

May 2, 2022

National Marine Fisheries Service  
Comments on Chlorpyrifos, Diazinon and Malathion revised BiOp

Docket: EPA-HQ-OPP-2022-0172

Center for Food Safety appreciates the opportunity to comment on the National Marine Fisheries Service's (NMFS's) draft revised Biological Opinion on Chlorpyrifos, Diazinon and Malathion. Center for Food Safety (CFS) is a public interest, nonprofit organization with 970,000 members and supporters, and offices in Washington, D.C., San Francisco, California, and Portland, Oregon. CFS's mission is to empower people, support farmers, and protect the earth from the harmful impacts of industrial agriculture. Through groundbreaking legal, scientific, and grassroots action, CFS protects and promotes the public's right to safe food and the environment.

### ***Label use vs. usage data***

CFS appreciates NMFS's rigorous analysis of so-called "usage data" and fully supports the Service's decision to rely primarily on use parameters stipulated on malathion labels as the primary source of information on which it based its assessments of the effects of the action (NMFS Draft BiOP, Appendix E, pp. 2818-32).

CFS made similar points in comments on the Fish and Wildlife Service's draft BiOP on malathion,<sup>1</sup> which are being submitted to the docket with these comments, along with other documents we cite. We expand upon NMFS's usage data analysis below.

### Transparency

NMFS correctly notes that use of the Kynetec data in particular would violate NOAA's Information Quality Guidelines, since Kynetec does not provide the methodological underpinnings for its estimates of average use, which in turn precludes the "especially rigorous robustness checks" that NOAA's Information Quality Guidelines require in the case of "confidential and proprietary data, and other supporting information which cannot be disclosed."<sup>2</sup>

CFS would add that a USDA Advisory Committee on Agricultural Statistics criticized the proprietary pesticide usage data of another private data collection firm, Doane's Marketing Research, in very similar terms over a decade ago. The Committee, however, went further, stating in concrete terms what the lack of transparency as to survey methodology could mean: "Thus, it

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<sup>1</sup> CFS (2021). Comments on the U.S. Fish and Wildlife Service's draft biological opinion on malathion. EPA-HQ-OPP-2021-0231, Center for Food Safety, June 19, 2021.

<sup>2</sup> NOAA Information Quality Guidelines, last updated November 4, 2021.

<https://www.noaa.gov/organization/information-technology/policy-oversight/information-quality/information-quality-guidelines#XII>.

may be that **a large number** of the area wide estimates included in the Doane system are **based on individual or statistically unrepresentative** observations.”<sup>3</sup> In other words, many of the firm’s “usage data” estimates were based, potentially, on the survey of a single farmer. Such data of course provide no valid basis for decision-making of any sort. Because Kynetec appears to be equally unwilling to share critical information on the number of farmers surveyed for malathion usage, percentage who responded to surveys, any measure of the representativeness of the farmers surveyed for state or crop reporting district, how many uses were surveyed, etc., it could also be peddling inferior information entirely unsuited to NMFS’s serious task of assessing risks of malathion use to listed species.

#### Accuracy and spatial precision

NMFS expertly unpacks the many reasons that Kynetec data underestimate actual usage, and/or do not reflect the site-specific use that is absolutely essential to assess effects to listed species and their critical habitats. First, national-level data often do not cover non-agricultural uses, nor do they cover even all authorized crop uses – which suggests all usage data systematically under-estimates actual use to some extent. Second, Kynetec reports **average** use at any given geographic scale – a statistical abstraction that is **not** “actual usage” – without any measure of variability around the mean. Variability in usage rates will often follow geographic patterns, based on locale-specific pest problems in one region and absence or paucity of pests in another; and temporal patterns, because insect pest outbreaks are often episodic in nature, severe in one year, below an economic control threshold the next, and absent in still another year. Pesticide use has the potential to vary in tandem, with little or no use one year or region, followed by near or full label rate applications at other times and places.

#### Whether usage data are predictive/representative of future usage

NMFS’s excellent empirical analysis of California pesticide data shows conclusively that for a huge number of pesticide:use site combinations, relying upon past data (e.g. 5-year mean) under-represents, sometimes enormously, usage in the following 15 years, and provides good explanations for the many reasons this might be so. CFS would add that cancellation of food uses of chlorpyrifos by EPA, as well as state-level bans, could well lead to replacement with malathion in many circumstances,<sup>4</sup> further decreasing the predictive value of malathion usage analyses based on past use. Similar regulatory restrictions or bans on other insecticides could further boost malathion use. Pest resistance to another insecticide or mode of action could also drive up malathion use, as could the emergence of new pests or changing pest pressures, marketing decisions by malathion’s makers, or simply the adoption of malathion by more end-users, for whatever reason. The 15-year

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<sup>3</sup> USDA NASS (2006). “Meeting of the Advisory Committee on Agriculture Statistics (ACAS): Summary and Recommendations,” February 14-15, 2006, USDA NASS, Appendix III, emphasis added, at: [https://web.archive.org/web/20150906143547/http://www.nass.usda.gov/About\\_NASS/Advisory\\_Committee\\_on\\_Agriculture\\_Statistics/advisory-es021406.pdf](https://web.archive.org/web/20150906143547/http://www.nass.usda.gov/About_NASS/Advisory_Committee_on_Agriculture_Statistics/advisory-es021406.pdf).

<sup>4</sup> See e.g. Towards Safer and More Sustainable Alternatives to Chlorpyrifos: An Action Plan for California, Alternatives to Chlorpyrifos Work Group, May 2020. [https://www.cdpr.ca.gov/docs/chlorpyrifos/pdf/chlorpyrifos\\_action\\_plan.pdf](https://www.cdpr.ca.gov/docs/chlorpyrifos/pdf/chlorpyrifos_action_plan.pdf)

duration of the Action is more than sufficient time for any one or several of these factors to drive up malathion use well beyond an arbitrary past usage benchmark.

#### National Academy of Sciences and Interagency Work Group

NMFS's approach is further justified by EPA's long-standing past practice of estimating environmental exposures based on label use parameters. This very approach was supported by the 2013 National Academy of Sciences' committee and the Interagency Approach that was based on the NAS report.

“Compliance with the ESA in the context of pesticide registration requires EPA and the Services to determine the probability of adverse effects on listed species and their critical habitat **when a pesticide is used according to its label requirements.**”<sup>5</sup>

“In the context of this report, risk is defined as the probability of adverse effects on listed species or their critical habitats due to anticipated pesticide use that is **consistent with label requirements.**”<sup>6</sup>

EPA's flagrant departure from the NAS committee report that was supposed to guide its new approach to assessing pesticidal threats to listed species is inexcusable. Finally, it is highly ironic that EPA has decided to systematically under-state the threats pesticides pose to those species most in need of protection by resorting to deficient usage estimates, while continuing to employ maximum label use parameters in its non-ESA ecological risk assessments for species that are not on the brink extinction.

#### Label use parameters superior, sanctioned by law

Clearly, as NMFS realizes, employment of maximum label use parameters in estimates of the exposure of listed species and their critical habitats to malathion is the only scientifically and legally defensible approach to take. If EPA feels label-permitted application parameters are for some reason excessive, the Agency is free to change them. Until that time, the potential for farmers to use as much malathion as sanctioned by EPA must be the bedrock for assessments of the risks it poses to listed species. It should be noted that in certain cases even this “conservative” approach can understate exposure – in the frequent cases of pesticide label violations, accidental spills, etc., which occur frequently enough but are nowhere accounted for in EPA's regulatory system.

#### Where NMFS does propose to employ usage data

NMFS proposes to employ usage data in only very limited circumstances. For instance, NMFS concludes that future usage will be “minimal” over the next 15 years if a pesticide has had its tolerances revoked, or it is subject to a state ban (on the example of chlorpyrifos), but also if there

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<sup>5</sup> National Research Council 2013. Assessing Risks to Endangered and Threatened Species from Pesticides. Washington, DC: The National Academies Press, p. 4, emphasis added.

<sup>6</sup> Interagency Approach for Implementation of National Academy of Sciences Report: Assessing Risks to Endangered and Threatened Species from Pesticides, December 5, 2013, emphasis added. <https://archive.epa.gov/epa/sites/production/files/2014-05/documents/session2-esa.pdf>.

has been no usage reported in the previous 15 years for the relevant use (NMFS Draft BiOP, Appendix E, pp. 2830-31). While the first two criteria appear sound, the latter is less so. While NMFS rightly excludes market survey data as a means to prove no usage over the prior 15 years, it should be noted that even where better quality data demonstrate this, things can change rapidly. For instance, USDA NASS data show no use of malathion in Florida orange groves from 1991 to 2005, roughly a 15-year period. Yet usage takes off, with negligible use beginning in 2009, but steadily greater amounts in subsequent years through 2019 (discussed with references at CFS 2021, pp. 6-8). Thus, even absence of use over 15 years does not justify a minimal usage conclusion for the following 15 years.

### ***Reasonable and Prudent Alternatives***

CFS is highly skeptical of Element 1(c), the pick list point system (NMFS Draft BiOP, pp. 2551-53, 2559-61, 2831-32). The system is extremely complex, likely to be confusing for pesticide users, and opens up substantial room for non-compliance. The end-user is empowered to determine if mitigation is needed, and the number of drift and runoff mitigation points needed for the application, and then to choose one or more mitigation options from a page-length table with dozens of entries and associated points that total up to the mitigation points needed for his/her particular application.

Already, pesticide labels with far simpler provisions are either not effective when followed, or simply not followed. For instance, the Association of Pesticide Control Officers (AAPCO), the group representing the state officials who actually enforce federal and state pesticide law, told EPA long ago that applicators often apply pesticides when wind speeds exceed the label-based maximum.<sup>7</sup> If such a straightforward restriction is frequently not followed, how much less chance is there of applicators complying with a complex pick and point system?

Indeed, the Ninth Circuit Court of Appeals recently revoked the registrations of three formulations of the herbicide dicamba, in part because of “substantial non-compliance with label restrictions” due to lengthy and complex labels that applicators found difficult to understand or comply with.<sup>8</sup> Even if this pick system were practicable, the points needed for most applications are so low as to permit the application to go forward with only one mitigation measure. CFS sees no persuasive evidence that this system would actually accomplish its purpose.

Instead, Reasonable and Prudent Alternatives should prioritize cancellation of malathion uses as the surest way of avoiding jeopardy to listed species and adverse modification of their critical habitats.

Sincerely,

Bill Freese, Scientific Director  
Center for Food Safety

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<sup>7</sup> AAPCO (2002). Letter from AAPCO President Donnie Dippel to EPA’s Jay Ellenberger, March 25, 2002: “AAPCO has experience that supports that there are numerous pesticide applications made when it is too windy.”

<sup>8</sup> Nat’l Family Farm Coalition et al. v. EPA, 960 F.3d 1120 (9th Cir. 2020)