STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY
BOARD OF PESTICIDES CONTROL
28 STATE HOUSE STATION
AUGUSTA, MAINE 04333

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

BOARD OF PESTICIDES CONTROL

August 27, 2021

9:00 AM Board Meeting
9:15-10:45 AM Public Information Gathering on LD 155, LD 264, and LD 524
10:45 AM Continue Board Meeting

Video conference hosted in MS Teams, to join the meeting:
Join on your computer or mobile app
Click here to join the meeting
Or call in (audio only)
1 207-209-4724 United States, Portland
Phone Conference ID: 440 033 928#

AGENDA

1. Introductions of Board and Staff

2. Minutes of the July 16, 2021 Board Meeting

   Presentation By: Megan Patterson, Director

   Action Needed: Amend and/or approve

3. Stakeholder Information Gathering Work Session on LD 155—Resolve, Directing the Board of Pesticides Control To Prohibit the Use of Certain Neonicotinoids for Outdoor Residential Use

   On June 10, 2021 LD 155 was signed into Maine law. This resolve directs the Board to prohibit the use of any product containing the active ingredient dinotefuran, clothianidin, imidacloprid or thiamethoxam used for application in outdoor residential landscapes such as on lawn, turf, or ornamental vegetation. The resolve directs the Board to provide exemptions for certain applications related to wood preservation, structural pests, pets, and emerging invasive insects. The Board is now soliciting informal stakeholder input on its rulemaking

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concepts prior to formally initiating rulemaking. Written comments may be sent to the Board's main office at Maine Board of Pesticides Control, 28 State House Station, Augusta, ME 04333-0028, or e-mailed to megan.l.patterson@maine.gov.

Presentation By:	Megan Patterson, Director
Action Needed:	Determine what rule changes the Board wishes to pursue and how to implement those changes

4. Stakeholder Information Gathering Work Session on LD 264—Resolve, Directing the Board of Pesticides Control To Gather Information Relating to Perfluoroalkyl and Polyfluoroalkyl Substances in the State

On June 10, 2021 LD 264 was signed into Maine law. This resolve directs the Board to amend its rules governing pesticide product registration to require manufacturers and distributors to provide affidavits stating whether the registered pesticide has ever been stored, distributed, or packaged in a fluorinated high-density polyethylene container. It further directs the Board to require manufacturers to provide an affidavit stating whether a polyfluoroalkyl or polyfluoroalkyl substance is in the formulation of the registered pesticide. This resolve also directs the board to conduct a study and report back on the distribution and use of fluorinated adjuvants in Maine, how to regulate adjuvants, and how to prohibit distribution and use pesticides and adjuvants containing perfluoroalkyl or polyfluoroalkyl substances in Maine. The Board is now soliciting informal stakeholder input on its rulemaking concepts prior to formally initiating rulemaking. Written comments may be sent to the Board's main office at Maine Board of Pesticides Control, 28 State House Station, Augusta, ME 04333-0028, or e-mailed to megan.l.patterson@maine.gov.

Presentation By:	Megan Patterson, Director
Action Needed:	Determine what rule changes the Board wishes to pursue and how to implement those changes

5. Stakeholder Information Gathering Work Session on LD 524—Resolve, Directing the Board of Pesticides Control To Research Workable Methods To Collect Pesticide Sales and Use Records for the Purpose of Providing Information to the Public

On June 14, 2021 LD 524 was signed into law. The resolve directs the Board to research workable methods to collect pesticide sales and use records for the purpose of providing information to the public. The resolve also directs the Board to research the best methods for collecting information from schools, private applicators, and commercial applicators. The Board is further directed to research the best methods for collecting information on pesticide sales in the State. The Board is now soliciting informal stakeholder input on its rulemaking concepts prior to formally initiating rulemaking. Written comments may be sent to the

Board's main office at Maine Board of Pesticides Control, 28 State House Station, Augusta, ME 04333-0028, or e-mailed to megan.l.patterson@maine.gov.

Presentation By: Megan Patterson, Director

Action Needed: Determine what rule changes the Board wishes to pursue and how to implement those changes

6. Discussion of Powered Application of Disinfectants and Licensing Requirements

In 2020 and 2021 the Board discussed the use of powered equipment for the application of disinfectants. While the Board does not have the authority to allow unlicensed individuals to use powered equipment without a license, the Board did vote to support a Governor's Office executive order providing a license exemption for certain individuals conducting these types of applications in areas open to use by the public. That executive order, EO 7A FY20/21, has now expired and previously exempted individuals and others are inquiring about an extended or permanent licensing exemption. Staff have compiled relevant information for the Board's consideration.

Presentation By: Dr. Pam Bryer, Pesticides Toxicologist and Megan Patterson, Director

Action Needed: Discussion

7. Review of Potential Rulemaking Concepts Pertaining to LD 316—An Act To Prohibit the Use of Chlorpyrifos

On June 8, 2021 LD 316 was signed into Maine law. This law prohibits, beginning January 1, 2022, the distribution of pesticides containing chlorpyrifos as an active ingredient. The law allows the Board to grant temporary permits from January 1, 2022 to December 31, 2022 authorizing licensed pesticide applicators to use pesticides containing chlorpyrifos, as long as the product was in the State and in the possession of the applicator before January 1, 2022. On July 16, 2021, the Board directed staff to return with a review of rulemaking concepts.

Presentation By: Megan Patterson, Director

Action Needed: Refine the rulemaking concepts and schedule a hearing

8. Proposed Ad Hoc Member of the Medical Advisory Committee

At the July 16, 2021 meeting, the Board revised its Medical Advisory Committee (MAC) policy. While the Board has identified a qualified individual to serve in the standing role formerly reserved for the State Toxicologist, the Board has not reviewed and approved any ad hoc members. This MAC is charged with assessing the human health risk posed by the application of herbicides on school grounds. The Board will now consider the appointment of a proposed ad hoc member.

Presentation By: Megan Patterson, Director

Action Needed: Discussion and approve/disapprove ad hoc member proposal

9. Consideration of Enforcement Action with Mosquito Squad of Southern Maine,

The Board has previously indicated an interest in determining the appropriate enforcement response in cases involving significant violations of pesticide laws and regulations. Typically, staff follows the Board's Enforcement Protocol which authorizes staff to work with the Attorney General to negotiate consent agreements in advance on maters not involving substantial threats to the environment or public health. Staff have identified this as a case involving significant violations of pesticides laws and regulations and will now present the case for Board deliberation and discussion of next steps.

Presentation By: Raymond Connors, Manager of Enforcement

Action Needed: Discussion and approve/disapprove next steps

10. Other Old and New Business

a. State Plan update (Pietroski)

b. Online Exams update (Pietroski)

c. Governor's Office Executive Order 41 FY 20/21 update (Patterson)

d. LD 808—An Act to Repeal the Pesticide Container Fee and Tick Laboratory and Pest management Fund

e. Final Remote Meeting Policy

f. Revised Medical Advisory Committee Policy

k. Other items?

11. Schedule of Future Meetings

October 8, 2021 is next tentative Board meeting date. The Board will decide whether to change and/or add dates.

Adjustments and/or Additional Dates?

12. Adjourn

NOTES

- The Board Meeting Agenda and most supporting documents are posted one week before the meeting on the Board website at www.thinkfirstspraylast.org.
- Any person wishing to receive notices and agendas for meetings of the Board, Medical Advisory Committee, or Environmental Risk Advisory Committee must submit a request in writing to the Board's office. Any person with technical expertise who would like to volunteer for service on either committee is invited to submit their resume for future consideration.
- On November 16, 2007, the Board adopted the following policy for submission and distribution of comments and information when conducting routine business (product registration, variances, enforcement actions, etc.):
  - *For regular, non-rulemaking business*, the Board will accept pesticide-related letters, reports, and articles. Reports and articles must be from peer-reviewed journals. E-mail, hard copy, or fax should be sent to the Board's office or pesticides@maine.gov. In order for the Board to receive this information in time for distribution and consideration at its next meeting, all communications must be received by 8:00 AM, three days prior to the Board meeting date (e.g., if the meeting is on a Friday, the deadline would be Tuesday at 8:00 AM). Any information received after the deadline will be held over for the next meeting.
- During rulemaking, when proposing new or amending old regulations, the Board is subject to the requirements of the APA (Administrative Procedures Act), and comments must be taken according to the rules established by the Legislature.

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BOARD OF PESTICIDES CONTROL

July 16, 2021

9:00 AM Board Meeting

Video conference hosted in MS Teams

MINUTES

Present: Adams, Bohlen, Flewelling, Granger, Jemison, Morrill, Waterman

1. Introductions of Board and Staff
   - The Board, Staff, and Assistant Attorney General Mark Randlett introduced themselves.
   - Staff: Boyd, Brown, Bryer, Connors, Couture, Kelley, Patterson, Peacock, Saucier, Tomlinson

2. Minutes of the April 16, 2021 Board Meeting

   Presentation By: Megan Patterson, Director

   Action Needed: Amend and/or approve

   - **Jemison/Bohlen: Moved and seconded approval of minutes as amended**
   - **In Favor: Unanimous**

3. LD 155—Resolve, Directing the Board of Pesticides Control To Prohibit the Use of Certain Neonicotinoids for Outdoor Residential Use

   On June 10, 2021 LD 155 was signed into Maine law. This resolve directs the Board to prohibit the use of any product containing the active ingredient dinotefuran, clothianidin, imidacloprid or thiamethoxam used for application in outdoor residential landscapes such as on lawn, turf, or ornamental vegetation. The resolve directs the Board to provide exemptions for certain applications related to wood preservation, structural pests, pets, and emerging invasive insects.

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Presentation By: Megan Patterson, Director

Action Needed: Information only

- Patterson told the Board that this was a resolve directing the Board to take action to manage use in certain settings of certain pesticides containing neonicotinoids.
- Patterson asked the Board how they would like to handle creating a definition for emerging invasive pests and how to prohibit these active ingredients in some settings but not in others. She noted the importance of doing this in a way that would be easy for the public and general pesticide dealers to understand and easy to enforce.
- Bohlen asked if the resolve changed the Board's existing legal authority in anyway.
- Patterson stated that it did not.
- There was discussion of how this could be handled. Patterson suggested that adding the additional prohibitions in Chapter 41 may be the simplest way to address and make it less confusing for compliance and enforcement
- Jemison stated that seemed like a good approach and asked if the Board needed to make these active ingredients restricted use or just add limitations to use.
- Randlett responded that the Board could just limit use on specific sites.
- Patterson asked about how to functionally manage the sale of these products at general pesticide dealers if they are not made state restricted.
- Randlett stated that it would be a matter of enforcement if staff find out any of the products had been used in a manner outside of what is described as acceptable.
- There was discussion about a possible homeowner permit and Adams added that a possible additional prohibition could be added in Chapter 41 that only for commercial applicators may purchase these products.
- Randlett commented that the state could be more restrictive than federal law but not less restrictive so the board could prohibit sale of products to homeowners for these purposes.
- Morrill suggested possibly holding a stakeholder information gathering meeting first before going through these products individually.

4. <u>LD 264—Resolve, Directing the Board of Pesticides Control To Gather Information Relating to Perfluoroalkyl and Polyfluoroalkyl Substances in the State</u>

On June 10, 2021 LD 264 was signed into Maine law. This resolve directs the Board to amend its rules governing pesticide product registration to require manufacturers and distributors to provide affidavits stating whether the registered pesticide has ever been stored, distributed, or packaged in a fluorinated high-density polyethylene container. It further directs the Board to require manufacturers to provide an affidavit stating whether a polyfluoroalkyl or polyfluoroalkyl substance is in the formulation of the registered pesticide. This resolve also directs the board to conduct a study and report back on the distribution and use of fluorinated adjuvants in Maine, how to regulate adjuvants, and how to prohibit

distribution and use pesticides and adjuvants containing perfluoroalkyl or polyfluoroalkyl substances in Maine. A report back is required by January 15, 2022.

Presentation By: Megan Patterson, Director

Action Needed: Information only

- Patterson stated this was a resolve directing the Board to act and was signed into law on June 10, 2021. Staff must determine whether pesticide products that are registered have ever been stored in a fluorinated high-density polyethylene (HDPE) container. The bill requires manufacturers and distributor to supply an affidavit stating whether or not a pesticide has ever been stored, distributed or packaged in a fluorinated HDPE container. Manufacturers must provide an affidavit stating whether a pesticide formulation contains PFAS.
- Flewelling asked if there were steps being taken to eliminate the potential of PFAS contamination, and if containers with PFAS are all pesticide containers.
- Patterson responded that EPA is researching the issue and right now it was unclear the extent of PFAS contamination in pesticide packaging and production. She added that EPA recently revised its definition of PFAS over 9,000 compounds.
- Flewelling asked why manufacturers are using the fluorination process that is causing the PFAS leaching.
- Patterson explained the process of fluorination and the reasoning behind it was to make a container more durable, less permeable, and less likely for products to bind to plastics. She noted that the reason this began was that EPA adopted U.S. DOT standards into their laws that require containers to be durable for two years.
- Bohlen stated that PFAS were in multiple other products and wanted to move forward making sure staff were looking at and really recognizing what was rationally the additive risk.
- Granger asked if we knew how many pesticide products were packaged in HDPE containers and if there were other products packaged in these containers.
- Patterson responded that fluorination was used in many types of products and early comments from EPA suggested that approximately two thirds of agrochemicals, including fertilizers and adjuvants, might be packaged in fluorinated containers but it was not clear what the level of fluorination was and whether that made a difference in formation of PFAS in those products.
- Adams asked if staff had the time or resources to start investigating every product and surfactant.
- Patterson responded that staff have started looking into most of the bills that were discussed. Staff have looked at what it will take to build at a tool to compare CAS numbers of PFAS compounds and the confidential statement of formula. She stated there was also the need to know what PFAS definitions are relevant and which PFAS would be of greatest concern.

- Bohlen commented that it was worth remembering that the resolve suggested a very concrete rule about affidavits and did not think staff needed to answer everything we have discussed here.
- Morrill agreed with Bohlen that staff should focus on the specific ask of the resolve.
- Bryer told the Board that the highest level of PFAS found in pesticide containers was around the 250 ppt which is 250 ppt lower than found in rainwater in a recent study in Illinois.

5. LD 316—An Act To Prohibit the Use of Chlorpyrifos

On June 8, 2021 LD 316 was signed into Maine law. This law prohibits, beginning January 1, 2022, the distribution of pesticides containing chlorpyrifos as an active ingredient. The law allows the Board to grant temporary permits from January 1, 2022 to December 31, 2022 authorizing licensed pesticide applicators to use pesticides containing chlorpyrifos, as long as the product was in the State and in the possession of the applicator before January 1, 2022. The law directs the Board to post on its website a list of the temporary permits issued.

Presentation By: Megan Patterson, Director

Action Needed: Information only

- Patterson stated that this law would become effective in 90 days but it allowed the Board to issue temporary permits until January 1, 2022 as long as the product held by applicators was in their possession and in the state before this time. She added that rulemaking would likely be necessary for Chapter 40 for prohibition of use and/or Chapter 41 for the issuance of permits. Patterson added that the bill required issued permits to be listed on the BPC website.

The Board discussed what this is used for in the state. It was noted that there were about 20-30 products currently registered with this active ingredient. The There was a discussion about the board's past practice regarding the issuance of temporary permits and how it might be accomplished. 6. LD 519—An Act To Protect Children from Exposure to Toxic Chemicals

On June 14, 2021 LD 519 was signed into law. This law prohibits the use of glyphosate and dicamba on school grounds and within 75 feet of school grounds. Exempted from this prohibition are residential property and land used for commercial farming. The law directs the Board to convene a medical advisory committee to evaluate the potential impact of herbicides used on school grounds on human health. A report back is required by February 1, 2022.

Presentation By: Megan Patterson, Director

Action Needed: Information only

- Patterson told the Board that this was adopted into law on June 14, 2021 and prohibited the use of glyphosate and dicamba on school grounds and within 75 feet of school grounds. She noted that the Board must direct the medical advisory committee to evaluate the impact of herbicides on school grounds and report back by to the legislature by February 2022.
- There was a discussion about standing contracts with schools, especially regarding ballfields, fuel tanks, school perimeters and what alternatives may be used.

7. LD 524—Resolve, Directing the Board of Pesticides Control To Research Workable Methods To Collect Pesticide Sales and Use Records for the Purpose of Providing Information to the Public

On June 14, 2021 LD 524 was signed into law. The resolve directs the Board to research workable methods to collect pesticide sales and use records for the purpose of providing information to the public. The resolve also directs the Board to research the best methods for collecting information from schools, private applicators, and commercial applicators. The Board is further directed to research the best methods for collecting information on pesticide sales in the State. A report back is required by January 1, 2022.

Presentation By: Megan Patterson, Director

Action Needed: Information only

- Patterson stated that staff were required to report back on this by January 1, 2022. She added that functionality to collect summary use reports for commercial applicators and summary sales reports for dealers was added into MePERLS and staff were currently entering historical use data.
- Bohlen commented on the ability to get good data and that it was a very high call for effort which may likely cause data quality to decrease.
- Patterson told the Board that California currently required weekly reporting of application records, but they went to county offices first and were brought back to the farmer if there were issues before the records went to the state. She added that this process was very costly, approximately $15 million annually.
- Morrill commented that it seemed like the resolve was really asking to research sales and use methods to provide info to the public, including use of pesticides in schools.
- Patterson noted that this would also add private applicators who were currently not required to provide annual use reports.

8. Executive Order 41 FY 2021

On June 30, 2021, the Governor issued Executive Order 41 FY 2021. This EO directs the Board, in consultation with the Maine Forest Service and other stakeholders and interested parties, to review and amend rules related to the aerial application of glyphosate and other synthetic herbicides for the purpose of silviculture. The EO identifies a specific process for this review which includes a review of existing BMPs for aerial application of herbicides, development of a water quality monitoring effort, a review of the existing regulatory framework related to buffers and sensitive areas, and a series of public meetings. A report back is required by January 2, 2022.

Presentation By: Megan Patterson, Director

Action Needed: Information only

- Patterson told the Board that this was related to the SCS Global work on aerial application in forestry and whether or not existing regulations were working as intended. She added that staff had already taken 10 samples with money left from existing federal grant, focusing on buffers around bodies of water, sensitive areas likely to be occupied, and natural resources.
- Morrill said that it seemed like there were two asks in this and both of them require a working group of BPC and the Maine Forest Service, MFS.
- Patterson stated that she has been in constant communication with MFS about the responsibilities outlined in the executive order and they have suggested repeatedly that they have no staff to assist on this work but would provide guidance and attend joint meetings. MFS has also reached out to the Cooperative Forestry Research Unit, but that effort had not produced any leads. .
- There was discussion amongst the Board regarding where staff could receive assistance in obtaining the information. University of Maine and the research center at Durham NH USDA were discussed. Bohlen commented that a consulting firm may be able to move more quickly.

9. Review of 2021 Legislative and Governor Directives

The Board has been tasked with responding to a number of new laws, resolves and an executive order. Staff have compiled these directives and are seeking the Board's guidance in prioritizing these efforts.

Presentation By: Megan Patterson, Director

Action Needed: Discussion and approve/disapprove next steps

- Patterson stated there were some items that needed to be identified when thinking about implementing LD 155, for example the definition of an emerging invasive insect pest.
    - Morrill stated to consider if an information gathering session is needed and if we do not the Board will look to staff o draft the rule.

- Patterson stated she felt staff needed a little more guidance for this one.
- Morrill suggested scheduling a stakeholder information gathering session at the next board meeting.

- Morrill suggested moving towards hosting a stakeholder information gathering session for LD 264.
  - Patterson agreed but stated she was on the fence about the scope and would look for direction from the Board.
  - Morrill stated that manufacturers have knowledge of their products but did not think a distributor would have the same depth ofknowledge
- Patterson asked how the Board would like to advertise the stakeholder information gathering sessions.
- Morrill responded that it could be included as part of the meeting and the information could be sent to the list of commercial applicators as well.
- Morrill stated that LD 316 seemed pretty straightforward
  - Patterson agreed and noted that the Board would likely need to go through rulemaking process for it.
  - Adams asked if there was any understanding of how much inventory was in State.
  - Patterson responded that it was currently pretty low compared to what it had been historically, and that use had been declining. She noted that staff had bumped up obsolete collection money by $10,000 to account for possible additional demand for disposal services.
  - There was discussion of whether a stakeholder information gathering meeting was required for this and it was decided that it was not needed.
  - Patterson stated she thought there was language in statute that allowed the Board to ban the use of a product if it was causing undue harm.
  - Randlett confirmed that legislation in place gave the Board that authority.
  - Morrill asked that staff draft rule to bring to the next meeting for the Board to review.
- Patterson asked if the Board wanted a MAC to take up the directive in the LD 519 resolve.
  - Randlett commented that he generally advised against replicating statutory language in rule to make sure intent of statute was not altered. He stated the Board could make a reference to the statutory prohibition in the rule.
- Morrill stated a stakeholder information gathering session should be scheduled for LD 524.

10. <u>Medical Advisory Committee Policy Revision</u>

In 2008, the Board adopted its current policy related to the Medical Advisory Committee (MAC). This policy details the purpose of the MAC as well its standing membership. The present policy indicates that one standing member is the State Toxicologist or their designee. At this time, the State Toxicologist and his staff are unable to participate due to ongoing demands. While the State Toxicologist did suggest other individuals, who might serve in this role, if the State Toxicologist or their staff are not serving on the MAC, the current MAC policy is now out of date and should be revised.

Presentation By: Megan Patterson, Director

Action Needed: Discussion and approve/disapprove a policy revision

- Patterson stated that the MAC policy had not been revised since 2008 and the Board needed to identify how to amend the standing membership section to accommodate the state toxicologist's absence. She stated that Lebelle Hicks had expressed interest in serving in this position.
- Patterson asked if the MAC would be able to start work before the next Board meeting or if they need to wait for a finally adopted policy.
- Randlett stated that the Board could vote to approve an ad hoc member and amend Board policy. The Board would need to hold another meeting to conduct the vote for the selected ad hoc member.

    - **Morrill/Bohlen: Moved and seconded to revise policy to allow for a third member to be a scientist with a background in toxicology with the first choice being the state toxicologist**
    - **In Favor: Unanimous**

11. Consideration of Consent Agreement with Orkin Exterminating Company Inc., Portland

The Board's Enforcement Protocol authorizes staff to work with the Attorney General and negotiate consent agreements in advance on matters not involving substantial threats to the environment or public health. This procedure was designed for cases where there is no dispute of material facts or law, and the violator admits to the violation and acknowledges a willingness to pay a fine to resolve the matter. This case involves the poisoning of a dog and a spray contracting firm directing an unlicensed/unsupervised applicator to make pesticide applications.

Presentation By: Raymond Connors, Manager of Compliance

Action Needed: Approve/disapprove the consent agreement negotiated by staff

- Connors stated that this consent agreement involved an unlicensed applicator and who left bait stations unsecured which resulted in a dog being poisoned.

- **Jemison/Granger: Moved and seconded to approve consent agreement**
- **In Favor: Unanimous**

12. Other Old and New Business

a. Email from Asher Putterman

b. Letter from Conservation Law Foundation and Public Employees for Environmental Responsibility

c. Letter from Versant Power

d. Variance Permit for CMR 01-026 Chapter 29, Maine Department of Transportation, Bureau of Maintenance & Operations

e. Variance Permit for CMR 01-026 Chapter 29, RWC, Inc.

f. Variance Permit for CMR 01-026 Chapter 29, Asplundh Tree Expert Co.- Railroad Division

g. Variance permit for CMR 01-026 Chapter 29, Acadia National Park

h. LD 226—An Act To Limit the Use of Hydrofluorocarbons To Fight Climate Change

i. LD 771—An Act To Amend the Laws Governing Wastewater Treatment Plant Operator Certification

amends process of certification- gives dep additional authorities to pursue violations

j. LD 1159—An Act to Amend the Membership Requirements of the Board of Pesticides Control

k. Other items?

- Randlett stated that the governor's executive order ended on June 30th and the ability to hold public meetings remotely would expire on July 30th. He added that LD 32 enacted by legislature did allow some ongoing remote meetings, but it was very limited. Randlett said that to continue to have remote meetings the Board would need to adopt a policy stating when they could hold meetings remotely and that they must provide the ability for the pubic to attend. He told the Board that Board members must be present at all meetings unless there was an emergency.

13. Schedule of Future Meetings

August 27, and October 8, 2021 are tentative Board meeting dates. The Board will decide whether to change and/or add dates.

14. Adjourn

- **Waterman/Jemison: Moved and seconded to adjourn at 12:00 PM**
- **In Favor: Unanimous**

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APPROVED
JUNE 10, 2021
BY GOVERNOR

CHAPTER
33
RESOLVES

STATE OF MAINE

IN THE YEAR OF OUR LORD

TWO THOUSAND TWENTY-ONE

H.P. 111 - L.D. 155

Resolve, Directing the Board of Pesticides Control To Prohibit the Use of Certain Neonicotinoids for Outdoor Residential Use

Sec. 1. Prohibit the use of certain neonicotinoids for outdoor use. Resolved: That, pursuant to the Maine Revised Statutes, Title 7, section 610, the Department of Agriculture, Conservation and Forestry, Board of Pesticides Control shall prohibit the use of any product containing the active ingredient dinotefuran, clothianidin, imidacloprid or thiamethoxam used for application in outdoor residential landscapes such as on lawn, turf or ornamental vegetation. Products used for preserving wood, controlling or treating indoor pests, controlling or treating insects outside around structural foundations and other parts of structures and treating pets, as defined under Title 7, section 712, subsection 16, are specifically exempt from the prohibition under this section. The board shall allow the use of any product containing the active ingredient dinotefuran, clothianidin, imidacloprid or thiamethoxam by certified applicators as defined under Title 22, section 1471-C, subsection 4 on ornamental vegetation to manage emerging invasive insect pests, including but not limited to the Asian long-horned beetle, emerald ash borer and hemlock wooly adelgid in order to safeguard the public health, safety and welfare of the State and to protect the natural resources of the State. Rules adopted pursuant to this section are routine technical rules as defined in Title 5, chapter 375, subchapter 2-A.

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APPROVED
JUNE 21, 2021
BY GOVERNOR

CHAPTER
83
RESOLVES

STATE OF MAINE

IN THE YEAR OF OUR LORD

TWO THOUSAND TWENTY-ONE

H.P. 185 - L.D. 264

Resolve, Directing the Board of Pesticides Control To Gather Information Relating to Perfluoroalkyl and Polyfluoroalkyl Substances in the State

Sec. 1. Board of Pesticides Control to amend rules relating to registered pesticides. Resolved: That the Department of Agriculture, Conservation and Forestry, Board of Pesticides Control shall amend its rules governing the registration of pesticides in the State to require manufacturers and distributors to provide affidavits stating whether the registered pesticide has ever been stored, distributed or packaged in a fluorinated high-density polyethylene container and to require manufacturers to provide an affidavit stating whether a perfluoroalkyl or polyfluoroalkyl substance is in the formulation of the registered pesticide.

Sec. 2. Board of Pesticides Control to gather information relating to perfluoroalkyl and polyfluoroalkyl substances. Resolved: The Department of Agriculture, Conservation and Forestry, Board of Pesticides Control shall conduct a study to determine if fluorinated adjuvants are being used or sold in the State. The board shall explore what is needed to regulate fluorinated adjuvants in the State and shall explore what is necessary to impose a prohibition on the distribution or application of pesticides or adjuvants containing perfluoroalkyl or polyfluoroalkyl substances in the State. The board shall develop a feasible definition of perfluoroalkyl or polyfluoroalkyl adulteration in a pesticide. The board shall submit a report based on the study with findings and recommendations to the Joint Standing Committee on Agriculture, Conservation and Forestry no later than January 15, 2022. The joint standing committee may submit a bill to the 130th Legislature relating to the subject matter of the report.

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AMANDA E. BEAL
COMMISSIONER

To: Board Members
From: Staff prepared by Pamela J. Bryer, Ph.D., Pesticides Toxicologist
Re: LD 264 Directives
Date: August 19, 2021

In Section 1 of LD 264 the legislature directs the Board of Pesticides Control to amend its registration rules to add the requirement of affidavits declaring the absence of PFAS chemicals in pesticide products.

Background
In 2020, testing of pesticide products led to the discovery of 8 different PFAS in a small number of mosquito adulticides used in public health aerial spray programs in other states. The scope of PFAS contamination in other pesticide products is currently unknown. Early testing of a limited number of products shows a pattern of PFAS chemicals appearing in pesticide products due to packaging in HDPE containers that have been reinforced with a fluorination process.

Initially, EPA's Office of Pesticide Programs (OPP) stated that there were no PFAS used as active or other "inert" ingredients in any currently registered pesticides. EPA OPP has since revised its definition of PFAS and currently says that there probably are a handful of active ingredients that can be categorized as PFAS. This difference stems from how PFAS is defined. Table 1 of this memo lists several different lists and definitions of PFAS chemicals. Currently, using the broadest definition of PFAS at EPA there are approximately 9,252 unique chemicals in this category. Cross checking this list (the Master List) against all chemicals currently in registered pesticide products produces approximately 190 chemicals.

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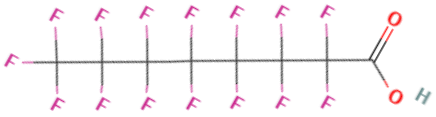
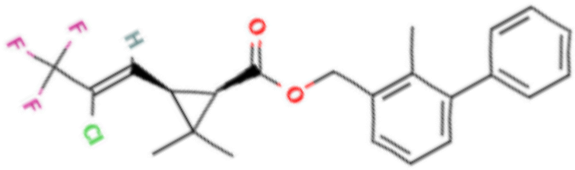
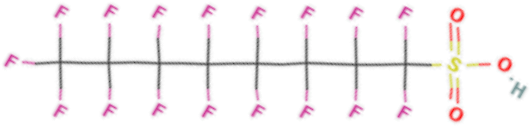
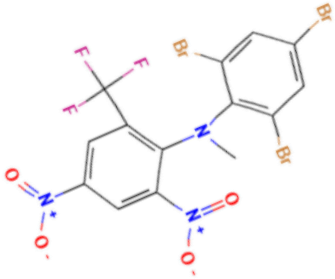
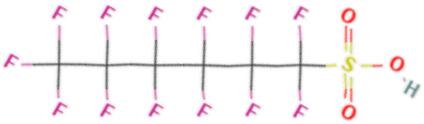
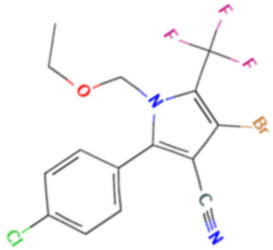
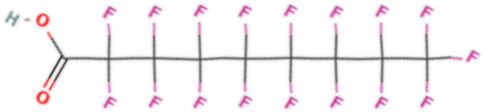
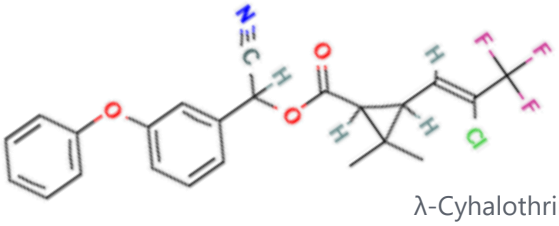
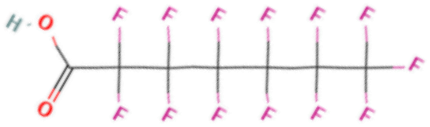
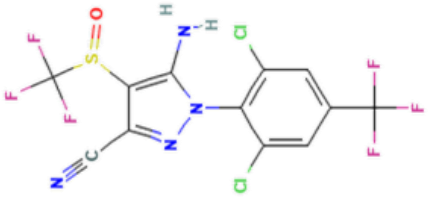
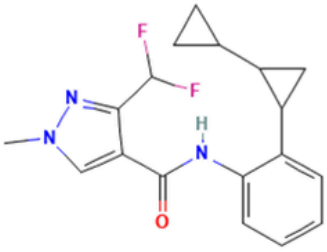
Table 1. Summary of multiple definitions of PFAS chemicals relevant to pesticide regulation.

Origin of Definition	Number of Chemicals	Definition	Notes on the Used Definition
1) EPA's PFAS Master List	9,252	A List of Lists: Per- and polyfluorinated alkyl substances (PFAS) represent a growing, increasingly diverse inventory of chemicals of interest to the general public, scientific researchers, and regulatory agencies world-wide. Accompanying data-gathering, testing, and environmental monitoring exercises, in turn, have led to the publication and sharing of various lists of PFAS chemicals, some exceeding several thousand substances.	US EPA "PFAS Master List of PFAS Substances (Version 2)"; serves as consolidated list of substances spanning and bounded by the lists, defining a practical boundary of PFAS chemical space (within DSSTox) of current interest to researchers and regulators worldwide.
2) EPA Drinking Water Test	18	Compounds positively identified by Method 537.1. Method 537.1 is one of the standard tests used for drinking water throughout the US.	Method 537.1: Determination of Per- and Polyfluoroalkyl Substances in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) (2018/2020)
3) Found in Pesticide Container Testing	8	Testing done at EPA's Ft Mead in 2020 using a Modified Method 537.1	PFAS compounds detected on/in the containers
4) In Maine: "Sum of 6 PFAS" / "regulated PFAS contaminants"	6	"Perfluoroalkyl and polyfluoroalkyl substances" or "PFAS" means a perfluoroalkyl substance or polyfluoroalkyl substance that is detectable in drinking water using standard analytical methods established by the United States Environmental Protection Agency, including regulated PFAS contaminants.	Resolve 2021, Ch.82 - LD129: To Protect Consumers of Public Drinking Water by Establishing Maximum Contaminant Levels for Certain Substances and Contaminants
5) EPA OPPT	190	"…a structure that contains the unit R-CF2-CF(R')(R''), where R, R', and R'' do not equal "H" and the carbon-carbon bond is saturated (note: branching, heteroatoms, and cyclic structures are included)…."	EPA OPP's "working definition"; This list captures the pesticide active ingredients that fit the "one fully fluorinated carbon" definition seen in recent legislation. This list includes pesticides active and other ingredients.
6) EPA with National Toxicology Program	75	Individual chemicals prioritized for future toxicity testing.	Per- and Polyfluoroalkyl Substances (PFAS) list corresponds to 75 samples (Set 1) submitted for the initial testing screens conducted by EPA researchers in collaboration with researchers at the National Toxicology Program.

This group of 190 chemicals is a combination of active ingredients and all other "inert" ingredients included in pesticide products. A quick scan of this list finds several commonly used active ingredients, including bifenthrin, bromethalin, chlorfenapyr, cyhalothrin (alpha gamma lambda) fipronil, fluvalinate, indoxacarb, prodiamine, tefluthrin, tetraniliprole, trifloxystrobin, triflusulfuron-methyl, and trifluralin. Under this broad definition any chemical with a carbon bound to as few as two fluorine atoms qualifies as a PFAS. This categorization pulls in many commonly used chemicals. As an example of the scope of this recategorization, an inert found with the 'fully fluorinated carbon' approach, 1,1,1,2-tetrafluorocarbon, is also found on EPA's List 4b. EPA's List 4b is considered to represent inert 'ingredients of minimal concern' a status that makes them available for use in the National Organic Program. Table 2 provides examples of compounds that fit the original definition of PFAS and several of the pesticide active ingredients that fall into this broader 'one fully fluorinated carbon' category.

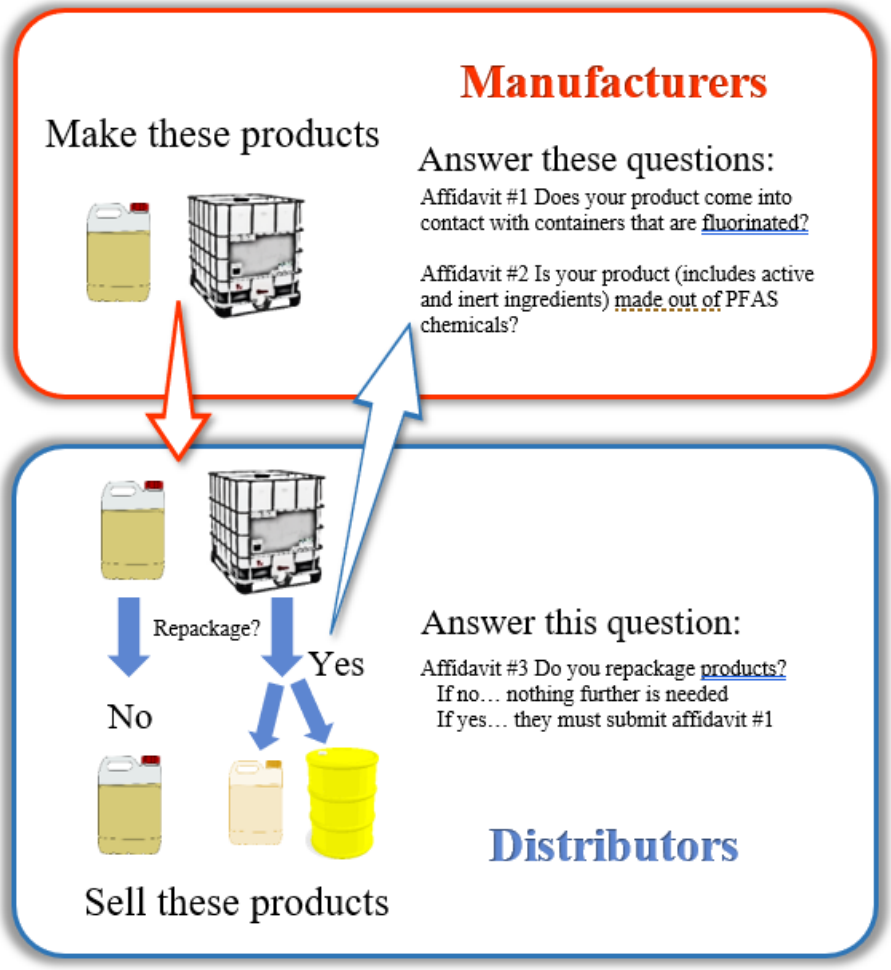
Active ingredients that have been through the registration process are unlikely to possess the same toxicological properties as these originally identified PFAS. A major concern with PFAS is their persistence in the environment and in organisms. Both of these metrics are measured as requirements for registration. However, the health effects linked to PFAS are not explicitly tested as part of registration. PFAS exposures in humans may be linked to elevated cholesterol, dampened immune response to vaccination, changes in liver enzyme production, decreased birth weight, high blood pressure or pre-eclampsia in pregnant women, and increased risk of kidney or testicular cancer. Pesticide registration testing typically includes studies evaluating life-long exposures and responses like blood parameters (which may include liver enzymes), pregnancy health metrics, and several tests for carcinogenicity. It is currently unknown the degree to which PFAS exposures are affecting the general population. To date, the effects seen in humans focus on areas with high rates of contamination, mainly via drinking water contamination, from fire-fighting foams used at military bases, manufacturing plant pollution, and biosolids spreading in agriculture.

“Sum of Six” PFAS Compounds (Those traditionally considered as PFAS)	**Six current use pesticide product ingredients fitting the definition of “one fully fluorinated carbon”**
 Perfluorooctanoic acid	 Bifenthrin
 Perfluorooctanesulfonic acid	 Bromethalin
 Perfluorohexanesulfonic acid	 Chlorfenapyr
 Perfluorononanoic acid	 λ-Cyhalothrin
 Perfluoroheptanoic acid	 Fipronil
 Perfluorodecanoic acid	 Sedaxane

LD 264 directs the creation of two separate affidavits.

- One affidavit to be required as part of the registration process is for pesticide manufacturers to state "whether the registered pesticide has ever been stored, distributed or packaged in a fluorinated high-density polyethylene container".
- A second required affidavit is for manufacturers to indicate if, "a perfluoroalkyl or polyfluoroalkyl substance is in the formulation of the registered pesticide".

The BPC proposes a third affidavit document in order to capture distributors more effectively. The distributor of a product is likely not going to be able to proclaim details about products prior to taking possession. This third affidavit asks distributors to state whether they have, "repackaged the product". If the pesticide product remains as received from the manufacturer no further information needs to be collected, because that information would have been satisfied by the manufacturer. Below is an infographic showing this arrangement of affidavits.



Affidavits for manufacturers and distributors proposed to be required at registration

Section 2 of LD 264 directs staff to study whether or not fluorinated spray adjuvants are being used and sold in Maine; how regulation of spray adjuvants can be regulated; and how to impose a prohibition on the distribution or application of pesticides and spray adjuvants containing PFAS. Further, a "feasible definition of PFAS adulteration" needs to be developed. The activities prescribed in Section 2 of LD 264 need to be summarized in a report due January 15, 2022.

Action items for Board review:

- Review proposed affidavit concerning fluorination-free containers
- Review proposed affidavit concerning declaration of PFAS-free products
- Review proposed affidavit for distributors concerning repackaging

The following pages list the CAS number and chemical name for each of the chemicals in the different definitions mentioned in Table 1, with the exception of EPA's Master List of 9,252 individual compounds.

Definition 2. EPA Drinking (Potable) Water Test (Total of 18 chemicals) - Method 537.1

CAS Number	Chemical Name	Acronym
13252-13-6	Hexafluoropropylene oxide dimer acid	HFPO-DA
2991-50-6	N-ethyl perfluorooctanesulfonamidoacetic acid	NEtFOSAA
2355-31-9	N-methyl perfluorooctanesulfonamidoacetic acid	NMeFOSAA
375-73-5	Perfluorobutanesulfonic acid	PFBS
335-76-2	Perfluorodecanoic acid	PFDA
307-55-1	Perfluorododecanoic acid	PFDoA
375-85-9	Perfluoroheptanoic acid	PFHpA
355-46-4	Perfluorohexanesulfonic acid	PFHxS
307-24-4	Perfluorohexanoic acid	PFHxA
375-95-1	Perfluorononanoic acid	PFNA
1763-23-1	Perfluorooctanesulfonic acid	PFOS
335-67-1	Perfluorooctanoic acid	PFOA
376-06-7	Perfluorotetradecanoic acid	PFTA
72629-94-8	Perfluorotridecanoic acid	PFTrDA
2058-94-8	Perfluoroundecanoic acid	PFUnA
763051-92-9	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	11Cl-PF3OUdS
756426-58-1	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid	9Cl-PF3ONS
919005-14-4	4,8-dioxa-3H-perfluorononanoic acid	ADONA

Definition 3. Found in Pesticide Container Testing (Total of 8 chemicals)

CAS Number	Chemical Name	Acronym
375-22-4	Perfluoro-butanoic acid	PFBA
2706-90-3	Perfluoro-pentanoic acid	PFPeA
307-24-4	Perfluoro-hexanoic acid	PFHxA
375-85-9	Perfluoro-heptanoic acid	PFHpA
335-67-1	Perfluoro-octanoic acid	PFOA
375-95-1	Perfluoro-nananoic acid	PFNA
335-76-2	Perfluoro-decanoic acid	PFDA
2058-94-8	Perfluoro-undecanoic acid	PFUdA

Definition 4. In Maine: "Sum of 6 PFAS"/"regulated PFAS contaminants" (Total of 6 chemicals)

CAS Number	Chemical Name	Acronym
335-67-1	Perfluorooctanoic acid	PFOA
1763-23-1	Perfluorooctanesulfonic acid	PFOS
355-46-4	Perfluorohexanesulfonic acid	PFHxS

375-95-1	Perfluorononanoic acid	PFNA
375-85-9	Perfluoroheptanoic acid	PFHpA
335-76-2	Perfluorodecanoic acid	PFDA

Definition 5. EPA OPPT (Total of 190 chemicals)

CAS Number	Chemical Name
811-97-2	1,1,1,2-Tetrafluoroethane
75-37-6	1,1-Difluoroethane
29118-24-9	1-Propene, 1,3,3,3-tetrafluoro-, (1E)-
50594-66-6	5-(2-Chloro-4-(trifluoromethyl)phenoxy)-2-nitrobenzoic acid
82657-04-3	Bifenthrin
2164-17-2	Fluometuron
811-97-2	1,1,1,2-Tetrafluoroethane
1582-09-8	Trifluralin
88-30-2	3-Trifluoromethyl-4-nitrophenol
62476-59-9	Acifluorfen-sodium
67485-29-4	Hydramethylnon
1861-40-1	Benfluralin
68085-85-8	alpha-Cyhalothrin
59756-60-4	1-Methyl-3-phenyl-5-(3-(trifluoromethyl)phenyl)-4-pyridone
56425-91-3	Flurprimidol
66332-96-5	Flutolanil
69409-94-5	Fluvalinate
72178-02-0	Fomesafen
69806-40-2	Haloxyfop-methyl
77501-63-4	Lactofen
27314-13-2	Norflurazon
42874-03-3	Oxyfluorfen
97886-45-8	Dithiopyr
55283-68-6	N-Ethyl-N-(2-methyl-2-propenyl)-2,6-dinitro-4-(trifluoromethyl)benzenamine
29457-72-5	Lithium perfluorooctanesulfonate
117718-60-2	Thiazopyr
68694-11-1	Triflumizole
126535-15-7	Triflusulfuron-methyl
122453-73-0	Chlorfenapyr
79622-59-6	Fluazinam
142459-58-3	Flufenacet
62924-70-3	Flumetralin
91465-08-6	λ-Cyhalothrin
79538-32-2	Tefluthrin
141517-21-7	Trifloxystrobin

63333-35-7	Bromethalin
33245-39-5	Fluchloralin
4151-50-2	N-Ethylperfluorooctanesulfonamide
173584-44-6	Indoxacarb
29091-21-2	Prodiamine
290332-10-4	Trifloxysulfuron-sodium monohydrate
53780-36-2	Mefluidide-diolamine
64628-44-0	Triflumuron
103055-07-8	Lufenuron
134605-64-4	Butafenacil
76703-62-3	gamma-Cyhalothrin
120068-37-3	Fipronil
104040-78-0	Flazasulfuron
158062-67-0	Flonicamid
69806-50-4	Fluazifop-butyl
181274-17-9	Flucarbazone-sodium
188489-07-8	Flufenpyr-ethyl
239110-15-7	Fluopicolide
53780-34-0	Mefluidide
141112-29-0	Isoxaflutole
83601-83-6	Mefluidide-potassium
61444-62-0	Nifluridide
116714-46-6	Novaluron
121451-02-3	Noviflumuron
219714-96-2	Penoxsulam
79241-46-6	Fluazifop-P-butyl
94125-34-5	Prosulfuron
179101-81-6	Pyridalyl
108731-70-0	Fomesafen-sodium
15457-05-3	Fluorodifen
29091-05-2	Dinitramine
62441-54-7	Fentrifanil
139968-49-3	Metaflumizone
144171-61-9	(+/-)-Indoxacarb
454-92-2	3-(Trifluoromethyl)benzoic acid
83164-33-4	Diflufenican
122454-29-9	Tralopyril
76-05-1	Trifluoroacetic acid
50594-67-7	Acifluorfen-methyl
101007-06-1	Acrinathrin
79241-47-7	Butyl (S)-2-[4-[[5-(trifluoromethyl)-2-pyridinyl]oxy]phenoxy]propionate
71422-67-8	Chlorfluazuron
3615-21-2	Chlorflurazole

23576-24-1	Desmethylnorflurazon
14255-88-0	Fenazaflor
101463-69-8	Flufenoxuron
47000-92-0	Fluoridamid
77501-90-7	Fluoroglycofen-ethyl
4776-06-1.	Fluorosalan
61213-25-0	Flurochloridone
69806-34-4	Haloxyfop
23576-23-0	Metflurazon
101929-89-9	Methyl 3-hydroxy-4-(4-((5-(trifluoromethyl)-2-pyridinyl)oxy)phenoxy)valerate
42874-01-1	Nitrofluorofen
7159-99-1	Parafluron
35367-31-8	Penfluron
37924-13-3	Perfluidone
104206-65-7	2-(2-Nitro-4-trifluoromethylbenzoyl)-1,3-cyclohexanedione
365400-11-9	Pyrasulfotole
422556-08-9	Pyroxsulam
33252-63-0	5-(Trifluoromethyl)pyridin-2(1H)-one
26399-36-0	Profluralin
146653-56-7	4-{2-Oxo-2-[3-(trifluoromethyl)phenyl]ethyl}benzonitrile
37526-59-3	2-(Trifluoromethoxy)benzenesulfonamide
335104-84-2	Tembotrione
117428-22-5	Picoxystrobin
272451-65-7	Flubendiamide
13577-71-4	Fluoromidine
173980-17-1	Bencarbazone
181587-01-9	Ethiprole
183675-82-3	Penthiopyrad
337458-27-2	Pyrifluquinazon
352010-68-5	Bicyclopyrone
372137-35-4	Saflufenacil
400882-07-7	Cyflumetofen
447399-55-5	Pyroxasulfone
658066-35-4	Fluopyram
958647-10-4	Flutianil
38827-31-5	Fluoridamid, diethanolamine salt
77207-01-3	Acifluorfen, ethyl ester
946578-00-3	Methyl[1-(2-trifluoromethylpyridin-5-yl)ethyl]-N-cyanosulfoximine
120068-36-2	Fipronil Sulfone
654-66-0	3-Trifluoromethyl-4-nitrophenol sodium salt
1263133-33-0	Triflumezopyrim
360-64-5	2-Trifluoromethylbenzamide

158063-66-2	4-Trifluoromethylnicotinic acid
158062-71-6	4-Trifluoromethylnicotinamide
849020-87-7	6-Hydroxy-4-trifluoromethylnicotinic acid
180409-60-3	Cyflufenamid
34486-06-1	6-(Trifluoromethyl)-2-pyridinone
877681-12-4	5-(Trifluoromethoxy)-1,3-dihydro-2H-benzimidazol-2-one
84352-75-0	5-(Trifluoromethyl)-1,3,4-thiadiazol-2(3H)-one
207502-65-6	4-(Trifluoromethyl)nicotinoyl glycine
1000522-34-8	[3-Chloro-5-(trifluoromethyl)pyridin-2-yl]acetic acid
25475-73-4	2-Methyl-4-[3-(trifluoromethyl)phenyl]-1,2,4-oxadiazinane-3,5-dione
111246-15-2	5-Amino-1-[2,6-dichloro-4-(trifluoromethyl)phenyl]-3-(trifluoromethyl)-1H-pyrazole-4-carbonitrile
120067-83-6	Fipronil sulfide
142994-06-7	2-Methylsulfonyl-4-trifluoromethylbenzoic acid
433-97-6	2-(Trifluoromethyl)benzoic acid
1220411-29-9	Tiafenacil
205650-69-7	Fipronil amide
1003318-67-9	Oxathiapiprolin
120068-68-0	5-Amino-1-[2,6-dichloro-4-(trifluoromethyl)phenyl]-4-(ethylsulfonyl)-1H-pyrazole-3-carbonitrile
1207727-04-5	Broflanilide
1229654-66-3	Tetraniliprole
1254304-22-7	Fluazaindolizine
1417782-03-6	Mefentrifluconazole
1477919-27-9	N-[3-Chloro-1-(3-pyridinyl)-1H-pyrazol-4-yl]-N-ethyl-3-[(3,3,3-trifluoropropyl)thio]propanamide
143701-75-1	RPA 202248
400882-00-0	alpha-Cyano-alpha-[4-(1,1-dimethylethyl)phenyl]- beta-oxo-2-(trifluoromethyl)-Benzenepropanoic acid-1-methylethyl ester
82971-90-2	(4-(Trifluoromethoxy)phenyl)urea
942515-63-1	N-(2',3'-Difluoro[1,1'-biphenyl]-2-yl)-3-(trifluoromethyl)pyrazine-2-carboxamide
620633-77-4	AB-13 (impurity of OK-5101)
2044706-66-1	4-Chloro-N2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-3-nitro-5-(trifluoromethyl)-1,2-benzenediamine
623151-90-6	5-Amino-1-(2,6-dichloro-4-trifluoromethylphenyl)-4-ethylsulfinyl-3-pyrazolecarboxamide
907215-84-3	5-[[[2-(2,2-Difluoroethoxy)-6-(trifluoromethyl)phenyl]sulfonyl]amino]-1H-1,2,4-triazole-3-carboxylic acid
1041752-27-5	2-(2,2-Difluoroethoxy)-6-(trifluoromethyl)benzenesulfonic acid
158062-96-5	N-(2-Amino-2-oxoethyl)-4-(trifluoromethyl)nicotinamide
1228631-54-6	1-(6-(Trifluoromethyl)pyridin-3-yl)ethanol

210230-99-2	2,4-Dihydro-5-methoxy-2-methyl-4-[2-[[[(E)-[1-[3-(trifluoromethyl)phenyl]ethylidene]amino]oxy]methyl]phenyl]-3H-1,2,4-triazol-3-one
80194-18-9	3-Chloro-5-(trifluoromethyl)pyridine-2-carboxylic acid
1384870-13-6	3-(Methylsulfinyl)-5-(trifluoromethyl)-2-pyridinecarboxylic acid
915102-00-0	4-{5-Hydroxy-3-oxo-4-[4-(trifluoromethoxy)phenyl]-6-[3-(trifluoromethyl)phenyl]-2,3,4,5-tetrahydro-1,2,4-triazin-5-yl}benzonitrile
75-45-6	Chlorodifluoromethane
75-71-8	Dichlorodifluoromethane
70124-77-5	Flucythrinate
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane
131341-86-1	Fludioxonil
86209-51-0	Primisulfuron-methyl
128639-02-1	Carfentrazone-ethyl
86479-06-3	Hexaflumuron
122836-35-5	Sulfentrazone
129630-19-9	Pyraflufen-ethyl
112281-77-3	Tetraconazole
27954-37-6	Tetrafluron
188027-78-3	5H-1,3-Dioxolo[4,5-f]benzimidazole, 6-chloro-5-[(3,5-dimethyl-4-isoxazolyl)sulfonyl]-2,2-difluoro
1072957-71-1	Benzovindiflupyr
129630-17-7	Pyraflufen
221205-90-9	Pyrimisulfan
318290-98-1	Fluensulfone
581809-46-3	Bixafen
874967-67-6	Sedaxane
881685-58-1	Isopyrazam
907204-31-3	Fluxapyroxad
381-73-7	Difluoroacetic acid
176969-34-9	3-(Difluoromethyl)-1-methyl-1H-pyrazole-4-carboxylic acid
925689-10-7	3-(Difluoromethyl)-1-methyl-1H-pyrazole-4-carboxamide
22232-16-2	2,2-Difluorohexane-1,6-diamine
128621-72-7	Carfentrazone
951659-40-8	Flupyradifurone
1228284-64-7	Pydiflumetofen
1352994-67-2	Inpyrfluxam
1383809-87-7	Fluindapyr
151734-02-0	1H-3-Difluoromethylpyrazole-4-carboxylic acid
1134834-71-1	4-(2,2-Difluoroethylamino)furan-2(5H)-one

Definition 6. EPA with National Toxicology Program (Total of 74 chemicals)

CAS Number	Chemical Name
1691-99-2	N-Ethyl-N-(2-hydroxyethyl)perfluorooctanesulfonamide
678-39-7	8:2 Fluorotelomer alcohol
375-73-5	Perfluorobutanesulfonic acid
307-24-4	Perfluorohexanoic acid
375-95-1	Perfluorononanoic acid
1763-23-1	Perfluorooctanesulfonic acid
335-67-1	Perfluorooctanoic acid
4151-50-2	N-Ethylperfluorooctanesulfonamide
2795-39-3	Potassium perfluorooctanesulfonate
29420-49-3	Potassium perfluorobutanesulfonate
3825-26-1	Ammonium perfluorooctanoate
3871-99-6	Potassium perfluorohexanesulfonate
754-91-6	Perfluorooctanesulfonamide
163702-08-7	Perfluoroisobutyl methyl ether
647-42-7	6:2 Fluorotelomer alcohol
333-36-8	Flurothyl
28523-86-6	Sevoflurane
2144-53-8	6:2 Fluorotelomer methacrylate
19430-93-4	3,3,4,4,5,5,6,6,6-Nonafluorohexene
1652-63-7	Perfluorooctanesulfonamido ammonium iodide
335-99-9	1H,1H,7H-Dodecafluoro-1-heptanol
355-80-6	1H,1H,5H-Perfluoropentanol
356-24-1	Heptafluorobutyryl methyl ester
375-01-9	1H,1H-Heptafluorobutanol
375-22-4	Perfluorobutanoic acid
376-90-9	Hexafluoroamylene glycol
662-50-0	Heptafluorobutyramide
1623-05-8	Perfluoro(propyl vinyl ether)
2043-47-2	4:2 Fluorotelomer alcohol
31506-32-8	N-Methylperfluorooctanesulfonamide
163702-05-4	Ethyl perfluorobutyl ether
406-58-6	1,1,1,3,3-Pentafluorobutane
56860-81-2	Difluoromethyl 1H,1H-perfluoropropyl ether
1763-28-6	3,3-Bis(trifluoromethyl)-2-propenoic acid
375-02-0	Perfluorobutyraldehyde
678-78-4	Perfluoroglutaryl difluoride
1694-30-0	3H-Perfluoro-4-hydroxy-3-penten-2-one
374-41-4	Methyl perfluoroethyl ketone
355-66-8	Octafluoroadipamide

424-18-0	Methyl perfluorohexanoate
2648-47-7	5H-Perfluoropentanal
355-81-7	Perfluoropentanamide
15242-17-8	Allyl perfluoroisopropyl ether
55621-21-1	Perfluoro-3,6-dioxaoctane-1,8-dioic acid
423-65-4	11:1 Fluorotelomer alcohol
330562-41-9	Perfluoro-3,6,9-trioxatridecanoic acid
3792-02-7	4:4 Fluorotelomer alcohol
355-27-1	1H,1H-Perfluoropentylamine
74427-22-8	2,2-Difluoroethyl triflate
679-02-7	3-(Perfluoropropyl)propanol
355-95-3	1-Propenylperfluoropropane
77953-71-0	3H-Perfluoro-2,2,4,4-tetrahydroxypentane
239795-57-4	2-Vinylperfluorobutane
813-03-6	5H-Octafluoropentanoyl fluoride
1767-94-8	6H-Perfluorohex-1-ene
243139-64-2	3-(Perfluoroisopropyl)-2-propenoic acid
129301-42-4	1H,1H,8H,8H-Perfluoro-3,6-dioxaoctane-1,8-diol
883498-76-8	Bis(1H,1H-perfluoropropyl)amine
151772-58-6	Perfluoro-3,6-dioxaheptanoic acid
31253-34-6	2-Aminohexafluoropropan-2-ol
125070-38-4	3-(Perfluoro-2-butyl)propane-1,2-diol
58244-27-2	tris(Trifluoroethoxy)methane
13485-61-5	Nonafluoropentanamide
132424-36-3	Methyl 2H,2H,3H,3H-perfluoroheptanoate
329710-76-1	2-(Trifluoromethoxy)ethyl trifluoromethanesulfonate
1619-92-7	2-Amino-2H-perfluoropropane
863090-89-5	Perfluoro(4-methoxybutanoic) acid
375-72-4	Perfluorobutanesulfonyl fluoride
356-42-3	Pentafluoropropanoic anhydride
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic acid
374-40-3	1-Pentafluoroethylethanol
13252-13-6	Perfluoro-2-methyl-3-oxahexanoic acid
757124-72-4	4:2 Fluorotelomer sulfonic acid
679-12-9	4H-Perfluorobutanoic acid

5

APPROVED
JUNE 14, 2021
BY GOVERNOR

CHAPTER
54
RESOLVES

STATE OF MAINE

IN THE YEAR OF OUR LORD

TWO THOUSAND TWENTY-ONE

S.P. 209 - L.D. 524

Resolve, Directing the Board of Pesticides Control To Research Workable Methods To Collect Pesticide Sales and Use Records for the Purpose of Providing Information to the Public

Sec. 1. Department of Agriculture, Conservation and Forestry, Board of Pesticides Control to research workable methods to collect pesticide sales and use records. Resolved: That the Department of Agriculture, Conservation and Forestry, Board of Pesticides Control shall research workable methods to collect pesticide sales and use records for the purpose of providing information to the public. The board shall explore the best methods for collecting pesticide use information from schools as defined in the board's rule Chapter 27: Standards for Pesticide Applications and Public Notification in Schools; private applicators as defined in the Maine Revised Statutes, Title 22, section 1471-C, subsection 22; and commercial applicators as defined in Title 22, section 1471-C, subsection 5. The board shall explore the best methods for collecting information on pesticide sales in the State. The board shall submit a report with findings and recommendations to the Joint Standing Committee on Agriculture, Conservation and Forestry no later than January 1, 2022. The joint standing committee may submit a bill to the 130th Legislature relating to the subject matter of the report.

Evaluation of electrostatic sprayers and foggers for the application of disinfectants in the era of SARS-CoV-2

EPA ORD Covid-19 Research Webinar

July 15, 2021

Joseph Wood, Matthew Magnuson

Acknowledgements

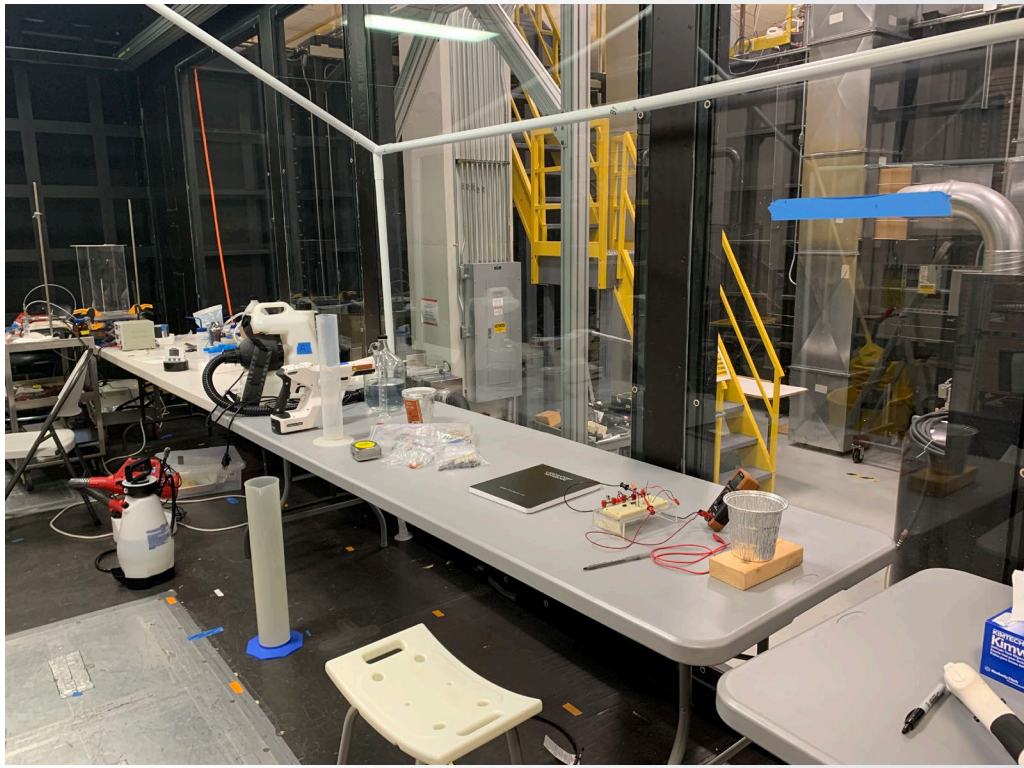
- JTI lab support contractor
  - Stella McDonald, Jonathan Sawyer, Timothy Chamberlain, Dahman Touati, Adam Hook, Jerome Gilberry
- EPA project team

Disclaimer

The views expressed in this presentation are those of the author(s) and do not necessarily represent the views or policies of the U.S. Environmental Protection Agency. Any mention of trade names or commercial products does not constitute EPA endorsement or recommendation for use.

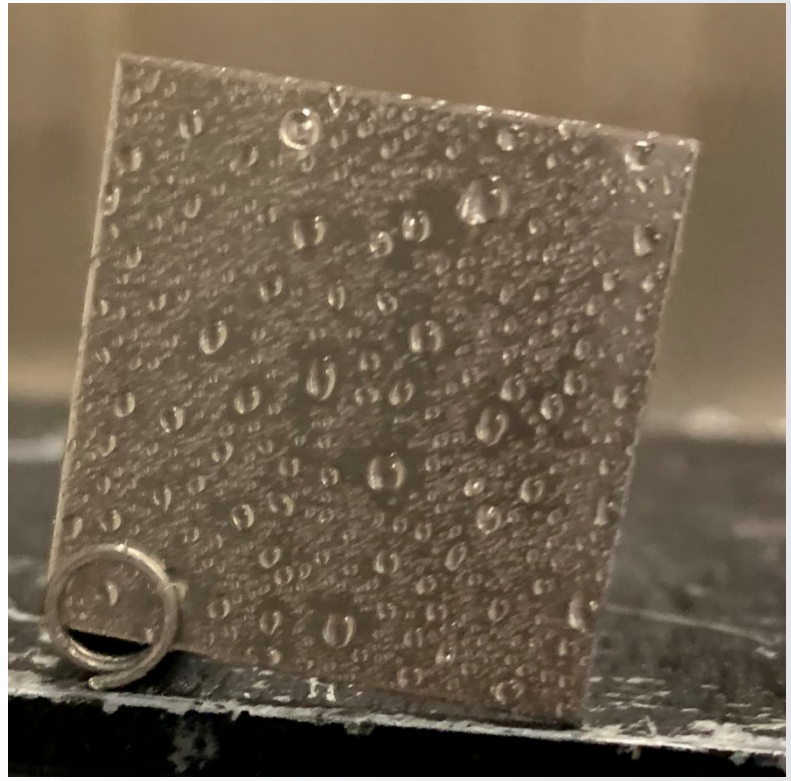
Outline of presentation

- Background
- Droplet size distribution of sprayers and foggers
- Loss of disinfectant active ingredient when spraying
- Spray droplet charge
- Deposition and related tests
  - Recommended amount of disinfectant to apply to surfaces
  - Wetness tests
  - Black light tests
  - Wetness sensor tests
- Disinfection efficacy tests



Background

- COVID-19 primarily caused by airborne transmission of the SARS-CoV-2 virus, but cleaning and disinfection of surfaces is recommended by the U.S. Centers for Disease Control and Prevention
- Use of electrostatic sprayers (ESS) and foggers to rapidly apply disinfectants over large areas or complex surfaces increased substantially with the COVID-19 outbreak
- ESS impart an electrostatic charge to the disinfectant spray droplets with the goal of improving deposition of the droplets onto surfaces

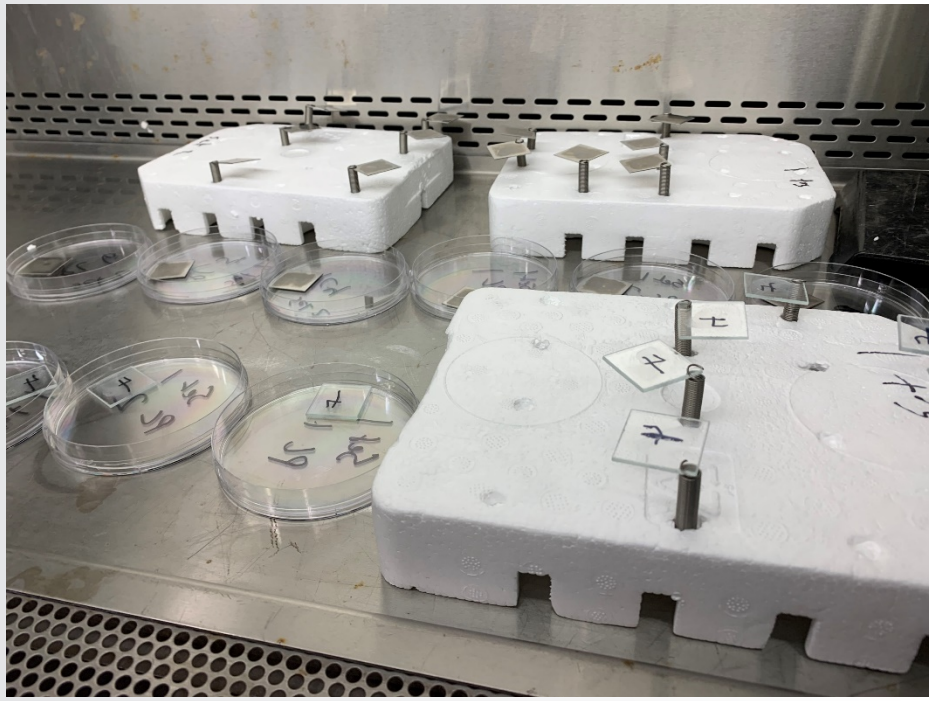


Research objective

- Evaluate some of the underlying operating parameters for several ESS and foggers to elucidate any issues related to their application of disinfectants to surfaces

ESS parameters evaluated

Some parameters may impact disinfectant ability to inactivate virus on surfaces



- The electrostatic charge imparted to the spray
  - May affect ability to deposit onto surfaces, including surfaces not in the direct path of the spray
- The amount of disinfectant to apply to a surface
  - Must remain wet for required contact time of disinfectant
- Loss of disinfectant's active ingredient to the air
  - Any loss of active ingredient to air will diminish concentration of the active ingredient on the surface, thus potentially reducing disinfection efficacy

ESS only as effective as the disinfectant being sprayed

Spraying of disinfectants may create exposure concerns

- Active ingredient of the disinfectant may be inhaled as vapor/gas or via droplets
- Droplet size distribution of the spray was measured
  - Smaller droplets more readily inhaled
  - EPA Office of Pesticide Programs guidance indicates volume median diameter should be ≥ 40 microns

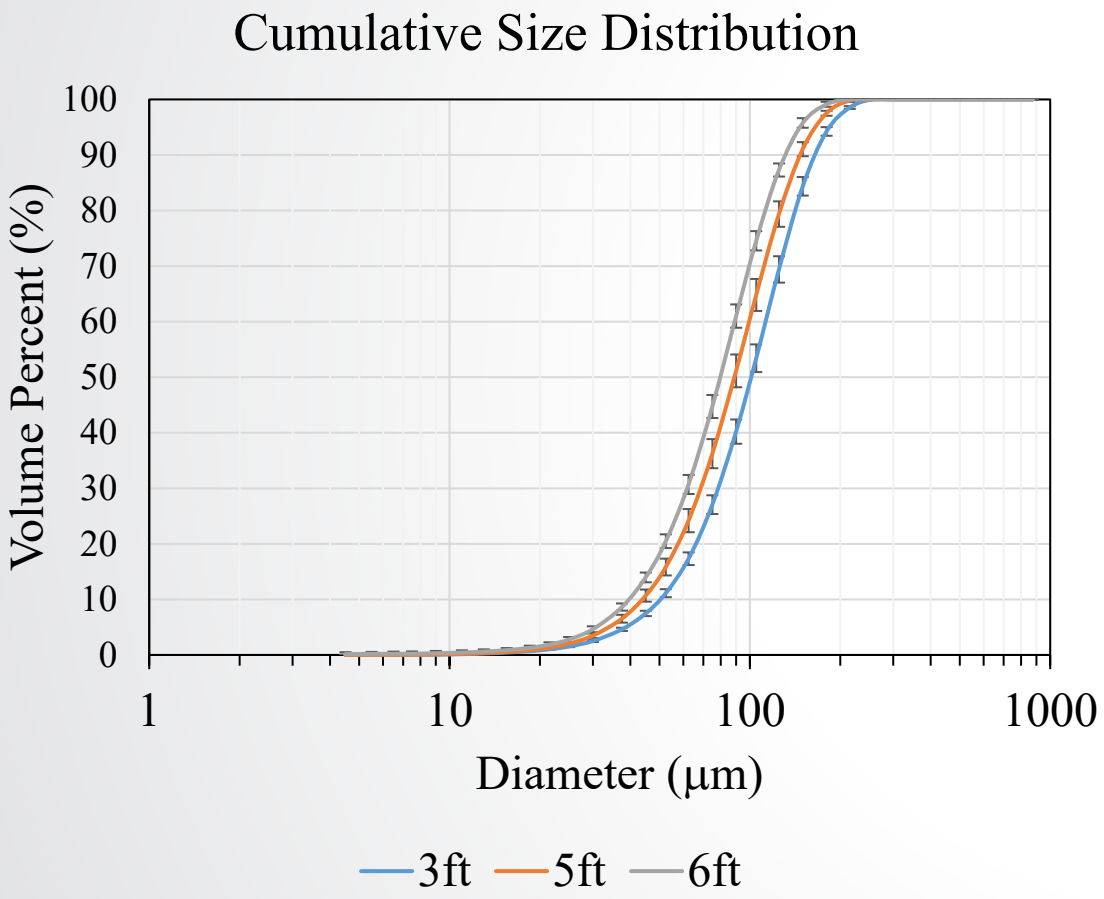
Sprayers and foggers tested

Model	Type of device	Source of electrical power	Notes
PX200ES handheld (HH)	ESS	Battery	This model has the ability to turn on and off the electrostatics. The Li ion battery for this device was later recalled.
PX300ES backpack	ESS	Battery	This sprayer came with a 40-micron (red) and 80-micron (green) nozzle. The Li ion battery for this device was later recalled.
SC-ET	ESS	Cord plug-in	Purchased in ~ 2015 and used in several US EPA studies over the years, prior to this study. All the other devices evaluated were newly purchased for this study.
EM360 HH	ESS	Battery	
R40	ESS	Battery	Lithium ion battery failed and was later replaced
Total 360	ESS	Cord plug-in	
Professional Sprayer 2-gallon R20S16	garden sprayer	None; hand pumped	
Flex ULV cold fogger U120	fogger	Cord plug-in	
KB-15002E 12L	fogger	Cord plug-in	This device was not tested for spray charge due to it becoming non-functioning during the droplet size distribution tests.

Droplet size distribution test methods

- Tests conducted in EPA's Aerosol Test Facility in Research Triangle Park, NC
- Laser diffraction instrument used to measure droplet size distribution, similar to ASTM method
- Measured 5 times at each of several spray distances
- Measured with tap water, deionized water, and a few disinfectants

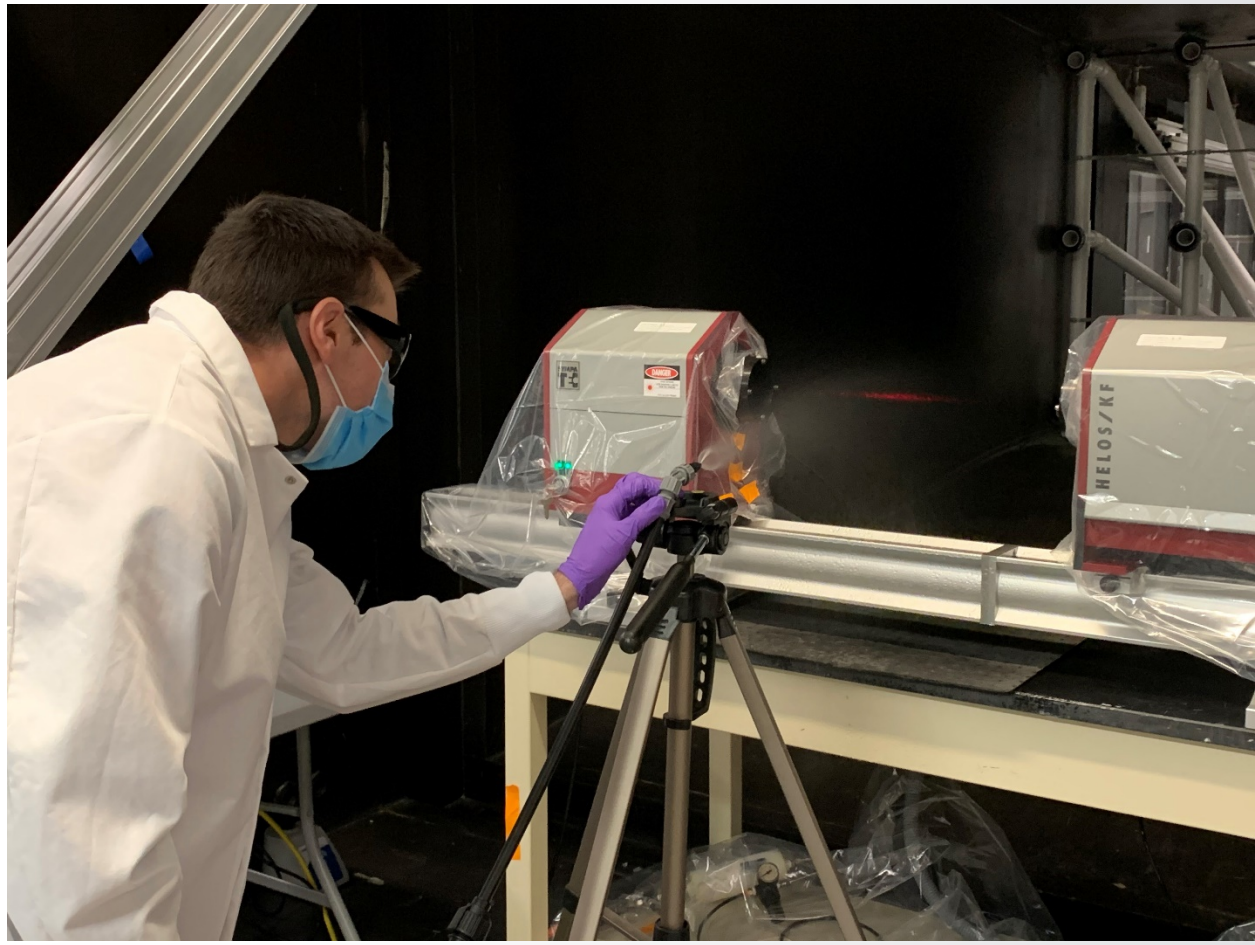
Droplet size distribution – example results



	Measured Flow rate (oz/min)	Volume median diameter range (microns)
PX200ES HH (on)	3.7	37-84
PX200ES HH (off)	3.8	40-90
PX300ES backpack; red (40 micron) nozzle	3.9	40-65
PX300ES backpack; green (80 micron) nozzle	4.5	36-58
SC-ET	3.7	28-31
EM360 HH	1.9	83-105
R40	6.1	44-75
Total 360	4.1	46-53
Garden sprayer	17	50-180
Flex ULV cold fogger	4.4	43-46
KB-1500 12L	11.2	42-43

Droplet size distribution findings

- Most of the devices tested had volume median diameter ≥ 40 microns
- Volume median diameter typically decreased with spray distance
- Water source or use of disinfectant did not significantly impact droplet size distribution
- Device with adjustable nozzles size showed no difference in volume median diameter
- Most sprayers report droplet size, but not clear how they're determined



Loss of active ingredient test methods

- Tests conducted with a hydrogen peroxide- and dichlor-based disinfectant
- Used a handheld ESS
- Active ingredient measured in air using electrochemical sensors
- Disinfectants collected at 3 locations in the spray process, then measured active ingredient using titration techniques
  - Reservoir
  - Nozzle
  - 3 feet away

Loss of active ingredient results

Results for spraying hydrogen-peroxide based disinfectant

Quantity or sample location	Hydrogen peroxide concentration (%) of disinfectant
As shown on label	8
Undiluted 11/8/20	6
Undiluted 12/22/20	5.7
1:32 dilution (label for SARS-CoV-2) – collected from reservoir	0.19
Diluted per label – collected at nozzle	0.19
Diluted per label – collected 3 feet away	0.20

Maximum vapor concentration of hydrogen peroxide was 0.35 parts per million (Permissible Exposure Limit = 1 ppm)

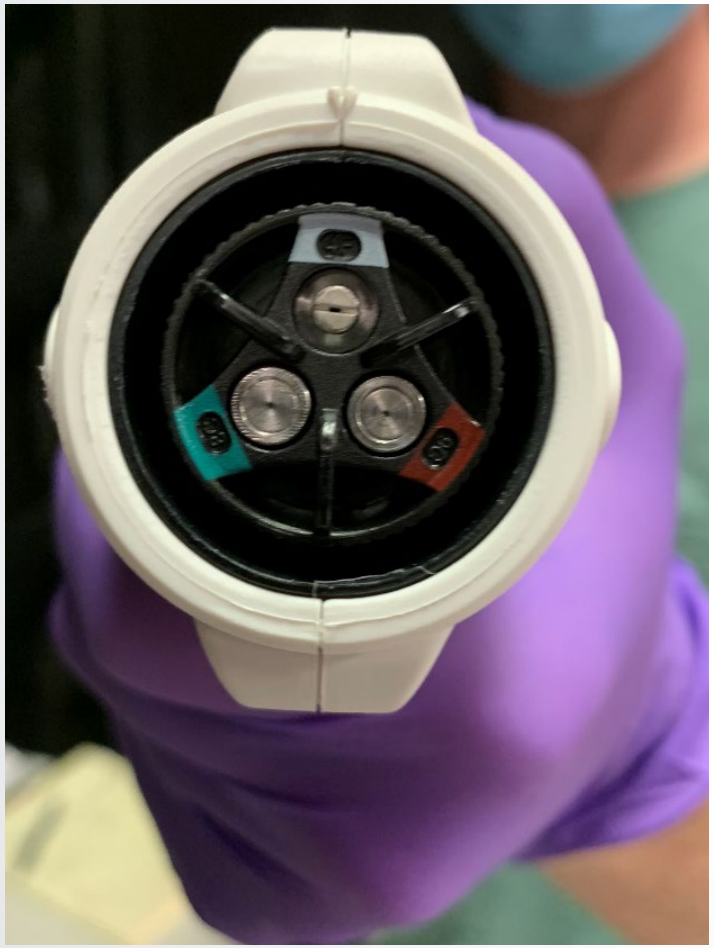
Loss of active ingredient results

Results for spraying dichlor-based disinfectant

Quantity or sample location	Disinfectant free available chlorine Parts per million
Label (4 tablets per quart)	4306
As prepared stock solution	4347
Sampled from reservoir	4607-5028
Sampled from nozzle	4427-4667
Collected 3 feet away	1703*-4908

Maximum vapor concentration was 0.19 parts per million chlorine gas
(Permissible Exposure Limit = 0.5 ppm)
* Believed to be erroneous result

Droplet charge measurement methods



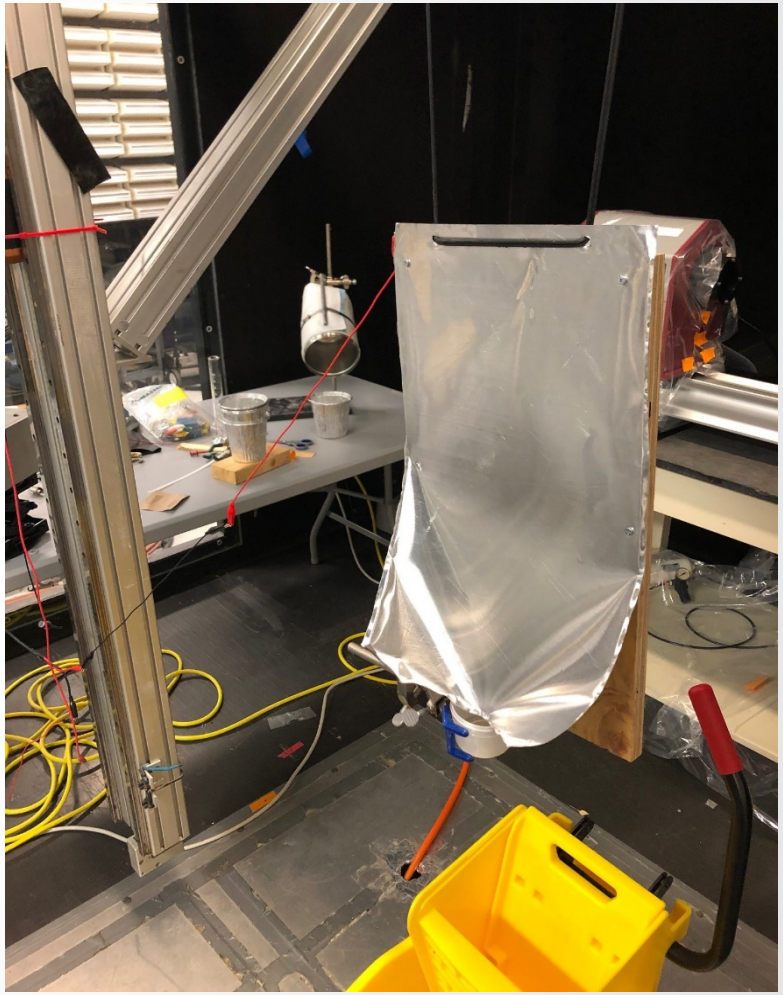
- No standard method to measure overall charge of the spray
- We used method as described in literature
- Picoammeter used to measure current when sprayed on to an aluminum plate
- Results reported in charge/mass (milli-Coulombs/kg)
- Tests conducted with tap water and deionized water for all sprayers tested
- One sprayer tested with 3 different disinfectants

Spray charge results

Sprayer	Average Charge to Mass Ratio, mC/kg DI water	Average Charge to Mass Ratio, mC/kg Tap water
PX200 ES on	0.109 ± 0.00	0.134 ± 0.03
PX200 ES off	0.005 ± 0.00	0.004 ± 0.00
PX300 red	0.049 ± 0.00	0.053 ± 0.00
PX300 green	0.045 ± 0.00	0.049 ± 0.00
Total 360	-6.05 ± 0.09	-5.74 ± 0.20
EM360	0.28 ± 0.00	0.29 ± 0.01
SC-ET	-3.56 ± 0.22	-3.28 ± 0.06
R40	0.00	0.00
Garden sprayer	0.00	0.00
Airofog	0.00	0.00
	Average Charge to Mass Ratio, mC/kg disinfectant	
Total 360 HP	-1.79 ± 0.06	
Total 360 Quat	-1.08 ± 0.06	
Total 360 dichlor	-1.53 ± 0.00	

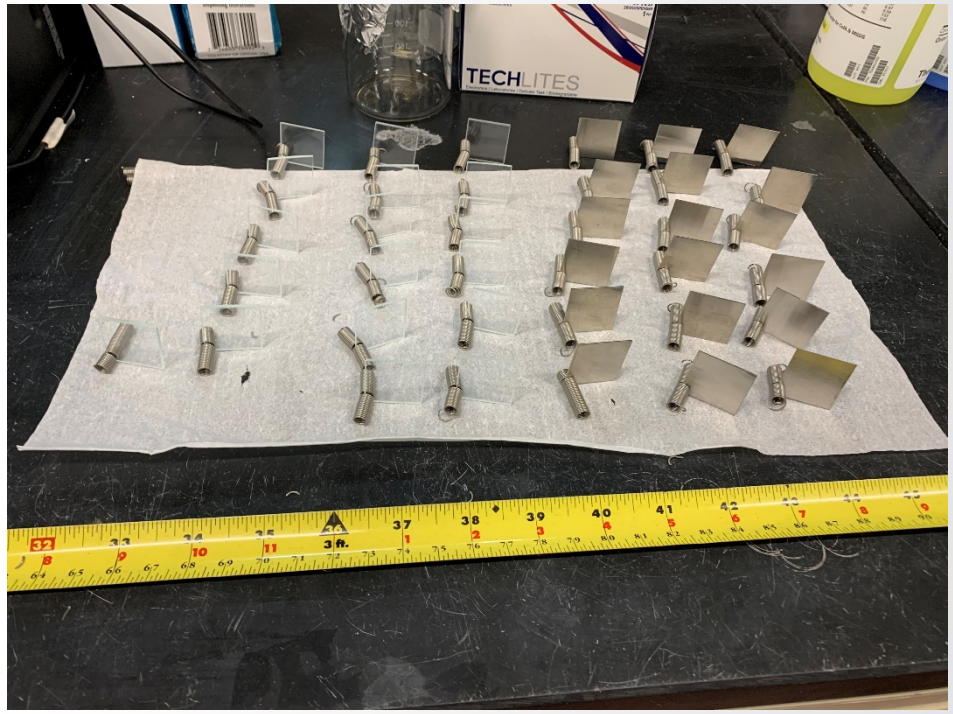
Droplet charge results summary

- Unclear what charge/mass is necessary to elicit benefits of electrostatic deposition of disinfectants on surfaces for virus disinfection
  - One reference suggests at least 0.1 mC/kg is needed for some applications other than disinfection (Gaunt, Hughes; 2003)
  - Four out of the six ESS tested for charge/mass produced sprays above that level
- Plug-in ESS, which have pneumatically assisted spray, showed highest charge and also negative charge
- No significant difference in charge when spraying deionized water vs tap water, but significant difference when spraying disinfectants



How much disinfectant to apply to a unit area?

- Need to apply enough disinfectant so that surface remains wet for required contact time
- If surfaces are dry before contact time, then reapply to maintain wetness
- Some sprayer suppliers provided a recommended amount
  - For the devices tested and where info was available, ranged from 2-53 fluid ounces/1000 ft^2
  - One vendor recommended conducting a "wetness" test
  - One vendor recommended spraying disinfectant until droplets start to coalesce

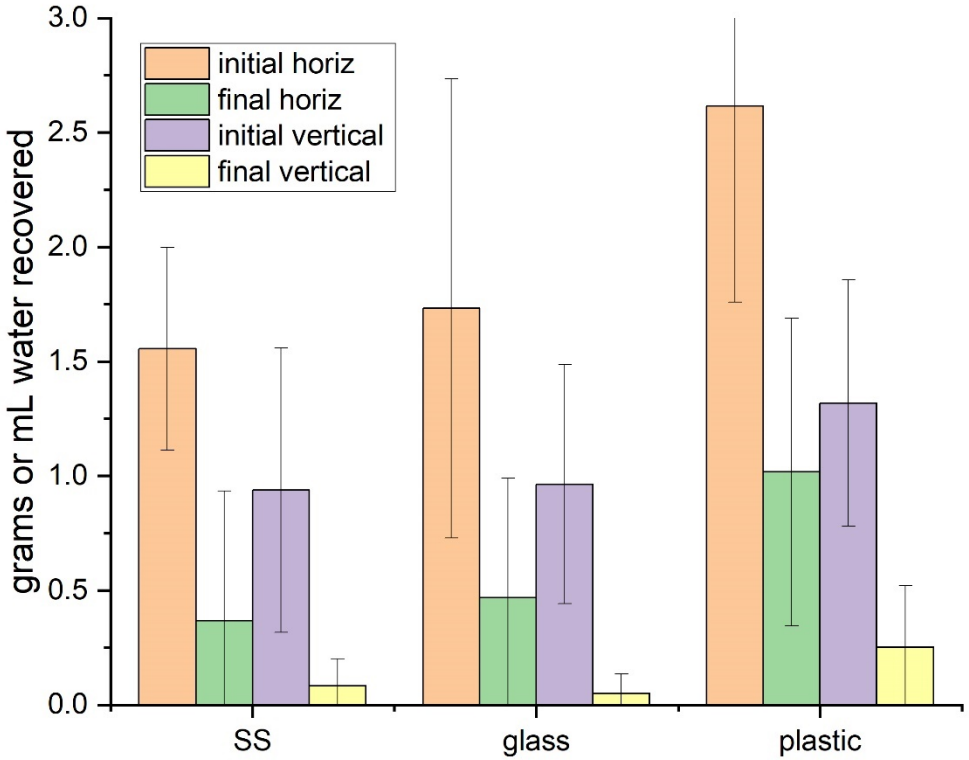


Wetness test methods

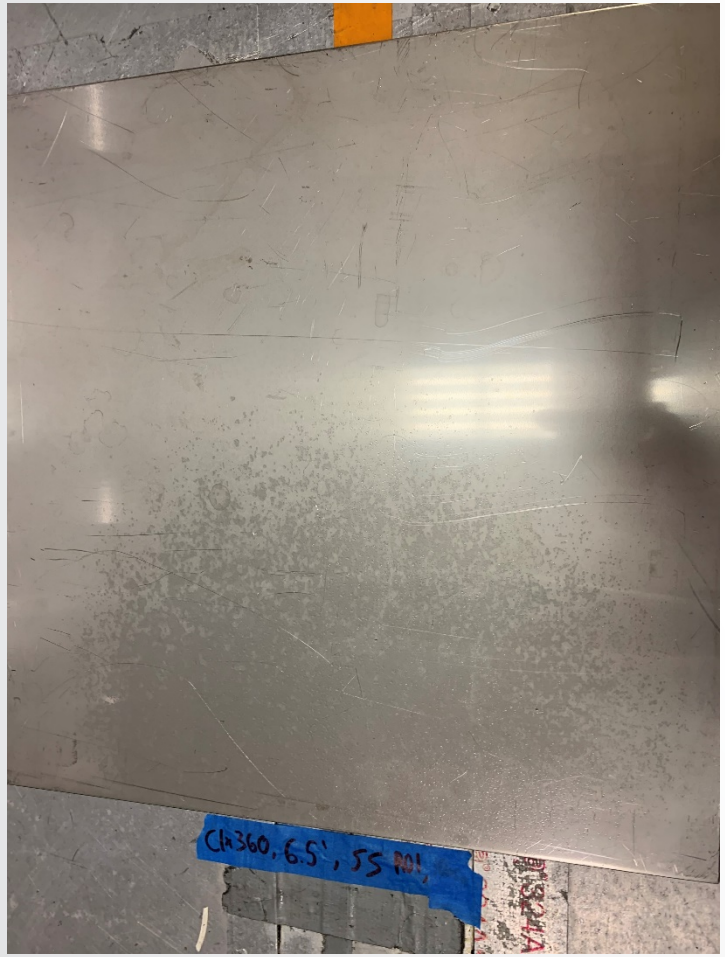
- Conducted to determine if a surface would remain wet at 10 minutes
- Used five different sprayers, using water
- 14 X 14-inch coupons in vertical & horizontal position
- Sprayed coupons until droplets started to coalesce
- Coupons made from stainless steel, glass, and plastic
- Wipes used to recover water immediately after spraying, and after 10 minutes
  - Weighed to determine mass
- Temperature at 21 °C, 35% RH, air flow 1 m/s

Wetness tests results

- Coupons in horizontal position generally had higher initial deposition
- Amount of water initially deposited was in range recommended by ESS vendors
- Percent water loss somewhat higher for vertical coupons
- Plastic had the least amount of water loss



Wetness tests results continued

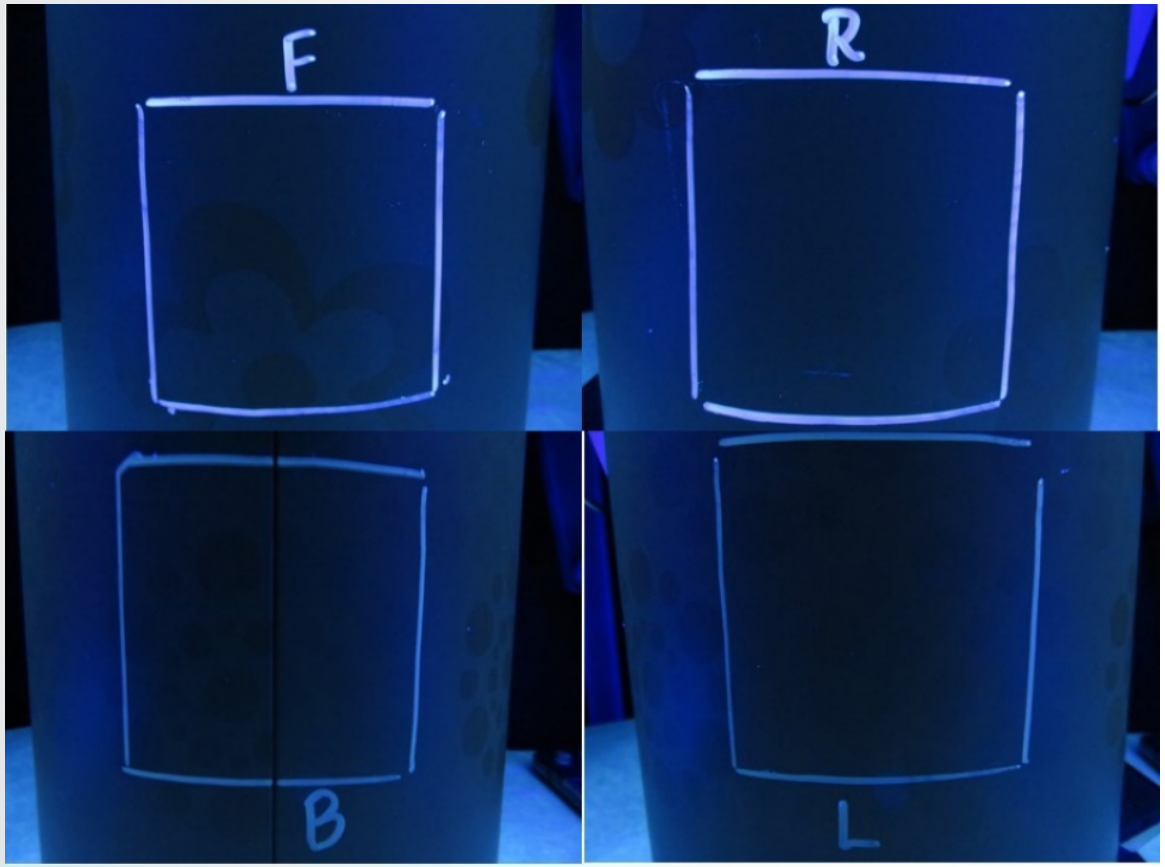


- About 13 % of coupons were completely dry after 10 minutes – based on weight
- Drying on the surface was uneven
  - Dry areas may not be effectively disinfected
  - gravimetric method reports coupon as still wet
- Many factors affect drying time
  - Initial deposition
  - Temperature, relative humidity, air flow
  - Material type and orientation
  - Active ingredient vapor pressure
  - Droplet size

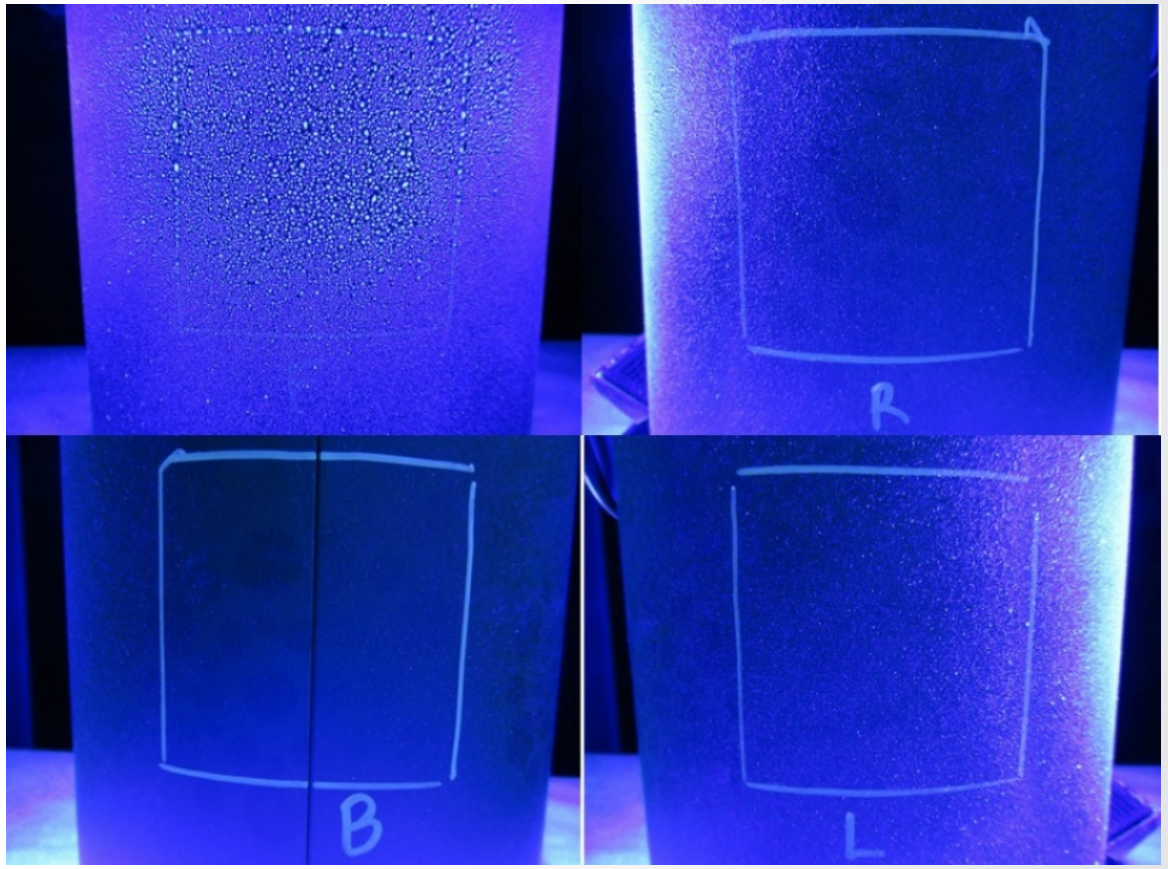
Black light test methods

- Tests conducted to visually assess wrap-around effect
  - Spray 8-inch diameter black trash can with aqueous fluorescent dye
  - illuminate with black light, take photograph
- Photodocument front, left, right, back of can
  - whole can
  - 3 by 3-inch square
- Sprayed ~ 7-8 mL onto trash can or other objects, 1-4 second spray
  - step ladder, clip-on lamp, chair

Black light test results



Example positive controls



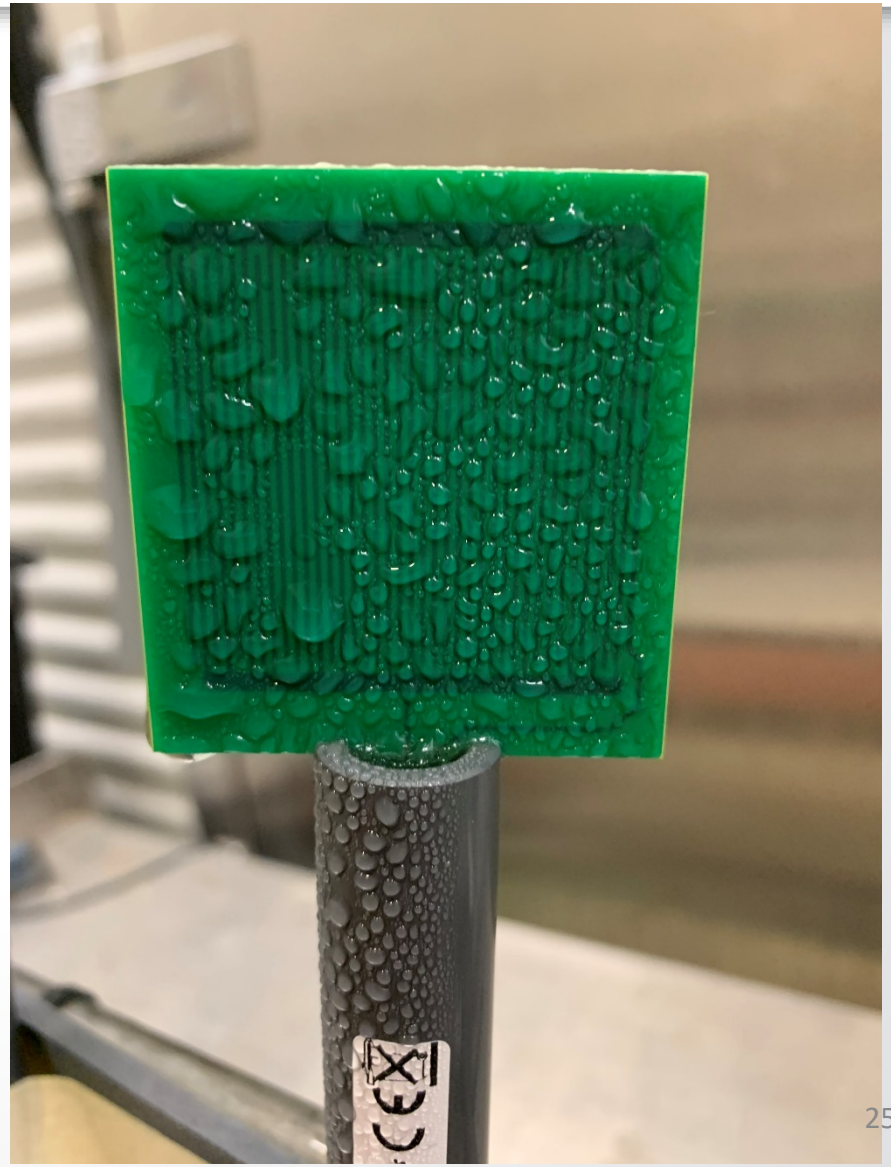
Example results for sprayed trash can

Black light test results continued

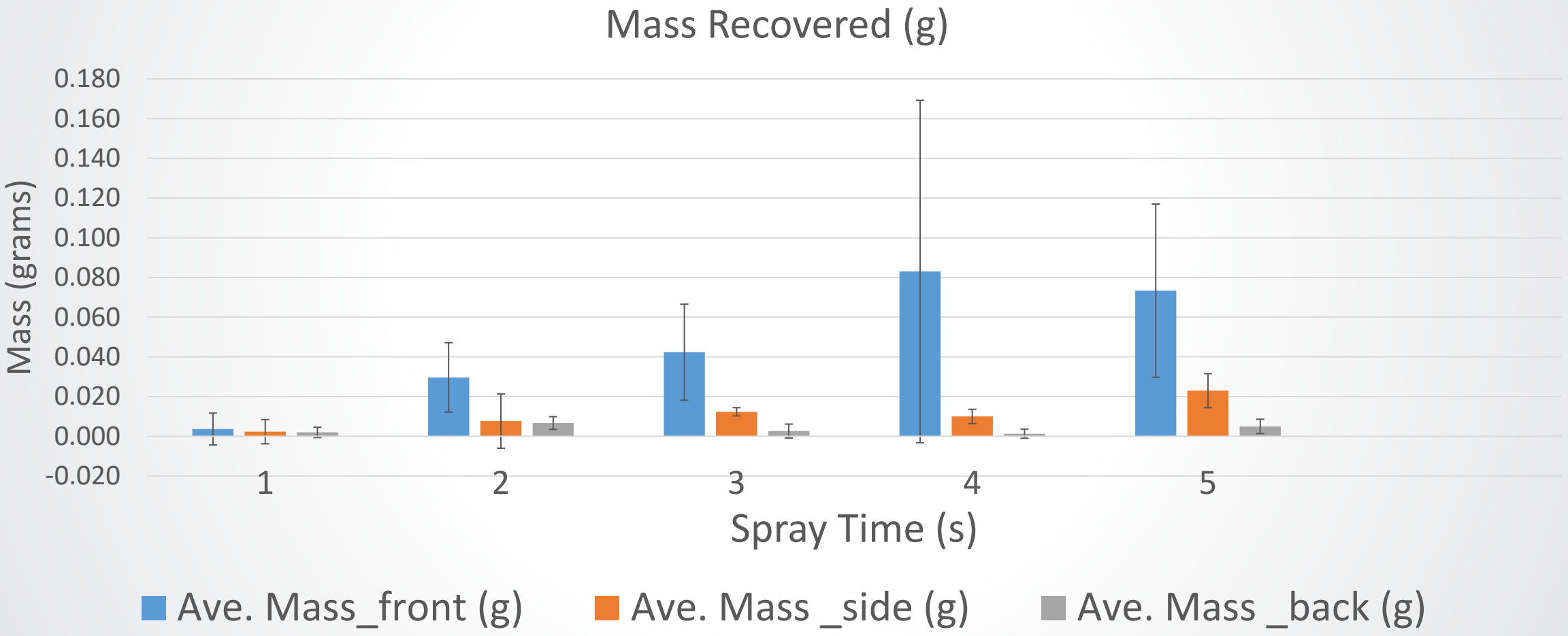
- Deposition results very similar for all ESS and foggers tested
- Wrap around effect not as pronounced as expected
- Small objects like lamp shade showed more of an effect

Wetness sensor test methods

- Leaf wetness sensors used to quantify deposition (as opposed to qualitative visual results)
- Sensor provides percent wet reading; we correlated to mass deposited
- Sensor placed directly facing ESS, turned to side (90 degrees), and turned completely around (180 degrees)
- Test conducted with ESS



Wetness sensor test results



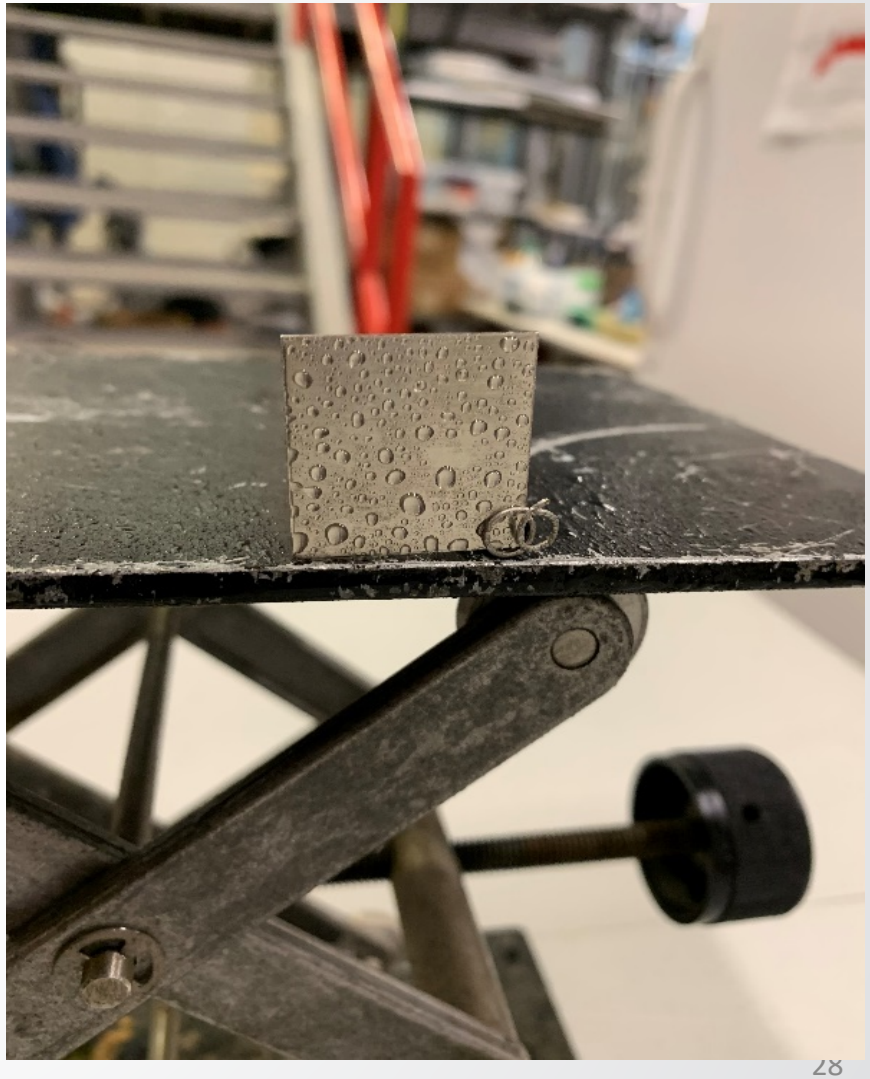
R^2 = 0.94 correlation between mass recovered and sensor reading

Disinfection efficacy test methods

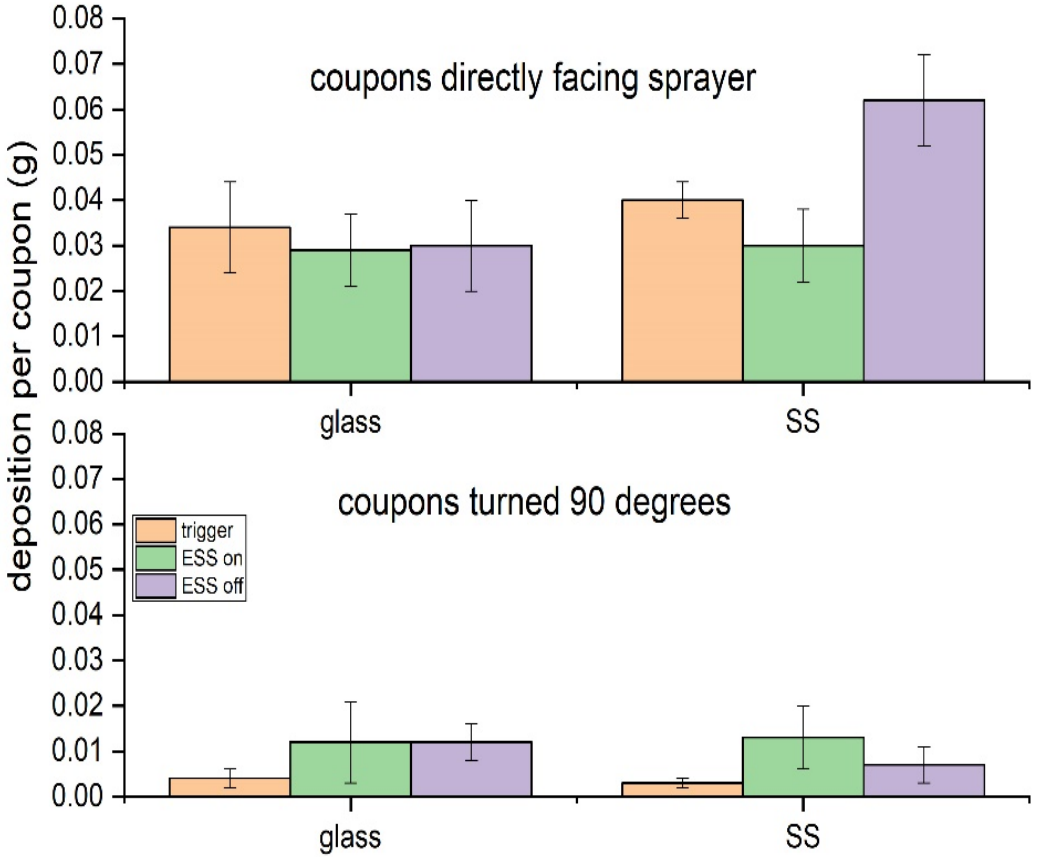
- Compared a trigger pull sprayer with an ESS
  - ESS tested with and without charging of spray
- Conducted deposition tests beforehand to ensure the mass of water deposited on coupons when facing forward was similar for the ESS and trigger sprayer
  - 2 trigger pulls at 1 ft or 2 sec spray from ESS handheld resulted in about 0.03-0.04 gram/coupon

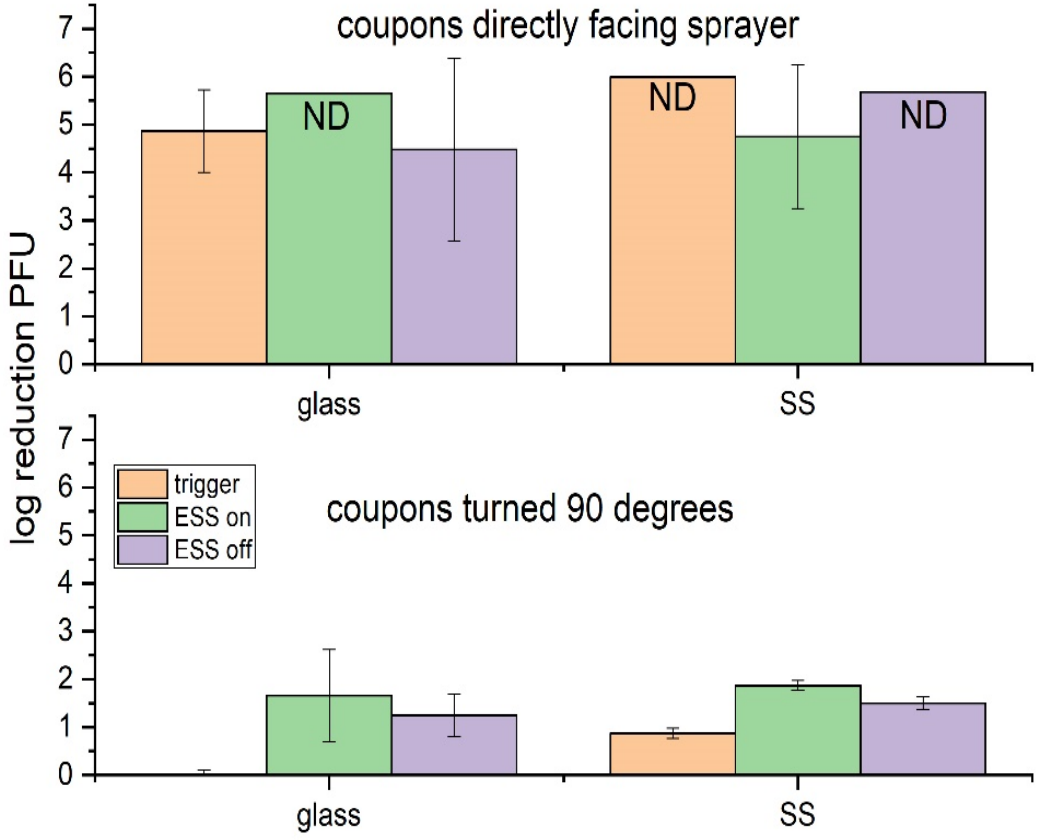
Disinfection efficacy test methods

- Coupons faced directly forward and turned 90 degrees
  - Glass and steel
- Used CDC dilute bleach recipe (1 part bleach in 50 parts water), 1 minute contact time (was about 2000 ppm Free Available Chlorine)
- Used Phi6 phage as potential surrogate for SARS-CoV-2
- 3 replicate coupons for each condition



Disinfection efficacy test results





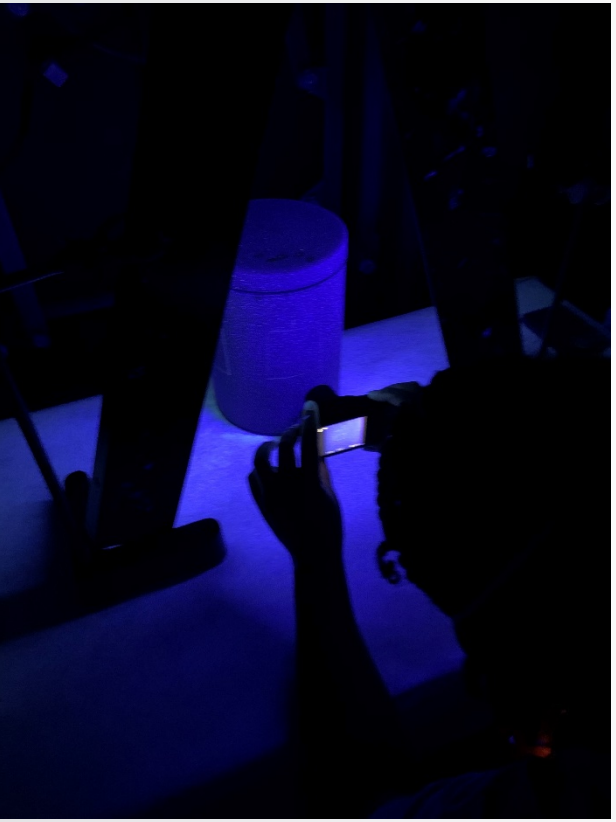
Disinfection efficacy test results

- The Log Reduction of virus correlated well with spray deposition on the coupons (R^2 =0.90)
  - Efficacy was much better w coupons directly facing sprayer, consistent with more spray deposited on coupons when facing that way
- For the coupons facing the sprayers, the efficacy and deposition results were not significantly different among the 3 sprayers, except maybe in one case (which may have been an outlier)
- For the coupons turned 90°, the electrostatic sprayer performed better than the trigger sprayer, by about 1-2 LR plaque forming units – *regardless of whether the ESS was on or off.* Again, this was consistent with having more spray deposited
  - Minor, insignificant difference in efficacy for the ESS when the electrostatics were on or off
  - Reason for the higher deposition and thus higher efficacy compared to the trigger sprayer may be due to some other phenomenon, such as droplet size

Overall takeaways from ESS study

- Purpose of the study was to evaluate several different sprayers (ESS) and foggers for parameters related to their use for the application of disinfectants
- Multiple factors may affect deposition of spray on to a surface and thus may affect whether a surface can remain wet for the required contact time
- Disinfection efficacy was highly correlated to amount of disinfectant deposited on surface
- Most of the devices evaluated had a Volume Median Diameter ≥ 40 microns

Takeaways (continued)



- 4 out of 6 of the devices tested for charge produced sprays ≥ 0.1 mC/kg
- 2 out of 6 ESS produced sprays carrying a negative charge, while the other four carried a positive charge
- There was minimal apparent wrap-around effect of the spray deposition onto an 8-inch diameter cylindrical object, even for the ESS with the highest charge/mass
- The loss of Active Ingredient to the air due to spraying the dichlor- and hydrogen peroxide-based disinfectants was minimal (below occupational health levels of concern)

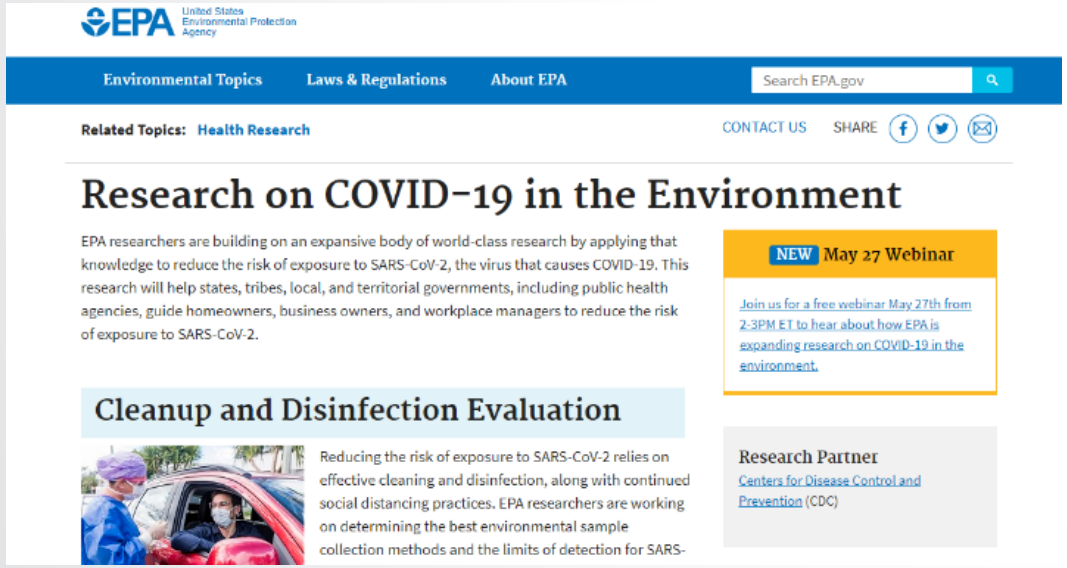
Suggested further research

- Gaps in the science related to the electrostatic charge of the spray and any association with the following:
  - Deposition and wrap around effect
  - Disinfection efficacy
  - Spray distance, flow rate
  - Disinfectant chemistry
  - Spray and deposition uniformity
  - Spray charge measurement method

EPA COVID-19 Research Website

- More information is available at US EPA's CoV-2 Research website:

https://www.epa.gov/covid19-research



STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
BOARD OF PESTICIDES CONTROL
28 STATE HOUSE STATION
AUGUSTA, MAINE 04333

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

To: Board Members
From: Staff prepared by Pamela J. Bryer, Ph.D. | Pesticides Toxicologist
Re: Changes in disinfection procedures and COVID-19 protocols
Date: August 27, 2021

When the COVID-19 pandemic began little was known about how to best manage this novel virus. In an abundance of caution, surface disinfection was encouraged in an attempt to create safe work and living spaces. Below are updates to the information regarding disinfection and sanitization of common spaces that was part of the initial COVID-19 response.

Transmission of the viral pathogen

SARS-CoV-2 primarily spreads person to person via air transmission When the pandemic began, it was believed that transmission from touchable surfaces in a hand-to-mouth format was going to be significant, as it is in many communicable diseases. Currently, it is known that, aside from vaccination, masks, handwashing, and social distancing seem to be some of the best actions individuals can take to avoid infection. Increasing fresh air exchange indoors and employing the use of air filters to trap viral particles and reduce spread can also aid in reducing the risk of infection.

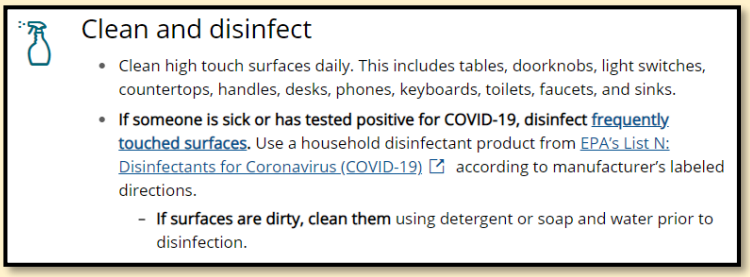
Current CDC guidance for cleaning and disinfecting

In most situations, cleaning surfaces with typical cleaning agents is sufficient to avoid transmission of SARS-CoV-2 from most surfaces. In public spaces this cleaning is suggested as a daily activity and disinfection is only required when someone becomes sick or tests positive with COVID-19. The current action items listed in the CDC guidance for schools on How to Protect Yourself and Others is as follows: Get vaccinated, Wear a mask, Stay 6 feet away from others, Avoid crowds and poorly ventilated spaces, Wash your hands often, Cover coughs and sneezes, Clean and disinfect, and Monitor your health daily.

MEGAN PATTERNSON, DIRECTOR
90 BLOSSOM LANE, DEERING BUILDING

PHONE: (207) 287-2731
WWW.THINKFIRSTSPRAYLAST.ORG

Snippet taken from CDC's guidance on 'How to Protect Yourself and Others' page for schools.



Clean and disinfect

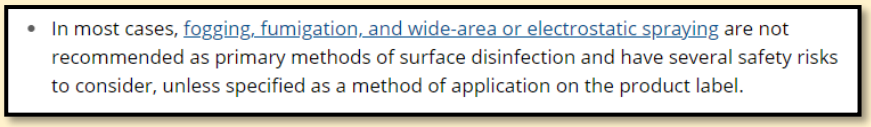
- Clean high touch surfaces daily. This includes tables, doorknobs, light switches, countertops, handles, desks, phones, keyboards, toilets, faucets, and sinks.
- **If someone is sick or has tested positive for COVID-19, disinfect frequently touched surfaces.** Use a household disinfectant product from EPA's List N: Disinfectants for Coronavirus (COVID-19) according to manufacturer's labeled directions.
  - **If surfaces are dirty, clean them** using detergent or soap and water prior to disinfection.

https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html

New data on powered application equipment for disinfecting

Recent work by EPA indicates that in many cases, electrostatic sprayers, the powered application equipment that became very popular early in the pandemic, do not provide any greater efficacy over traditional sprayers. Many schools in Maine purchased electrostatic sprayer systems based on claims that the disinfectant would cover – curved surfaces and disinfect hard to reach places. Preliminary data indicates that currently used sprayer models with currently registered products do not "wrap around" objects during application.. The electrostatic charge these devices are indicated to deliver does not seem to provide any difference in spray pattern. Different models produced droplets with differing charges (positive/negative charges). When devices were used in repeat tests with the electrostatic feature on versus off there was no significant difference in deposition. The EPA has research available on this topic at their Webinar: COVID-19 Electrostatic Sprayers and Foggers for Disinfectant Application at: WEBINAR FOR EVALUATION OF ELECTROSTATIC SPRAYRS AND FOGGERS FOR THE APPLICATION OF DISINFECTANTS IN THE ERA OF SARS-COV-2.PDF (PDF, NA pp, 2759.417 KB, about PDF) and Evaluating Electrostatic Sprayers for Disinfectant Application page at: https://www.epa.gov/covid19-research/evaluating-electrostatic-sprayers-disinfectant-application

Snippet from the guidance on CDC's webpage for Workplaces & Businesses



- In most cases, fogging, fumigation, and wide-area or electrostatic spraying are not recommended as primary methods of surface disinfection and have several safety risks to consider, unless specified as a method of application on the product label.

https://www.cdc.gov/coronavirus/2019-ncov/community/disinfecting-building-facility.html#other-facilities

Key to getting good disinfection performance

The key components of effective surface disinfection remain the same as before COVID-19: using the proper application rate and allowing the product to sit and stay wet for the appropriate amount of contact time (as listed on the label). For more information about Maine registered disinfectants and using disinfectants to control COVID-19, visit the Maine BPC webpage.

Consequences of greatly increased disinfection activities

Hospitals and poison control centers across the nation experienced increased demands for services for exposures to disinfectant products in 2020, as highlighted by Northern New England Poison Center's website (https://www.nnepc.org/national-news/poison-safety-during-a-pandemic-guidance-for-school-nurses-teachers-and-daycare-providers). Essential workers suddenly became tasked with regularly applying disinfectants, and in some cases, without the appropriate personnel protection equipment. Electrostatic spraying, in particular, exposed many people to breathing in aerosols and vapors of disinfection products. The recent EPA presentation mentioned above highlighted concerns of exposures from use of disinfectants and powered application devices. Below is an excerpt from an EPA Incident Report (6(a)(2) report we received that highlights the nature of the confusion, exposure, and workplace dynamics that have led to disinfectant exposures.

Portion of a recent 6(a)(2) incident report

Voluntary Industry Reporting Form for 6(a)(2) Adverse Effects Incident Information

Provide all known, required information. If required data field information is unknown, designate as such in appropriate area Page 3 of 5

Dear Renee,

Last August My employer, The University of [redacted], had directed myself and other bus drivers to use fogging machines to disperse Oxivir Tb in enclosed buses.
The only PPE we were provided was vinyl gloves.

I had a bad reaction to the fogging immediately and expressed my health concerns repeatedly to both of my supervisors and was assured the procedure was safe.
I used the foggers for several months (fogged 47 buses) in order to comply with my employer [redacted].

In December of 2020, I spoke to three [redacted] technicians who emailed me data stating that the use of fogging machines is prohibited due to possible breathing and other health hazards.
I forwarded this information to my supervisors and the machines were removed the next day.

I have been seeing doctors (including a skin specialist) since November.
In order to help me gain my health back, I request the following:

1-a complete list of ingredients contained in the Oxivir Tb .

2-all the possible side effects(immediate and latent) of using this product improperly (ie: a fogging machine).

3-The potential hazards created due to the lack of PPE (ie: N-95 cartridge respirator, eye protection, skin/body protection).

Thank you,

130th Legislature
State of Maine
Senate District 19

6

Senator Richard A. Bennett
3 State House Station
Augusta, ME 04333-0003
Office (207) 287-1505
Cell (207) 592-3200
Richard.Bennett@legislature.maine.gov

Environment and Natural Resources Committee
Government Oversight Committee

July 19, 2021

John Pietroski
Manager of Pesticide Programs
Maine Department of Agriculture, Conservation and Forestry
28 State House Station
Augusta, ME 04333-0028

Dear Mr. Pietroski,

As you know, with the end of the State of Emergency, so too ended the temporary exemption for employees at schools, universities, hospitals, and municipalities from obtaining a pesticide license to apply general use sanitizers with powered application equipment.

Those who utilized the exemption will now need to obtain a Commercial Applicator license, which will take both time, and money to earn. I have heard from folks in my district who have been operating without the license for over a year now, and doing so safely and effectively. Therefore, I ask that the Maine Board of Pesticides Control enter into rulemaking to change the requirements for those who have been operating safely during the pandemic.

I ask that your office look into this matter and get back to me regarding what can be done. Thank you.

Sincerely yours,

Richard A. Bennett
Senator

Cc: Commissioner Amanda Beal

News Releases from Headquarters > Chemical Safety and Pollution Prevention (OCSPP)

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EPA Takes Action to Address Risk from Chlorpyrifos and Protect Children's Health

EPA measures will stop the use of the pesticide chlorpyrifos on food

August 18, 2021

Contact Information
EPA Press Office (press@epa.gov)

WASHINGTON - The U.S. Environmental Protection Agency (EPA) announced it will stop the use of the pesticide chlorpyrifos on all food to better protect human health, particularly that of children and farmworkers.

In a final rule released today, EPA is revoking all "tolerances" for chlorpyrifos, which establish an amount of a pesticide that is allowed on food. In addition, the agency will issue a Notice of Intent to Cancel under the Federal Insecticide, Fungicide, and Rodenticide Act to cancel registered food uses of chlorpyrifos associated with the revoked tolerances.

"Today EPA is taking an overdue step to protect public health. Ending the use of

chlorpyrifos on food will help to ensure children, farmworkers, and all people are protected from the potentially dangerous consequences of this pesticide," **said Administrator Michael S. Regan**. "After the delays and denials of the prior administration, EPA will follow the science and put health and safety first."

Chlorpyrifos is an organophosphate insecticide used for a large variety of agricultural uses, including soybeans, fruit and nut trees, broccoli, cauliflower, and other row crops, as well as non-food uses. It has been found to inhibit an enzyme, which leads to neurotoxicity, and has also been associated with potential neurological effects in children.

The steps the agency is announcing today respond to the Ninth Circuit's order <https://cdn.ca9.uscourts.gov/datastore/opinions/2021/04/29/19-71979.pdf> directing EPA to issue a final rule in response to the 2007 petition filed by Pesticide Action Network North America and Natural Resources Defense Council. The petition requested that EPA revoke all chlorpyrifos tolerances, or the maximum allowed residue levels in food, because those tolerances were not safe, in part due to the potential for neurodevelopmental effects in children.

Under the previous Administration, EPA denied the petition in 2017 and denied the subsequent objections in 2019. These denials were challenged in the Ninth Circuit Court of Appeals in 2019 by a coalition of farmworker, health, environmental, and other groups. In April 2021, the Court found that "...EPA had abdicated its statutory duty under the Federal Food, Drug and Cosmetic Act..." to "conclude, to the statutorily required standard of reasonable certainty, that the present tolerances caused no harm." In its decision, the Court ordered EPA to grant the petition, issue a final rule in which the agency either modifies the chlorpyrifos tolerances with a supporting safety determination or revokes the tolerances, and modify or cancel food-use registrations of chlorpyrifos.

EPA has determined that the current aggregate exposures from use of chlorpyrifos do not meet the legally required safety standard that there is a reasonable certainty that no harm will result from such exposures. A number of other countries, including the European Union and Canada, and some states including California, Hawaii, New York, Maryland, and Oregon have taken similar action to restrict the use of this pesticide on food.

While farmers have historically relied on chlorpyrifos, its use has been in decline due to restrictions at the state level and reduced production. Additionally, some alternatives have been registered in recent years for most crops. There are also other chemistries and insect growth regulators available for certain target pests. EPA is committed to reviewing replacements and alternatives to chlorpyrifos.

The U.S. has a safe and abundant food supply, and children and others should continue to eat a variety of foods, as recommended by the federal government and nutritional experts. Washing and scrubbing fresh fruits and vegetables will help remove traces of bacteria, chemicals, and dirt from the surface. Very small amounts of pesticides that may remain in or on fruits, vegetables, grains, and other foods decrease considerably as crops are harvested, transported, exposed to light, washed, prepared, and cooked.

This action will also be incorporated into the ongoing registration review for chlorpyrifos. EPA is continuing to review the comments submitted on the chlorpyrifos proposed interim decision <https://www.regulations.gov/document/epa-hq-opp-2008-0850-0971>, draft revised human health risk assessment <https://www.regulations.gov/document/epa-hq-opp-2008-0850-0944>, and draft ecological risk assessment <https://www.regulations.gov/document/epa-hq-opp-2008-0850-0940>. These documents are available in the chlorpyrifos registration review docket EPA-HQ-OPP-2008-0850 <https://www.regulations.gov/docket/epa-hq-opp-2008-0850> at www.regulations.gov <http://www.regulations.gov>.

After considering public comments, the agency will proceed with registration review for the remaining non-food uses of chlorpyrifos by issuing the interim decision, which may consider additional measures to reduce human health and ecological risks. More information on the registration review process is available here. <https://epa.gov/pesticide-reevaluation/registration-review-process>

More information about chlorpyrifos and the final tolerance rule is available on EPA's website <https://epa.gov/ingredients-used-pesticide-products/chlorpyrifos>

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LAST UPDATED ON AUGUST 18, 2021

01 DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY

026 BOARD OF PESTICIDES CONTROL

Chapter 41: SPECIAL RESTRICTIONS ON PESTICIDE USE

SUMMARY: This chapter describes special limitations placed upon the use of (1) aldicarb (Temik 15G) in proximity to potable water bodies; (2) trichlorfon (Dylox, Proxol); (3) hexazinone (Velpar, Pronone), (4) aquatic herbicides in the State of Maine; ~~and~~(5) plant-incorporated protectants and (6) chlorpyrifos (Dursban, Lorsban).

Section 1. ALDICARB (TEMIK®)

The registration of aldicarb (Temik 15G) is subject to the following buffer zone requirements:

A. Aldicarb (Temik 15G) shall not be applied within 50 feet of any potable water source if that water source has been tested and found to have an aldicarb concentration in the range of one to ten parts per billion (ppb). The 50 foot buffer would be mandatory for one year with a required retesting of the water at the end of the period.

B. Aldicarb (Temik 15G) shall not be applied within 100 feet of any potable water source if that water source has been tested and found to have an aldicarb concentration in excess of 10 ppb. The 100 foot buffer would be mandatory for one year with a required retesting of the water at the end of this period.

Section 2. TRICHLORFON (DYLOX, PROXOL)

The registration of trichlorfon (Dylox, Proxol) is subject to the following requirements:

A. Trichlorfon shall only be used for control of subsurface insects on turf.

B. Prior to application the target pest must be identified and the severity of the infestation must be determined, including the extent of the damage.

C. Only infested areas shall be treated with trichlorfon. Broadcast treatments of the entire turf area are prohibited.

D. Following application, the trichlorfon must be watered into the soil with at least ½ inch of water and according to the label directions. The applicator must assure that the appropriate watering will take place prior to re-entry by any unprotected person.

Section 3. HEXAZINONE (VELPAR, PRONONE)

The registration of hexazinone is subject to the following limitations and conditions.

A. **Licenses Required**

No person shall use or supervise the use of any pesticide containing the active ingredient hexazinone unless they have obtained an applicators license in accordance with 22 M.R.S. §1471-D.

Section 4. AQUATIC HERBICIDES

The registration of pesticides for which there is an aquatic herbicide use on the product label shall be subject to the following limitations and conditions.

A. **Board Publication of List**

The Board of Pesticides Control will publish by May 23, 2003 and by March 15th of each year thereafter a list of herbicide products registered in Maine for which the manufacturer has verified that there is an aquatic use on the pesticide label. Based on available information, the Board may exempt from this list pesticides that it determines are not for use in the control of aquatic vegetation. Pesticides labeled solely for use in aquariums and antifouling paints, are specifically exempt from this list.

B. **Licenses Required**

I. Unless exempted under Chapter 41, Section 4 (B) (III), no person shall purchase, use or supervise the use of any aquatic herbicides identified on the Board's annual listing unless they have obtained a private or commercial pesticide applicator's license from the Board.

II. No person shall:

a. Distribute any aquatic herbicides identified on the Board's annual listing without a restricted use pesticide dealer's license from the Board; or

b. Unless exempted under Chapter 41, Section 4 (B) (III), distribute any aquatic herbicides identified on the Board's annual listing to any person who is not licensed as a private or commercial applicator by the Board.

III. Registered herbicides containing only the active ingredients erioglaucine (Acid Blue 9 or FD&C Number 1, CAS Registry No. 1934-21-0) and/or tartrazine (Acid Yellow 23 or FD&C Yellow Number 5, CAS Registry No. 2650-18-2 (trisodium salt) or 3844-45-9 (triammonium salt)) are exempt from the applicator licensing requirements described in Chapter 41, Section 4 (B) (I) and Chapter 41, Section 4 (B) (II) (b).

C. **Disclosure**

The Board will make a disclosure form available to dealers distributing any aquatic herbicides identified on the Board's annual listing. The Board requests that dealers present to customers the disclosure form that advises purchasers that, (1) an aquatic discharge license must be obtained from the Maine Department of Environmental Protection before any application may be made to any surface waters of the State as defined in 38 M.R.S.A. Section 361-A(7) including any private ponds that may flow into such a body of water at any time of year, (2) that Best Management Practices developed jointly by the Board and the Maine Department of Environmental Protection on the use of aquatic herbicides are available.

D. **Records and Reporting**

Dealers distributing any aquatic herbicides identified on the Board's annual listing shall keep records of such sales and provide reports to the Board as described for restricted use pesticides in Chapter 50, "Record Keeping and Reporting Requirements."

E. **Use of Best Management Practices**

Aquatic herbicides applied to private ponds and not subject to an aquatic discharge permit may only be applied consistent with Best Management Practices developed jointly by the Board and the Maine Department of Environmental Protection.

Section 5. PLANT-INCORPORATED PROTECTANTS

The registration, distribution and use of plant-incorporated protectants are subject to the following limitations and conditions:

A. **Definitions**

"Plant-incorporated protectant" means a pesticidal substance that is intended to be produced and used in a living plant, or in the produce thereof, and the genetic material necessary for the production of such a pesticidal substance.

B. **License Required**

No person shall distribute any plant-incorporated protectant without either a general use pesticide dealer license or a (restricted or limited use) pesticide dealer license from the Board.

C. **Dealer Requirements**

Dealers distributing plant-incorporated protectants are subject to the following requirements:

I. General use and (restricted or limited use) pesticide dealers shall notify the Board of their intent to distribute plant-incorporated protectants on all initial license and license renewal application forms provided by the Board.

II. General use and (restricted or limited use) pesticide dealers shall maintain sales records showing the list of the names and addresses of all purchasers of plants, plant parts or seeds containing plant-incorporated protectants. These records must be made available to representatives of the Board for inspection at reasonable times, upon request, and must be maintained for two calendar years from the date of sale.

III. Any general use and (restricted or limited use) pesticide dealer who discontinues the sale of plant-incorporated protectants shall notify the Board in writing and shall provide the Board, upon request, with all records required by Section 5(C)II of this chapter.

D. **Grower Requirements**

I. All users of plant-incorporated protectants shall maintain the records listed below for a period of two years from the date of planting. Such records shall be kept current by recording all the required information on the same day the crop is planted. These records shall be maintained at the primary place of business and shall be available for inspection by representatives of the Board at reasonable times, upon request.

a. Site and planting information, including town and field location, a map showing crop location and refuge configuration in relation to adjacent crops within 500 feet that may be susceptible to cross-pollination;

b. Total acres planted with the plant-incorporated protectant and seeding rate;

c. Total acres planted as refuge and seeding rate;

d. Detailed application information on any pesticide applied to the refuge as described in Section 1(A) of Chapter 50, "Record Keeping and Reporting Requirements"; and

e. Planting information for each distinct site including:

i. date and time of planting; and

ii. brand name of the plant-incorporated protectant used.

II. There are no annual reporting requirements for growers.

E. **Product-Specific Requirements**

I. Requirements for plant-incorporated protectant corn containing Bacillus thuringiensis (Bt) protein and the genetic material necessary for its production.

a. Prior to planting plant-incorporated protectant corn containing any Bacillus thuringiensis (Bt) protein and the genetic material necessary for

its production, the grower must have completed a Board-approved training course and possess a valid product-specific training certificate.

b. Product-specific training certificates shall be issued following each Board-approved session. The certificates will remain valid until December 31 of the third year after issuance.

c. Non-Bt-corn growers whose crops are or will be located within 500 feet of a prospective Bt-corn planting site can request that the Bt-corn grower protect the non-Bt-corn crop from pollen drift.

i. the request must be made prior to planting of the Bt-corn crop;

ii. the request must identify the non-Bt-corn crop to be protected; and

iii. the growers may agree on any method for protection but, if an agreement cannot be reached,

1. the Bt-corn grower must plant any refuge required by the Bt-corn grower agreement, grower guide or product label in a configuration that provides maximum protection from pollen drift onto the adjacent non-Bt-corn crop; or

2. if no refuge is required, the Bt-corn grower shall maintain at least a 300-foot Bt-corn-free buffer to non-Bt-corn crops.

d. Bt-corn growers are encouraged to follow all best management practices developed by the Board or the Department of Agriculture, Conservation and Forestry.

II. Dealers distributing Bt-sweet corn shall only sell the seed in quantities large enough to plant one acre or more.

F. **Confidentiality**

Any person providing information to the Board in connection with the record-keeping and reporting requirements of Section 5 of this chapter may designate that information as confidential in accordance with 7 M.R.S.A. §20.

Section 6. CHLORPYRIFOS (DURSBAN, LORSBAN)

The registration of chlorpyrifos (Dursban, Lorsban) is subject to the following limitations and conditions.

A. No person shall use or supervise the use of any pesticide containing the active ingredient chlorpyrifos unless they have obtained a private or commercial applicator's license from

the Board, possess the pesticide in the State before January 1, 2022, and obtain a temporary use authorization permit from the Board.

B. Permit applications shall be made on such forms as the Board provides and shall include at least the following information:

I. The name, address and telephone number of the applicant;

II. The brand name of the pesticides to be applied;

III. The date on which the pesticides were purchased;

IV. The approximate quantity of the pesticides possessed; and

V. The purpose for which the pesticide application(s) will be made.

C. Within 30 days after a complete application is submitted, the Board or its staff shall issue a permit if:

I. The permit application is received prior to December 31, 2022;

II. The applicant possesses a valid pesticide applicator license issued by the State;

III. The pesticides proposed for use were purchased prior to January 1, 2022;

The Board may place conditions on any such permit, and the applicant shall comply with such conditions. Except as required by the permit, the applicant shall undertake the application in accordance with all of the procedures described in their permit request and all other applicable legal standards. Permits issued by the Board under this section shall not be transferable or assignable except with further written approval of the Bord and shall be valid only for the period specified in the permit.

STATUTORY AUTHORITY: 5 M.R.S.A. §§ 8051 *et seq*.
7 M.R.S.A. §§ 601-610
22 M.R.S.A. §§ 1471-A, 1471-B, 1471-C, 1471-D, 1471-M

EFFECTIVE DATE:
March 8, 1981 (Captan)

AMENDED:
May 7, 1981 (Trichlorfon)
January 2, 1984 (Aldicarb)
May 8, 1988 (Trichlorfon)
August 5, 1990 (Captan)
August 17, 1996 (Hexazinone)
October 2, 1996

EFFECTIVE DATE (ELECTRONIC CONVERSION):
March 1, 1997

AMENDED:
May 7, 1997 - Section 3(B)(II)

CONVERTED TO MS WORD:
March 11, 2003

AMENDED:
May 12, 2003 - Section 4 added

NON-SUBSTANTIVE CORRECTIONS:
June 24, 2003 - summary only

AMENDED:
February 2, 2004 - Section 4, 1st paragraph and sub-section A, filing 2004-31
April 30, 2007 – filing 2007-154
February 3, 2008 – filing 2008-36
July 16, 2009 – filing 2009-253 (final adoption, major substantive)
May 3, 2012 – filing 2012-99 (final adoption, major substantive)

CORRECTIONS:
February, 2014 – agency names, formatting

AMENDED:
December 9, 2014 – Section 3, filing 2014-283

ADOPTED 9/19/84
AMENDED 9/7/90
AMENDED 6/3/98

Maine Board of Pesticides Control Enforcement Protocol

The Board adopts the following enforcement protocol to be utilized in routine enforcement matters arising under the Board's statutes and regulations.[1]

1. Persons wishing to report potential violations should refer such matters, as soon and in as much detail as possible, to the Board's staff. Where such reports are submitted by telephone, the Board requests that confirmation be made in writing. As a general rule, where requested by the individual making the report, the Board shall keep the identity of that person confidential, except as the Attorney General may advise in a particular case that such information is subject to public disclosure under the Maine Freedom of Access Law.

2. As soon as practicable after receipt of a report of a potential violation, the Board's staff shall investigate. The precise method and extent of investigation shall be at the discretion of the staff, considering the potential severity of the violation and its consequences, the potential the violation may have for damage to the environment or human health, and other matters which may place demands upon staff resources at the time.

3. Following staff investigation, if the staff determines that a violation has occurred of sufficient consequence to warrant further action, the Board's staff may proceed as follows:

   a. In matters not involving substantial threats to the environment or public health , the Board's staff may discuss terms of resolution with the Attorney General's office and then with the violator without first reporting the matter to the Board. This procedure may only be used in cases in which there is no dispute of material facts or law, and the violator freely admits the violation(s) of law and acknowledges a willingness to pay a fine and resolve the matter. The terms of any negotiated proposed resolution shall be subject to the Board's subsequent review and approval, as provided in section 6b.

   b. In matters involving substantial threats to the environment or the public health or in which there is dispute over the material facts or law, the Board's staff shall bring the matter to the attention of the Board. The staff shall prepare a written report summarizing the details of the matter. Copies of the report shall be mailed to the alleged violator and any complainants so they may make comments. The report and any comments will then be distributed to the Board prior to their next available meeting. The staff will also notify the alleged violator and other involved parties about the date and location of the meeting at which the alleged violation will be considered by the Board.

4. At the Board meeting, the Board shall hear from its staff and, if requested, from the alleged violator(s) and/or their attorneys, as well as from other interested members of the public, to the extent reasonable under the circumstances and in a manner which the Board's chairman shall direct. Ordinarily, such a meeting will not be conducted as a formal adjudicatory hearing. Before making a decision regarding any action(s) which it may wish to take in response to an alleged violation, the Board may choose to go into executive session to discuss with its counsel the various enforcement options available to it and other related matters which are not subject to public disclosure under the Freedom of Access Law. However, all Board decisions shall be made on the public record and not in executive session.

[1] In emergency or other unusual situations, the Board and/or its staff may depart from this protocol, in a manner consistent with State law, when necessary to the handling of particular enforcement actions.

5. Following receipt of the staff report and other information presented to it and completion of whatever further inquiry or deliberations the Board may wish to undertake, the Board shall make a decision regarding which course(s) of action, as described in Section 6, it deems appropriate in response to the alleged violation. Any such decision will ordinarily be based upon the Board's judgment as to whether a violation of its statutes or regulations appears to have occurred which is of sufficient consequence to warrant an enforcement action, but shall not require that the Board be satisfied to a legal certainty that the alleged violator is guilty of a particularly defined violation. In disputed matters, the ultimate decision as to whether a violation is factually and legally proven rests with the courts.

6. If the Board makes the determination that a violation appears to have occurred which warrants an enforcement action, the Board may choose among one or more of the following courses of action:

   a. In matters involving substantial violations of law and/or matters resulting in substantial environmental degradation, the Board may refer the matter directly to the Attorney General for the initiation of enforcement proceedings deemed appropriate by the Attorney General. Also, with regard to more routine violations with respect to which the Board finds sufficient legal and/or factual dispute so that it is unlikely that an amicable administrative resolution can be reached, the Board may choose to refer the matter directly to the Attorney General.

   b. On matters warranting enforcement action of a relatively routine nature, the Board may authorize and direct its staff to enter into negotiations with the alleged violator(s) with a view to arriving at an administrative consent agreement containing terms (including admissions, fines and/or other remedial actions) which are satisfactory to the Board, to the Attorney General and to the alleged violator(s). The Board will not ordinarily determine in the first instance the precise terms which should be required for settlement but may indicate to the staff its perception of the relative severity of the violation. In formulating a settlement proposal, the staff shall take into consideration all of the surrounding circumstances, including the relative severity of the violation, the violations record and other relevant history of the alleged violator(s), corrective actions volunteered by the alleged violator(s) and the potential impact upon the environment of the violation. The staff shall consult with the Attorney General's office before proposing terms of settlement to the alleged violator(s). Following successful negotiation of an administrative consent agreement with the alleged violator(s), the staff shall report back to the Board the terms of such agreement for the Board's review and, if it concurs, ratification. All administrative consent agreements shall become final only with the Board's and the Attorney General's approval.

   c. In the event that an administrative consent agreement cannot be arrived at as provided in paragraph b., the staff shall report the matter back to the Board for further action by it. Such action may include referral to the Attorney General for appropriate action.

   d. In addition, in appropriate cases, the Board may act to suspend the license of a certified applicator as provided in its statute, may act to refuse to renew the license of a certified applicator and/or may request that the Attorney General initiate proceedings in the Administrative Court to revoke or suspend the license of any such applicator. Where provided for by its statute, the Board shall give the licensee involved the opportunity for a hearing before the Board in connection with decisions by it to refuse to renew a license or to suspend such license.

7. Whereas the Board is establishing this protocol in order to clarify and facilitate its proceedings for the handling by it and its staff of enforcement matters, the Board recognizes that the Attorney General, as chief law enforcement officer of the State, may independently initiate or pursue enforcement matters as he deems in the best interests of the State and appropriate under the circumstances.

The Board has previously indicated an interest in determining the appropriate enforcement response in cases involving significant violations of pesticide laws and regulations. Historically staff have negotiated a consent agreement with the violator and then presented that proposed consent agreement at a Board meeting for the Board to approve or disapprove. Staff have identified this as a case involving significant violations of pesticide laws and regulations and will present this case to the Board for deliberation and a discussion of next steps.

Subject: Mosquito Squad of Southern Maine
10 Snow Canning Road
Scarborough, Maine 04074

Date of Incident(s): July 31, 2018 wrong property; 2018 various dates unlicensed/unsupervised commercial applicators; 2018, 2019, 2020, various dates incomplete commercial pesticide application records; June 17, 2020 insufficient notification to a registry member.

Background Narrative: The Board received a call that Mosquito Squad of Southern Maine (MSSM) made a pesticide application to the wrong property at 10 Wilson Road in Gorham. A follow up with the homeowner and MSSM confirmed the application was made on July 31, 2018 to the wrong property. The intended customer address was 5 Wilson Road. No applicator name was on the application record. The MSSM applicator said both houses and garages were similar to the description on the work order. The MSSM had no method in place to positively identify the correct customer property.

On September 10, 2018 the Board received a complaint that the MSSM was sending out unlicensed and unsupervised pesticide applicators to make custom pesticide applications. An inspector conducted a follow up inspection with MSSM and reviewed application records for 2018. The inspector confirmed that three MSSM pesticide applicators made a minimum of 170 unlicensed and unsupervised custom applications in 2018. Application records were incomplete, including applicator name.

On July 17, 2019 a Board inspector conducted a routine inspection with an MSSM applicator making a pesticide application in Gray. The pesticide application record for that job was missing the application method, size of area treated, site treated, application rate, and a record of sprayer calibration.

On June 23, 2020 a follow up inspection was done on an odor complaint. A review determined MSSM records were incomplete, including application method, applicator's license number, size of area treated, target pest, site or crop treated, and sky conditions.

On June 23, 2020 a Board inspector conducted a follow up inspection with the company in response to a complaint from a 2020 registry member who resides at 9 Ash Lane in York about lack of sufficient notification for an application made on June 17, 2020. MSSM's phone log documented that the Company called the registry member's telephone number at 11:39 AM. The

company made the application to a property listed as an abutter to the registry member on the 2020 Maine Pesticide Notification Registry from 11:49 AM to 11:54 AM.

Summary of Violation(s):

CMR 01-026 Chapter 20 Section 7: Commercial applicators making outdoor treatments to residential properties must implement a system, based on Board approved methods, to positively identify the property of their customers. The Board shall adopt a policy listing approved methods of positive identification of the proper treatment site.

CMR 01-026 Chapter 20 Section 6(D)2: No person may apply a pesticide to a property of another unless prior authorization for the pesticide application has been obtained from the owner, manager, or legal occupant of that property.

22 M.R.S. § 1471-D (1) (A) and CMR 01-026 Chapter 31 Section 1(A) III: Any person making a pesticide application that is a custom application, as defined under 22 M.R.S. § 1471-C(5-A), must be a certified commercial applicator or under the direct supervision of a certified applicator in accordance with 22 M.R.S. § 1471-D (1) (A) and CMR 01-026 Chapter 31 Section 1(A) III.

CMR 01-026 Chapter 50, Section 1(A). **Pesticide Application Records**

I. Commercial agricultural producers and commercial applicators shall maintain pesticide application records consistent with paragraph II. below for a period of two years from the date of application. Such records shall be kept current by recording all the required information on the same day the application is performed. These records shall be maintained at the primary place of business and available for inspection by representatives of the Board at reasonable times, upon request.

II. Pesticide application records shall include, at a minimum:

a. Site information including town and location, crop or site treated, target organism, customer and customer address (where applicable); and

i. for broadcast applications, size of treated area (when completed);

ii. for volumetric applications as described on the label, the volume treated;

iii. for non-broadcast applications (such as spot treatments, crack and crevice or stump treatments) a practical description of the scope or extent of the application (such as number of trees, stumps or rooms treated).

b. **Application information**. For each distinct site, records must include date and time of application(s), brand name of pesticide(s) applied, EPA registration number(s), active ingredient(s), restricted entry interval(s) and/or ventilation period(s) (where applicable), method of application (type of equipment), dilution agent(s) (other than water), the licensed

applicator's name and certification number, the name of any noncertified applicator that made the application (where applicable), and spray contracting firm (where applicable).

c. **Rate information**. For each distinct site, application rate information must be maintained as follows:

i. **Restricted Use Pesticides**. For restricted use pesticides, applicators shall record the total amount of pesticide applied (undiluted).

ii. **General Use Pesticides**. For general use pesticides, applicators shall record:

(1) rate information as described in (i.) above; or

(2) the mix ratio and the total mix applied; or

(3) the mix ratio and the mix per unit area applied.

d. For outdoor applications, except those listed below, weather conditions including wind speed and direction, air temperature and sky conditions recorded such as sunny, partly cloudy, overcast, foggy or rainy. No weather condition records need be kept for outdoor applications involving:

i. pesticides placed in bait stations;

ii. pesticide-impregnated devices placed on animals, such as ear tags; or

iii. pesticides injected into trees or utility poles

CMR 01-026 Chapter 28, Section 2 (D) to notify individuals listed on the Maine Pesticide Notification Registry at least six hours in advance of any pesticide application made to abutting properties within 250 feet of a registrant's listed property.

Rationale for requesting Board input on appropriate enforcement response: The large number of unlicensed/unsupervised commercial pesticide applications, the scope of violations, unlicensed applicators, lack of a system to positively ID the treatment site, application to the wrong property, insufficient notification to a registry member, insufficient record keeping.

Attachments: 2

§616-A. Penalties

1. Informal hearing. When the staff of the board proposes that the board take action on a possible violation, the board shall notify the alleged violator before discussing the alleged violation. The alleged violator may choose to address the board and may also choose to be represented by legal counsel. This requirement does not constitute and is not subject to the same procedures as an adjudicatory hearing under the Maine Administrative Procedure Act.

[PL 2005, c. 620, §16 (AMD).]

2. Civil violations. The following violations are civil violations.

A. A person may not violate this subchapter or a rule adopted pursuant to this subchapter or Title 22, chapter 258-A or a rule adopted pursuant to Title 22, chapter 258-A. Except as provided in paragraph B, the following penalties apply to violations of this paragraph.

(1) A person who violates this paragraph commits a civil violation for which a fine of not more than $1,500 may be adjudged.

(2) A person who violates this paragraph after having previously violated this paragraph within the previous 4-year period commits a civil violation for which a fine of not more than $4,000 may be adjudged. [PL 2003, c. 452, Pt. B, §6 (RPR); PL 2003, c. 452, Pt. X, §2 (AFF).]

B. A private applicator, as defined in Title 22, section 1471-C, may not violate a rule regarding records maintained pursuant to section 606, subsection 2, paragraph G. The following penalties apply to violations of this paragraph.

(1) A person who violates this paragraph commits a civil violation for which a fine of not more than $500 may be adjudged.

(2) A person who violates this paragraph after having previously violated this paragraph within the previous 4-year period commits a civil violation for which a fine of not more than $1,000 may be adjudged. [PL 2011, c. 510, §1 (AMD).]

[PL 2011, c. 510, §1 (AMD).]

2-A. Criminal violation. A person may not intentionally or knowingly violate this subchapter or Title 22, chapter 258-A, a rule adopted under this subchapter or Title 22, chapter 258-A or a restriction of a registration issued pursuant to this subchapter. A person who violates this subsection commits a Class E crime. Notwithstanding Title 17-A, section 1604, subsection 1 and sections 1704 and 1705, the court may impose a sentencing alternative of a fine of not more than $7,500 or a term of imprisonment of not more than 30 days, or both, for each violation. Prosecution under this subsection is by summons and not by warrant. A prosecution under this subsection is separate from an action brought pursuant to subsection 2.

[PL 2019, c. 113, Pt. C, §1 (AMD).]

3. Continuation. Each day that the violation continues is considered a separate offense.

[PL 1989, c. 841, §3 (NEW).]

4. Exceptions.

[PL 2003, c. 452, Pt. B, §8 (RP); PL 2003, c. 452, Pt. X, §2 (AFF).]

5. Criminal violations.

[PL 2003, c. 452, Pt. B, §8 (RP); PL 2003, c. 452, Pt. X, §2 (AFF).]

6. Other relief. Notwithstanding Title 22, section 1471-D, subsections 6 to 8 and in addition to other sanctions provided under this section, the court may order that a violator obtain recertification credits through board-approved meetings or courses as a condition of retaining, maintaining or renewing a certification or license required under Title 22, chapter 258-A.

[PL 1989, c. 841, §3 (NEW).]

7. Considerations. In setting a penalty under this section, the court shall consider, without limitation:

A. Prior violations by the same party; [PL 1989, c. 841, §3 (NEW).]

B. The degree of harm to the public and the environment; [PL 1989, c. 841, §3 (NEW).]

C. The degree of environmental damage that has not been abated or corrected; [PL 1989, c. 841, §3 (NEW).]

D. The extent to which the violation continued following the board's notice to the violator; [PL 1989, c. 841, §3 (NEW).]

E. The importance of deterring the same person or others from future violations; and [PL 1989, c. 841, §3 (NEW).]

F. The cause and circumstances of the violation, including:
(1) The foreseeability of the violation;

(2) The standard of care exercised by the violator; and

(3) Whether or not the violator reported the incident to the board. [PL 1989, c. 841, §3 (NEW).]

[PL 1989, c. 841, §3 (NEW).]

8. Injunction. The board may bring an action to enjoin the violation or threatened violation of any provision of this subchapter or any rule made pursuant to this subchapter in a court of competent jurisdiction of the district in which the violation occurs or is about to occur.

[PL 1989, c. 841, §3 (NEW).]

9. No damages from administrative action if probable cause exists. A court may not allow the recovery of damages from administrative action taken, or for a stop sale, use or removal order, if the court finds that there was probable cause for the administrative action.

10. Sunset.

[PL 1989, c. 841, §3 (NEW).]

§617. Exemptions

1. Exemptions from penalties. The penalties provided for violations of section 606, subsection 1, paragraphs A, B, C, D and E do not apply to:

A. Any carrier while lawfully engaged in transporting a pesticide within this State if the carrier, upon request, permits the board to copy all records showing the transactions in and movement of the pesticides or devices; [PL 2005, c. 620, §17 (AMD).]

B. Public officials of this State and the Federal Government while engaged in the performance of their official duties in administering state or federal pesticide laws or regulations; [PL 1975, c. 382, §3 (NEW).]

C. The manufacturer, shipper or other distributor of a pesticide for experimental use only, provided that person holds or is covered by a valid experimental use permit issued by EPA, and provided further that the permit covers the conduct in question; or [PL 2005, c. 620, §17 (AMD).]

D. Any person who ships a substance or mixture of substances being put through tests the purpose of which is only to determine the value of the substance or mixture for pesticide purposes or to determine its toxicity or other properties and from the use of which the user does not expect to receive any benefit in pest control. [PL 2005, c. 620, §17 (AMD).]

[PL 2005, c. 620, §17 (AMD).]

2. Exemption from this subchapter; pesticides for export. A pesticide or device may not be found to be in violation of this subchapter if the pesticide or device is intended solely for export to a foreign country and is prepared or packed according to the specifications or directions of the purchaser. If the pesticide or device is not so exported, all the provisions of this subchapter apply.

§619. Delegation of duties

All authority vested in the board under this subchapter may, with like force and effort, be executed by employees of the board to whom the board from time to time delegates such authority.

§1471-D. Certification and licenses

1. Certification required; commercial applicators and spray contracting firms. Certification is required for commercial applicators and spray contracting firms as follows.

A. No commercial applicator may use or supervise the use of any pesticide within the State without prior certification from the board, provided that a competent person who is not certified may use such a pesticide under the direct supervision of a certified applicator; and [PL 1983, c. 819, Pt. A, §42 (NEW).]

B. No spray contracting firm may use or supervise the use of any pesticide within the State without prior certification from the board. [PL 1985, c. 122, §2 (AMD).]

[PL 1985, c. 122, §2 (AMD).]

2. Certification required, private applicators. No private applicator shall use or supervise the use of any limited or restricted use pesticide without prior certification from the board, provided, that a competent person who is not certified may use such a pesticide under the direct supervision of a certified applicator.

[PL 1975, c. 397, §2 (NEW).]

2-A. Certification required; government pesticide supervisor.

[PL 2015, c. 58, §5 (RP).]

2-B. Certification required; spotters and monitors.

[PL 2015, c. 58, §6 (RP).]

2-C. Exemptions or reduced licensing requirements for certain commercial or custom applications. The board may by rule provide for exemptions from licensing requirements and for reduced licensing requirements for classes of commercial applicators of general-use pesticides applied by hand or nonpowered equipment if the board finds that applications by those classes do not pose a significant risk to health or the environment and the requirement of licensing does not serve a meaningful public purpose.

Notwithstanding Title 7, section 610, subsection 6 (../7/title7sec610.html), rules adopted pursuant to this section to provide exemptions from licensing or reduced licensing requirements are routine technical rules as defined in Title 5, chapter 375, subchapter 2-A (../5/title5ch375sec0.html).

[PL 2007, c. 245, §3 (NEW).]

2-D. Certification required; private applicator of general use pesticides for food production. A private applicator of general use pesticides may not use or supervise the use of general use pesticides for food production without prior certification from the board, except that a competent person who is not certified may use such a

pesticide under the direct supervision of a certified applicator. Additional certification under this section is not required for a person certified as a commercial applicator or a private applicator under subsection 1 or 2, respectively.

[PL 2011, c. 169, §2 (NEW); PL 2011, c. 169, §6 (AFF).]

3. License required, pesticide dealers. No pesticide dealer shall:

A. Distribute any limited or restricted use pesticide without a distributor's license from the board; or [PL 1975, c. 397, §2 (NEW).]

B. Distribute limited or restricted use pesticides to any person who is not licensed or certified by the board. [PL 1975, c. 397, §2 (NEW).]

[PL 1975, c. 397, §2 (NEW).]

4. Application. Application for licenses or certification shall be accompanied by such a reasonable fee as the board may establish by regulation. The applicant shall provide such information regarding the applicant's qualifications and proposed operations and other relevant matters as required by the board. Commercial applicators and spray contracting firms shall be required by the board to provide proof of financial responsibility in custom application as to such amounts as the board may, by regulation, designate; private applicators may also be required to provide such proof. All applicants to the board for certification or licensing shall be required to comply with such standards of competency as are established by the board concerning adequate knowledge of pesticide distribution or use and the related dangers and necessary precautions; provided that, in the case of applicants for commercial certification and pesticide dealers' licenses, such compliance shall be demonstrated by written examination in addition to such other criteria, including performance testing, as the board may establish.

[PL 1983, c. 819, Pt. A, §44 (AMD).]

5. Issuance. A license or certification may not be issued by the board unless the board determines that the standards for licensing and certification have been met as to those categories for which the applicant has applied and qualified. If a license or certification is not issued as applied for, the board shall provide written notice to the applicant of the reasons therefor. The license or certificate may be issued upon such terms and conditions as the board considers necessary for the protection of the public health, safety and welfare, and for enforcement and administration of this chapter and the rules adopted pursuant to this chapter.

[PL 2015, c. 58, §7 (AMD).]

6. Renewal. Licenses for commercial applicators, spray contracting firms, pesticide dealers and private applicators are valid for such period as prescribed by the board by rule. Application for renewal must be accompanied by such reasonable fee as the board may by rule require. The board may, by rule, require that such renewal application include reexamination or other procedures designed to assure a continuing level of competence to distribute, use or supervise the use of pesticides safely and properly.

If the board fails to renew a license upon application of the licensee or certificate holder, it shall afford the licensee or certificate holder an opportunity for a hearing in conformity with Title 5, chapter 375, subchapter 4 (../5/title5ch375sec0.html).

[PL 2015, c. 58, §8 (AMD).]

7. Suspension.

A. If the board determines that there may be grounds for revocation of a license or certificate, it may temporarily suspend said license or certificate pending inquiry and opportunity for hearing, provided that such

suspension shall not extend for a period longer than 45 days. [PL 1975, c. 397, §2 (NEW).]

B. The board shall notify the licensee or certificate holder of the temporary suspension, indicating the basis therefor and informing the licensee or certificate holder of the right to request a public hearing. [PL 1983, c. 819, Pt. A, §47 (AMD).]

C. If the licensee or certificate holder fails to request a hearing within 20 days of the date of suspension, such right shall be deemed waived. If the licensee or certificate holder requests such a hearing, notice shall be given at least 20 days prior to the hearing to the licensee or certificate holder and to appropriate federal and state agencies. In addition, public notice shall be given by publication in a newspaper of general circulation in the State and such other publications as the board deems appropriate. [PL 1983, c. 819, Pt. A, §48 (AMD).]

D. This subsection is not governed by the provisions of Title 4, chapter 5 (../4/title4ch5sec0.html) or Title 5, chapter 375 (../5/title5ch375sec0.html). [PL 1999, c. 547, Pt. B, §39 (AMD); PL 1999, c. 547, Pt. B, §80 (AFF).]

[PL 1999, c. 547, Pt. B, §39 (AMD); PL 1999, c. 547, Pt. B, §80 (AFF).]

8. Revocation. The District Court may suspend or revoke the certification or license of a licensee or certificate holder upon a finding that the applicant:

A. Is no longer qualified; [PL 1975, c. 397, §2 (NEW).]

B. Has engaged in fraudulent business practices in the application or distribution of pesticides; [PL 1975, c. 397, §2 (NEW).]

C. Used or supervised the use of pesticides applied in a careless, negligent or faulty manner or in a manner which is potentially harmful to the public health, safety or welfare or the environment; [PL 1975, c. 397, §2 (NEW).]

D. Has stored, transported or otherwise distributed pesticides in a careless, faulty or negligent manner or in a manner which is potentially harmful to the environment or to the public health, safety or welfare; [PL 1975, c. 397, §2 (NEW).]

E. Has violated the provisions of this chapter or the rules and regulations issued hereunder; [PL 1975, c. 397, §2 (NEW).]

F. Has made a pesticide recommendation, use or application, or has supervised such use or application, inconsistent with the labelling or other restrictions imposed by the board; [PL 1975, c. 397, §2 (NEW).]

G. Has made false or fraudulent records or reports required by the board under this chapter or under regulations pursuant thereto; [PL 1981, c. 470, Pt. A, §67 (AMD).]

H. Has been subject to a criminal conviction under (../22/title22sec14.html)section 14 (../22/title22sec14.html) (b) of the amended FIFRA or a final order imposing a civil penalty under (../22/title22sec14.html)section 14 (../22/title22sec14.html) (a) of the amended FIFRA; or [PL 1981, c. 470, Pt. A, §67 (AMD).]

I. Has had the license or certificate, which supplied the basis for the Maine license or certification pursuant to subsection 10, revoked or suspended by the appropriate federal or other state government authority. [PL 1977, c. 694, §341 (NEW).]

[PL 1983, c. 819, Pt. A, §49 (AMD); PL 1999, c. 547, Pt. B, §78 (AMD); PL 1999, c. 547, Pt. B, §80 (AFF).]

9. State, federal and local government employees. Individuals who apply pesticides in connection with their duties as officials or employees of federal, state or local governments are subject to the provisions of this chapter concerning licenses and certification, but are exempt from the payment of any fee.

[PL 1975, c. 397, §2 (NEW).]

10. Nonresident licenses. The board may issue a license or certificate without examination to nonresidents who are licensed or certified by another state or the Federal Government substantially in accordance with the provisions of this chapter. Licenses or certificates issued pursuant to this subsection may be suspended or revoked in the same manner and on the same grounds as other licenses or certificates issued pursuant to this chapter. Licenses and certificates issued pursuant to this subsection may be suspended or revoked pursuant to subsection 8, paragraph I (../22/title22sec1471-D.html).

[PL 1977, c. 694, §342 (AMD).]

11. Arborists. In the case of persons licensed under Title 7, chapter 404 (../7/title7ch404sec0.html), subchapter II, the board may waive the application fee and may consider the arborist license as prima facie evidence of qualification to use pesticides in the categories of use provided by Title 7, chapter 404 (../7/title7ch404sec0.html).

[PL 1999, c. 84, §4 (AMD).]

SECTION HISTORY
PL 1975, c. 397, §2 (NEW). PL 1977, c. 20, §3 (AMD). PL 1977, c. 694, §§338-342 (AMD). PL 1981, c. 374, §§3-7 (AMD). PL 1981, c. 470, §A67 (AMD). PL 1983, c. 819, §§A42-A49 (AMD). PL 1985, c. 122, §2 (AMD). PL 1997, c. 454, §8 (AMD). PL 1999, c. 84, §4 (AMD). PL 1999, c. 547, §§B39,78 (AMD). PL 1999, c. 547, §B80 (AFF). PL 2007, c. 245, §3 (AMD). PL 2011, c. 169, §2 (AMD). PL 2011, c. 169, §6 (AFF). PL 2015, c. 58, §§5-8 (AMD).

Maine Board of Pesticides Control

Guidance for the Application of Pesticides in Forest Settings in Order to Minimize the Risk of Discharges to Surface Waters

Selected List of Legal Requirements

There are numerous state and federal laws pertaining to the use of pesticides in Maine, including forestry settings. The following is a partial list of pesticide laws that are often applicable to forest pesticide applications. This is not intended as an exhaustive compilation of every legal requirement. It is the responsibility of the landowner and the pesticide applicator to identify and comply with all applicable laws.

All Applications

1. **The Pesticide label.** The pesticide label is the law. Abide by all pesticide label requirements, including use rates, handling, storage, and disposal.
    - Triple rinse empty pesticide containers or use equivalent procedures such as a pressure rinser.

2. **Chapter 22.** Maine Board of Pesticides Control ("BPC") rule CMR 01-026, Chapter 22, "Standards for Outdoor Application of Pesticides by Powered Equipment in Order to Minimize Off-Target Deposition" (commonly called "the drift rule"), establishes procedures and standards for the outdoor application of pesticides by powered equipment in order to minimize spray drift and other unconsented exposure to pesticides. This chapter contains numerous standards that are important to minimizing the risks of discharges to surface waters. Forestry applicators are advised to pay particular attention to this chapter.

3. **Chapter 29.** BPC rule CMR 01-026, Chapter 29, "Standards for Water Quality Protection," establishes standards for protecting surface water. Of particular note, this chapter:
    - Prohibits broadcast application of pesticides within 25 feet of surface water.
    - Establishes a 50 foot setback from surface water for mixing and loading of pesticides.
    - Sets requirements for the use of anti-siphoning devices and segregation of hoses used for pesticides and mix water.
    - Sets forth requirements for securing containers on vehicles and sprayers and cleaning up spills occurring within the setback zone. Establishes restrictions on pesticide applications to control browntail moths near marine waters.

4. **Chapter 50**. BPC rule CMR 01-026, Chapter 50 requires applicators to report all significant spills to the BPC. The Maine Department of Environmental Protection and also has spill reporting requirements.

5. In most cases, applications must only be conducted by BPC licensed applicators or USEPA Worker Protection Standard Pesticide Handlers. See BPC Rules for specifics.

Aerial Applications

6. For aerial applications, follow the terms of the Department of Environmental Protection (DEP) Pesticides General Permit.

7. BPC **Chapter 22** contains specific standards for aerial application of pesticides, including:
    - Positive identification of target site.
    - Site plan requirements.
    - Site specific checklist. Buffer zones.

8. BPC **Chapter 22** specifies that aerial applications may not be conducted within 1,000 feet of a sensitive area likely to be occupied unless wind speed is between 2 and 10 miles per hour.

9. **Chapter 51.** BPC rule CMR 01-026, Chapter 51, "Notice of Aerial Pesticide Applications." describes the notification requirements for persons contracting aerial pesticide applications to control forest, ornamental plant, right-of-way, biting fly and public health pests.

Pesticide Application Guidelines

The following guidelines are intended to complement laws pertaining to pesticide use and assist applicators in preventing drift and discharges to surface waters. These guidelines are not intended to be construed as mandatory requirements, since not all of the practices will be feasible or appropriate in every circumstance. Applicators must consider site specific conditions to determine which recommendations are applicable and adjust practices to minimize the likelihood of discharges of pesticides to surface waters of the state.

General Guidelines

1. Use a pesticide screening tool such as the USDA-NRCS, WIN-PST program and choose effective products that exhibit the lowest combination of leaching potential, pesticide solution runoff potential, and pesticide adsorbed runoff potential.

2. Conduct all pesticide handling—mixing, loading, equipment cleaning, and storage—on upland sites, away from water bodies, outside filter areas, and away from road drainage systems.

3. Maintain a spill containment and cleanup kit appropriate for the materials being applied.

4. Store pesticides in a secure enclosure and maintain them at application sites only as long as necessary.

5. When practical, use product delivery technology that offers features such as a closed system and product tracking and allows for accurate premixed solutions. These technology options eliminate the need for open containers and triple rinsing and provide proper prescriptions without the need to use open pesticide containers.

6. Recycle containers when possible or dispose of them through a solid waste facility when required.

Equipment

7. When rinsing spray equipment, apply rinse water only in areas that are part of the application site.

Sensitive Areas/Application

8. Use spot, injection or stump treatments methods when applying chemicals not labeled for aquatic use in streamside management zones. Broadcast pesticide applications are prohibited within 25 feet of a stream.

9. Direct spray applications away from surface waters when feasible.

10. Avoid drift to areas with standing water connected to surface water.

11. Avoid applications to saturated soils.

12. Avoid applying herbicides in areas where the chemicals can injure stabilizing vegetation on slopes, gullies, and other fragile areas subject to erosion that drain into surface water.

13. Avoid applications close to steep slopes or drainage swales and other features that lead to surface waters which may potentially result in a discharge.

14. Avoid application to impervious surfaces, exposed bedrock, or frozen soils.

Weather

15. Apply pesticides only during favorable weather conditions:
    - Avoid applications prior to an expected heavy rainfall.
    - Avoid applications during periods of atmospheric inversion or fog.
    - Avoid application in high temp, low humidity conditions.
    - Whenever possible, only apply pesticides when wind conditions are between 2-10 mph.

Drift Management

16. In addition to following the requirements in BPC Chapter 22:
    - Maintain buffers between spray operations and water bodies.
    - Increase the buffer size when there is no vegetation in the buffer.
    - Use low-volatility pesticides when possible.
    - Spray when winds blow away from surface waters or have a spotter in full PPE to warn the applicator if drift becomes an issue.
    - Select spray nozzles and pump pressures that produce the largest, effective droplet.
    - Consider adjuvants to reduce spray drift when the pesticide label allows, unless not recommended by the University of Maine Cooperative Extension.

Guidelines Specific to Aerial Applications

17. Use the best available weather information sources to provide the most accurate, locally relevant, real-time weather information in order to target suitable application conditions for proper deposition. Use available combinations of on-site portable weather stations, remote sensing stations and stationary sites.

18. Make applications in neutral air conditions when small droplets are required to effectively control targeted pests:
    - Neutral atmospheric conditions represent the most suitable conditions for proper spray deposition. Droplets spread out evenly and fall close to the release point rather than carried upward by unstable conditions or concentrated and carried laterally from the release point by stable conditions. Neutral atmospheric conditions are most likely to occur in the morning and evening.
    - Stable atmospheric conditions—when there is little to no air movement—indicate the likelihood of inversions under which diffusion is the primary physical property influencing fine droplet movement. Stable air causes droplets to be carried laterally, for short distances, resulting in higher off target deposition in proximity to the application site.
    - Unstable atmospheric conditions—when there is both vertical and horizontal air movement—indicate the likely existence of thermal updrafts which decrease the target site deposition and can lead to long range transport of fine droplets, but reduce the probability of high off-target residues in proximity to the application site.

19. Use on-board GPS navigation systems coupled with digital site maps to ensure that the correct sites are being treated, appropriate buffers are observed, and booms are turned on and off at the appropriate times.

20. Depict all sensitive areas and the appropriate buffers on application maps to ensure adequate protection.

21. Supply pilots with individual site treatment maps for each treatment block prior to application.

22. Discuss each site with the pilot prior to application to ensure all sensitive areas are protected.

23. Pre-fly application sites to:
    - Ensure the digitized maps reflect the true nature of the treatment site.
    - Scout for surface water that might not be present on the paper site map provided to the pilot.

24. Use AUTOCAL or a similar system to maintain proper application rate based on the speed of the aircraft.

25. Use the best available nozzles that minimize formation of fine droplets for herbicide applications in order to produce the largest effective droplets with the narrowest size spectrum to minimize drift.

26. Configure application equipment to minimize wind shear of spray droplets when appropriate.

27. Turn booms on and off at the appropriate time when entering or leaving a treatment block.

28. Avoid spraying directly on the downwind edge of a treatment block. Move the spray swath upwind from this this edge, i.e., offset by 1/2 to 1 swath width.

29. Identify and avoid streamside management zones and surface water to prevent pesticides from drifting over open water or from accidentally being applied directly on the water. Avoid flying directly over surface waters while making applications.

30. Apply parallel to surface waters when feasible.

31. Employ all depicted buffers around all surface waters.

32. Fly treatment block edges that are next to surface waters when the wind is away from the surface waters.

33. Download post-application log files from the on-board GPS system showing the flight of the helicopter/aircraft with booms on and off. Create maps and overlay on the treatment site maps; save for two years and file with the required application reports. For aerial forest insect applications, submit site/spray maps to the BPC with the annual summary reports (requested by the Joint Standing Committee on Agriculture, Conservation and Forestry).

For more information, contact the Maine Board of Pesticides Control at 287-2731.

References

Barry, Don and Gary Fish (eds). 2012. *Pesticide Education Manual*. The University of Maine Cooperative Extension. Orono.

Maine Forest Service. 2004. *Best Management Practices for Forestry: Protecting Maine's Water Quality*. Augusta.

10d

L.D. 808

Date: (Filing No. S-)

AGRICULTURE, CONSERVATION AND FORESTRY

Reproduced and distributed under the direction of the Secretary of the Senate.

STATE OF MAINE

SENATE

130TH LEGISLATURE

FIRST SPECIAL SESSION

COMMITTEE AMENDMENT " " to S.P. 141, L.D. 808, "An Act To Clarify the Funding for the University of Maine Cooperative Extension Diagnostic and Research Laboratory"

Amend the bill by striking out the title and substituting the following:

'An Act To Repeal the Pesticide Container Fee and the Tick Laboratory and Pest Management Fund'

Amend the bill by inserting after the title and before the enacting clause the following:

'**Emergency preamble. Whereas,** acts and resolves of the Legislature do not become effective until 90 days after adjournment unless enacted as emergencies; and

Whereas, in June 2020, Public Law 2019, chapter 548 went into effect imposing a fee of 15¢ per container on the retail sale in the State of pesticide products registered with the Board of Pesticides Control; and

Whereas, implementation of the law has proven to be problematic and complex for retailers across the State; and

Whereas, although the Legislature appreciates the intent to fund research related to tick and brown tail moth pest management, the pesticide container fee has put retailers at risk with Maine Revenue Services; and

Whereas, in the judgment of the Legislature, these facts create an emergency within the meaning of the Constitution of Maine and require the following legislation as immediately necessary for the preservation of the public peace, health and safety; now, therefore,'

Amend the bill by striking out everything after the enacting clause and inserting the following:

'**Sec. 1. 7 MRSA c. 419,** as amended, is repealed.

Sec. 2. 36 MRSA c. 725, as amended, is repealed.

Sec. 3. PL 2019, c. 548, §3 is repealed.

Sec. 4. Appropriations and allocations. The following appropriations and allocations are made.

ADMINISTRATIVE AND FINANCIAL SERVICES, DEPARTMENT OF

Revenue Services, Bureau of 0002

Initiative: Provides one-time funding to remove a line from the sales tax return.

GENERAL FUND	**2021-22**	**2022-23**
All Other	$5,000	$0
GENERAL FUND TOTAL	$5,000	$0

ADMINISTRATIVE AND FINANCIAL SERVICES, DEPARTMENT OF DEPARTMENT TOTALS	**2021-22**	**2022-23**
GENERAL FUND	**$5,000**	**$0**
DEPARTMENT TOTAL - ALL FUNDS	**$5,000**	**$0**

UNIVERSITY OF MAINE SYSTEM, BOARD OF TRUSTEES OF THE

Tick Laboratory and Pest Management Fund N330

Initiative: Deallocates funds due to the repeal of the pesticide container fee.

OTHER SPECIAL REVENUE FUNDS	**2021-22**	**2022-23**
All Other	($102,485)	($102,485)
OTHER SPECIAL REVENUE FUNDS TOTAL	($102,485)	($102,485)

UM Cooperative Extension - Pesticide Education Z059

Initiative: Deallocates funds due to the repeal of the pesticide container fee.

OTHER SPECIAL REVENUE FUNDS	**2021-22**	**2022-23**
All Other	($81,000)	($81,000)
OTHER SPECIAL REVENUE FUNDS TOTAL	($81,000)	($81,000)

UNIVERSITY OF MAINE SYSTEM, BOARD OF TRUSTEES OF THE DEPARTMENT TOTALS	**2021-22**	**2022-23**
OTHER SPECIAL REVENUE FUNDS	**($183,485)**	**($183,485)**
DEPARTMENT TOTAL - ALL FUNDS	**($183,485)**	**($183,485)**

SECTION TOTALS	2021-22	2022-23
GENERAL FUND	$5,000	$0
OTHER SPECIAL REVENUE FUNDS	($183,485)	($183,485)
SECTION TOTAL - ALL FUNDS	($178,485)	($183,485)

Emergency clause. In view of the emergency cited in the preamble, this legislation takes effect 10 business days after it is approved.'

Amend the bill by relettering or renumbering any nonconsecutive Part letter or section number to read consecutively.

SUMMARY

This amendment, which is the majority report of the committee, strikes and replaces the bill, which is a concept draft. The amendment eliminates the Tick Laboratory and Pest Management Fund by repealing the Maine Revised Statutes, Title 7, chapter 419 and the corresponding pesticide container fee in Title 36, chapter 725. It also adds an emergency preamble and emergency clause to the bill. The amendment provides that the legislation takes effect 10 business days after it is approved. The amendment adds an appropriations and allocations section.

FISCAL NOTE REQUIRED

(See attached)

10e

Board Member Remote Participation Policy

POLICY: In accordance with 1 M.R.S. § 403-B, it is the policy of the Board of Pesticides Control ("Board") to allow Board members to participate remotely using synchronous telephonic or video technology allowing simultaneous reception and exchange of information pursuant to this policy.

1. It is an expectation that all members of the Board will be physically present for public proceedings conducted by the Board except when being physically present is not practicable.

2. Circumstances in which the physical presence of one or more of the members of the Board is not practicable include:

A. The existence of an emergency or urgent issue that requires the Board to meet by remote methods. The existence of an emergency or urgent issue under this subsection shall be determined by the Board Chair, or if the Chair is unavailable, by the Director.

B. Illness or other physical condition as determined by the individual Board member that causes the member to face significant difficulties to travel to or attend the public Board proceeding.

C. Temporary absence from the State that would cause the Board member to face significant difficulties traveling to and attending the public Board proceeding in person as determined by the individual Board member.

D. Whenever a member of the Board has to travel a significant distance to be physically present at the public Board proceeding.

E. Whenever there are geographic characteristics or meteorological conditions that impede safety or slow travel, including but not limited to islands not connected by bridges or significant weather events such as hurricanes, snowstorms, ice storms or nor'easters. The existence of geographic characteristics or meteorological conditions that impede safety or slow travel under this subsection shall be determined by the Board Chair, or if the Chair is unavailable, by the Director.

3. The Board shall provide members of the public a meaningful opportunity to attend a public proceeding of the Board by remote means whenever members of the Board participate by remote methods or when necessary to provide reasonable accommodation and access to individuals with disabilities. Any member of the public needing and requesting accommodation to access a public Board proceeding should contact Board staff via the main phone line at (207)287-2731 or pesticides@maine.gov.

4. Whenever the Board is scheduled to allow or required to provide an opportunity for public input during a public Board proceeding, the Board shall provide an effective means of communication between the members of the Board and the public.

5. Whenever a member of the Board will be participating remotely, the Board's notice of the public Board proceeding will include the means by which members of the public may access the proceeding remotely and identify a physical location for members of the public to attend in person. The Board may not limit the public's ability to attend a public proceeding in person except during the existence of an emergency or urgent issue or there are geographic characteristics or meteorological conditions that impede safety or slow travel that requires the Board to meet by remote methods.

6. A member of the Board who participates remotely in a public Board proceeding is present for purposes of a quorum and voting.

7. All votes taken by the Board during a public Board proceeding using remote methods for participation by any Board member must be taken by roll call vote that can be seen and heard if using video technology, and heard if using audio only technology, by the other members of the Board and the public.

8. The Board shall make all non-confidential documents and other materials, electronic or otherwise, considered by it during a public proceeding available to the public who attend by remote means to the same extent customarily available to members of the public who attend Board public proceedings in person so long as no additional costs are incurred by the Board.

9. For purposes of adjudicatory hearings held under 5 M.R.S. §§ 9051-9064, only Board members who participate via video methods that allows the parties to the proceeding the ability to view the remotely participating member will be allowed to participate in the proceeding.

10. Nothing in this policy is intended to be a rule subject to the provisions of 5 M.R.S. §§ 8051-8074, and this policy may be subsequently amended by simple majority vote of those present and voting once quorum is achieved.

EFFECTIVE DATE: AUGUST 16, 2021

JOHN ELIAS BALDACCI
GOVERNOR

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, FOOD AND RURAL RESOURCES
BOARD OF PESTICIDES CONTROL
28 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0028

SETH H. BRADSTREET III
COMMISSIONER

HENRY JENNINGS
DIRECTOR

MAINE BOARD OF PESTICIDES CONTROL POLICY RELATING TO THE MEDICAL ADVISORY COMMITTEE

Adopted August 1, 2008
Revised August 27, 2021

Background

The Maine Board of Pesticides Control recognizes the potential impact of some pesticides on human health, as well as the importance of protecting the beneficial uses of most pesticides when used carefully by responsible applicators. In order to separate potentially harmful chemicals from the essentially safe ones, the Board needs expert advisors, knowledgeable in the field of human health research or clinical practice, who can add their assessments to the economic and benefit recommendations of others prior to the Board initiating and ruling on pesticide restrictions.

These persons will be established as a volunteer Medical Advisory Committee to the Board of Pesticides Control.

Membership

The MAC will be composed of three standing members and *ad hoc* members. One standing member will be the Board member appointed with medical expertise. This member will also chair the committee. The other two standing members will be a scientist with clinical or human toxicology experience with preference for the State Toxicologist or their designee, from the Environmental Toxicology Program at the Maine Centers for Disease Control and the Medical Director of the Northern New England Poison Center or their designee. In addition, up to six members may be chosen *ad hoc* with expertise specific to the issue at hand. The Board will solicit and review resumes for positions on the MAC.

The Board should appoint as members persons whose disciplines in aggregate are suitable for identifying and evaluating health hazards or risks. Members are not required to be physicians, but should be qualified professionals in a related health care or medical research discipline.

Term

Ad hoc MAC members will be appointed by the Board for the duration of specific reviews.

Meetings

The Committee will meet on an as needed basis at the invitation of the MAC chairman.

Compensation

The MAC is voluntary and no compensation for services is available. However, all reasonable travel expenses will be reimbursed, subject the approval of the staff director, in a manner consistent with State Travel Policy.