



The California Environmental Health Initiative

Science at the intersection of human health and agriculture

Japanese Beetle Scientific Advisory Panel
c/o Stephen Brown, Assistant Director
Plant Health and Pest Prevention Services
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Sacramento CA 95814
via email: Stephen.brown@cdfa.ca.gov

Dec. 8, 2015

Dear Members of the Japanese Beetle Scientific Advisory Panel:

I write on behalf of the California Environmental Health Initiative (CEHI), an organization of more than 500 members that works to bring sound science to bear on decisions regarding food and agricultural policy in California. CEHI appreciates this opportunity to comment on the California Department of Food and Agriculture (CDFA) Japanese beetle (JB) program and hopes that our thoughts will benefit your deliberations.

CEHI offers the following comments regarding approaches to managing the Japanese beetle (JB) in California, ways to improve the CDFA JB program, the manner in which the task of the Scientific Advisory Panel (SAP) and public comment on that task have been defined, and the larger context in which the SAP's deliberations are taking place.

I. Tools and methods to improve JB management in California

We believe that decision-making regarding an approach to the JB in California could benefit from:

- a. Application of sound science and critical thinking to evaluating the efficacy and appropriateness of alternative treatments*

CDFA's "Integrated Pest Management Analysis of Alternative Treatment Methods to Eradication Japanese Beetle" (attached) is, to date, the sole rationale that CDFA has offered the public for the agency's choice of broadcast application of the pesticides carbaryl, cyfluthrin, and imidacloprid to "eradicate" the JB in residential neighborhoods. That document falls short in its application of sound scientific rigor and critical thinking principles, particularly in two fundamental areas:

- Inconsistent application of evaluation criteria. CDFA's document evaluates all less-toxic approaches individually, as if they would be used in isolation, and dismisses each for only targeting one life stage of the beetle. However, the document evaluates pesticides used in combination even though each individual pesticide also only targets a single life stage of the beetle. If the evaluation criteria

had been applied equally, the less-toxic treatments would, on this basis, have been deemed equally effective.

- Representation of the methodology considered as “integrated pest management” (IPM). The approach described in the document is not consistent with IPM principles. IPM is a strategy that, as the name implies, uses an *integrated* collection of tools and methods to manage pests (and minimize harm to health and the environment). As explained in the previous bullet, the strategy considered in CDFA’s analysis treats each less-toxic method individually rather than used in combination even though those methods would be used together in a true IPM approach.

A third underlying problem with CDFA’s analysis of alternative methods of treating the JB is the reliance on the questionable goal of eradication, which CDFA applies in this case (and has routinely used in other pest programs) to justify use of only harsh pesticides rather than tools and methods that pose less risk to human and environmental health.

We acknowledge the legitimate concern about JB becoming established and widespread in California as well as the agency’s desire to avoid being designated an infested state by USDA. However, these concerns do not excuse the failure of the JB analysis (and many of CDFA’s other analyses of pest management methods for other programs) to acknowledge the reality of the results achieved by so-called eradication programs. In this case, the JB has continued to reappear in the same area of Sacramento – and, effectively, nowhere else in the state other than occasional appearances in near San Diego – for more than 30 years. It defies common sense to insist that these reappearances are “re-introductions” in the exact same locations, rather than episodic detections of a long-term, low-level population. (Because CDFA has performed no analysis of the data or the insects’ identifying characteristics, the assertion of re-introduction is unsupported. Meanwhile, some yards have been treated more than 20 times during the past 5 years alone, and approximately 4,000 residential properties were treated for 3 years during the 1980s with chemicals, at least one of which has since been banned for residential use).

If safer methods could achieve the same degree of suppression of this JB population as have been achieved by repeated, excessive, and dangerous applications of toxic chemicals, we believe that it is CDFA’s obligation to adhere to a true IPM decision-making protocol and select the less-toxic methods. To this end, as noted later on, we recommend that the SAP carefully consider whether and how a much less-toxic approach, which avoids chemical pesticides or restricts their use to extremely targeted locations (individual plants or areas where beetles or grubs are confirmed), could produce equal or superior results compared to the current approach, both in terms of eliminating the pest and protecting health and the environment – including beneficial insects that provide other ecological pest control services.

Attached to this letter is a CEHI analysis that explains in more detail the flawed logic and factual inaccuracies in CDFA’s “IPM” analysis of JB eradication alternatives. The attached documents refer to the July 2014 version of CDFA’s analysis. The CDFA

analysis received minor updates in 2015. However, the updates do not remedy the fundamental logic problems described above and do not change the conclusions of our attached analysis. We trust that the SAP will bring a greater degree of scientific rigor and robust critical thinking to consideration of alternative approaches to the beetle than is exhibited in the above-referenced IPM analysis.

b. Consideration of the fact that the JB treatments are taking place in residential neighborhoods and of the need for local community support to effect a successful program

The scientific literature addressing the pre-conditions for successful eradication programs (whether of diseases or insects, e.g., Yekutieli, P. 1980. Eradication of Infectious Diseases: A critical study. New York: S.A. Karger; and Yekutieli, P. 1981. Lessons from the big eradication campaigns. World Health Forum 3:465-490) notes that socio-economic factors, including acceptance of eradication methods by communities within eradication zones, is essential for eradication efforts to succeed. We are confident that residents of the JB treatment zone will communicate to you the myriad ways in which CDFA has undermined local support and in fact engendered suspicion and mistrust of, as well as opposition to, the agency's efforts. Therefore, we will not detail here what we have witnessed in videos and heard from residents regarding the conduct of the program. However, we hope that the SAP will consider how the approaches that the panel evaluates and decides to recommend might impact neighborhood trust in, support of, and willingness to cooperate with the program.

CEHI strongly recommends that the SAP recommend an approach to the JB in the affected neighborhoods that relies on least- and non-toxic methods such as those dismissed in CDFA's analysis of alternative treatments: mass trapping to eliminate as many beetles as possible simply by trap captures, careful delineation with additional traps when a beetle is found, confirmation of actual presence of beetles on an individual plant (or grubs in a lawn) before spot treatment with a reduced-risk insecticide or non-chemical treatment (e.g., application of nematodes for grubs in turf), and exemption of dry/xeric turf from treatment. We believe residents of the treatment zone would cooperate with such a program as long as they were assured that placement of traps in their yards would not result in their properties being targeted for additional toxic exposures should a beetle be trapped there.

We also recommend that the SAP consider how CDFA could take a proactive approach to reduce the likelihood of JB population persistence and expansion, by encouraging and assisting residents in the quarantine area to re-landscape to eliminate beetle host plants and incorporate resistant plantings. We note that a study on which one SAP member is a co-author states that "Host plant resistance offers the greatest promise for low-input, sustainable management of JB adults and grubs" (Potter D and D Held. 2002. Biology and Management of the Japanese Beetle. Annual Review of Entomology 47:175-205.)

II. Delineation of the purview of the SAP and of public comment to the SAP

CEHI was formed to address the significant disconnection between the current scientific understanding of human and environmental health impacts of agricultural practices, particularly pesticide use, and the basis on which decisions are made about agricultural and pest management policy and practice. The omission of health experts from the SAP – particularly experts in the human and environmental health impacts of pesticides and other chemical methods that might be considered for use in the JB program – is an example of this disconnection. A critical element of any decision about what pest management method to recommend should be the safety (which in turn directly impacts public acceptance) of each method.

In response to public concern about the absence of health professionals on the SAP, CDFA has said that it will consult with state health and environmental agencies after the SAP's recommendations have been made (and apparently also outside the public eye). That unfortunately means that health officials will not have the opportunity to weigh in on the range of options that the SAP will consider, and the SAP will not have the benefit of those agencies' expert analysis of which are the safest and least toxic. Instead, the health agencies will only have the opportunity to evaluate an artificially narrowed range of options selected by the SAP (and as potentially modified by CDFA, which has stated that the SAP's conclusions will only be "recommendations" and that CDFA has the final word in the choice of treatment methods).

We believe it does a disservice to the SAP's scientific analysis that CDFA has compartmentalized the topics to be considered, separating deliberations on pest management methods from deliberations about health impacts. In addition, CDFA's "ground rules" for public comment to the SAP attempt to rule out any comment other than about treatment methods. This appears to be a misguided effort to "protect" the SAP from knowing about or considering the entire picture of the conduct of the JB program. We contend that it is important for the SAP to be informed about and consider the nature of the CDFA activities that the SAP's recommendation might be used to endorse, particularly in regard to health and environmental impacts and the community's concerns about those. As the SAP will no doubt hear from neighborhood residents, SAP members cannot count on program activities being carried out consistent with basic safety procedures to protect workers, residents, and wildlife, or consistent with basic principles of respectful public engagement. We believe that the SAP's decisions and recommendations should be made with full knowledge and consideration of the manner in which the program has been executed and the impact of JB management activities on the affected neighborhoods.

III. Context for the SAP's deliberations and recommendations

CEHI believes the SAP can best evaluate tools and methods to be used in the JB program if panel members understand the legal and historical context in which the SAP's deliberations take place. Related to this, we want to briefly share information with SAP members about three topics:

- A recent appeals court decision about another CDFA pest program that exhibits flaws similar to those of the current JB program
- CDFA’s recently approved statewide authority to impose pest treatments with no input from affected communities
- A published critique of the role of a previous advisory panel (for the CDFA program that was the subject of the recent appeals court decision)

a. Recent legal decision regarding another CDFA pest program with flaws similar to those of the current JB program

Last week, a California appeals court halted CDFA’s light brown apple moth eradication program on the grounds that CDFA had failed to analyze and disclose to the public the program’s health and environmental risks and had also failed to consider a “reasonable range of alternatives” to the pesticide-based approach the agency employed. Many of the flaws the court identified in the apple moth program are replicated in the JB program. For example, for the JB program, CDFA has failed to assess health risks to children under 2 and omitted assessment of common exposure pathways (e.g., dermal) for children under 6. As described in Section I.a. above, CDFA also failed to adequately or logically analyze less-toxic alternatives to the tools and methods employed in the JB program.

b. A statewide environmental document giving CDFA broad authority to carry out pest management activities with no input from affected communities

The JB program is being carried out under the Statewide Plant Pest Programmatic Environmental Impact Report (PEIR), which CDFA approved in 2014. The PEIR gives CDFA broad authority to use a list of 79 “pre-approved” pesticides, anywhere in the state, any time into the indefinite future, with no public engagement other than “informational meetings” at which CDFA tells affected communities what treatments will take place. Under California law, communities that had no idea they might one day be affected by the PEIR’s pest management activities lost forever their opportunity to have any voice in treatments within their jurisdictions on the date that CDFA approved the PEIR.

Moreover, the PEIR gives CDFA authority to make decisions behind closed doors about treatment methods as well as about whether additional site-specific environmental review of treatments is required. For example, in the case of the JB program, CDFA has performed no assessment of the risks to the American River, which is immediately adjacent to the Carmichael JB treatment zone, and refuses to acknowledge the run-off from lawn watering that has the potential to carry JB program chemicals (which are aquatic toxins) via storm drains directly to the river.

The distress and concern expressed by residents of the JB treatment zone result in part from CDFA’s having used the PEIR to insulate the agency from public scrutiny or public engagement (let alone partnership with the public). We hope the SAP will include in its

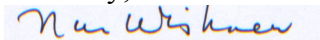
recommendations direct consideration and direction to CDFA regarding the need to partner with the residents of the communities where intervention might be needed for the JB. We believe this should include:

- Choice of truly least-toxic methods acceptable to the community (as outlined in Section I.b. above), which should not require heavy-handed enforcement tactics such as police and warrants that are currently being employed
- Adequate assessment and disclosure to residents of the health and environmental impacts of any tools used (including impacts on the American River)
- Trained, informed workers able to answer residents' questions, identify plants, and treat property with respect
- Proactive efforts to assist the community in reducing the need for intervention by supporting re-landscaping to eliminate beetle host plants/sites

c. Advisory panels' accountability for the rationales and actions actually employed by CDFA after receiving advisory panel recommendations

CDFA has in the past convened experts (SAPs, technical working groups, etc.) and "used" these panels' expert credentials to justify or legitimize CDFA's chosen courses of action. We hope the current JB SAP will be very conscious of how its recommendations might be used, both in relation to how the JB program has been conducted thus far (as mentioned above and no doubt described to you in letters and oral testimony from neighborhood residents) and in relation to the history of CDFA advisory panels. We can think of no better insight into CDFA advisory panels and their accountability than the attached article from the Winter 2013 issue of *American Entomologist*, which examines the conduct of the light brown apple moth program (the same program that the appeals court just halted, as mentioned above) and raises questions about the role of the apple moth technical working group in the execution of that program. CEHI hopes the SAP will carefully consider its accountability for the recommendations it makes and the way those recommendations might be applied.

Sincerely,



Nan Wishner, Board Member

cc:

Karen Ross, Secretary of the California Department of Food and Agriculture

Matthew Rodriguez, Secretary for Environmental Protection

Gina Solomon, Deputy Secretary for Science and Health, Cal EPA

Brian Leahy, Director, Department of Pesticide Regulation

Rick Kreutzer, Chief, Division of Environmental and Occupational Disease Control

attachments:

CDFA “Integrated Pest Management Analysis of Alternative Treatment Methods to Eradication Japanese Beetle” (July 2014)

CEHI Comments on CDFA’s July 2014 Integrated Pest Management Analysis of Alternative Treatment Methods to Eradication Japanese Beetle

Carey, JR and D Harder. 2013. Clear, Present, and Imminent Danger: Questions for the California Light Brown Apple Moth (*Epiphyas postvittana*) Technical Working Group. American Entomologist 59(4): 240-247.