**2023 HOUSE AGRICULTURE**

**HB 1258**

# 2023 HOUSE STANDING COMMITTEE MINUTES

**Agriculture Committee**
Room JW327C, State Capitol

HB 1258
2/2/2023

Relating to the protection of native pollinating insects in the state; to provide a report; to provide an appropriation; and to provide an expiration date.

Chairman Thomas called the meeting to order 8:34 AM

Members present: Chairman Thomas, Vice Chairman Beltz, Representatives Christy, Finley-DeVille, Fisher, Headland, Henderson, Kiefert, Olson, Pritchard, Schreiber-Beck, Tveit, VanWinkle.

**Discussion Topics:**

- Best practices
- Native pollinators
- Bee mortality
- Decline worldwide

**In favor:**
Representative Liz Conmy, District 11, South Fargo, Primary bill sponsor, #18852
Doug Goehring, Commissioner, ND Department of Agriculture, and proposed amendment # 18853
Scott Skokos, Executive Director, Dakota Resource Council, #18616

**Neutral:**
Greg Link, Chief of the Conservation and Communications Division for the ND Game and Fish Department, #18721, 18722

**Additional written testimony:**
Laura Anhalt, #18717
Taleigh Adrian, representing the ND Wildlife Federation, #18726
Pahinh Winh, Morton County resident, #18866

Chairman Thomas adjourned the meeting 9:07 AM

*Diane Lillis, Committee Clerk*

# 2023 HOUSE STANDING COMMITTEE MINUTES

**Agriculture Committee**
Room JW327C, State Capitol

HB 1258
2/2/2023

| |
|---|
| Relating to the protection of native pollinating insects in the state; to provide a report; to provide an appropriation; and to provide an expiration date. |

Chairman Thomas called the meeting to order 11:12 AM

Members present: Chairman Thomas, Vice Chairman Beltz, Representatives Christy, Finley-DeVille, Fisher, Headland, Henderson, Kiefert, S. Olson, Prichard, Schreiber-Beck, Tveit, VanWinkle.

**Discussion Topics:**

- Discretionary funding
- Bee initiative
- Ending date

Representative S. Olson moved do not pass.
Representative Headland seconded.

Roll call vote:

| Representatives | Vote |
|---|---|
| Representative Paul J. Thomas | Y |
| Representative Mike Beltz | Y |
| Representative Josh Christy | Y |
| Representative Lisa Finley-DeVille | N |
| Representative Jay Fisher | Y |
| Representative Craig Headland | Y |
| Representative Donna Henderson | AB |
| Representative Dwight Kiefert | Y |
| Representative SuAnn Olson | Y |
| Representative Brandon Prichard | Y |
| Representative Cynthia Schreiber-Beck | Y |
| Representative Bill Tveit | Y |
| Representative Lori VanWinkle | Y |

Motion passed 11-1-1

Representative S. Olson will carry the bill.

Chairman Thomas adjourned the meeting 11:16 AM

*Diane Lillis, Committee Clerk*

**REPORT OF STANDING COMMITTEE**

**HB 1258: Agriculture Committee (Rep. Thomas, Chairman)** recommends **DO NOT PASS** (11 YEAS, 1 NAY, 1 ABSENT AND NOT VOTING). HB 1258 was placed on the Eleventh order on the calendar.

**TESTIMONY**

**HB 1258**

Testimony HB1258

Scott Skokos
Executive Director
Dakota Resource Council
1720 Burnt Boat Dr. Ste 104
Bismarck ND 58503
Testimony in Support for HB1258

Mr. Chair and members of the committee,

I am here today to support HB 1258. We support this bill because it is an inexpensive way to assess how pollinators are doing in North Dakota. Pollinators are important for crop production as well as honey production. It's no secret that honey production is a big business in North Dakota. North Dakota ranked first in the nation for honey production for the eighteenth consecutive year.

According to the USDA's National Agricultural Statistics Service. Honey production in 2021 from North Dakota producers with five or more colonies totaled 28.3 million pounds, down 27% from 2020. There were 515,000 honey producing colonies in North Dakota during 2021, up 4% from 2020. But it seems nationally honey production is trending downward. Average yield was 55 pounds per colony, down 23 pounds from 2020. Producer stocks were 2.27 million pounds on December 15, 2021, down from 8.11 million pounds a year earlier.

These statistics tell us a story about North Dakota production and we should look into why this is trending downward. This bill would give us the tools that we need to ensure that our pollinators are healthy. Our ecosystem and agricultural economic interests lie in keeping these vital members of our ecosystem healthy. All this bill does is provide a modest amount of funds for a study to assess the state of pollinators in North Dakota, and determine if any intervention is needed.

We would respectfully request a DO PASS vote on this bill.

Chairman Thomas and members of House Agriculture Committee,

I favor HB 1258 and ask for a do-pass recommendation from the House Agriculture Committee. Pollinators make the world go round. Everything we eat, including the animals we eat, rely on pollinators. They seem to be under attack.

The bill offers a modest attempt to understand and promote pollinator health in North Dakota and one that involves the Legislature in reviewing the success of the Commissioner of Agriculture in protecting native pollinating insects in North Dakota.

I ask for your favorable consideration of this legislation.

House Agriculture Committee
Testimony on HB 1258

North Dakota Game and Fish Department
Greg Link, Conservation and Communications Division Chief
February 2, 2023

Chairman Thomas and members of the House Agriculture Committee, my name is Greg Link. I serve as the Chief of the Conservation and Communications Division for the North Dakota Game and Fish Department (Department). I am providing informational testimony on HB 1258.

A pollinator is any animal that moves pollen from one part of a flower to another plant. Pollen fertilizes the plant, and only fertilized plants make seeds or fruit. Without pollination, plants cannot reproduce; subsequently, our food supply and habitat would be greatly diminished.

In North Dakota, our primary pollinators are insects such as native bees, butterflies and some moths. North Dakota has about 150 species of butterflies, more than 1,400 moths, and an unknown number of bee species (probably hundreds). Bats and birds, while important pollinators in other states, are not considered significant pollinators in North Dakota. Honeybees, although not native to North America, are vital agricultural pollinators in North Dakota.

**Importance of Native Pollinators to Society and Natural World**

- 75-85% of flowering plants rely on an animal to move pollen
- Insect pollination accounts for approximately $18 to $27 billion annually in the United States
- Of 107 leading crops, 70 rely moderately to entirely on pollinating insects; 43 of these rely highly-entirely on insect pollinators (meaning 40-100% reduction of crop yield if insects aren't available to pollinate). Examples include apples, cherries, cucumbers, avocados, and almonds
- One in three bites of food taken in the U.S. can be attributed to pollinators
- Many vitamins and minerals we depend on come from insect pollinated plants, such as Vitamin C and Vitamin A
- Plants that rely on insect pollinators also increase carbon sequestration and prevent soil erosion
- Insect pollinators are food for other wildlife, such as our upland game birds

**Department's Role/Responsibility in Managing Native Wild Pollinator Species**

Provided in NDCC Chapter 20.1, **all wildlife** (all species and classifications) within the state, belong to the state and, ultimately, the ND Game and Fish Director and this Department are responsible for managing and conserving this public resource. NDCC 20.1 also defines "non-game wildlife" and the Department's responsibility for "preservation, inventory, perpetuation, and conservation" of these species, as well. Therefore, all wildlife… mammals, birds, fish, amphibians, reptiles, mollusks, and insects, including our wild, native pollinator species… fall within our mission "to protect, conserve, and enhance fish and wildlife populations and their habitats for sustained consumptive and nonconsumptive use".

**What We've Been Doing**

We can certainly relate and align with the intent of this bill. We'll be the first to admit we are far in arrears in knowing and understanding the status, health, and well-being of these important native insects. Here are just a few strategies and plans we're involved in which address aspects of HB1258:

- We've recently embarked on the 10-year update to our 2015 State Wildlife Action Plan (SWAP), the state's blueprint document for managing and sustaining its rare, declining, and "At-Risk" species, which includes addressing many of the concerns outlined in this bill. Updating of this plan requires and includes gathering species information, getting input from species experts, determining statuses, identifying threats, developing strategic conservation measures, as well as identifying essential inventory or research work, etc. https://gf.nd.gov/wildlife/swap

- Our leadership, coordination, and collaborative involvement in developing the ***North Dakota Monarch and Native Pollinator Strategy*** https://gf.nd.gov/gnf/conservation/docs/nd-monarch-butterfly-native-pollinator-strategy.pdf

- Our financial contribution and involvement with ND Department of Agriculture and other stakeholder groups in the recently completed 4-yr pollinator research conducted by NDSU: ***Monitoring Native Pollinator Communities throughout North Dakota: Status and Management Considerations for Species of Conservation Concern***

- Sustaining our native pollinators is an important component of the Meadowlark Initiative, our collaborative native grassland conservation strategy with other conservation, agriculture, and industry partners https://gf.nd.gov/meadowlark-initiative

- Our pollinator education and outreach efforts https://gf.nd.gov/pollinators

- Summation of our Department's pollinator efforts (see attached)

**What We Know**

Currently there are several pollinator insects in our state on US Fish and Wildlife Service's Threatened and Endangered list…and likely many more to come

- 1 Threatened (Dakota Skipper)
- 1 Endangered (Poweshiek Skipperling)
- 1 Candidate (Monarch butterfly)
- 5 petitioned (Regal Fritillary butterfly, Western Bumble Bee, Suckley's Cuckoo Bumble Bee, American Bumble Bee, and Variable Cuckoo Bumble Bee)
- The Midwest States finalized a list of Regional Species of Greatest Conservation Need which included 152 invertebrates (62 bees and butterflies)
- Many pollinator species are seeing rapid declines
    - Monarch butterfly
    - Regal Fritillary butterfly
    - Rusty-patched Bumble Bee
- 35% of North Dakota native bumble bees are at risk of extinction within the next 50 years (Bumble Bees of North America, IUCN data)
- Many stressors play into these declines: pesticides, parasites, non-native/invasive plants, climate change, insecticides, and habitat loss

**What We Don't Know**

- Very limited studies have been done in North Dakota.
- We don't know if many of the regional species of concern are even found in the state. If they are, we do not know if their populations are declining or stable.
- These species are likely impacted by several threats… however, we do not know to what extent each threat impacts each species.
- Some species might be declining due to habitat loss while another is experience losses due to high insecticide use

**Closing "Take-Aways"**

- Many of the Department's concerns and objectives are reflected in this bill.
- The cost of fulfilling the directives of this bill, however, would certainly surpass $25,000. We would project the price tag to be in the millions rather than thousands.
- The Department's annual allocation of State Wildlife Grants dollars from the US Fish and Wildlife Service for addressing the conservation needs of 115 Species of

Conservation Priority identified in our 2015 State Wildlife Action Plan range from $400-500K/annually.

- The Recovering America's Wildlife Act (RAWA) deliberated, but ultimately failed, in Congress would have brought approximately $14 million dollars to ND for addressing conservation needs for our state's Species of Conservation Priority. These are the types of allocations necessary to address the concerns and conservation measures outline in this bill.
- If passed, the Department would certainly use its limited resources to collaborate with and further any efforts taken as directives of this bill

Thank you, Chairman and Committee Members, for your time and consideration of this testimony.

# North Dakota Pollinator Efforts

North Dakota Game and Fish Department
January 2023

- The North Dakota Monarch Butterfly and Native Pollinator Strategy was developed in 2016 and updated in 2018 to include partner updates on pollinator conservation progress. More than 14 partners contribute efforts including state, federal, university, non-governmental, and agriculture organizations. https://gf.nd.gov/gnf/conservation/docs/nd-monarch-butterfly-native-pollinator-strategy.pdf
- The ND Game and Fish Department (NDGFD) partnered with ND Parks and Recreation Department to assemble more than 10,000 monarch butterfly seed packets to be provided free with the 2019 state park pass, which featured a monarch.
- NDGFD is partnering with Natural Resources Conservation Service's Plant Materials Center (PMC) to assist educational organizations in developing urban pollinator gardens. The Urban Pollinator Program (UPP) will facilitate outdoor pollinator learning sites on as many school and community grounds as possible. https://gf.nd.gov/education/urban-pollinator-program
    - NDGFD and PMC have provided over 3,000 plants to 33 schools across the state from 2018 to 2022.
- NDGFD offered free wildlife food plot seed to landowners since 2019. The mix included a variety of flowering plants for insects, for up to a 5-acre planting.
- NDGFD has committed the transition to using neonicotinoid-free seed on all its food plots on Wildlife Management Areas.
- NDGFD developed a Conservation Reserve Enhancement Program (CREP) Riparian Project, available for landowners to enroll in CRP, including pollinator practices CP42 and CP42B. https://gf.nd.gov/plots/landowner/crep
- Since 2019, NDGFD has implemented 102 agreements to seed grass/forbs, totaling 10,523 acres on private lands.
- NDGFD has established high diversity pollinator demonstration plots at several locations, including the Bismarck office, WMAs, and the Conservation and Outdoor Skills Park at the North Dakota State Fair.
- NDGFD is providing funding for Audubon Dakota's Urban Woods and Prairies Initiative. This program enhances and creates natural areas for people and wildlife, including high diversity prairie restoration, along riparian areas in the urban cities of Fargo, Grand Forks, Bismarck and Minot.
- NDGFD, ND Department of Transportation, and North Dakota Wildlife Federation partnered to develop a pollinator interpretive site at an I-94 rest area.
- NDGFD and the US Forest Service partnered to develop a pollinator interpretive plot near a campground and hiking trail at Sheyenne National Grasslands, known as the Jorgen's Hollow prairie restoration project.
- NDGFD has produced multiple informational videos on pollinators, which were aired on TV stations throughout North Dakota. See examples on this webpage https://gf.nd.gov/pollinators
- NDGFD and many other partners are submitting data to the Monarch Conservation Database (MCD). This Power Point indicates North Dakota is contributing significant monarch conservation efforts and gaining milkweed stems: https://storymaps.arcgis.com/stories/8169fcb99632492cb73871654b9310bb
- NDGFD has reached out to the ND Weed Control Association and the ND Agriculture Department to encourage counties to remove Common Milkweed from their county noxious weed lists. Four counties currently list this native plant as a noxious weed: Renville, Sheridan, Traill and Wells.
- NDGFD launched the Meadowlark Initiative (https://gf.nd.gov/meadowlark-initiative) in 2020 to revitalize, recreate, and protect native grasslands and the species, ranchers, and communities that are interdependent on them. To kick-start this initiative, the NDGFD engaged and enlisted a coalition

of conservation partners and stakeholders on a USDA Regional Conservation Partnership Program (RCP) grant proposal.
    - One of the RCPP goals is to evaluate the impact of grassland restoration via the Meadowlark Initiative on native pollinators.
- In 2019, 2020 and 2021, the NDGFD conducted milkweed and Monarch field evaluations on WMA's and PLOTS acres to better understand the value and benefit of existing habitat and new herbaceous plantings for Monarch conservation and recovery efforts.
- NDGFD, ND Department of Agriculture, and several other agriculture and industry partners cooperatively funded a statewide pollinator inventory and research conducted by North Dakota State University from 2017 to 2020.
- NDGFD, through a US Fish and Wildlife Service Section 6 grant, awarded funds to North Dakota State University to research enhancing floral resources in grasslands with low plant diversity to conserve native pollinator populations and benefit other grassland dependent organisms.
- NDGFD, through a US Fish and Wildlife Service Section 6 grant, awarded funds to the North Dakota Natural Resources Trust to conduct surveys on the federally listed Dakota Skipper butterfly.
- NDGFD partnered with North Dakota Natural Resources Trust on its Bakken Development and Working Lands I and II Projects to match conservation partner and North Dakota Outdoor Heritage Fund grant dollars to renovate and reestablish high diversity native grass/forb grasslands.
- NDGFD cooperated with the North Dakota Water Commission to provided match dollars with EPA-319 and ND Outdoor Heritage grant funds for planting water quality buffers using high diversity pollinator habitat.
- NDGFD is actively working with both state and federal agencies at a national level to manage and recover rare and declining pollinator species.
    - Dakota Skipper Recovery Team
    - Mid-America Monarch Conservation Strategy
- NDGFD has partnered with Bismarck's Downtown Business Association and others to fill planters in downtown Bismarck with flowers and grasses that are beneficial to pollinators (including educational signage).
- NDGFD is starting the process of revising the North Dakota State Wildlife Action Plan (SWAP). The SWAP is a comprehensive conservation plan for safeguarding rare and declining wildlife. The SWAP identifies 115 species of conservation priority and identifies key habitats and community types. The current plan was approved in October 2015 and must be updated every ten years. The NDGF anticipates completing a plan revision by summer 2025. The NDGFD is evaluating numerous insect species for inclusion on the list.

NORTH DAKOTA WILDLIFE FEDERATION

# TESTIMONY OF TALEIGH ADRIAN
# NORTH DAKOTA WILDLIFE FEDERATION
# HOUSE BILL 1258
# HOUSE AGRICULTURE COMMITTEE
# FEBRUARY 2, 2023

Chairman Thomas and members of the House Agriculture Committee:

For the record, I am Taleigh Adrian, representing the North Dakota Wildlife Federation. I'm here today representing our thousands of members in 15 affiliated wildlife and sportsmen's clubs across North Dakota that make up the North Dakota Wildlife Federation.

NDWF supports HB 1258. The Wildlife Federation has a strong track record on working on pollinator projects with our local affiliates and state agencies. This bill would increase knowledge of important pollinators and open the door for better land management practices and conserving important habitat. It would also benefit our agricultural partners who rely on pollinators. Pollinators play a key role in healthy agricultural landscapes, helping private landowners increase and improve the quality of their crop yields and the health and vigor of their grazing lands, which helps North Dakota's family farms and ranches stay in operation.

The state of North Dakota is filled with ample habitat and strong wildlife and plant diversity. Hunting and outdoor recreation activities that depend on this are numerous. North Dakota's habitat and wildlife depend on the continued reproductive capabilities of the plants of North Dakota. A decline in plants that rely on pollination can lead to a breakdown of food sources and a decline in suitable habitat.

Many plants in North Dakota rely on pollinators to reproduce. These pollinators range from insects, like bees or butterflies, to birds and bats. In recent years, pollinator populations have been decreasing. The reasons for this are not fully understood, and there are likely several contributing factors.

For North Dakota to continue to be filled with ample habitat and strong wildlife and plant diversity, it is important to learn what we can about the decline of the state's pollinators and how we can address this issue moving forward.

We strongly believe that an opportunity to learn more about native pollinating insects and their decline would be beneficial to the state. To continue to provide habitat, ecosystem diversity, and numerous hunting and outdoor recreation opportunities in the state, we believe that the state should take any opportunities to learn and develop programs and practices to protect and recover native pollinating insect communities and restore habitat functionality.

We urge a Do Pass on HB 1258.

# HB 1258
# The Bee Bill

Good morning Chair Thomas, Vice Chair Beltz and agriculture committee members.

For the record, I'm Representative Liz Conmy from South Fargo's District 11.

I come to you this morning as both a legislator and a farmer to present HB 1258.

This bill seeks to do a complete overview of native pollinator insect health in the state.

Why does this matter?

We rely on insects to pollinate our crops, gardens, fruits, and flowers. Where I farm, we need insects to pollinate soybeans, canola and alfalfa. Pollinators are an integral part of our ecosystem and there is concern that they may be threatened or in decline. We are also the leading state in honey production—and bees are a major pollinator population.

Under the auspices of our agriculture commissioner, this bill would:

1. Identify challenges with native pollinating insects, including their decline

2. It would Identify native pollinator insect communities and their significance to our ecosystems, examine the current knowledge of pollinator health, look at existing gaps in research, including wild bee distribution and populations, and identify best management practices.

3. This "meta-analysis" would be complete by June of 2026, and include recommendations on developing an education and outreach component for public awareness, a plan to engage and work across state agencies with policies and practices regarding native pollinating insects, and identify how to best protect our native pollinating insects.

4. This study will include federal agencies, independent research by experts in pollinator health, and work from our own state agencies regarding native pollinating insects.

We are asking for a sum of $25,000 to complete this project.

Native pollinating insect communities are an incredibly important ecosystem and part of our ag economy. I encourage you to seriously consider this study and vote yes to pass it out of committee.

I'm happy to take any any questions, although I think other's testimony will probably answer your questions more accurately.

Thank you.

COMMISSIONER
DOUG GOEHRING

NORTH DAKOTA
DEPARTMENT OF AGRICULTURE
STATE CAPITOL
600 E. BOULEVARD AVE. – DEPT. 602
BISMARCK, ND 58505-0020

ndda@nd.gov
www.nd.gov/ndda

**Testimony of Doug Goehring**
**Agriculture Commissioner**
**House Agriculture Committees**
**Room 327C**
**February 2, 2023**

Chairman Thomas, and members of the House Agriculture Committee, I am Agriculture Commissioner Doug Goehring. I am here today in support of HB 1258 and to provide an amendment.

My office has been studying the health of honey bees for many years. While honey bees are not mentioned in this bill, they are pollinators and the impacts on their health give us some clue to what may be impacting other native pollinating insects. Honey bees are plagued with numerous viruses, fungal infections, bacterial infections, Varroa mites and many other pathogens that are still being discovered. Some of these pathogens, or similar pathogens have also been shown to plague native pollinators as well. Nutrition, weather, habitat and insecticides also impact pollinators. Since honey bees are managed, damage from these pests and pathogens can be mitigated, and when the colony dies off, beekeepers can work to replace that colony. Native bees don't have those opportunities, they don't have someone to give them food and water when the drought is affecting their environment.

Our office published the first Pollinator Plan in the nation that addressed best management practices to mitigate issues and enhance communication between beekeepers, landowners, farmers, ranchers, commercial applicators and regulators. Many of these practices, if followed, would reduce any impact on native pollinating insects as well as honey bees.

Our office recently finished funding a proposed endangered species study with NDSU that monitored native pollinator communities throughout ND. This study found 68 different butterfly species in the state and 317 bee species. There are many more pollinating insects that don't fit into these two categories such as some flies and beetles.

This proposed legislation is asking for a solution to a problem that isn't fully understood. While I agree with the intent of the bill, the amendments presented would give us greater flexibility on ways to support pollinator health. We also feel that the amount of $25,000 would not be enough to meet the objectives listed in the bill but would likely cost $2-4 million. We however could utilize the $25,000 to augment research or surveillance work on new parasites and pathogens.

Chairman Thomas, and committee members, I thank you for the opportunity to testify. I would be happy to answer any questions.

PROPOSED AMENDMENTS TO HOUSE BILL NO. 1258

Page 1, line 8, replace "shall" with "may"

Page 1, line 8 remove "native"

Page 1, line 9, remove "including" and ", and"

Page 1, line 9, insert "and provide resources for declining species."

Page 1, remove lines 10 through 21

Renumber accordingly

# NORTH DAKOTA POLLINATOR PLAN

*A North Dakota Department of Agriculture Publication*

***Doug Goehring***
***Agriculture Commissioner***

Prepared by:
Jerry Sauter, Pesticide & Fertilizer Division
Samantha Brunner, Plant Industries Division
Carrie Larson, Plant Industries Division

Revised February 2016

North Dakota is a giant in production agriculture. Our state leads the nation in the production of many grains, oilseeds, legumes and other crops. To the surprise of some, North Dakota is also the national leader in honey production. Relations between our farmers and beekeepers have traditionally been cordial, even friendly, but in recent years some tensions have arisen over unexplained increases in honey bee mortality, a phenomenon some have blamed on agriculture.

The North Dakota Pollinator Plan was developed in response to a growing need for a balanced public policy that mitigates risk to honey bees, while minimizing the impact of that mitigation on production agriculture.

Reducing honey bee exposure to pesticides is ideal. Our hope is to achieve this while continuing to provide access to habitat that supports bee health and derived benefits to agriculture.

This pollinator plan is not a static document, but a work in progress. We intend to revisit this document annually and update as needed. Far too little is known about the factors that may affect honey bee health. Research focusing on nutrition, bee repellants and the effects of pesticides is important. Other research into honey bee health, disease and parasite resistance and genetic diversity is also urgently needed so that more effective and comprehensive strategies can be put in place. We believe research can provide new answers and better solutions to the current dilemma.

Finally, effective communication among all parties is essential to the success of this plan. Unless we communicate freely and openly with one another, the rest of our goals cannot be reached.

Working together – farmers, beekeepers, pesticide applicators, scientists – North Dakota can protect its honey bees, while maintaining its position as a leading supplier of food, feed, fiber, and fuel for our nation and the world.

Sincerely,

Doug Goehring
Agriculture Commissioner

# Introduction

North Dakota leads the nation in the production of over a dozen commodities including flax, sunflower, dry beans, canola, spring wheat, etc. North Dakota is also the top honey producing state in the nation. Beekeepers bring approximately half a million hives into North Dakota each year. With such a large number of hives in the state, and with over 90 percent of North Dakota acreage being used for agriculture, it is inevitable that hives will be placed in close proximity to areas where a variety of crops are grown and pesticides are commonly used.

Managed bees and wild pollinators are important to U.S. agriculture. Over 90 crops in the U.S., including almonds, tree fruits, cotton, berries, and many vegetables, are dependent on insect pollinators, such as the honey bee, for reproduction (USDA 2013). Bee-pollinated crops account for 15 to 30 percent of the food we eat (USDA 2013). Although not completely dependent on insect pollination, crops such as canola, dry edible beans, buckwheat, and sunflowers have been shown to greatly benefit from bee pollination. Almost all of the honey bees found in ND spend their winters in warmer climates contributing to the success of agriculture nationwide. North Dakota has been referred to as the "last frontier" where beekeepers can bring their bees to recover from the stress of pollination services and have adequate forage to produce high quality honey. This resting period is an important factor contributing to their winter survival.

A common misconception about ND beekeepers is that none of them are ND residents. This is not true; many of our 205 beekeepers consider ND their home and only follow their bees out of state for a few months each year.

Beekeepers have suffered significant colony losses over the past decade, raising questions about the sustainability of managed colonies in the U.S. This issue has gained national attention, and in response the U.S. Department of Agriculture (USDA) created the Colony Collapse Disorder (CCD) Steering Committee in 2007. Made up of personnel from USDA's Office of Pest Management Policy, National Institute of Food and Agriculture, Agricultural Research Service, Animal and Plant Health and Inspection Service, and the Natural Resources Conservation Service, as well as staff from the U.S. Environmental Protection Agency (EPA), and public and private partners, the CCD Steering Committee was formed to look at factors contributing to bee decline.

The CCD Steering Committee hosted the National Honey Bee Health Stakeholder Conference in October 2012 to discuss multiple factors influencing honey bee health. The committee concluded that there are multiple factors impacting the decline of the honey bee in the United States and that no one factor can be blamed for the declines. These factors include pests, parasites, diseases, low genetic diversity and poor nutrition. The Steering Committee also concluded that additional research is needed to determine to what extent pesticides are contributing to the declines.

Even with significant losses by some beekeepers each year, North Dakota produced over 34 million pounds of honey in 2012, which made up over 23 percent of the honey produced nationally (USDA 2013). In addition to honey, the wax, pollen and propolis is also collected and sold in a variety of products including soaps, lotions, and vitamins.

## Challenges Faced by Beekeepers

Beekeepers face a challenging task of keeping colonies alive with the threat of Colony Collapse Disorder, Varroa mites, Tracheal mites, small hive beetles, bacterial, fungal and viral diseases, declining quality forage, and pesticide exposure. Nationally, year to year colony survival is variable with some beekeepers reporting losses as high as 30%.

Growers and pesticide users cannot help beekeepers manage threats from mites, beetles and the microbes that weaken their hives. They can, however, help with reducing their exposure to pesticides and improving the quality of forage available. Even though Varroa is considered the greatest threat to honey bee colonies, a strong colony can handle the pressures of this tiny creature better than one exposed to various pesticides and poor forage that weaken the hive.

Honey bees feed on pollen for their protein source, and utilize nectar for carbohydrates. They must obtain these nutrients from a variety of plants in order to obtain all the essential amino acids and nutrients required to build and maintain a strong hive. Bees can become easy targets for pests, predators and pathogens when they do not obtain the proper balance of nutrients. Bees provided with high quality forage are better able to handle stressors from all directions including pesticides.

Honey bees are commonly exposed to pesticides either intended for use in agricultural production or in an attempt to rid them of the Varroa mite. Agriculturally-applied pesticides can impact bees from direct contact with the insect or by contaminating forage. Beekeepers worry not only about immediate lethal effects from exposure but also the more subtle sub-lethal impacts such as increased brood mortality and reduced adult longevity.

## Challenges Faced by Growers

Growers face many challenges in an attempt to obtain acceptable yields. Growers contend with insect pests, diseases, weeds, drought, overland flooding and other factors that impact crop production and quality. They have a variety of pest management tools and strategies to choose from. While growers do not have to try to kill a mite on an insect, they often need to eliminate pests and competing plants without impacting yields. They also must consider the timing of pesticide applications with respect to harvest and rotational intervals. Even with integrated pest management systems, pests often are able to adapt quickly to different methods, rotations, or pesticides, or reproduce so quickly that they seem to explode within a short amount of time. Because of the nature of such pests, making timely chemical applications as part of an IPM plan are often essential to manage pests effectively.

Beekeepers can have difficulty finding land that will not be exposed to pesticides. Growers face difficult decisions when managing pests and minimizing impacts to pollinators. This plan should demonstrate how they can do both. Following the Best Management Practices (BMPs) within this document will help ensure abundant, affordable, safe, and nutritious food for years to come.

## Challenges Faced by Pesticide Users

Pesticide users face many challenges in North Dakota. There are over 12,000 registered pesticides in North Dakota that are used to manage agricultural and non-agricultural pests. In many cases, pesticide applicators have a limited time window to make an application. Factors such as pest infestation levels, temperature, precipitation, wind speed, water levels, use buffers,

and presence of pollinators all affect pesticide choices and decisions on when, where, and how to apply pesticides. Applicators also must pay attention to the location of sensitive sites adjacent to treatment sites, such as surface water, endangered species, organic fields, vineyards, and beehives. The ideal time to apply many of these chemicals is likely to coincide with when the pollinators are most active, putting pesticide applicators in a difficult position of balancing pest management needs and protecting pollinators.

## The Plan

The goal of this plan is not to eliminate pesticide use or to ban pesticides in hives or in close proximity to hives. Instead, the goal is to bring awareness to the issues faced by all parties and find a way for everyone to be part of a solution. The following Best Management Practices (BMPs) were developed with this in mind.

The North Dakota Department of Agriculture (NDDA) hosted two multi-stakeholder discussions in the past year focused on pollinator issues. These provided an opportunity for landowners, beekeepers, pesticide users, government officials, and other stakeholders to discuss pollinator/pesticide issues and offer input on reasonable practices that beekeepers, landowners, and pesticide applicators could do to protect pollinators and minimize impacts to livestock and crop producers.

The Pollinator Plan contains voluntary BMPs for pesticide users, landowners/growers, and beekeepers in hopes of creating the following positive outcomes:

- Ensuring positive relationships and peaceful co-existence among beekeepers, landowners, and pesticide applicators,
- Reducing pesticide exposure and subsequent risk of pesticides to pollinators,
- Ensuring both a robust apiary industry and agriculture economy, and
- Continued high compliance with state pesticide and apiary requirements.

## Beekeeper BMPs

- **Work with landowners to choose hive locations.** Ideal hive locations will have minimal impact on agricultural activities but will still have adequate access to forage and water. Avoid low spots to minimize impacts from drift or temperature inversions on hives. Give consideration to timing after rain events when determining which roads to travel. Discuss with landowners preferred roads/trails to use. Beekeepers should also request contact information for applicators, renters, and neighbors (if applicable).

- **Be cognizant of neighboring landowners when placing and moving hives.** Neighboring landowners often use the same roads, trails, and section lines. Do not block these right-of-ways or place hives so close they may cause problems for other land-users. Take appropriate steps to ensure that bees do not negatively affect operations of neighboring landowners, such as considering the proximity of hives to neighbor's yard, bins, equipment, or storage sites.

- **Ensure managed honey bees have sufficient resources throughout the year.**
    - Availability of sufficient forage and water may change throughout the year. If water or forage sources become limited, ensure bees are not watering or foraging at or near

locations that could be bothersome for landowners or agricultural practices (i.e. bees utilizing livestock tanks for water sources).

- Be cognizant of available water sources and provide water if natural sources become depleted or unacceptable. Water sources that do not provide breeding sites for mosquitoes are preferable.
- Move hives to a new location when forage is diminished to ensure bees don't become an inconvenience to others in the area.

- **Comply with all requirements of the ND beekeeping law.**
  - Obtain Beekeeper's License each year – new legislation has been added conditions of licensure to the beekeeping law. These conditions must be agreed upon by the beekeeper prior to the issuance of a license.
    - An apiary will not be placed at a location without first obtaining the consent of the property owner; and
    - An apiary will be relocated at the request of the agriculture commissioner if:
      - The commissioner, after examining documentary evidence, has determined that the health or welfare of an individual is endangered as a result of the apiary's location;
      - The individual referenced in paragraph 1 (above) resides on land contiguous to that on which the apiary has been placed;
      - The commissioner has identified another acceptable location for placement of the apiary; and
      - There are no other contractual or other legal impediments to the relocation.
  - Register all apiary (hive) locations
  - Clearly post contact information and beekeeper ID number at all hive locations

Continue to provide up to date hive locations throughout the season. This ensures that all locations are accurate when applicators attempt to locate them. The NDDA has created an interactive map and registration system that will allow beekeepers to mark what apiary locations are active and which are empty with just the click of a button. This information can be updated at any time by logging into your beekeeper account and editing each location. This system will also allow beekeepers to add and delete locations without the added processing time of mailing the information in to the department. The map can be found on the NDDA homepage (http://www.nd.gov/ndda/).

- **Work constructively with applicators when notified of upcoming pesticide applications.** One of the recommended BMPs for pesticide applicators is to contact nearby beekeepers prior to making pesticide applications. Block, move, or net hives when applicators inform you they are going to apply pesticides, or find other strategies to allow pesticide applicators to manage pests while minimizing pesticide exposure by bees.

- **Notify landowners and applicators when arriving and when moving hives.** If possible, notify nearby pesticide applicators and landowners when you place or move beehives. This will ensure they are aware of current hive locations and can notify you before making pesticide applications. Contact information for nearby pesticide applicators can usually be obtained from landowners.

- **Obtain landowner permission for hive placement every year and keep in contact.** As landowner information changes, it is important to ensure everybody is aware and bees are not placed without permission. This step is imperative to ensure hives to do not become a nuisance.

- **Report all suspected pesticide-related bee kills to the NDDA pesticide program immediately.** Inspect bee behavior regularly. The NDDA is the lead pesticide regulatory agency in the state. The NDDA will respond to complaints, including collecting and analyzing the location for pesticide residues. Some pesticides degrade rapidly, and timely reporting will aid the pesticide investigation. Beekeepers can report suspected pesticide incidents by calling 1-800-242-7535 or 701-328-2231 and asking to speak to a representative from the pesticide program.

- **Use registered pesticides according to the label**. When pesticide use is necessary to manage pests within hives, use registered pesticides and comply with all restrictions, precautions, and directions found on the pesticide label. Failure to comply with label directions may decrease the effectiveness of pesticides, increase the risk of adverse effects to bees, cause unsafe pesticide residues in honey and other products, and potentially lead to pesticide resistance. Contact the NDDA pesticide program with any questions on pesticide labeling or to determine whether a pesticide is registered in the state.

- **Ensure hives are easily visible to applicators.** Hives must be visible so applicators can locate them before spraying. It is strongly suggested that hives are painted white, or a color that stands out from the surrounding area.

## Landowner/Grower BMPs

- **Work with beekeepers to choose hive locations.** Ideal locations for hives will have minimal impact on farming/ranching operations, but will still allow bees to access forage and water. Communicate with beekeepers which roads/trails can be problematic when wet and any preferred traffic routes. Landowners may also want to provide contact information for applicators, renters, and neighbors (if applicable).

- **Communicate with renters about bee issues**. Renting land for agricultural production is a common practice. Landowners and renters should discuss bee issues, such as who has authority to allow bees, how long they will be allowed, and hive placement. These issues should be addressed and included when rental agreements are negotiated.

- **Communicate with pesticide applicators whose responsibility it is to look for hives, notify neighbors, etc.** When contracting with commercial pesticide applicators, make sure that there is a clear understanding of who has the responsibility to identify hive locations and communicate with beekeepers. Applicators may do this as part of their standard procedures, but some landowners may prefer to make beekeeper contacts themselves.

- **Agronomists should consider pollinator impacts when making pesticide recommendations.** Ensure that agronomists and crop consultants consider pollinator issues when making pesticide recommendations, including product choices and pesticide timing decisions.

- **Plant bee forage.** Plant flowering plants, trees, and shrubs to improve bee forage,

especially in non-farmable or non-crop areas. Doing so provides forage and it may also concentrate bees away from fields to be treated with pesticides, thereby minimizing impacts to pollinators.

- Many pesticide labels require untreated **vegetative buffer strips** around sensitive sites. Plant flowering plants in those buffer strips to provide additional bee forage.
- If planting **cover crops**, add flowering plants into the mix. Even a small percentage of flowering plants can provide a considerable amount of forage for pollinators.

• **Utilize alternatives to talc/graphite in planters.** When planting seeds treated with insecticides, utilize alternatives to talc/graphite as they become available. The talc and graphite can abrade the insecticide treatment off of the seeds, thereby creating insecticide-containing dust that can drift onto hives and flowering plants.

## Pesticide User BMPs

• **Use Integrated Pest Management (IPM).** Utilize economic thresholds and integrated pest management (IPM) to determine if insecticides are required to manage pests. When insecticides are required, try to choose insecticides with low toxicity to bees, short residual toxicity, or repellent properties towards bees.

• **Use registered pesticides according to the label.** Pesticide label language is developed to ensure that pesticides will not pose a risk of unreasonable adverse effects to human health or the environment. Failure to comply with the label not only puts humans and the environment at risk, it is also illegal. Many pesticides, especially insecticides, have use restrictions prohibiting applications when bees are foraging in the treatment area. Some labels prohibit applications when crops are blooming and require that the applicator notify beekeepers in the area prior to application. Always comply with these and other label restrictions to reduce risks. Applicators are bound by all directions, precautions, and restrictions on pesticide labeling, even when following other BMPs. Contact the NDDA with any questions on pesticide label language.

• **When possible, apply pesticides early morning or in the evening.** Pollinators are most active during daylight hours and when the temperature is over 55 degrees Fahrenheit. Apply pesticides early in the morning or in the evening when bees are less active to reduce the chances that bees will be foraging in or near the treatment site.

- Be cognizant of temperature restrictions on pesticides. The efficacy of some pesticides is reduced at certain temperatures.
- Be aware of temperature inversions when choosing the best time for applications.

• **Avoid drift.** Pesticide drift involves the off-site movement of pesticides through the air from the treatment site to adjacent areas, either in the form of mist, particles, or vapor. Drift reduces the effectiveness of the chemical applied since only part of the applied amount reaches the target. Drifting chemicals also pose a risk to non-target organisms that come in contact with the off-target residues. These insecticides can negatively affect bees and other beneficial insects by direct contact or by contaminating their forage and habitat. Drifting herbicides have the potential to further reduce quality forage available to pollinators. Contact NDSU Extension Service for more information on how to reduce pesticide drift.

- **Identify and notify beekeepers in the area prior to pesticide applications.** Bees will fly several miles to find quality forage. Therefore, pesticide applicators should identify and notify beekeepers within two miles of a site to be treated at least 48 hours prior to application or as soon as possible. Timely notification will help ensure ample time for the beekeeper and applicator to develop a mutually acceptable strategy to manage pests while mitigating risk to honey bees. This may include covering hives, moving hives, or choosing the time of day to apply. **Notifying beekeepers does not exempt applicators from complying with pesticide label restrictions. Many insecticide labels prohibit use if pollinators (bees) are present in the treatment area.*

The NDDA has created an interactive searchable map where pesticide applicators can identify registered bee yards and other pesticide-sensitive sites. The GIS Map for Applicators also contains beekeeper contact information and can be found on the NDDA homepage (http://www.nd.gov/ndda/). New features have been added to this map allowing applicators to create watch regions where they will be notified if any hives are added to or removed from a set area. This site also allows applicators to create an application region and the site will notify beekeepers of a pending application.

- **Choose products with lower risk to bees.** Avoid dusts and wettable powder insecticide formulations. Dust and wettable powder pesticide formulations can leave a powdery residue which sticks to hairs on bees. Bees then bring the pesticide back to the hive and potentially expose the entire hive to the pesticide for an unknown amount of time. Granular and liquid formulations are safer for pollinators since granules are not typically picked up by bees, and liquids dry onto plant surfaces. Also choose products with lower residual toxicity to bees.

Note that the NDDA will be working with NDSU to develop guidance on product choices to reduce risk to bees.

## Supporting Pollinator Forage & Habitat

- **Bee Forage**. Everyone can plant forage for bees. Plants that support pollinators are also beneficial for other wildlife, are often visually attractive, and can help improve soil health. Flowers often come to mind when thinking about bees, but bees also utilize trees, shrubs, and other less-noticeable plants for pollen and nectar sources. It is important to consider diversity when choosing plants to ensure adequate forage for the entire growing season. Diversity will also ensure pollinators have access to all of the nutrients they require to be healthy. Here are some easy, efficient ways to improve pollinator forage.

    - **Municipalities** can plant trees, shrubs and flowers that provide good forage for all types of pollinators. Diversity is important, the pollen and nectar of each species carries a different nutrient load for the pollinators. This can be worked into new plantings, every time a plant is added/replaced choose a variety that will contribute to pollinator forage. Foraging honey bees are typically not aggressive.

    - **Counties** can create bee forage along secondary roads. Secondary road ditches often contain several species of plants that provide forage for pollinators. It is a common practice to mow ditches for the safety of motorists and to prevent drifting snow. Consider spot spraying noxious weeds and mowing ditches later in the year to ensure that bee forage is available. Incorporate short forbs into secondary road ditches to minimize attracting large wildlife.

- **Homeowners** can put out flower pots, create flowerbeds, plant trees or shrubs, or establish gardens to provide forage. Homeowners should also take special precaution when applying pesticides. The pesticide user BMPs apply to anyone using pesticides. Remember, the pesticide label is the law and it is in place to minimize risk to the environment and human health.

• **Create habitat for beneficial, wild pollinators.** Roughly 70 percent of native bees nest in the ground. They burrow into areas of well-drained, bare, or partially vegetated soil. Other bees nest in abandoned beetle houses in snags or in soft centered, hollow twigs and plant stems. Bees will also utilize dead trees and branches. Habitats can be created by leaving deadfalls and brush piles as nesting habitat. Consider the type of habitat you wish to create and pollinators you want to attract. Be cognizant that certain structures might attract other animals such as fox, coyote, skunks, and porcupines.

• **Public land access**. Public land typically does not incorporate crop production and large scale insecticide use. There are some agencies that allow beekeepers to place honey bees on state and federal lands. Contact NDDA for more information. Permission must be obtained and locations placed on state or federal lands also need to be registered with the NDDA.

## Mastel, Allan

**From:** Pahinh Winh <onedakotawoman@gmail.com>
**Sent:** Wednesday, February 1, 2023 8:47 PM
**To:** NDLA, H AGR
**Subject:** Hb 1258

Hanh mitakuyapi. Hello my relatives. For the record, my name is Carel Two-Eagle and I'm solidly in support of HB 1258, the native pollinator bill.

All pollinators are either threatened with extinction, or endangered, which is worse, as you have probably heard. Most+1 plants rely on pollinators, regardless of whether those plants are for food, or fabric, or building materials - for all the species we humans share our holy mother earth with, not just us mere humans.

Pollinators include bees, wasps, and all flying insects along with many that don't crawl. Pollinators include bats, birds, and humans. There are many animals I have not mentioned. Even Tahteh', the wind, is a pollinator.

We don't need to do anything to preserve Tahteh', but we can do much to preserve all of the others - and if we don't, we humans will go extinct just like the pollinators we should have worked to protect and preserve and didn't, if you don't strongly support HB 1258. We will starve to death, in an ugly wreck of the world we humans will have created if we don't strongly support HB2258 and other actions. This is fact.

In 2000, I created a for-profit corporation to support a non-Christian Church I have headed since I inherited responsibility for it in 1993. In our Church, we worship by helping others. "Others" obviously does not only mean humans. Mitakuye oias'in means "All (are) my relatives". "All" means just that. It does not mean "all of only one kind". Thus it includes the pollinators.

We have 3/4 acre of land in Morton County. We cannot build on it. When we found that out, we decided to put a Prairie-Pollinator Protection and Preservation project on it. It was seeded to the invasive grass smooth brome years ago.

Instead of poisoning the smooth brome, we kill it with "Prairie in a Box". We take boxes 16-18" X 22-24" X 6" deep, fill them with compost or good topsoil, seed them with native prairie plant seeds, and set them on top of the smooth brome. The smooth brome dies from lack of sunlight and water.. Without poisoning anything.

The prairie plant mixture thrives without competition from the invasive smooth brome, the pollinators are protected and promoted, and the soil itself is not made toxic. What a win-win! We haul in stumps - preferably ones with holes from burrowing insects and other animals, and seed them around the land. Various pollinators live in and under them.

Some people hate it and even went so far as to try to force us to get rid of it. I am a fierce defender of prairies and pollinators. I explained about the ESA (the federal Endangered Species Act). We made signs and put them around. They haters have been quieter.

It is in our best interest to do all we can to protect and preserve the pollinators. Past this bill, actions include not using products like Roundup and neonicotinoid products. They have been proven to cause havoc to pollinators as well as the rest of the world's species.

I have 2 degrees in chemistry. I know far more about "pesticides" and "herbicides" and their actions than I want to.. Because such products have so many bad effects.

If you stop to think about it, the designations "pesticide" and "herbicide" are arrogant designations of the majority culture, which commits wholesale slaughter without a thought to effects other than getting rid of something some people have decided is "in their way".

I cannot urge you strongly enough to recommend Do Pass on HB 1258. It is in everyone's best interest to pass this bill.

I'm always available to answer questions, of course. Thank you for hearing me!