

**VERMONT AGENCY OF AGRICULTURE, FOOD AND MARKETS (AAFM)
AGRICULTURAL INNOVATION BOARD (AIB)**

MEETING MINUTES

DATE: May 20, 2024

LOCATION: Vermont Agency of Agriculture, Food and Markets 94 Harvest Lane, Williston, VT 05495 –
Conference Room 210 / Virtual Microsoft Teams Meeting

Member	Present	Absent
St. Pierre, Amanda		x
Beckford, Roy	x	
Nourse, Nate	x	
Chamberlin, Jonathan		x
Pajak, Abbi	x	
Ransom, Earl		x
Rebozo, Ryan	x	
Schubart, Steven	x	
Owen, Sarah	x	
Harper, Wendy Sue	x	
DiPietro, Laura	x	
Dwinell, Steve		x
Griffith, Morgan	x	
Guests in Attendance		
Stephanie Smith Pam Bryer Jill Goss Zach Szczukowski Emily May (Xerces) Jared Carpenter (Lake Champlain committee)		

Meeting called to order: 1:00 PM EST

Meeting adjourned: 2:52 PM EST

Next meeting: Monday June 24, 2024, 1-4PM

Agenda:

1:00 PM – Welcome & introductions (welcome new AIB member, Nate Nourse!)

1:05 PM – Agenda, previous meeting minutes, AAFM update

1:10 PM – [H.706](#) - An act relating to banning the use of neonicotinoid pesticides update – Zach Szczukowski, Agency of Agriculture, Food & Markets

1:30 PM – Vermont Wild Bee Report, pollinator surveys and protection recommendations and future projects – Spencer Hardy, Vermont Center for Ecostudies

2:30 PM – [S.25](#) – An act relating to regulating cosmetic and menstrual products containing certain chemicals and chemical classes and textiles and athletic turf fields containing perfluoroalkyl and polyfluoroalkyl substances – Pam Bryer, PhD, Agency of Agriculture, Food & Markets

3:15 PM – Next topic discussion / H.706 responsibilities / June 24 agenda items

3:45 PM – Public Comments

4:00 PM – Adjourn

New Action Items

Action	Responsible Party	Complete? (date)
Provide Morgan with additional suggestions for next topics for AIB to address	AIB Members	
Follow up with Margaret Skinner (UVM) about timing of her survey with AIB questions included	Morgan Griffith	5/17/2024
Coordinate with Ryan Rebozo and Steve Dwinell about researchers to schedule and topics for future meetings concerning pollinator habitat and pollinator protection focus topics	Morgan Griffith	

Ongoing Action Items

Action	Responsible Party	Complete? (date)
AIB members let Morgan know if eligible for per diem reimbursement to receive necessary paperwork	All eligible AIB members	

Welcome & Introductions, agenda, previous meeting minutes & AAFM update

- March 25, 2024 meeting minutes
 - Sarah Owen will review and follow up
- Welcome Nate Nourse – crop consultant, growing blueberries in Montgomery this year and on Board of New England Vegetable and Berry Growers Association
- Thank you Ann Hazelrigg for her service on the AIB

H.706 - An act relating to banning the use of neonicotinoid pesticides update – Zach Szczukowski, Agency of Agriculture, Food & Markets

- Passed both House and Senate and action by the Governor is due by the end of today
- Major components
 - Prohibition of neonicotinoid treated seeds (NTS)
 - Prohibition applies to soy beans and cereal grain crop groups
 - VAAFAM may issue (in consultation with ANR) exemption orders for use of NTS
 - Person seeking an exemption must complete IPM training and submit a pest risk assessment to VAAFAM and keep records of risk assessment and records of when NTS are planted

- Exemption order cannot be longer than a year and may have additional restrictions about NTS use to minimize harm to the environment and public health
 - Prohibition of use of neonicotinoid pesticides
 - No longer includes prohibition of neonicotinoid applications to turf
 - Prohibition applies to
 - any crop during bloom
 - outdoor applications to soybeans and any crop in the cereal grain crop groups
 - outdoor applications to leafy vegetables, brassica, bulb vegetables, herbs and stalk/stem and leaf petiole veggie crop groups harvested after bloom
 - application to ornamental plants
 - VAAFM may (in consultation with ANR) issue exemption
 - Conditions for issuance
 - Valid agricultural or environmental emergency exists
 - Pesticide would be effective at addressing the emergency
 - no other less harmful pesticide or pest management practice would be effective at addressing the emergency
 - Exemption orders cannot be longer than a year and may have additional restrictions
 - Administrative rulemaking
 - AAFM in consultation with AIB shall adopt by rule BMPs for:
 - NTS when used prior to Jan 1 2031
 - NTS when exemption order is in place
 - Neonicotinoid pesticide applications when exemption order is in place
 - Agricultural use of neonicotinoid pesticides after July 1 2025 that is not otherwise prohibited under law
 - Contingency repeal: all VT prohibitions will be repealed if the corresponding prohibition in NY law is repealed
 - Effective Dates
 - Prohibition on NTS Jan 1, 2029
 - Prohibition of neonicotinoid pesticides Jan 1, 2025
 - Both dates have caveat that the NY law is in place at this time.
- Important to note the potential additional AIB responsibilities for making a recommendation for BMPs for neonicotinoid pesticides in addition to neonicotinoid treated seeds.

Vermont Wild Bee Report, pollinator surveys and protection recommendations and future projects – Spencer Hardy, Vermont Center for Ecostudies

- Spencer Hardy, Biologist with Vermont Center for Ecostudies (VCE) worked on Wild Bee Survey and Bumble Bee Atlas
- What are bees?
 - Related to ants, wasps - Hymenoptera order
- We have 6 of 7 global families represented in VT
- Goal was to find what bumble bees were in VT

- 17 species of bumble bees have been recorded in last 100 years, only 14 species found in current monitoring
- After 2014 found no rusty patched bumble bee, where it had been the 3rd most recorded species historically
- There has been a simplification of bumble bee fauna. Fewer species overall.
- Following Bumble bee work VCE expanded to VT Wild Bee Survey 2019-2022
 - Goal of the survey was to find all species of bees and generate list of all species in VT
 - 353+ species identified
 - 16 bumble bee species identified
 - Some bees found are specialists depend on specific species of flowers or a small subset of flowers for their food sources
 - 88% of bees in Vermont are ground nesters
 - 25% kleptoparasitic – take over the nests of host bees, their larvae develop in place of host bee larvae. Don't harm the ecosystem, they are a good sign of biodiversity of bee populations
- How are bees doing these days?
 - Hard to answer because don't have enough data prior to these 2 projects, don't know what bee populations were like historically to compare current populations to.
 - We have greater number of species detected of late, but were not necessarily looking prior to 2019 survey start.
 - Number of records has drastically increased
- Rusty Patched Bumble Bee has not been seen in VT since early 2000s, and is federally listed as endangered. Decline likely due to multiple factors including pesticides, habitat, parasite/pathogen introduction.
 - Drastic decline in bumble bee species in 1990s is likely due to introduction of pathogen from commercial bumble bee hives brought over from Europe with a gut parasite.
 - Now the commercially available bumble bees are the Common Eastern Bumble that are native to North America and are bred and raised in Michigan.
- Common Eastern Bumble Bee has drastically increased since 2010. Does well in human dominated landscapes
- Broad-footed Cellophane Bee – specializes in tomatillos and ground cherry type plants. Once started looking at this genus of plants, saw increase in observations of this type of bee.
- Orange-legged Furrow Bee is moderately common species that has been here for a little while, hard to know if increasing/decreasing in populations
- Q: are some bees more susceptible to pathogens? Are managed more susceptible to them?
 - See some more susceptibility the closer related to domesticated/commercially available bees – but potential for spill over into a lot of related taxa to be impacted by diseases
 - Mason bees (blue orchard bees) come out early in the spring and pollinate apple orchards. Can buy online and is an unregulated industry targeting the hobby apple orchards. Chances are pollination are fine – have not seen pollination lacking in small scale crops. Some concern in crops like blueberries and apples in Champlain Valley with monocultures. Cocoons that are purchased have been shown to have parasitic wasps and various pathogens putting native mason bees at risk.
- Q: what ground nesting depth profile?

- Some species down 3 ft – but there is variation. A lot are pretty deep though, trying to get below frost line or have consistent moisture. Bumble bees nest right in the thatch on the surface.
- Baseball diamonds are popular because exposed sandy soil some species want bare soil.
- Q: explain more about concerns of pollination in blueberry and apples
 - One end of the extreme is the almond orchards in California where there is acres of bare dirt and almonds are only flower available, no other food available for pollinators. So this system is 100% dependent on managed pollinators
 - In VT not same scale, there is unmanaged/wild habitat near most farms in VT so not hard to find wild bees nearby. Most farms have enough natural pollinator habitat around so pollination should be ok
 - Research in blueberries in northern Champlain valley – Taylor Ricketts and Charlie Nicholson (UVM) study – increase in wild pollinators lead to increase in yield for the farmers
 - [Wild pollinators improve production, uniformity, and timing of blueberry crops - ScienceDirect](#)
 - Blueberries particularly interesting because are buzz pollinated and native bees that evolved with blueberries are good at this, but managed European honey bees cannot buzz pollinate.
- Q: why these are not regulated?
 - Concern is recognized, it is unclear where insects other than honey bees falls within VT regulations. Is tricky with online sales.
- General life cycle is queens emerge in spring, followed by workers and then new queens in early fall that correspond to a peak in male bees present to fertilize those queens – then overwinter underground.
- Trout lily Miner – specialized feeding on trout lily plant. Solitary species. Spends most time underground and just emerge right before trout lily blooms
- Ground Cherry Fairy bees only found in ground cherry/tomatillos growing in fine sandy soils
- Taxa are ranked in VT on rarity of species 1-5 (rarest to widespread) and no immediate threats. This ranking was given to all 350+ species
 - 30% S1-S3 likely and in peril
- Still continually finding species that had not been previously seen in VT.
- Q: what's VCE's plan going forward?
 - We now know a lot more, but is an intensive project. Is not sustainable to keep surveying this intensively, but can monitor certain areas over time. Particularly with Bumble Bee monitoring to see how things have changed over 10 years on a small scale. This smaller monitoring efforts will give more information about how populations are trending.
- Q: you reference iNaturalists as platform for citizens to report, is this encouraged/discouraged? Are there guidelines?
 - Online community of “arm chair” naturalists vet the identification of posts then they become “research grade” data that can be used. Spencer encourages the use of it because it has allowed for many more sightings and identifications of species.
 - People from all over the world are monitoring the photos coming in and making sure the photographed species is properly identified and Spencer

- Is VCE's largest data source.
 - All it tells you is this bee was at this place at this time. Has its limitations.
- Q Emily May: Do you expect to see lower abundance this year in areas that were heavily saturated with the flooding last year?
 - Will be interesting to see impacts of July flooding on bee populations. One area is the Intervale in Burlington that saw squash rebound. Expect some losses if ground nests were lost.
- Q: what is some "low hanging fruit" to improve pollinator habitat on farms?
 - Have been working on a little bit with UVM Ext.
 - Establishing flowering shrubs in areas not in production.
 - Has some questions about tillage impact on ground nesting bees. Could timing of tillage impact ground nesters, depth and impact of covering with black plastic.
 - Pesticides are important, avoiding sprays during bloom, pay attention to blooming crops in the surrounding areas.
 - Flowering covering crops UVM Ext experimenting is good for bumble bees and honey bees but do not help the specialist bees.

S.25 – An act relating to regulating cosmetic and menstrual products containing certain chemicals and chemical classes and textiles and athletic turf fields containing perfluoroalkyl and polyfluoroalkyl substances – Pam Bryer, PhD, Agency of Agriculture, Food & Markets

- New title: an act relating to consumer products containing perfluoroalkyl and polyfluoroalkyl substances or other chemicals
 - Has passed both the House and Senate, but no status update beyond that. Has not been passed to the Governor yet for signature
- Sec 3 9 VSA Ch 63
 - Subchapter 12a PFAS in Consumer Products
 - Subchapter 12b PFAS in Firefighting Agents and Equipment
 - AFFF (class B) not used in current chicken depopulation techniques
 - Subchapter 12c Chemicals in food packaging
 - Shall not manufacture, sell, distribute a food package to which PFAS have been intentionally added and are present in any amount
 - Pertinent to agriculture and package choice for selling products
- Sec 8 there will be a significant community outreach plan about PFAS
- Sec 9 Implementation plan for consumer products containing PFAS
 - ANR (in consultation with AAFM, DOH and AGO) shall propose a program to identify and restrict the sale of consumer products containing PFAS that could impact public health and the environment
 - 9 components to implementation plan
 - Identify categories of consumer products (some are already established within the bill)
 - Propose a process by which manufacturer can determine if product has PFAS and how that info is communicated to the state
 - Collect input from industries of how this could work
 - Address how information about presence/lack of PFAS is conveyed to the public
 - Have to think about which groups of PFAS and how measured

- Describe which agency or program is responsible for administration of the proposed program (staff, IT, etc)
- What have other states done? What has worked for them? What hasn't?
- Propose definition of "intentionally added" "consumer product" and "Perfluoroalkyl and polyfluoroalkyl substances"
 - Container fluorination is pertinent to household cleaners, pesticides, fuel and industrial products
 - EPA had launched a lawsuit against the manufacturer that does most of the container fluorination in the state. Said they had violated TSCA because were generating PFAS in their containers but were not reporting it to the EPA. However, recently EPA has pulled back lawsuit,
 - EPA has been clear that any amount of PFAS in pesticide is toxicologically significant and has to be reported to EPA and steps taken to make sure that product does not get distributed. The one instance when it was found that product was recalled and only shipped in steel containers as replacement.
 - Intent is to include pesticide in definition of "consumer product"
 - Right now most popular "PFAS" definition can include up to 93 pesticide active ingredients and 42 veterinary medicine active ingredients. But there are other active ingredients that are fluorinated.
- Propose a related public service announcement program and website to inform the public
- Provide recommendations for regulation of PFAS within consumer products that use recycled materials, including food packaging, textiles
- Determine whether Personal Protective Equipment (PPE) is appropriately regulated while still giving pesticide applicators accessibility to effective and compliant PPE
- Summary
 - General assembly looking for ways to protect Vermonters from PFAS
 - Focusing on preventing / prohibiting additional PFAS entering the state
 - ANR (in consultation with AAFM, DOH, AGO) has a Nov 1 2024 deadline for proposal of how to implement ban on consumer products and education campaign
- Sarah Owen comment: the section 8 community engagement plan clarified that DOH has to submit the plan but there are no funds to implement it.
- General Assembly looking to get suggestions on what they should do to address this topic next session
 - There is interest from the Assembly in making sure pesticides are included in this regulation and implementation plan

Next topic discussion / H.706 responsibilities / June 24 agenda items

- AIB will continue meeting on the 4th Monday of each month.
- June 24 meeting will include Seed report from AAFM, Jill Goss, and an update on H.706 and included AIB responsibilities.

- We will start the process of addressing Best Management Practice recommendations for use of neonicotinoid pesticides in general, expanding from just neonicotinoid treated seeds.
- Members can contact Morgan with ideas and topics to address in order to make this expanded recommendation
- Agency of Agriculture is proceeding with recommendations made by AIB relevant to neonicotinoid treated seeds
 - Contracting with UVM Extension and Heather Darby to continue neonicotinoid treated seed research measuring neonicotinoid levels in soil and water samples collected from research plots of treated and untreated seeds. In addition, she is collecting dust samples during planting and researching seed lubricants alternative to talc and graphite. AIB will receive an update on this research later in the year.
 - Agency of Agriculture developing ways to increase pollinator habitat and collaborating on research with the Vermont Center for Ecostudies monitoring bee populations and specific practices that can increase pollinator habitat.

Public Comments

- None

** - indicates action items