

FarmSense Inc (Leslie Hickie)

I appreciate the immense effort and thought that the SPM Advisory Committee has put into the Roadmap. It's clear that the focus is shifting from killing pests to building a system. You also addressed the challenge of streamlining the registration of safer alternatives which helps spur public and private investment in AgTech and it was also clear that the team spent a lot of time bringing divergent stakeholders into the conversation. Thank You.

After reading the Roadmap and listening to the presentation, I have the following questions/observations:

- 1) Since most of the new hires are focusing on accelerating the registration of biologics, are we creating a "biological treadmill" to replace the "pesticide treadmill"? Are we implying that all synthetic pesticides are bad rather than using them more judiciously and integrating them into a more comprehensive program?
- 2) A 2050 timeline is incredibly optimistic. Shifting an entire agricultural economy away from a century of chemical-dependent practices in just a few decades presents massive logistical and biological hurdles.
- 3) Can you adjust the transition time for different crops? Fast Adopters with short-cycle crops, row crops, and industries with strong organic market premiums are more likely to hit the 2050 benchmarks. But the timeline is strained for permanent specialty crops like almonds, walnuts, and citrus. Because a tree crop represents a 25-to-30-year financial investment, growers cannot easily "rotate" crops or survive a failed trial of an unproven biological tool. For these sectors, 2050 will represent a tight, high-stakes deadline.
- 4) The SPM advisory committee has not addressed the core bottleneck of IPM adoption/lack of adoption which is labor and preventative overhead costs associated with monitoring and sanitation. I understand that education and training and regulatory incentives might stimulate interest but adoption historically has been poor because of cost and lack of real-time tools. If SPM is to be a system-wide ecologically-based prevention platform, then why not mandate sanitation and monitoring? Both are pillars of IPM and included in every IPM publication regardless of what the practice was called (Re: Insect Pest Management, Insect Control, Integrated Pest Control).
- 5) Pest monitoring (other than rodents) is not included as a topic of interest in DPR SPM grants, yet would be critical for the effective use of biologics. The FDA requires a companion diagnostic for every biologic drug registered because biologics work differently than small molecule drugs. Biologic pesticides are more challenging to use effectively so why not mandate a tool to ensure that it's used correctly.
- 6) The proposal to encourage and retrain independent PCAs is good; however, it ignores the reason why only a small percentage of the PCAs are independent which is financial support while they build a business. Perhaps SPM grants, vouchers, or other forms of reimbursement can fund or provide support for these professionals while they train while the state figures out how to fund it? (Note: this might be a policy goal rather than a reality?)
- 7) It appears that the state is considering providing all the funding for salaried public advisors to break the reliance on retail advice but this defeats the purpose of independent PCAs. The state-salaried employees will have "no skin in the game" and historically cannot endorse or make recommendations so this would seem to be a conflict of interest.
- 8) You mentioned that this Department would be "stand-alone" and would not necessarily interact with other agencies even though there is significant overlap in many areas. I think that the other agencies would benefit and contribute to the program's success.

9) Maybe a clearer explanation of SPM is needed since a couple of the Advisors and myself didn't understand the difference? IPM was always a community approach-that's why the early inundative releases of beneficials worked and how we eradicated boll weevil and pink bollworm.

I acknowledge that my comments may be biased as I studied under Drs. Hal Reynolds, Vern Stern, and Roy Fukuto who were my major and minor professors during my Ph.D. research at UC Riverside. My degree is in Economic Entomology and Pesticide Toxicology and I have 40+ years in ag and animal health. I am currently leading a UCR spinout with real-time pest monitoring technology which has been commercialized and used in several crops. My concern is that we are still focusing on only a couple of pieces of IPM, the biologics and education, and excluding other foundational elements which would ensure success.