

**Tree Fruit
IPM**

Maine Tree Fruit IPM Newsletter

Saturday, March 16, 2024 Vol 31:2

Update for March 19 Preseason Tree Fruit Meeting

The first presentation slot has been updated

8:00am **Registration, Meet & Greet**

8:20am **Introduction**

Glen Koehler, University of Maine Cooperative Extension

8:30 - 9:00am **Apple Crop Insurance Discussion**

Art Kelly, Kelly Orchards

The rest of the agenda was in the Wed., March 13 newsletter.

The meeting is open to everyone. Preregistration is NOT required. The \$30 registration fee is due at the door and includes a pizza lunch. The fee is waived for two people per member farm of the Maine State Pomological Society if dues are paid prior to the meeting. Membership dues will be accepted at the meeting but will not qualify for the registration fee waiver. The weather for travel looks good, but In case of bad weather, we will follow the University of Southern Maine weather hotline announcement at 207-780-4800.

8am – 4:00pm, Tuesday, March 19, 2024

Room 170, Univ. Southern Maine / Lewiston Auburn College,

51 Westminster Street, Lewiston ME

Attendance qualifies for 3 pesticide applicator recertification credits.

Talking to your neighbors about pesticides

The following excerpts are from a Penn State factsheet: “Talking to Neighbors about Pesticides”, by Andrew Frankenfield, Sarah Frame and Anna Hodgson, <https://extension.psu.edu/talking-to-neighbors-about-pesticides>

“Many people can experience fear around pesticide applications. Below are a few tips on talking to your neighbors about these applications.

* Every person is going to have a different perception and tolerance of risk when it comes to pesticide applications. If you are approached by a neighbor with concerns, try to take the time to listen and understand their viewpoint. When answering their questions, avoid technical jargon and rely on facts. In your responses, use everyday examples that they may be able to relate to more. For example, comparing the signal words on pesticides to the signal words on household cleaners.

* It can be helpful to explain that the word pesticide encompasses many groups of products that are specific to certain pests. For example, herbicides target weedy plants, insecticides target insects, fungicides target fungal diseases, and nematicides control nematodes. Using these terms can help show that when you make an application you are trying to target a specific pest. This is also a good time to discuss pest thresholds and only making pesticide applications when there will be a clear benefit, both to your crop and to your finances. With each application there is a cost associated with the pesticide product, fuel, and labor; therefore, a pesticide application only makes sense if the pest is present at damaging levels and the cost of the application is less than cost of the damage caused by the pest.

* Talk about Integrated Pest Management and how pesticides are only used when necessary to control a pest.

* If you own spray equipment, offer to show your neighbors the technology used to make precise applications and lower rates.

* Regardless of your certification level requirements (Private, Commercial, or Public), it is always good practice to maintain thorough records for all pesticide applications. In the event of a complaint, these records could be your best defense and demonstrate your commitment to safety. These detailed records will also help you evaluate the effectiveness of your pesticide programs for future applications. Depending on your certification level, you may not be required to disclose your application records to neighbors; however, explaining the elements of your records can help to show your neighbors that a lot of thought goes into each application.

* If your neighbor has questions you cannot answer, help direct them to resources with credible information.”

Engaging with the Press

The following notes are from a webinar on “How to Effectively Engage With the Press”, held on Wednesday March 13, 2024, featuring Dr. Jessica McBride, University of Connecticut; Chelcie Martin, Honey Pot Hill Orchard in MA; and Andre Tougas, Tougas Family Farm in MA.

Working with the media can be a great way for producers to raise awareness of important issues with a broad audience. Unfortunately media training isn't typically part of business or crop production training. The objective of the webinar was to learn the basics of working with journalists – from tips for a successful interview to becoming a go-to resource for journalists.

- 1) If asked to do an interview, check out the publication's past articles to see if they are accurate, professional and unbiased.
- 2) You probably cannot ask the journalist what the exact questions will be ahead of time. But you can ask about the general nature of the questions before the interview to help decide if you want to do it. You have a right to set a time limit for an interview.
- 3) You will not have right to review before publication.
- 4) Everything is “on the record.” Reporters do not have to identify themselves as reporters.
- 5) Journalists need quick response time. They are looking for good available sources who respond fast enough for them to meet their deadlines. It is good to cultivate a working relationship with local press people.
- 6) Define and practice the key message(s) you want to come across. No more than 3. Repeat them more than once during an interview.
- 7) Get free advertising and build credibility by including the name of your organization into your answers. Wear a company logo shirt or hat for a filmed interview.
- 8) Prepare for an interview. Make notes for what you want to say, but do not memorize a script which could sound robotic and inauthentic.
- 9) Watch spokespersons whose performance you admire. Emulate what they do in your practice.
- 10) Speak at a 5th grade level or lower. Be concise, don't ramble on.
- 11) Stay calm and confident. Remember you know more about the topic than 99% of people.
- 12) Try to include the 5 W's – Who, What, Where, When, Why, and How. The “Why” can be especially important. Focus on impact. If there is a call to action, i.e. something that needs to be done – emphasize that.
- 13) Use analogies and examples to get a point across. Avoid technical terms or acronyms people may not know.
- 14) Reporters look for a hook to make a story interesting. The hook is often bad weather or some other disaster. You can offer a light-hearted story or a positive anecdote to supply them with a hook that does not focus on the negative.
- 15) You have the right to challenge incorrect interpretations, questionable facts, dubious sources of information.

16) If you do not know an answer, say “I don’t know” instead of “No comment” (which sounds like you may be trying to hard something.)

17) Use Bridging and Flagging (which is what politicians do to say what they want to say regardless of what the question is).

BRIDGING

- “Yes, and what’s also important is...”
- “No, but let me explain...”
- “Maybe, but it’s important to understand that...”
- “That’s not the issue. The real issue here is...”
- “That’s not really my area of expertise, but what I do know is...”

Things not to do

Shamelessly promote things unrelated to the interview.

Overextend your answer or try to bluff your way through if you do not have an answer.

Go “off the record”

Say “No comment”

Ignore a misstatement by a reporter, especially if they are misquoting or misinterpreting what you said.

Use technical language.

Questions after the webinar

If a reporter/publication appears to have an agenda you do not agree with, is it better to engage with them to get your message out or just not talk to them?

-- Better to not talk to a hostile publication unless you are confident in your media relation skills.

How do you recommend spinning something taken out of context during an interview after the fact?

-- The news cycle is fast so you need to act quickly. If correcting an error, try not to repeat the false statement, just give the accurate version.

FLAGGING

- “It’s important for your viewers/listeners/readers to understand that...”
- “If you only remember one thing, remember this...”
- “I want to remind your viewers/listeners/readers that...”
- “Let me make one thing clear...”

Contact for additional information:

Jessica McBride, PhD. Jessica.mcbride@uconn.edu 860-486-6844

Grower comments

- * Bad news spreads faster than good news. It is hard to take back bad news once it is out. Pay attention to your posture and speaking style.
- * “Crop protectants” is less emotive term than “Pesticides”.
- * The use of sunscreen to prevent sunburn is a useful analogy for crop protectants to protect the quality of the fruit.
- * News stations seem to only come out if there is a bad weather story. Give them a good news story. Customers will not write you a check if you have a crop loss or only bad news to report.
- * Have ready responses to meet the situation. In a wet year – the fruit will be bigger. In a dry year – the fruit will be sweeter.
- * It is OK to give reporters some fruit/produce as a courtesy to build good will. But the values should be less the \$50 to avoid looking like a bribe.
- * In Maine, the Office of Tourism has a PR partners program that helps connect journalists with farms for the stories they are looking to run!

Events**1) Free webinar: “BioControl, Forecast Models, and Apple Scab - Finding the Sweet Spot”.**

Wednesday March 20, 2024. Dr. Kerik Cox, Ms. Līga Astra Kalniņa, Cornell University.

Registration required at

<https://umass-amherst.zoom.us/meeting/register/tJYpduGoqz4rH9ZogpuBo5UooBpq9ILLMyBT>

2) Pesticide Agricultural Core Training and Exam. Houlton Higher Education Center, 18 Military St., Houlton, ME. March 21, 2024 from 1:00 PM to 4:00 PM, with an optional Agricultural Core Exam offered from 4:00 PM to 5:00 PM.

Details: For applicators needing the basic, private, or commercial applicator pesticide license agricultural license. Growers selling over \$1,000 in produce must have at least a basic license in order to apply pesticides.

You can take the core exam, if needed (please bring government issued identification or a birth certificate)

Three pesticide applicator credits are available for attending this program.

To register and for more information contact: angela.wotton@me.nacdnet.net

Pesticide updates

1) Unlike 2023 when new reporting requirements caused delays in Maine pesticide registrations, the registration process in 2024 seems to have proceeded normally with the number of registered products near the historical average. **Delegate and Entrust**, as well as **Actigard**, which were not registered in 2023 are registered for sale in Maine for 2024.

2) Chlorpyrifos reinstated (but not yet in Maine).

The following excerpts are adapted from “Understanding the current situation with chlorpyrifos regulations and its potential use in Michigan tree fruit during the 2024 field season”, by Julianna Wilson, Michigan State University, February 5, 2024, <https://www.canr.msu.edu/news/chlorpyrifos-regulations-and-its-potential-use-in-michigan-tree-fruit-2024-field-season> and “Lorsban/Pilot (Chlorpyrifos) is Back for Pennsylvania Tree Fruit in 2024” by Dr. Dave Biddinger, Penn State University, <https://extension.psu.edu/lorsban-pilot-chlorpyrifos-is-back-for-pennsylvania-tree-fruit-in-2024>

Chlorpyrifos (brand names Chlorpyrifos, Govern, Lorsban, Pilot, Warhawk) was an effective insecticide for trunk sprays to prevent infestation by roundheaded apple tree borer and other insect borers. Those uses were cancelled in 2022, but were recently restored, at least for the 2024 growing season, in December 2023. If you still have a chlorpyrifos product labeled for use on tree fruit, you can use it according to the label during the 2024 field season in bearing trees. But this regulatory change does not change restrictions on use of chlorpyrifos required by some buyers.

Acquiring a new supply of chlorpyrifos in Maine may not be possible. As of March 13, no chlorpyrifos products were registered for sale in Maine. That situation may not change because most manufacturers ended their product registrations. Gharda and Drexel still manufacture chlorpyrifos 4E products, but those products are not currently registered in Maine. It is expected that as early as fall 2024, the EPA will complete the process of revoking tolerances of chlorpyrifos for all but 11 food uses. Chlorpyrifos tolerances are expected to remain for apples and peaches. These uses come with additional regional restrictions, and not all allowed uses will be national. EPA may decide to impose regional and other additional restrictions. If the remaining chlorpyrifos uses can be shown to be safe, it is possible that those uses will remain legal for a longer time but the outlook beyond 2024 is currently uncertain.

Chlorpyrifos labels have already been heavily restricted to reduce or eliminate the ingestion of residues on fruit and worker exposure. In apple, only early-season dormant sprays well before bloom and fruit development are allowed to prevent consumer ingestion (especially children) of harvested fruit. The current Pilot label allows for its use on the apple, cherry, and peach trunks mid-season for moth and beetle borers if the foliage and fruit are not contacted during the application. But making such applications is likely to contract fruit, so this timing is not recommended. Worker exposure safety has been addressed by stricter personal protective equipment (PPE) requirements requiring applicators to wear protective Tyvek suits and respirators in a tractor cab with additional filters.

In the past, chlorpyrifos was applied by airblast sprayer at dormant as an effective control for San Jose scale and other foliar/fruit pests, but there are effective and preferable alternative materials for those pests.

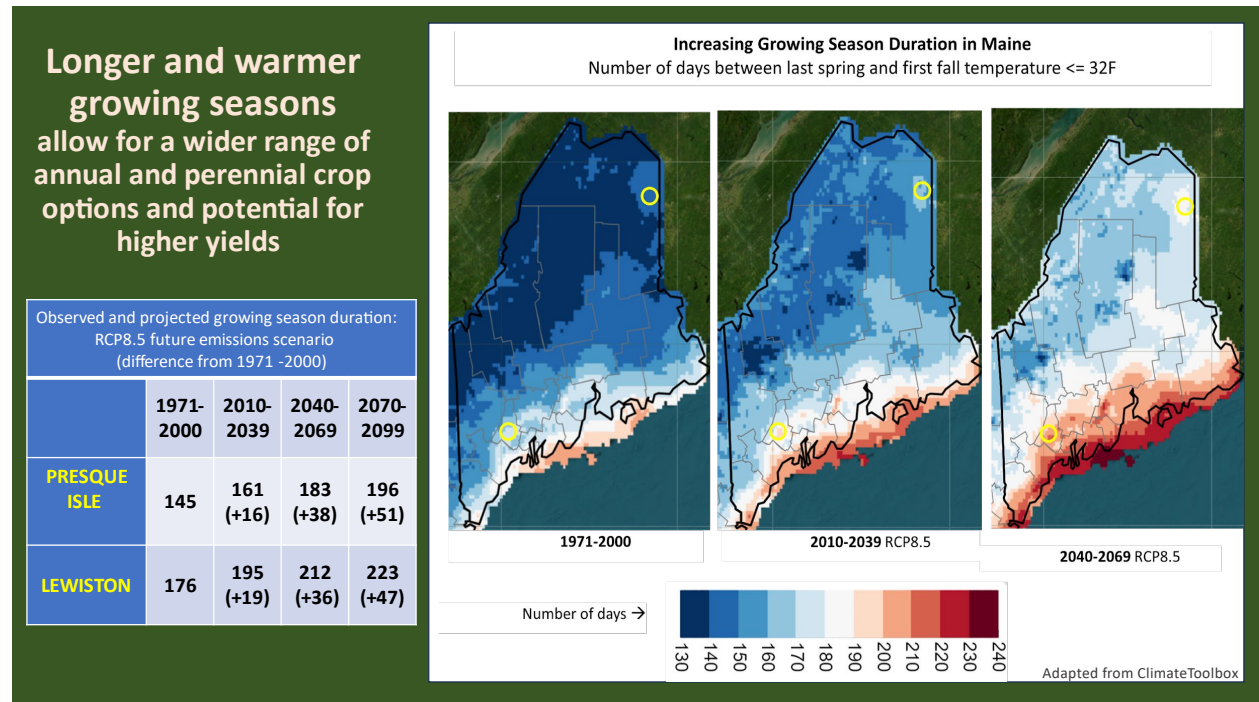
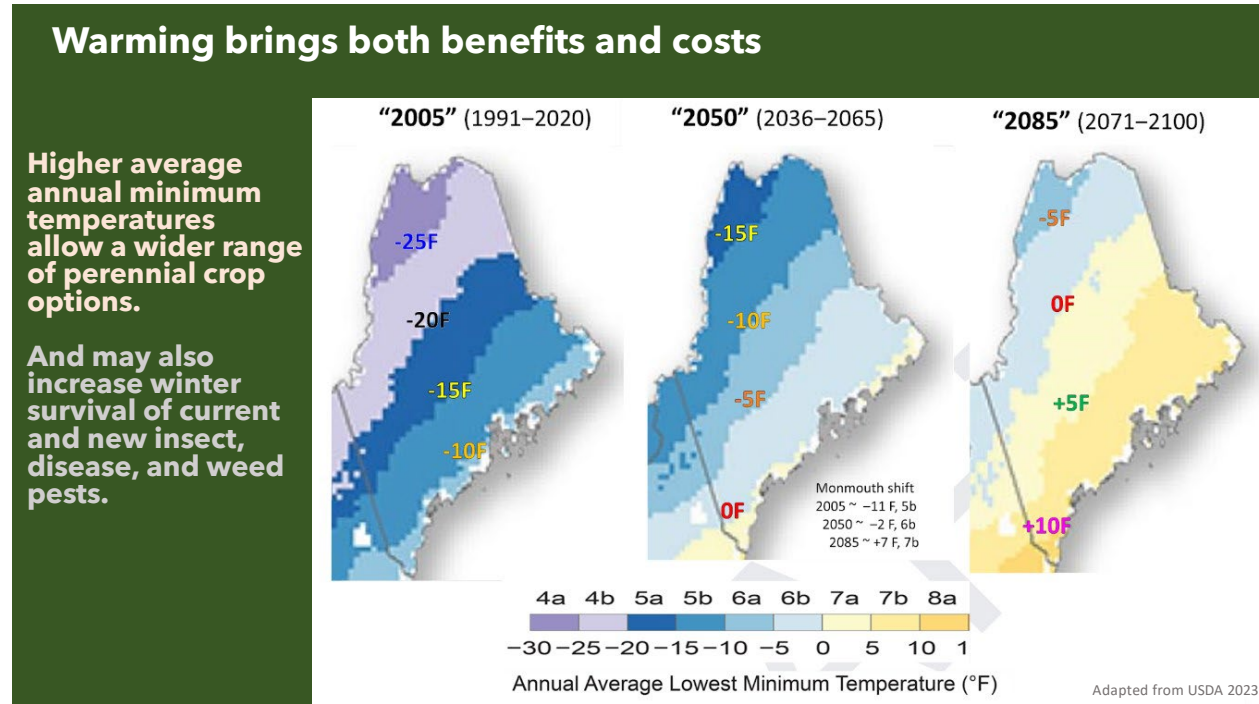
For borer control, targeted high-volume handgun application before bloom to thoroughly cover the trunk will kill newly laid eggs and young larvae for up to 5 months or more. Best practices for managing borers and soft-bodied insect pests in orchards **without** chlorpyrifos include:

- * Scouting or otherwise using appropriate monitoring tools to know what and when borers are active, for more precise use of available interventions.
- * Use pheromone mating disruption in blocks that are a minimum of 5 acres for the pests for which this is an option: dogwood borer and the greater and lesser peachtree borers. There is no mating disruption pheromone available for roundheaded apple tree borer (RATB) or American plum borer.
- * Use a compatible spreader-sticker to maximize longevity of trunk sprays.
- * Calibrating sprayers to maximize coverage of foliar applications. Canopy applications of other insecticides during June – August, even though not targeting roundheaded apple tree borer appears to provide excellent control. Apparently these sprays kill RATB adult females when they rest or feed in the canopy prior to egg laying. RATB are rarely found in orchards receiving those sprays. But apple trees in home plantings and organic orchards not receiving broad spectrum canopy insecticide coverage in the summer, RATB is a major cause of apple tree decline and death.
- * While formal replicated data are not available, undiluted neem oil applied as a paste to the lower 12 inches of apple trunks appears to have provided a high degree of RATB infestation prevention.
- * Insecticide applied to the trunk will not control RATB that have already tunneled into the trunk. Physical removal of borers can be accomplished with close inspection and digging out larvae where found. The best times to do this are May and September.

[Weather Viewer Maps](#)

Attached to this email as a separate PDF is a visual summary of the recent and upcoming temperature and precipitation. This is an abridged version of much longer and comprehensive visual weather outlook reports that have started and stopped twice over the last few years. The intent this time is to make it simpler and easier to generate and to read. If the weather situation calls for it, some of the other measures included in the longer previous attempts, such as evapotranspiration and soil moisture, could be restored. Let me know if this is useful or just a waste of effort.

The following slides from the March 14 2024 Science and Technical Subcommittee update to the Maine Climate Council may also be of interest.

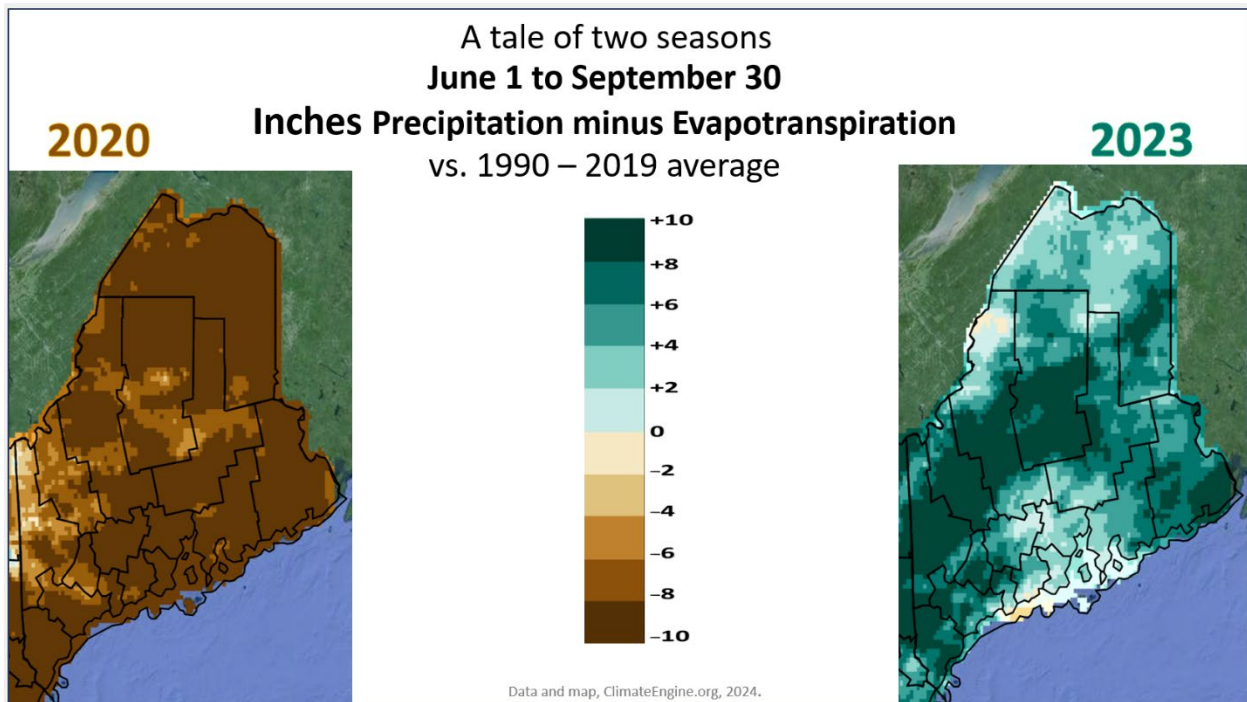


But...Variable and Extreme Weather can counteract any Ag gains from warming

Apples made unsaleable by combination of an early bloom followed by unusually late frost on May 18, 2023



Photos: Glen Koehler



PFAS-pesticide regulation

The 2030 Maine ban on all products that contain chemicals that meet the Maine PFAS definition is still in place. The Maine Legislature is looking at new law that would exempt many product sectors. However, the initial formulation of that law did not include an exemption for agricultural pesticides. The situation in Maine with respect to regulation of pesticides and other products that contain chemicals defined by Maine as a PFAS is very much in flux.

PFAS pesticide developments in Minnesota: The state of Minnesota (MN) has joined Maine as a second state that has scheduled a future ban of pesticide products containing PFAS ingredients. The following paragraphs about MN have no regulatory impact on Maine. It is provided for folks who like to keep up with how the PFAS-pesticide situation is evolving beyond Maine. Developments in other states could affect the level of concern about PFAS pesticides in Maine. The more inclusive definition for what is a PFAS used in MN could affect which pesticides are perceived by the public as having PFAS-associated risk. Other states are also developing PFAS regulations, but as far as I know only Maine and MN have established regulations that would discontinue registrations based on the active ingredients of pesticides..

The Environmental Protection Agency that regulates pesticides at the national level is using a more restrictive (“two fully fluorinated carbon atoms”) definition of PFAS that excludes all the pesticides on the Maine and MN PFAS pesticide lists except two (broflanilide and pyrifluquinazon).

Another difference between EPA and Maine/MN is that EPA continues to evaluate PFAS chemicals on a case by case basis instead of applying a categorical definition that applies to all chemicals that fit within that definition. In doing so, EPA recognizes that evaluating every candidate PFAS chemicals individually will not be feasible, so it is working to define functional categories of PFAS. That would enable applying regulatory criteria to sub-groups of PFAS based on shared characteristics instead of having to develop a profile for each individual chemical.

MN law now states that beginning January 1, 2025, a person may not sell or distribute the following products in MN if the product contains intentionally added PFAS: carpets or rugs; cleaning products; cookware; cosmetics; dental floss; fabric treatments; juvenile products; menstruation products; textile furnishings; ski wax; or upholstered furniture. Additional product types can be added to this list.

Sale and distribution of pesticides with intentionally added PFAS will be prohibited in MN starting January 1, 2032 unless the product has been made exempt, or if the product meets the definition of “currently unavoidable use” by the MN Department of Agriculture. The Maine ban on sale of all products containing a PFAS takes effect January 1, 2030.

The MN definition of “currently unavoidable use” is that the product is “essential for health, safety, or the functioning of society and for which alternatives are not reasonably available”. It may include “consideration of the need to prevent or minimize potential pest resistance, and the potential human health and environmental impacts of alternative products”.

An evaluation of currently unavoidable use will be conducted only if registrants/product manufacturers submit the necessary information and request the MN Department of Agriculture to assess their product. An initial stage in the process of identifying which products qualify for an unavoidable use exemption is scheduled to be completed by early 2026.

If sale of a pesticide is subject to the MN PFAS ban starting in 2032, applicators who purchase those products before the ban took effect will be able to use those products in accordance with label directions for up to two years following the cancellation.

Shown below is the list of pesticide active ingredients, along with some product brand name examples, of pesticides categorized as being a PFAS by Maine or MN. The list of PFAS pesticide active ingredients registered for use in Maine is from the Maine Board of Pesticides control as of November 2023. The MN definition of which chemicals are categorized as being a PFAS is much more inclusive than the Maine interpretation. The list of MN PFAS pesticides is from the Feb 1, 2024 report to the MN Department of Agriculture to the MN state legislature at https://www.lrl.mn.gov/mndocs/mandates_detail?orderid=17604.

That MN report provides a concise readable overview of the PFAS pesticide issue. It discusses PFAS chemistry, sources of PFAS in pesticides, and the different definitions used by different regulatory bodies to identify what is and what is not a PFAS. Both the Maine and MN PFAS definitions state that a molecule with a single fluorinated carbon is a PFAS. But the MN definition allows the fluorinated carbon to have a double bond, whereas the Maine definition exclude those chemicals. All of the 45 Maine PFAS pesticide active ingredients are on the MN list of 89 pesticide active ingredients.

A more comprehensive list of pesticides registered in Maine that are classified as PFAS by the Maine definition, along with brand names examples and major use sites, is available separately and was published in this newsletter in 2023.

In the table below, pesticide active ingredients registered for use in Maine are shown in **bold font in unshaded rows**. The brand name examples in this table are not a complete list of the products registered in Maine. Conversely, some of the brand names shown may not be currently registered for use in Maine.

Active ingredients and products primarily used as insecticides are shown in red font, fungicides in blue font, and herbicides in green font. Other types (antimicrobials, nematocides, plant growth regulators, rodenticides) are shown in black font. Pesticides identified as PFAS by Minnesota but not by Maine are shown in rows with purple shading.

* = pesticide active ingredient categorized as a Maine PFAS that is commonly listed in tree fruit pest management publications.

Some of the more prominent tree fruit pesticides included in the Minnesota list but not in the Maine list are shown in all capital letters. These include: AIM, BAYTHROID, CHATEAU, MERIVON XEMIUM, OMEGA, TOMBSTONE, and ZEAL.

Active ingredient	Brand Name Examples (NOT a complete list)
Acifluorfen-sodium	Acifin, Avalanche Ultra, Derecheo, Levity, Player, Ultra Blazer,
Benfluralin	?
Beta-Cyfluthrin	BAYTHROID, Cryptoid, Cryptonyx 360, LEVERAGE
Bicyclopyrone	Acuron
* Bifenthrin	Brigade, Sniper, Tundra, others
Bixafen	Lucento
Broflanilide (EPA)	Cimegra, Nurizma, Terraxa
Bromethalin	not registered in Maine
Carfentrazone-ethyl	AIM, Zeus, others
Chlorfenapyr	Pylon, Spectre
Cyflufenamid	Torino
* Cyflumetofen	Nealta, Sultan
Cyfluthrin	TOMBSTONE
Diflubenzuron	Dimilin, Unforgiven
Diflufenzopyr-sodium	Status
Dithiopyr	Crew, Dimension
Ethalfuralin	Curbit, Sonalan, Strategy
Etoxazole	ZEAL
Fipronil	Regent
Flonicamid	Beleaf, Airaxo
Florasulam	Starane
Florpyrauxifen-benzyl	Hulk
* Fluazifop-P-butyl	Fusilade
Fluazinam	OMEGA, Orbus
Flucarbazon-sodium	Vasuvius
* Fludioxonil	Academy, Maxim, Scholar
Fluensulfone	Nimitz
Flufenacet	Axiom
Fluindapyr	Adastrio
Flumethrin	?
Flumetralin	not registered in Maine
Flumetsulam	Hornet, Python, Surestart
Flumiclorac	Resource, Pepetuo
Flumioxazin	CHATEAU, Fierce, Mainline, Semera, Piper, SureGuard, Valor
Fluopicolide	Adorn, Presidio
* Fluopyram	Luna Sensation, Luna Tranquility
Fluoxastrobin	Acceleron, Evito, Fortix, Tepera, Zolera
Fluridone	Fluridone
Fluroxypyr, Fluroxypyr-meptyl	Change Up, Huskie, Starane Ultra, Tailspin, E-2
Flurprimidol	?
Fluthiacet-methyl	Anthem, Cadet
Flutianil	?
Flutolanil	Moncut, Moncoat, Prostar
Flutriafol	Rhyme, TopGuard, Xyway

Active ingredient	Brand Name Examples (NOT a complete list)
Fluvalinate	Force
Fluxapyroxad	MERIVON XEMIUM, Acceleron, Lexicon, Priaxor, Systiva
Fomesafen	Flexstar Ringside, Top Gun
Gamma-Cyhalothrin	Declare
Halauxifen-methyl	GameOn, Quelex, Elvore
Hexaflumuron	Shatter
Hydramethylnon	Maxforce Roach Killer
* Indoxacarb	Avaunt, Provaunt
Isoxaflutole	?
Lactofen	Mongoose
* Lambda-Cyhalothrin	Besiege, Crusader, Endigo, Lambda-Cy, Silencer, Warrior
* Mefentrifluconazole	Cevya
Methiozolin	?
Metofluthrin	Crossfire Beg Bug Conc.
Momfluorothrin	?
* Norflurazon	Evital, Solicam
* Novaluron	Cormoran, Rimon
Noviflumuron	Recruit Termite Bait
Oxathiapiprolin	Orondis Gold
* Oxyfluorfen	Collide, Galigan, Goal, GoalTender, Oxyflo, Oxystar
Penflufen	Emesto, EverGol, Velum Rise
Penoxsulam	Pindar
* Penthiopyrad	Fontelis, Velista
Picoxystrobin	Approach
Prodiamine	Barricade, Echelon, Resolute
Prosulfuron	Peak
Pyraflufen-ethyl	Venue, 4-Speed
Pyrasulfotole	Huskie
Pyridalyl	Overture
* Pyrifluquinazon (EPA)	PQZ
Pyroxasulfone	Anthem, Authority, Zidua
Pyroxsulam	not registered in Maine
Quinoxyfen	Quintec
* Saflufenacil	Sharpen, Treevix
Sulfoxaflor	Transform, Xxpire, Ridgeback
Tefluthrin	Force
Tembotrione	DiFlexx, Laudis
Tetraconazole	Domark 230, Trojan
Tetraniliprole	Tetrino, Acceleron
Tiafenacil	Refiton
Tralopyril	not registered in Maine
* Trifloxystrobin	Flint, Gem
* Triflumizole	Procure, Terraguard
Trifluralin	Snapshot, others
Triflusulfuron-methyl	Upbeet

Closing Words

" People want to know that you care before they care about what you know"

~ Vince Covello

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If you need a reasonable accommodation, please contact Glen Koehler, UMaine Extension Pest Management Unit, at glen.koehler@maine.edu, 207-581-3882 at least 10 weekdays before the event. If requests are received after this date, we may not have sufficient time to make necessary arrangements.