

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

**MEETING MINUTES**

DATE: November 13, 2023

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

<b>Member</b>	<b>Present</b>	<b>Absent</b>
St. Pierre, Amanda	x	
Beckford, Roy		x
Hazelrigg, Ann	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	
Morgan Griffith	x	
<b>Guests in Attendance</b>		
Jill Goss Stephanie Smith Clark Parmelee Bradley Mitchell (Syngenta) Zach Szczukowski Emma Shouldice (William Shouldice & Associates) Jonathan Wolff (Biotechnology Innovation Organization / CropLife America) Matt Wood Patti Casey Steve Cash Lisa Fantelli Brooke Decker Margaret Laggis Kimberly Obrien (Bayer Crop Science) Doug Johnstone Bethany Creaser Alexander Sereno (USDA Risk Management Agency) Riley Titus (Crop Life America)		

**Meeting called to order:** 1:00 PM EST

**Meeting adjourned:** 3:26 PM EST

**Next meeting:** Monday December 11, 2023, 1-4PM

**Agenda:**

**1:00 PM** – Welcome & introductions

**1:05 PM** – Agenda, previous meeting minutes & action item review

**1:10 PM** – AIB member discussion

Neonicotinoid treated seed BMP framework for discussion

Determine BMP recommendations

**2:00 PM** – Potential impact of non-neonicotinoid treated seeds to crop insurance discussion – Alexander Sereno, Regional Director USDA Risk Management Agency

**2:30 PM** – AIB member discussion continued

Neonicotinoid treated seed BMP framework for discussion

Determine BMP recommendations

**3:45 PM** – Public Comments

**4:00 PM** – Adjourn

**New Action Items**

<b>Action</b>	<b>Responsible Party</b>	<b>Complete? (date)</b>
Send any other ideas for recommendations to the Secretary or additional comments to Morgan	AIB members	

**Ongoing Action Items**

<b>Action</b>	<b>Responsible Party</b>	<b>Complete? (date)</b>
AIB members let Morgan know if eligible for per diem reimbursement to receive necessary paperwork	All eligible AIB members	
What is the price difference for neonicotinoid vs diamide treated seed?	AAFMM	
Is there historical pest incident data we can access prior to introduction of NTS?	AAFMM	
AAFMM will continue to gather more information about the impact on crop insurance if NTS are not in use	AAFMM	11/13/23
Compare crop acreage numbers to seed tonnage reports	AAFMM	
Literature review for research relevant to halo effect of neonic treated seeds and/or comparison of neonic treated seeds to diamide treated seeds	Jill Goss Morgan Griffith	

Provide AIB with summary of observations from evaluation of 4 different seed lubricants	Heather Darby / Jeff Sanders	10/26/23
Send information/research and articles shared by Dillon with AIB members about Bayer's efforts to reduce dust	Morgan Griffith	9/26/23
Send paper that was published this year about corn seed maggot impacts	Heather Darby	10/15/23
Review/recap AIB learnings to date (highlight of what we know relevant to the key topics listed in legislative charge)	Morgan Griffith	10/16/23

### **Welcome & Introductions, agenda, previous meeting minutes & action item review**

- 10/16/2023 meeting minutes accepted without edits
- No additions/modifications to agenda

### **AIB Member Discussion**

- [6 V.S.A. § 1105a \(c\)\(1\)](#)
  - Attempting to fulfill goal established in this statute
  - AIB has opportunity to share recommendations to the Secretary
  - Can finish discussion at December meeting
  - \*\*AIB members can send ideas at any time to Morgan to be included in the recommendations
- Neonicotinoid treated seed [BMP framework to guide discussion](#) has four general areas that could emerge based on what AIB has heard so far relevant to neonicotinoid treated seeds.
  - Mitigation of potentially adverse non-target dust drift during planting
  - Regulate (with a phase out period and education campaign) the use of talc and graphite as seed lubricant with neonic treated seed
    - Ann – at a minimum the BMP we should suggest is that they use a seed lubricant because they have been shown to reduce dust. A higher priority for the more expensive ones because
    - Jonathan – important to minimize use of talc and graphite, but some cases the use of talc and graphite is not correlated with dust off. For example, when using a finger pick-up or mechanical planter. Avoid using “Fluency Agent” so as not to reference a specific brand of seed lubricant.
    - Wendy Sue – this is fine. We can add that there is a difference in neonic toxicities so we could recommend using lower toxicity active ingredients (lower LD50 to honeybees)
      - Thiamethoxam is most toxic > imidacloprid > clothianidin is less toxic to bees comparatively.
      - It was noted that about 85% of treated seeds sold in Vermont have clothianidin as an active ingredient and the remaining 15% is treated with thiamethoxam.
    - Amanda – OK with using a fluency agent, and making that a potential recommendation.
    - Abbi – OK with the way that it is worded. No other comment
    - Steven S – no comment on wording
    - Ryan – [stepped away and did not provide comment]



- habitat is remaining. Would think it's a fair amount of land that would be mowed.
- Wendy Sue – we need research on this practice as well to understand it's benefits
  - Jonathan – this is premature, there are a lot of unknowns and unintended consequences that could factor into this as far as neighboring properties, timing of harvest, delayed planting dates, etc. We already talked about recommendations to reduce dust off during planting and then this recommendation implies that we can't control dust-off so instead you have to do this instead. We are trying to coexist with managed honeybees and native pollinators, but then this creates a grey area by recommending removing food for those species. We have not heard enough in discussions of if this is practical or effective. Do not agree with this.
- Notify beekeepers (on property and within 2 miles) within 48 hours of planting. Or AAFM annual press release about corn/soy planting timing with specific notification to beekeepers.
    - Jonathan – poorly worded on property and 2 miles away are very different things
    - Ann – this seems doable to notify beekeepers on their property
    - Wendy Sue – is doable to let beekeepers know on their property, but not sure about the 2 miles away because how do farmers know. The registered beekeepers (majority of them) are mapped with locations.
    - Amanda – If there are beekeepers on my property then I have a relationship with so that is OK to notify them, but don't agree with 2 miles
    - Laura – is there a distance of expectation for who to notify and what is the planting window. Distance and timing need some clarification. AAFM notification seems fine, but don't mix farmer notification with AAFM press release. Needs to be more clear
    - Abbi – possible to add farmers can notify registered beekeepers and agree with Laura. Planting is not a one day event. There is a lot of room for error here that the farmer cant control.
    - Steven S – This seems like an area that is difficult to regulate. This is not the most impactful or one that we can regulate as much and agree with Amanda
    - Ryan – agree with notifying at least the beekeepers on site.
  - Educate growers about seed label language provisions and how to follow
    - Ryan – agree
    - Steven S – no comment
    - Abbi – who would do the education? (not sure, probably joint AAFM, UVM Extension) no other comment
    - Laura – education is not bad thing, just be conscious of adding another thing to the farmer's plate, build it in with what they are already doing. Make sure we have all the answers i.e. seed disposal etc.
    - Amanda – agree. If it's something that the seed dealers put on.
    - Wendy Sue – OK with this language
    - Jonathan – would add “support the education to growers” because it can come from many places i.e. receive a pamphlet with buying seed, attend class. Supporting education in any form is positive



- this tool. All the states need to be together on this so to work together in encouraging seed dealers to provide more options.
- Abbi – maybe the mechanism is to continue further research to understand untreated seeds long-term impacts. Need time.
  - Steve S – farmers and most Americans want to have choices in how our food is grown. If this is a change that VT wants to see then we need to partner with other states (agree with Laura). Accepting that we don't have a choice in what we buy and grow is not really a choice to me.
  - Ryan – [stepped away and did not provide comment]
  - Steve Dwinell – we are between a rock and a hard place because of limited options. We are a small market. The idea here is to give farmers a choice, they can choose to use or not to use. don't know how we get there though.
  - Ann – we should present a united front and work with our neighboring states like NY. We need to be a bigger market.
- Support development of payment program for non-NTS crop loss. Provide subsidies to cover crop insurance premium increases.
    - Ann – would be great, but don't know who has the money to subsidize.
    - Jonathan – my understanding from Alex was that you will not specify when getting insurance that you are planting non-NTS, but your yield loss/increase in replant/increase in claims will affect insurance of others in the geographic area. So the payments would have to go to more than just the farmer choosing non-NTS.
    - Wendy Sue – I think this is a good idea, but seems like there are a lot of issues around it.
    - Laura – if the state wants people to take this risk then they should financially support the people making this choice. We need to have an idea of how much money this would be to go to the legislature. How much money across the state? How many farmers will take this risk? How much seed will be available? What does worst case scenario look like? It may not be that big based on availability of seed.
      - \*\*follow up question to USDA RMA if paying \$0.10 per \$1.00 - where does other \$0.90 go?
    - Abbi – incentives can affect positive change, but if the financial implications of the incentive don't come close to the cost of implementing then the farmers won't look to the incentive to change their behavior
    - Steve S – thank you to Laura for bringing up point about insurance companies
    - Ryan – [stepped away and did not provide comment]
  - Support development of seed reimbursement program that provides incentive to purchase Non-NTS. Helps relieve risk of having to purchase seed early in the season.
    - Ann – incentives would be great, just don't know how it works.
    - Jonathan – Are we incentivizing non-NTS because we think other practices aren't going to work the same way and we really need to push demand to have the nontreated seeds? Questioning why incentivizing someone to not use neonic treated seeds instead of pushing using an alternative. There are better ways to accomplish goal of non-neonic. We are admitting this stuff is inferior and will have losses on the back end, and we are trying to compensate for those losses with money. I have no problem with incentivizing it but think priority should be on reducing off-site drift.

- Wendy Sue – I'm OK with it, but this discussion has brought up a lot of questions about it.
  - Laura – get the sense that seed industry is hearing this conversation and is actively working on this issue. So Jon's point is valid because incentivizing this would be out of date as seed industry. It would be interesting if the Legislature requested an update from seed industry to learn about what technology improvements are being worked on. This would be really important to share from the industry to the state of VT. Is it the most viable option to get the outcome?
  - Amanda – don't believe in subsidies long term. Maybe agree on a trial roll out for those that try it and research it would get some compensation. Working with insurance companies is going to be challenging. We don't deal with a lot of insurance companies to deal with in VT because of our loss factor, so don't want to add another challenge.
    - Laura – hard to research on farms because everyone has used neonic seeds and has residual in soils so halo effect may be a factor and how effective would the research really be? Not sure what opportunities we would have for researching the use of non-NTS, when in last decade, every corn field has used neonic treated seeds.
  - Abbi – no additional comments
  - Steve S – agree long term incentives are not practical. I think about why we grow corn in the first place.
- Develop information in collaboration with UVM on decision making about types of pests and management practices and develop regional monitoring reports/tracking prevalence of the pests.
  - Ann – yes agree we need to educate growers on practices relevant to the pest
  - Jon – absolutely
  - Wendy Sue – agree
  - Laura – there is a lot of people (i.e. technical service providers, UVM extension, growers) does it make sense for the state to do this type of pest monitoring? How much value does this give? Will the pest pressure still not be that great? Would it be better to have a public fed map to show where pests seen? It is a lot of resources for the state to monitor.
  - Amanda – Don't have an answer for how to do this. Information is great. Farmers do a lot of scouting in their everyday work, just don't know how to quantify it into enough information to help. If we take away this technology and then there is a development of the pest, then what is our next choice, because we have taken away the technology?
  - Abbi – defer, I don't know if I support or don't because it looks like this depends on a lot of people taking on additional responsibilities and don't know what change will come of it. So don't have answers to that.
  - Steve S – agree with the comments about how would we regulate this and the amount of work and the benefit that would come from it.
- Ecosystem support
- Maintain agricultural production but encourage development of pesticide free pollinator habitat
  - Steve S – can't argue with increasing pollinator habitat. No further comments.



- Abbi – support the groups that are already doing this type of work rather than reinventing the wheel. Seems like great idea, but is also is very vague
- Laura – is a good idea, but if we are reducing dust and off-target movement it's hard to balance the interplay with other suggestions in this framework. Fundamentally comes down to more research.
- Amanda – great to encourage it, but how does it get implemented (financial support from the state? Money from seed?). Is great however we can do it in a way that we know is going to make a difference and doesn't have unintended consequences. Just don't know how it would be presented, but support on some level.
- Wendy Sue – I like these ideas, can see connections with making land available for water to avoid major flooding events, could also be tapped into master gardener program (promoted through their program). They can be the point person for questions. Is good alternative based on knowledge that these technologies may result in us having to remove some pollinator habitat around corn fields.
- Jonathan – I don't see this as a big part of what we are working on. NRCS and AAFM already have programs doing this. This is a broad stroke, but it's too broad.
- Ann – we are doing a good job already relevant to this. Master Gardener, Greenhouse and landscape programs, pollinator person working with the vegetables growers all as part of federal grant to UVM. Master Gardeners are great first line of defense for this.
- Laura – state owns significant amount of crop land, if this was taken away it would have a significant negative impact on farmers. Suggest utilize non-ag state land only.
- Pollinator monitoring (similar to mosquito monitoring)
  - Might not be a topic for the AIB, it just needs to happen. AIB will not comment on this. This would be for non-managed pollinators. State will continue discussion about this potential program
- Training/education
- Developing information for VT growers on ways to reduce impact
  - Ann – there are lots of bullet points to add to this (i.e. delayed planting, conservation tilling, etc) and will be group effort for the different audiences
  - Jonathan - is great to give producers information. As long as it's information and not a means to take away the tool for producers. We often use Cornell's scouting reports (they have more resources to have these types of programs) to pass along to growers. Most of this information is relevant to our growers, so the more you can give to producers about pest scouting reports the better.
  - Wendy Sue – education is great and support developing things that help growers with scouting and everything else
  - Amanda – agree training and education is important, but is not a tool to take away the technology that we are discussing. Training and talking about it and providing information is one of the first steps. Any time behaviors can be modified on growers' own will makes implementing it down the road easier. Needs to be more research, but education should be a big part of whatever we decide going forward

- Laura – agree, this should be higher up in the things that we know we should do. This should include updates on the technology of what is coming/what is being tested and what it means for growers. Make sure farmers get the research.
  - Abbi – education and training is paramount to affecting change as long as on the right topics and we are being sensitive to the effects that all of this is having on farmers and pivoting if we need to.
  - Steve S – all for training and education. No further comments.
- Any other recommendations for the Secretary that should be included?
  - \*\* let us know if there are more points/comments/thoughts you want to include
  - No board members have additional comments at this time
- We need to make sure recommendations need to have opportunity to revisit and revise recommendation as we learn more.
  - This is important that the preamble to any report to legislature is clear the interest in protecting pollinators but also the challenges that producers are up against in having options.

**Potential impact of non-neonicotinoid treated seeds to crop insurance discussion – Alexander Sereno, Regional Director USDA Risk Management Agency**

- Administers the federal crop insurance program and serves the northeast.
- Are you able to provide an estimate for how crop insurance premiums may change if seeds without neonicotinoid treatments were chosen by a grower?
  - There would not be a change
  - The Risk Management Agency (RMA) is managed by an appointed Board of Directors and this Board approved a rating methodology in 2010. Rates are set by past experience in a given area (rate on a county crop basis). We would create a rate based on historical experience in that county for that crop. There is not a surcharge for seed treatments.
  - There would not be a change to the rate in the immediate term
  - If there is a change to growers' choices that leads to increases in losses then there may be increases in premiums down the line
- If we were to have more replants due to non-treatment of seeds, would that roll into increase premiums down the line?
  - If there were more losses then it would be reflected in premiums in future years, just not in the first year.
- Is your rating based on yield or profit?
  - Loss ratio is the ratio of indemnity paid out divided by the premium taken in. The target of this loss ratio is 1.0
  - The lost cost ratio is the indemnity paid out divided by the liability insured over a 20-year period.
  - Not everyone in county pays exactly the same rate.
  - There is a reference yield (average yield in county) and producers who produce more than that yield get a premium discount and those producers who produce less than the reference yield pay more in premiums. Premium per acre depends on yield.
  - Ex. 10 ton yield on corn and have 75% yield coverage level, you have guarantee of 7.5 tons. If tonnage fell below 7.5 ton then you are eligible for indemnity payment.

- If a grower chose to plant seeds without neonicotinoid insecticide treatment and their insured crop suffered significant insect damage, would they be eligible for a claim?
  - Probably yes, [coarse grains crop provisions](#) covers corn, sorghum and soybeans. Section 9 explains covers causes of loss, and RMA does cover losses from insects, but not damage due to insufficient or improper application of pest control measures. Probably wouldn't cover if no control measures were taken but if the producer didn't have treated seed but followed local extension recommended practices (determined by local agricultural expert) then it probably would be a covered loss. Appropriate control measures are not defined by RMA, but depend on local agricultural experts what appropriate control measures are.
- Would there be a difference between crop insurance premiums for organic (completely untreated seeds) crops and crops that were planted with fungicide-only treatments?
  - Yes, there would be. RMA breaks out organic transitional and organic certified as different practices.
  - Rate or risk attributed to these practices is the same but different yields and prices associated with the practices. The risk assessment is not different, but the yields and prices are.
  - Grower insures the yield and the price differently, but the rate risk assessment is the same for other practices
- Do you know if you have had anyone plant with non-neonic seeds and had claims?
  - I haven't done research on that.
  - We insure most of the corn in VT
  - Across all states no one is asking about non-neonic treated seeds
  - This is the first time that anyone has asked us about this directly.
- How is Vermont doing in terms of losses you have had to insure?
  - This year we are expecting a lot of losses because of flooding and moisture this season
  - It's all relative. The best place to grow corn is not VT. My impression is that Vermont does not have many losses compared to other northeast states.
  - Last 10 years in VT corn, loss ratio is 1.05 (so on target) and lost cost ratio is 9.7% so for every \$1.00 we insure we pay our \$0.10 in indemnity. This year would be worse because of flooding.
    - In the Midwest the lost cost ratio would be less 10%. In NY the ratio is 6.5% (so VT has been a little more riskier in that time period), NH (has much less insured crop than VT) their lost cost ratio is 2% (so much lower risk).
    - 10% is reasonable amount of risk, although high for Midwest.

#### **BMP recommendation status & next steps**

- Work plan status & next steps
  - Dec meeting moved to Dec 11 1-4pm in order to have more time to write report
  - We have annual report due in January 2023
  - We must have recommendation to Anson by December 2023 to fulfill legislative charge.

#### **Public Comments**

- None

\*\* - indicates action item