

MCTF Pesticide Selection Subcommittee: Final Meeting

This file presents the six recommendations prepared and voted on by the MCTF Pesticide Selection Subcommittee and the voting results:

- PS-1: Active Ingredients (Page 2)
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- PS-4: Selecting Pesticides and Ensuring a Transparent Selection Process (Pages 7-9)
- PS-6: Consideration of Novel Risk/Exposure Scenarios (Pages 10-11)
- PS-7: Avoiding Use of Pesticides Containing PFAS and Other Contaminants (Pages 12-15)

1 **Directive 1:**

2 The MCTF shall make recommendations regarding “identifying known ingredients in pesticide
3 products used for mosquito control, analyzing the ability, or lack of ability, to identify such
4 ingredients, and making recommendations for determining such ingredients.”

5 **Recommendation PS-1: Active Ingredients**

6 Background

7 Pesticide formulations generally consist of two types of ingredients: active ingredients and
8 “inert” ingredients. Active ingredients are those chemicals in a formulation that have pesticidal
9 action against a target pest. Pesticidal action may include killing the pest, repelling it, deterring
10 feeding, or otherwise mitigating the pest. Synergists, a subcategory of active ingredients,
11 enhance the pesticidal action of another active ingredient in the formulation. The synergist
12 piperonyl butoxide (PBO) is a common ingredient in mosquito adulticide formulations
13 containing pyrethroid or pyrethrum/pyrethrin ingredients.

14 Active ingredients, including synergists, are required by federal law to be listed on pesticide
15 labels. The MCTF Pesticide Selection Subcommittee found no evidence of active ingredients not
16 being identified on labels of registered pesticides.

17 Recommendation and Rationale

18 The MCTF Pesticide Selection Subcommittee makes no recommendation relative to additional
19 active ingredient disclosure beyond what is currently required. Subcommittee members
20 unanimously agreed that the identity of active ingredients, including synergists, is adequately
21 addressed through the current federal and state regulatory programs and processes.

22 Voting Results

- 23 ▪ All seven subcommittee members supported this recommendation.

24

1 **Directive 1:**

2 The MCTF shall make recommendations regarding “identifying known ingredients in pesticide
3 products used for mosquito control, analyzing the ability, or lack of ability, to identify such
4 ingredients, and making recommendations for determining such ingredients.”

5 **Recommendation PS-2: Inert Ingredients (Option 1)**

6 Background

7 Pesticide formulations generally consist of two types of ingredients: active ingredients and
8 “inert” ingredients. Inert ingredients are those chemicals in a pesticide formulation without
9 intended pesticidal action. They are sometimes referred to as “other” ingredients on pesticide
10 labels. These inert ingredients may include adjuvants, drift retardants, solvents, fragrances, etc.
11 Inert ingredients are not necessarily toxicologically inert, and may pose risks to human or
12 ecological health. EPA categorizes inert ingredients based on their use and toxicological profile
13 (<https://www.epa.gov/pesticide-registration/categorized-lists-inert-ingredients-old-lists>).

14 Inert ingredients are considered to be Confidential Business Information (CBI) and are often not
15 listed on the label. In some situations, the disclosure of inert ingredients can be used by
16 competitors to recreate a formulation. This creates an issue with regulatory/government
17 review of pesticides as some agencies do not have the ability to protect submitted information
18 from public records/freedom of information laws. While EPA has the ability to review inert
19 ingredients as part of registration without disclosing CBI, this has not typically been the case in
20 Massachusetts. The Pesticide Board Subcommittee does not have the ability to protect CBI
21 from public disclosure, but other Massachusetts agencies reportedly do have this ability.

22 Recommendation and Rationale

23 The MCTF Pesticide Selection Subcommittee critically evaluated the current EPA process for
24 reviewing inert ingredients; and the majority of the Subcommittee felt that EPA’s review is
25 adequate and recommended that no further action is necessary.

26 These Subcommittee members acknowledged that Massachusetts is a relatively small market
27 for mosquito pesticides. If faced with public disclosure of CBI, many companies would simply
28 choose not to register products in the state. CBI is typically a larger issue with newer products,
29 many of which offer health, efficacy, and environmental safety advantages over older products.
30 As such, it will often be in the best interest of the Commonwealth to be able to protect CBI.

31 Voting Results

- 32 ▪ Five subcommittee members supported this recommendation.
- 33 ▪ Two subcommittee members did not support this recommendation. The reasons for the
34 dissenting opinions were:

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- 35 ○ One felt that additional checks and balances on EPA review were necessary. This
36 is because the state of Massachusetts often regulates chemicals more stringently
37 (and in a more precautionous manner) than the federal government does. Refer to
38 recommendation PS-3 for further information. (Note: The MCTF Pesticide
39 Selection Subcommittee members unanimously agreed that concerns about CBI
40 claims relative to inert ingredients is often justified. If the Task Force is to move
41 forward with recommendation PS-3, which calls for a state agency to review
42 inert ingredients, then this should be accompanied by a recommendation that
43 legislation be enacted to protect inert ingredients from disclosure under
44 Massachusetts Public Records law.)
- 45 ○ Another felt that this had been a long-standing issue and concern, particularly
46 from the environmental community. It remains to be seen if a review of
47 mosquito control pesticides will be done at the state level (outside of the
48 Pesticide Board Subcommittee). If it is, it would seem prudent to provide
49 whoever is doing this review with the ability to review inert ingredients as well,
50 so long as CBI can be protected under the Massachusetts Public Records Law.

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1 **Directive:**

2 The MCTF shall make recommendations regarding “identifying known ingredients in pesticide
3 products used for mosquito control, analyzing the ability, or lack of ability, to identify such
4 ingredients, and making recommendations for determining such ingredients.”

5 **Recommendation PS-3: Inert Ingredients (Option 2)**

6 Background:

7 There are currently 4,555 chemicals or substances approved as inert ingredients by the EPA for
8 “Food and Nonfood Use” or “Nonfood Use Only” (EPA InertFinder;
9 <https://ordspub.epa.gov/ords/pesticides/f?p=INERTFINDER:1:0::NO:1::>). These lists contain
10 substances reviewed by the EPA Integrated Risk Information System (IRIS) and found to be
11 carcinogenic, compounds that are regulated by the Safe Drinking Water Act (SDWA) and the
12 Clean Water Act (CWA), and compounds subject to the Massachusetts Toxic Use Reduction Act.
13 It also contains fluorinated compounds such as para-chlorobenzotrifluoride (a compound
14 designated by the state of California, but not the EPA, to cause cancer).

15 EPA sets minimum standards the states must adopt, although states have the ability to set
16 stricter standards. Massachusetts regulates several chemicals under the CWA and the SDWA at
17 more stringent levels than EPA guidelines. These include two chemicals with lower (more
18 stringent) drinking water maximum contaminant Levels (MCLs) compared with EPA guidelines
19 (Perchlorate and PFAS6) and at least 24 chemicals that have lower (more stringent) water
20 quality standards for surface water contamination compared to EPA guidelines. These examples
21 provide evidence that the Commonwealth of Massachusetts takes additional considerations
22 into account when setting chemical regulations compared with the EPA.¹ With this in mind, the
23 Commonwealth of Massachusetts should not defer to EPA’s approval when it comes to the over
24 4,500 inert ingredients currently registered for use in the US.

25 Currently the Massachusetts Pesticide Board, Pesticide Board Subcommittee, established by the
26 Massachusetts Pesticide Control Act of 1978, reviews pesticide products for registration in
27 Massachusetts. This Pesticide Board Subcommittee consists of the following members: MDAR
28 (Massachusetts Department of Agricultural Resources), MDCR (Massachusetts Department of
29 Conservation and Recreation), MDPH (Massachusetts Department of Public Health, the Director
30 of Division of Food and Drug (within MDPH) and a commercial applicator appointed by the
31 Governor. This board is a public body and subject to Open Meeting Law (although the Pesticide
32 Board can hold an executive session which appears to be a closed meeting). Therefore, there is

¹ A couple MCTF Pesticide Selection Subcommittee members have expressed concern that Massachusetts does not have as robust a regulatory process for evaluating and setting standards for contaminants as EPA’s process and EPA’s process should be followed. One member stated that different states setting different standards creates challenges for the regulated community.

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33 concern that if pesticide registrants include inert ingredient lists and percentages in their
34 application, it would be made public. However, applications are sent to MDAR which initially
35 reviews the application for administrative and technical aspects. It does not appear that
36 MDAR's technical review is subject to Open Meeting Law, only the information that is
37 presented to the Pesticide Board Subcommittee. It could be possible for MDAR or another body
38 to review the inert ingredients for toxicological considerations and keep CBI confidential. They
39 would only be able to present general information to the Pesticide Board Subcommittee such
40 as a general decision on whether the inert ingredients were safe or not safe for application
41 according to the label.

42 Recommendation and Rationale:

43 This recommendation is to update/amend the appropriate state law and provide
44 appropriations and resources so the following changes can be made:

- 45 • The makeup of the Pesticide Board Subcommittee will be amended to include the
46 Massachusetts Department of Environmental Protection (MassDEP) as MassDEP is the
47 agency responsible for setting regulatory standards for surface and drinking waters and
48 is responsible for regulating toxic substances. MassDEP is often consulted on matters
49 related to the Pesticide Board Subcommittee and this would formalize their
50 involvement. If the creation of a board with an even number of members is seen as
51 problematic, an additional public member may be added to the Pesticide Board
52 Subcommittee.
- 53 • Require that pesticide registrants, starting with the mosquito control products, to
54 include information about inert ingredients and their percentages in their product
55 registration applications. This information will be reviewed in a confidential manner by
56 the MDAR and as needed, by MassDEP. These agencies will present only general
57 information about the overall hazard assessments of the inert ingredients during an
58 open meeting of the Pesticide Board Subcommittee so that they do not disclose
59 confidential business information.

60 All information that is protected as confidential business information under FIFRA, section 10,
61 will also be protected during the Massachusetts product registration process.

62 Voting Results

- 63 ▪ Two subcommittee members supported this recommendation.
- 64 ▪ Five subcommittee members did not support this recommendation.

1 **Directive:**

2 The MCTF shall make recommendations regarding “promoting the use of the safest or
3 minimum risk pesticides feasible.”

4 **Recommendation PS-4: Selecting Pesticides and Ensuring a Transparent Selection Process**

5 Introduction

6 The MCTF Pesticide Selection Subcommittee has been charged with providing guidance on
7 “promoting the use of the safest or minimum risk pesticides feasible.”

8 From a technical/scientific perspective, the MCTF Pesticide Selection Subcommittee does not
9 feel this language of the charge is appropriate for several reasons:

- 10 1. Risk communicators and regulators have long eschewed the use of the word “safe” as it
11 is an imprecise/subjective term often interpreted by the public to mean that no
12 precautions are necessary.
- 13 2. “Minimum Risk” is a preferable term, but still simplifies the dynamic of choosing the
14 most appropriate pesticide. For instance, it does not acknowledge that pesticides may
15 pose a relatively low risk in one area (for instance human health) and a greater risk in
16 another (for instance pollinators).
- 17 3. The charge ignores the fact that efficacy must be a consideration in choosing a pesticide.
18 Pesticides are registered based on benefit and risk. If a pesticide is not efficacious, then
19 the risk is unacceptable. As worded, garlic-based products would score highly on a list of
20 preferable products, despite a consensus among mosquito management professionals
21 that garlic (and most 25B products) have very limited efficacy.
- 22 4. Use patterns and application methods (ultra-low volume, barrier applications, etc.), site
23 of application (water, playgrounds, etc.), and even the level of licensure of the
24 applicator have significant implications on the benefits and risks that might result by the
25 use of a pesticide. The charge ignores this fact.

26 The MCTF Pesticide Selection Subcommittee has redefined its charge to meet what we
27 collectively believe to be the intent and spirit of the original language. We have been operating
28 under the following:

29 When a pesticide is considered justified from those products already registered by EPA and the
30 Pesticide Board Subcommittee, applicators shall select formulations and manner of their
31 application that will be deemed efficacious, practical, and pose more benefit than risk to human
32 health while minimizing non-target effects.

33 Background

34 Stakeholders (including the public, elected officials, and environmental groups) may be
35 unfamiliar with the pesticide registration and selection process, which leads them to believe
36 there is no scientific basis for pesticide selection. The risk from a pesticide depends on exposure
37 and toxicity. Human and environmental health must be considered when selecting a pesticide
38 for use. The biology and lifecycle of mosquitoes, as well as their habitat, spatial and temporal
39 abundance, and their capacity to transmit pathogens must also be considered.

40 The existing active ingredients for mosquito control are quite limited. In relation to agriculture,
41 mosquito control is a small market and new active ingredients are not often formulated or sold.
42 This leaves mosquito control districts with limited options for product selection.

43 While there is a formalized process for registering pesticides by EPA and the Commonwealth of
44 Massachusetts, many are not aware of these processes because the information is not
45 centralized in one location, like a website. Stakeholders would need to search multiple sites to
46 find the information necessary to understand the process. Following a product's federal
47 registration, the current process for registration in Massachusetts requires the Pesticide Board
48 Subcommittee approval, as outlined in M.G.L.c 132B and CMR 333. The five-member Pesticide
49 Board Subcommittee is Chaired by the Director of the Food Protection Program within the
50 Department of Public Health, with the other four members consisting of representatives of the
51 Department of Agricultural Resources, Department of Conservation and Recreation,
52 Department of Public Health, and a Commercial Pesticide Applicator appointed by the
53 Governor. The Pesticide Board Subcommittee is responsible for registering all pesticides for use
54 in the Commonwealth. The Massachusetts Pesticide Board Subcommittee is also responsible
55 for reviewing new active ingredients and issuing all experimental use permits.

56 Describing the manner by which pesticides are registered and selected may better satisfy the
57 desires of persons and organizations who seek such information. It may also promote and
58 encourage consistency on selection of mosquito control products, whether such products are
59 used on behalf of the Commonwealth or by commercial applicators. Currently the SRB relies on
60 several state agencies to review and provide their opinion on products used for aerial
61 adulticiding applications in the event of a declared public health emergency. These agencies
62 include DPH, DFW-NHESP Division, DEP, MDAR and DMF (Division of Marine Fisheries). DFW-
63 NHESP Division currently reviews and provides guidance on all pesticides used by MCDs in the
64 Commonwealth within sensitive areas.

65 Recommendation and Rationale

66 All pesticides used by the Commonwealth's organized mosquito control districts and the "SRB"
67 are reviewed by EPA and are federally registered; and approved for use by the
68 Commonwealth's Pesticide Board Subcommittee as outlined in M.G.L.c 132B and 333 CMR. In
69 keeping with best practices and acknowledging concerns by some stakeholders that these

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70 reviews are not sufficient, the “SRB” or a new subcommittee established by the “SRB” will
71 further review pesticide products used in the management of mosquito populations. This new
72 subcommittee should include DPH, DFW-NHESP Division, DEP, MDAR, DMF (Division of Marine
73 Fisheries), and a representative from an MCD. Each representative will review the products
74 from their Agency’s purview. The MCD representative will provide information on how, where,
75 and when the pesticides may be used based on the labels to help in the review. Review shall
76 include but not be limited to: ensuring adequate protections of surface and groundwaters of
77 the Commonwealth, public water supplies, aquatic organisms, and endangered species; and
78 consideration of toxicity of active ingredients, the potential for synergists to amplify the toxicity
79 of pesticides already in the environment, risk assessment, and benefit to public health. This
80 formalized review of products will be conducted when deemed necessary. When a pesticide is
81 reviewed, formulations and manner of application will be considered and recommendations
82 will be made if the pesticide is deemed efficacious, practical, and pose more benefit to human
83 health than risk to human health and the environment.

84 Once pesticide products are reviewed, they are included in the statewide Mosquito
85 Management plan, which specifies factors that are considered in the process of selecting
86 pesticides used to control mosquitoes. An opportunity for public comment should be provided
87 before this Mosquito Management plan is finalized. Agencies will read and consider comments,
88 but will not be bound to incorporate all suggestions. The statewide Mosquito Management plan
89 will be freely available and discoverable on a centralized statewide mosquito control website.
90 The centralized website will also contain a summary of the pesticide registration and approval
91 processes of the EPA and Massachusetts Pesticide Board Subcommittee.

92 Voting Results

- 93 ▪ Four subcommittee members supported this recommendation.
- 94 ▪ Two subcommittee members did not support this recommendation.
- 95 ▪ One subcommittee member abstained.

1 **Directive:**

2 The MCTF shall make recommendations regarding “promoting the use of the safest or
3 minimum risk pesticides feasible.”

4 **Recommendation PS-6: Consideration of Novel Risk/Exposure Scenarios**

5 Background:

6 Pesticides are registered by the EPA and Pesticide Board Subcommittee. They are typically
7 evaluated against a registration standard – a standard battery of various studies focused on
8 toxicology and environmental fate that are meant to provide data on the potential risks to
9 human health and the environment posed by the use of a chemical. The requirements may vary
10 between products and are determined by pesticide category and intended use. For instance, if
11 a pesticide is to be used on food, this triggers different studies in the registration standard.
12 While a baseline, the registration standard cannot be expected to capture every potential
13 scenario or risk.

14 Limitations to the registration standard include:

- 15 ▪ 3rd party studies are seldom available with the initial registration of a pesticide as the
16 chemical has typically not been previously in use. While re-registration decision-making
17 does take into account third party studies, studies are often not of a quality or design so
18 as to be useful.
- 19 ▪ The registration standard cannot take into account every possible species or ecosystem.
20 In some cases, the combination of a particular species and ecosystem might result in a
21 risk that was unanticipated in the normal course of registration/consideration.
- 22 ▪ No standard can take into account every possible scenario by which a pesticide might
23 cause harm. There are occasionally pathways or exposure scenarios which were not
24 anticipated and are perhaps deserving of review in making decisions on use. In some
25 cases, these scenarios may be particular to a given geography or ecosystem, often
26 “novel” rather than widespread.

27 As an example, this MCTF Pesticide Selection Subcommittee has discussed concern associated
28 with an exposure scenario related to the piperonyl butoxide (PBO). Previous studies have
29 indicated that insecticide formulations that include the PBO synergist can cause increased
30 toxicity of pyrethroid insecticides already present in the receiving waters and their sediments.
31 This was the major finding of a 2006 study that sampled water and sediments in Sacramento,
32 California, following aerial application of pyrethrins + PBO. PBO persisted for at least three days
33 post spraying (sampling did not occur beyond three days) and the levels of PBO present
34 synergized other pyrethroids, including bifenthrin, that were already present in the sediments.

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35 This example is interesting as it points out an exposure scenario that is not typically considered
36 in the registration process as it involves multiple application methods, multiple active
37 ingredients (pyrethroids and PBO), and a medium not typically monitored in studies required
38 for registration. Many other researchers have put forward such scenarios where they believe
39 particular risks have been unaccounted for in the registration process or relating to the choice
40 of a pesticide – synergies, particularly susceptible species, groundwater hydrology, indoor air
41 impacts, etc.

42 Given that mosquito pesticides are applied by the government, over wide areas of land and
43 very often on private property, a higher standard of consideration is warranted.

44 Recommendation and Rationale:

45 While it is beyond the scope, charge, and expertise of the MCTF Pesticide Selection
46 Subcommittee to recommend that this particular exposure scenario be considered in choosing
47 and/or limiting pesticides used for mosquito applications, we do recommend that whatever
48 group is charged with choosing mosquito pesticides to be used in the Commonwealth
49 consciously create a process where novel or otherwise unaccounted for risks can be put
50 forward for consideration in the process. The technical experts in this group should be charged
51 first with evaluating the validity and strength of the proposed concern. If it is deemed
52 significant, the risk or concern should become part of the decision-making process.

53 Many of the novel exposures and risks that will be considered in the “process” will be emerging
54 concerns among scientists and the public and may have only preliminary data available and not
55 enough evidence to warrant changes in pesticide selection. Therefore, the MCTF Pesticide
56 Selection Subcommittee also recommends that the Legislature create a line item in the budget
57 specific to funding pilot studies to further investigate concerns about potential novel exposures
58 and risks. The pesticide selection board could consider regular (annual or biannual) calls for
59 proposals where scientists could propose studies to investigate an emerging concern or
60 requests for proposals on specific topics as they arise.

61 Voting Results

- 62 ▪ Five subcommittee members supported this recommendation.
- 63 ▪ Two subcommittee members did not support this recommendation.

1 **Directive:**

2 Make recommendations regarding “employing methods, including product disclosures or
3 implementation of testing protocols and procedures, to avoid the use of pesticides containing
4 per- and polyfluoroalkyl substances (PFAS).”

5 **Recommendation PS-7: Avoiding Use of Pesticides Containing PFAS and Other Contaminants**

6 Background:

7 Concern about the impact that PFAS compounds have on human health and the environment
8 has increased in the last decade. Massachusetts has been proactive in regulating PFAS in
9 drinking water and groundwater by setting a Massachusetts Maximum Contaminant Level of 20
10 parts per trillion (ppt) for the sum of six PFAS compounds (PFAS6), as well as classifying PFAS as
11 a hazardous material under MGL 21E and the Massachusetts Contingency Plan. PFAS are
12 ubiquitous, they are persistent, and sampling conducted throughout the Commonwealth shows
13 their presence in rivers, groundwater, soils, drinking water sources (both public and private),
14 wastewater discharges, and biosolids.²

15 In September 2020, Public Employees for Environmental Responsibility (PEER) notified the
16 Commonwealth and the United States Environmental Protection Agency’s (EPA) Region 1 office
17 that sampling they conducted indicated the presence of PFAS in Anvil 10+10. Follow up
18 sampling conducted by MassDEP and EPA confirmed the presence of PFAS in the pesticide. “In
19 response to public interest in PFAS chemicals, the EPA Office of Pesticide Programs previously
20 determined that there were no pesticide active or inert ingredients with structures similar to
21 prominent PFAS such as PFOS, PFOA, and GenX.”³ After further investigation it was determined
22 that the PFAS was not part of the product formulation, but rather PFAS was leaching from the
23 containers that the pesticide was distributed in.⁴ EPA confirmed that it “detected eight different
24 PFAS from the fluorinated HDPE containers, with levels ranging from 20-50 parts per billion,”⁵
25 which is quite a bit higher than the Massachusetts Maximum Contaminant Level of 20 ppt.
26 Given that we are still trying to understand PFAS fate and transport in the environment, seeing
27 levels as high as they were causes concern about the potential impact previous applications of
28 those pesticides could have had on groundwater and surface waters of the Commonwealth.
29 EPA and the manufacturer responded swiftly to the detection of PFAS in Anvil 10+10; EPA
30 encouraged states not to use the impacted product and to return it to the manufacturer.
31 Recognizing the importance of addressing concerns related to PFAS across many regulatory
32 programs, EPA released a strategic roadmap for actions they will be taking relative to PFAS;

² <https://www.mass.gov/info-details/per-and-polyfluoroalkyl-substances-pfas>

³ [https://www.epa.gov/pesticides/updates-epa-efforts-address-pfas-pesticide-packaging#:~:text=To%20date%2C%20the%20only%20PFAS,\(Anvil%2010%2D10\).](https://www.epa.gov/pesticides/updates-epa-efforts-address-pfas-pesticide-packaging#:~:text=To%20date%2C%20the%20only%20PFAS,(Anvil%2010%2D10).)

⁴ <https://www.epa.gov/pesticides/pfas-packaging>

⁵ <https://www.epa.gov/pesticides/pfas-packaging#info>

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33 Massachusetts should monitor the process closely and respond accordingly as new information
34 emerges.

35 Scientific research on PFAS is rapidly evolving, as is the ability to detect these compounds in
36 various media. EPA released a draft method for sample analysis of PFAS in oily matrix. In
37 addition, EPA is currently evaluating chemical structures and applying the working definition
38 from EPA’s Office of Pollution Prevention and Toxics (OPPT). EPA states: “Under FIFRA Section
39 6(a)(2), pesticide registrants should report to EPA additional factual information on
40 unreasonable adverse effects, including metabolites, degradates, and impurities (such as PFAS).
41 EPA considers any level of PFAS to be potentially toxicologically significant and may trigger
42 159.179(b) in the Code of Federal Regulations (CFR).”⁶ MDAR reports that the Pesticide Board
43 Subcommittee is reviewing PFAS concerns and may make recommendations related to
44 adopting EPA’s working definition.

45 Finding PFAS in pesticides that do not have these chemicals in their formulations raises the
46 question of how the Commonwealth can ensure that other “contaminants” are not
47 inadvertently introduced to the environment through the application of pesticides. The MCTF
48 Pesticide Selection Subcommittee recognizes that while PFAS is the current focus, the
49 Commonwealth should be prepared for other emerging contaminants, especially those that are
50 persistent and bioaccumulative, and proactively have a plan to address any concerns. Source
51 control is an important measure to ensure that inadvertent contamination of our drinking
52 water sources and the environment does not occur.

53 Recommendation:

54 To avoid use of pesticides containing PFAS and other contaminants, the MCTF Pesticide
55 Selection Subcommittee makes several recommendations. The text below directs these
56 recommendations to whatever body reviews mosquito pesticides for use in Massachusetts. The
57 recommendations are:

- 58 ▪ As analytical capabilities evolve, the Pesticide Board Subcommittee should have
59 methods available to ensure pesticide products registered in Massachusetts are not
60 contaminated with PFAS or emerging contaminants of concern as identified by EPA or
61 the United States Geological Survey. The MCTF Pesticide Selection Subcommittee
62 understands there are complexities and costs associated with testing products for use in
63 the Commonwealth. Some considerations to be discussed are the extent and frequency
64 of testing (e.g., is it every lot, is it each method of delivery, is it annually or just newly
65 registered pesticides, who is responsible for undertaking the testing, who is responsible
66 for paying for the testing). We also recognize that the charge of this Task Force is
67 specific to mosquito control, but some members of the MCTF Pesticide Selection
68 Subcommittee have concern that all pesticide products registered in Massachusetts

⁶ <https://www.epa.gov/pesticides/pfas-packaging#info>

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69 should be under evaluation. The Commonwealth could institute producer certification
70 requirements, or require the manufacturers to submit sampling results, or the
71 Commonwealth could undertake the sampling and analysis on its own, but additional
72 financial and personnel resources would need to be provided to any Massachusetts
73 agency tasked with that effort, not only to collect samples but also to interpret results.

74 ■ The MCTF Pesticide Selection Subcommittee is concerned about the old adage: “You
75 don’t know what you don’t know.” We have a desire for the Commonwealth to be
76 proactive, rather than reactive in identifying pesticides that might have unintended
77 properties. While we are currently focused on PFAS, there may be other characteristics,
78 such as pesticides that might have endocrine disrupting properties, which the Pesticide
79 Board Subcommittee may want to look at. Pesticides registered for use in
80 Massachusetts could be required to have bioassay screening which can pick up on
81 emerging contaminants or undesirable compounds, without requiring manufacturers to
82 disclose inert ingredients which could compromise Confidential Business Information.
83 Bioassay screening could utilize high-throughput in vitro assays such as those developed
84 and promoted by the federal Tox21 program (tox21.gov) and offered as services by
85 toxicology testing contractor companies. Additional financial and personnel resources
86 would need to be provided to the Pesticide Board Subcommittee to accomplish such an
87 evaluation.

88 ■ The Pesticide Board Subcommittee, a subcommittee of the SRB, or the appropriate
89 entity should prevent the use, through a “stop sale” or “stop use” order, of any
90 pesticides where PFAS or emerging contaminants of concern have been detected as an
91 active or inert ingredient or a contaminant in the product. This issue should be raised
92 with the Legislature’s Interagency PFAS Task Force which may have recommendations
93 related to PFAS source control in the Commonwealth. An outright ban on the sale or use
94 of pesticides that contain PFAS might need to be implemented through legislative
95 action. There is pending legislation to ban the use of PFAS in consumer products and
96 food packaging; pesticides could be added to that pending legislation.

97 ■ The Pesticide Board Subcommittee should define or categorize “persistence,” as it
98 relates to pesticides. Understanding that persistence may be a desirable trait in some
99 pesticide products; the Pesticide Board Subcommittee should have a process to
100 evaluate where persistence might be a concern and they should take appropriate action
101 to restrict use of such products in Massachusetts.

102 ■ EPA continues to evaluate what universe of chemicals are considered to be PFAS as it
103 relates to pesticides. If EPA determines that any pesticides have active ingredients that
104 fall into a current or revised PFAS definition, Massachusetts must make appropriate
105 registration decisions, including evaluating whether substances should be added to the
106 Groundwater Protection List.

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107

108 Voting Results

- 109 ▪ Four subcommittee members supported this recommendation.
- 110 ▪ Three subcommittee members did not support this recommendation.