compliance, especially considering the soaring costs of permitting and construction.
- c. Offer specific ideas your contacts had to improve or build on this focus area.**
- i. Increase local staff to inspect proposed development projects and increase field inspections.
 - ii. Put more money into irrigation Management, Pest Management, native planting suggestions for landscape, etc, rather than requiring it in building codes.
 - iii. Reinforce the PCA as the expert in SPM to provide recommendations and planning support to urban landscape, school use and other non- ag settings as a standard.
 - iv. Landscape design recommendations should reference statewide collaboration and promotion of SPM