MINNESOTA HONEY

MINNESOTA HONEY PRODUCERS ASS'N., INC.

Hi Mark, This is Dan Whitney, the current president of the Minnesota Honey Producer's Ass'n (MHPA) Our position on reinstating new bee laws hasn't changed since our meeting with MDA back in June. We feel that a new apiary law is unnecessary, and not in the best interest of Minnesota beekeepers. At our annual convention this July, the key points were discussed and a resolution was passed stating MDA's opposition to any legislative attempts to reinstatement the apiary laws and an inspector program. That being said, I will try to explain why some of the key point items are either unnecessary for successful beekeeping, or will be an undo burden placed on Minnesota beekeepers.

1) Prevention of Diseases and Exotic Pests

Reinstatement of the Apiary Laws and an Inspector Program will not prevent diseases or new exotic pests from afflicting MN honeybee colonies. Other states and neighboring countries have inspection programs, bee laws, quarantine laws, and they have all failed to prevent in the last 20 years the proliferation of varroa mites, small hive beetle, and nosema cerana. Many beekeepers are migratory. Their colonies will be exposed to thousands of other colonies every winter in California's almond groves. It is impossible to stop the spread of diseases under these circumstances. The first line and best line of defense is the beekeeper. It is the beekeepers responsibility to be able to identify and correct problems quickly when they show up. By the time an inspector would find and identify a problem during a yearly annual inspection, it would be weeks and months too late to save the afflicted colonies. If something new or bizarre arises, most commercial beekeepers in MN have an annual subscription through the Bee Informed Partnership (BIP) and can get assistance very quickly. All MN beekeepers have access to help from the honey bee program at the U of M. there is also the Urban Bee Squad to help beekeepers in the metro are. There are already systems in place.

2) Sanitary Inspection of Apiaries, Including Notifications of Disease, Nuisances, and Quarantines.

Again, this is linked to key point item number one. It is unnecessary and will not produce the intended results. Beekeepers are the best monitors of their own colonies. (Each colony gets worked on average every 10-14 days) Rather, it seems to be a waste of time, money, and resources on MDA and the beekeeper's part. Bees can be shipped to and from CA. with no inspections needed. Those of us who travel to the southern states pay big money to get a joke of an inspection for a useless permit. A piece of paper won't keep your colonies healthy. It is in all practical purpose solely a money generating function for those states. Why should we have to pay to get a similar inspection again half a year later, back in MN?

3) Apiary Location Registry, to facilitate agency response to pollinator deaths or illness and for pesticide applicators to be aware of apiaries to avoid impacts, including data practices and privacy protections.

Again not needed, and will prove to be a burden and obstacle to successful beekeeping here in Minnesota. Registering bee yards will not save the bees from pesticide kills. Honeybees forage at a range of up to 5 miles. All that will be protected, would be the outside of the wooden boxes themselves. If the wrong product is used, or the correct product is used incorrectly (ie. Improper conditions such as when foragers are present), honeybees deaths will occur. Some foragers will simply die in the field, depleting the colonies field force drastically, and in other situations, foragers will return, thereby contaminating the comb, pollen stores, honey, wax, brood larva and adult bees. The vast majority of Minnesota beekeepers simply ask, that when an approved agriculture chemical needs to be applied, it is done so in accordance to its label. If a more bee friendly product can be used, then hopefully that option is considered. Most MN beekeepers understand that farmers need to use products to protect their crops. In return we hope that our needs are considered as well. Our bees, are our livelihoods.

Our Landowners (the people who give us permission to place hives on their properties), are not in favor of a registration program. They are not comfortable with allowing state government access to their land. I personally have heard the phrases "government intrusion" and "Big Brother" from my landowners, when I visited with them on this topic. Many of them have told me "do not register your bee yard on my land. If you are forced to, then you can no longer keep bees on my land". This is not a good thing. It will lead to under reporting of apiary locations.

There is another real life scenario. This is a common occurrence in North Dakota. Other beekeepers will learn of where apiaries are located in an area and then "crowd" that area with colonies of their own. This will cause the average honey yield per colony to drop, and definitely make disease control much harder. Beekeepers stake out a territory similar to a trapper's trap line. Some areas have been in beekeepers families since WWII. This will cause bad feelings amongst older established beekeepers and new beekeepers just starting out. When there are bad feelings, the more experienced beekeepers clam up and will not share information with the new guy. With the intent of hoping he fails and gets out of the business. This is not good for the future of MN. Beekeeping.

Registering of apiaries will not facilitate a quicker agency response to a problem. If the beekeeper has a problem, then he or she should call in to the dept. of Ag. And bring the agency officials to the site. The beekeeper should be present

anyway during an inspection. If there is a complaint from a neighbor, then they should take it up with the landowner. The landowner typically then calls the beekeeper, to see what can be done to alleviate the situation. That is what is done now. And they always been that way. Minnesotans in particular are pretty good about being "neighborly".

Pesticides applicators and the notification of beekeepers. The MHPA again requests that applicators again use the correct products and follow the label. This is the best solution for growers who need to protect their crops, and the beekeepers who shouldn't have to bear the burden of having to cover their hives during prime foraging hours, or moving the colonies to escape the danger. It is not feasible to move hundreds of colonies each night to avoid chemical applications. There are no "safe" places to move the colonies to. If there is spraying occurring in one township, then it is certainly occurring in the neighboring townships as well. Perhaps, countywide. Moving bees, especially frequently is stressful to the bees. Studies have shown that honeybees that are moved, even once a year have a lower threshold tolerance to Varroa mites. The biggest concern that gives the MHPA pause on this is, it seems to the beekeepers that the applicators will then have license to use whatever product they wanted, whenever they wanted as long as they gave the apiary owners in the area a proper notice. This will shift the liability and financial burden on colony deaths to the beekeeper, because the beekeeper was given "proper notice" to take precaution. This is unfair. The beekeeper has as much right as the farmer and applicators to make a living and protect his or her own investments. Again there are no safe places to move bees when widespread applications are occurring countywide. The beekeeper should not have to lose money because he/she had to cover their colonies with a net, costing them time and honey yields, or yet move the colonies to another area where there might not be suitable forage. Costing again a lot of time, big losses in money from honey losses, and a few hundred dollars each night in diesel fuel. Beekeepers will simply be run ragged trying to keep up with all the notifications. This is a no win situation for Minnesota Beekeepers.

4) Public benefit of any Apiary Program, and fiscal costs.

There are no direct benefits to the general public that I can see. The public and our environment benefits most from the pollination provided by healthy colonies under the care of Minnesota beekeepers. Apiary registration and an inspector program will not accomplish that goal. Beekeeper and applicator knowledge, education, and using products properly, are the best avenues to healthy honeybees.

Fiscal costs-will be high. Commercial beekeepers will be affected the most. They will bear the brunt of the financial costs of this program. I don't believe the program can be run for less $150,000. A head inspector, couple of part time inspectors, response team, and some office personnel, equals big money. This dollar amount will then have to be divided by 25-40 beekeepers. Big time burden! MN. Beekeepers typically net $10.00-15.00 per colony after expenses, in a decent crop year. Good crops are hard to come by now, due to poor bee forage. A $1.00 per hive or $10.00 or more fee on apiary locations would be a big financial burden to commercial beekeepers. Then beekeepers would also have to pay money to get a license to keep bees next. This would have the effect of keeping hobbyists from starting up. Some hobbyists eventually move up to sideliner and commercial levels of beekeeping, this would stifle future growth. Charging money will lead to under reporting by beekeepers of all sizes in colony numbers under their control, and number of apiary locations. Some would not register at all. This would be counter- productive to what we all are trying to accomplish. When people are holding back and keeping some things secret, it is impossible to get a clear picture on the conditions of MN's honey bee industry. Basic data items such as number of colonies in the state, number of apiaries, pounds of honey per hive, would not be accurate at all.

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This is Dan Whitney, current president of the Minnesota Honey Producers Association (MHPA). The MHPA was established in 1907, and is the oldest organization in MN that supports and promotes the states honeybee industry and the only one that represents MN beekeepers legislatively. Honeybees and pollinators have been in the news heavily the last few years, nationally and locally. People from various groups, organizations, and government agencies are all trying to help. Of course then, everyone has their own opinions (sometimes agenda driven) on what is causing Chronic Colony Collapse disorder (CCD) and pollinator decline and what to do about it.

The average person knows very little about honeybees. People know they sting and make honey. But they know little about their life cycle and nothing on how to successfully manage a colony through an entire calendar year. With all these people trying to address the problem, I thought it would be a good idea to write a letter and explain a little about what my industry needs and in a few cases doesn't and hopefully why.

A brief background. Even though MN still ranks number 5 among U.S. states in honey production, production has fallen from approx. 21 million pounds 20 years ago, to around 8 million pounds. Number of colonies have fallen by 50,000. We have a loss in production of around $27 million dollars. I would estimate the number of beekeepers that would fall into the commercial or sideliner category at around 40-45. That's a tiny industry. But extremely important. These people/family businesses control 97% of the 130,000 colonies in the state. In the fall the bulk of these colonies are shipped out to pollinate the nation's, fruit and vegetable crops. Some are used to produce queens and new colonies for beekeepers from other states. MN's beekeepers typically lose 25-40% of their colonies from May 1 to Nov. 1. Additional losses vary from 5% to 40% during the winter months. These colony deaths are due to a combination of three factors. 1) Lack of honeybee forage, 2) parasites, viruses, and disease, 3) chemical/pesticide impacts. Most Minnesota beekeepers would list them in this order of importance.

Lack of honey bee forage.

This is the biggest problem for honeybees. Flowers are their sole source of protein and carbohydrates. Nectar provides the carbohydrates and pollen the protein. Honeybees are not totally domesticated. They are wild creatures and need at least some small amount of "wasteland" to survive. They need a wide diversity of flowering plants to make their primitive immune system function properly. There is simply not enough flowers and the correct flowers during the growing season for bees and pollinators. Land use and agricultural practices have changed drastically since 2000. Honey production in MN has fallen from a traditional average of 100 pounds per colony to around 55 pounds. Most colonies in Minnesota produce honey for 3-4 weeks. That's it. There isn't enough flowers from early spring to first frost. The bees are cared for and fed 11 months out of the year. The last 10 years in the honey bee industry has seen big strides in the honeybee feed and nutrition arena. Soy based products and corn and sugar beet syrup blends are used to supplement the colonies during lean times. Unfortunately, the lean times are now 11 months, not 2 or 3 months in duration.

Supplements are just that, supplements. The nutrition provided by Mother Nature cannot be duplicated. At best, maybe 50% of the nutritional requirements can be met this way. Most MN beekeepers will tell you that if a colony makes less than 75 pounds of honey in the summer, the odds are stacked against it to survive until the following spring. Colonies typically start fizzling out in Oct. and continue to dwindle and die until spring. This is from poor nutrition. They are giving out before they can reach the finish line. Not unlike our deer herd from a rough winter. Poor nutrition affects the honeybees' ability to fend of diseases and handle toxins. Their economic threshold for tolerating parasites has fallen from 8-10 mites per 100 bees 20 years ago, to a threshold of 2 per 100 individual bees. The bees can't withstand the viruses transmitted from the mites as well as they did 20 years ago.

Honeybees can usually bounce back from a minor pesticide event, if they have adequate forage for several weeks after the event.

What can we do to address the forage issue? Here are some ideas the MHPA has been pushing for some years now. We think these are simple common sense ideas. 1). Delay roadside mowing and baling until Aug 1st. 2). Stop the blanket spraying of road ditches. We are killing everything but the grasses. 3). Promote better seed mixes in the CRP, buffer strips, filter strips, etc…. The beekeepers have been asking for legumes, principally alfalfa, white and yellow sweet clover, to be included in the CRP mixes. Legumes haven't been included in MN CRP seed mixes since 1995. We like and need the native wildflowers for the pollen and limited nectar they provide. But, the simple fact is, legumes provide 70% of the nectar on the landscape. A strong colony of 50-60,000 individual bees will require 2 million individual legume flowers to produce one pound of honey. Two problems. Colonies of 50,000 plus bees in them are hard to come by, and secondly, that colony would require about 2 acres of a thick stand of alfalfa or sweet clover to make its 75-100 pound average. The stand would need to be allowed to mature and bloom for 3 to 4 weeks. Multiply the 2 acres by 24-48 colonies (standard number of colonies in a commercial bee yard) and it can be seen that 50-100 acres of legumes would be needed in every other or every third section in each township in Minnesota's agricultural counties. That's not out there today. Probably never will be again.

Minnesota's beekeepers would like to see new CRP and wildlife plantings contain a 20% mix of legumes, ideally planted in strips or blocks. The legumes would need to be managed to keep them from getting grassed out through, prescribed burning, grazing, or cutting and baling. This would seem a straight forward thing to do. Right? Not so, legumes are viewed as non-native or introduced species. Sweet clover in particular is classified a noxious weed by the DNR and MDA. (check it out on their websites). Minnesota's beekeepers could use some help getting this designation removed. We should be judging plants and animals by their usefulness for man and the environment. I don't think our fathers and grandfathers would have planted bad plants on a wide scale years ago.

Parasites, viruses, and disease.

These three items, are big factors in the decline of the honeybee. As mentioned earlier, their effects on the honeybee is magnified by poor forage and nutrition. When the bees are weak, all they need is a toe hold to get going. Things can snowball fast and bring a colony down in 6 weeks.

Beekeepers, especially commercial beekeepers are very good at quickly identifying problems and then controlling them. Advances in science has provided multiple tools and options to deal with parasites and disease. Advances in breeding and queen stock selection allows beekeepers the ability to purchase queens that provide specific and desired traits, similar to any other livestock industry. Like any trait selection, whenever you gain something you have to compromise and give something else up. Some of the traits available are; survivability, gentleness, hygienic behavior, disease resistance, larger honey production, larger brood production, bees that forage earlier in the day, bees that forage in cooler weather, bees that hoard pollen and are good for pollination services, bees that overwinter well in buildings, or bees that overwinter well outside in cold climates. Beekeepers can select a bee that is tailored for their specific business model. But once again, all the science in the world can't help malnourished honeybees.

Impacts of chemicals/pesticides

Neonicotinoids have been in the news a lot lately. There are groups of people working to ban or place a moratorium on their usage. The majority of Minnesota's beekeepers do not agree with this. Most beekeepers realize that chemicals and pesticides are not the sole cause of colony death and

decline. Lack of proper forage, pests, parasites, and disease are the leading factors. Beekeepers recognize that ag producers need to use products to protect their crops and assets. We recognize that these products are legal and approved for use by EPA and USDA. That being said, more research needs to be done. Especially in residue and build-up of these chemicals in the soil. Beekeepers are losing colonies in Minnesota at the rate of 20-60% in a calendar year. Here again a simple solution that would help minimize chemical and pesticide impacts would be more and better forage for bees. Proper forage. Safe forage. In areas that would keep honeybees and pollinators away from areas that would do them harm.

Beekeepers across the U.S. have been losing colonies to ag chemicals and pesticides since the 1950's. Here in MN most commercial beekeepers have a percentage of colonies that are killed or take a good hit each year. It happens. There isn't a year where we don't lose colonies to pesticide hits. Most look at it as a cost of doing business. Its collateral damage. It hurts, but our neighbors aren't deliberately trying to kill our bees. They are just trying to protect their crops. The practice of tank mixing does need to be addressed. EPA has started to study this in the last year. The mixing of several products together, whether they be combinations of pesticides, herbicides, or fungicides for the purpose of applying them in one pass needs to be studied. "Spiking" a product with another product to make it more "effective" even 5% should not be done. This defeats the purpose of bee friendly products. It makes them lethal to bees. New compounds get created. These and their effects have not been studied our approved by EPA.

The MHPA's stand on chemical use is this. If a product needs to be applied, try to use the most honeybee friendly product available. Always use the product in accordance to its label. And if at all possible apply early in the morning or in the evening when the honeybees are not flying.

Most people do not realize the dollar value involved when a honey bee colony dies. A colony of bees is worth over $500.00. If a colony dies in May for instance, the beekeeper loses $200.00 on a lost honey crop, $200.00 on lost pollination in California, and $120.00 in the loss of the bees. If chemicals are involved, then the frames of comb need to be replaced at additional cost. Input costs in Minnesota run from $150.00 to $200.00 per colony. When dozens to hundreds of colonies get damaged, the beekeeper takes a giant loss. Insurance companies will not insure colonies for spray damage.

Again, beekeepers are not asking to take tools away from the ag producer's toolbox. We are not asking for money for damages. We understand the realities of ag production. We are ag producers ourselves and we understand and appreciate the value of being good neighbors. There is a movement afoot to try and push MN beekeepers to register their bee locations in a data base by GPS coordinates. MN's honeybee industry could use some support in defeating these efforts.

The Driftwatch program works well for sensitive crops and organic farms. At first glance, it seems a practical solution to protecting honey bee colonies. If we know where the bee yards are we can protect them. Right? The problem is bees fly. They will forage up to 5 miles. Not spraying within 200 yds of a bee yard only protects the wooden boxes. 20,000 foragers from each hive are logging thousands of air miles across that 5 mile radius. This will put them in contact with dozens of fields owned by dozens of different farmers. This is why we tell people the best solution is to follow the label.

Since bees fly, the idea is to give the beekeeper a notice of say of 24 hours. Then, theoretically the beekeeper could go out and cover the hives with a net or move them to another area. This is also impractical. When intensive spraying is going on there is no safe place to move bees. It is impossible to cover up dozens or hundreds of bee yards in a single day and then go back and uncover them. Most commercial beekeepers run a territory with a 50-150 mile radius from their hometown. The beekeepers fear that this program will put the financial burden of colony loss solely on the beekeeper. Since he or she was notified, they should have taken evasive action. We fear that this will pave the way for widespread use of bee "unfriendly" products in the future. A few side notes on the bee yard registry issue. The vast majority of landowners that give permission to beekeepers to place colonies on their

land, are not in favor of having their land registered. Also, we don't ask other livestock producers to register their pasture locations, lock up their livestock or remove them to another area. When we lock up colonies or double or triple the number of colonies in a bee yard, the beekeeper loses big on honey production, colony health, time, and expense. This is not fair to the beekeeper. Why should he be forced to lose large sums of money so another man can profit? That's not right.

Beekeeping is foreign to most people. The business by its' very nature tends to be secretive. The knowledge and skill is passed on to family members and employees by an apprenticeship approach. It takes years of learning to be successful. Beekeepers generally are not real good at communicating with the public about our industry. When we do, we tend to give up thinking we are wasting our time. It is frustrating trying to get people to understand. I thought it was important to shed some light on what Minnesota's honeybee industry real needs are, and what some practical solutions from the beekeeper's view should be. To sum up the key points, there is a serious lack of diversity/honeybee flowers on the landscape. Most honeybee problems can be mitigated by good, safe foraging areas. Lastly, most of Minnesota's beekeepers have always and will always continue to take the good neighbor approach to agri chemicals and pesticides. I can be reached for comment at dwapiary@gmail.com

Sincerely,
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pres MHPA