

Beekeeping Information Prepared for the City of Brookfield

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Prepared by Scott Offord

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Letter to the City of Brookfield Aldermen

June 29, 2016

The residents of Brookfield would like their aldermen to review the City codes as it pertains to beekeeping within the City of Brookfield. It is our desire that an ordinance be crafted that would allow beekeeping and set reasonable parameters around it.

I am a member of the Milwaukee Waukesha Beekeeping Association, which hold monthly educational meetings. The Officers of the organization would enjoy the opportunity to speak with the aldermen and to answer any questions you might have regarding beekeeping. They have been instrumental in advising many other Southeastern Wisconsin cities with their beekeeping ordinances.

The President of the organization is Janet Fischer. She can be reached at 262-392-3843 or janet.manke-fischer@anthem.com. The Vice President is Paul Radosevich. He can be reached at 262-993-2483 or pradosevich@gmail.com.

An example of a nearby city with a beekeeping ordinance is the City of Milwaukee, that passed an ordinance in 2010, allowing residents to keep up to two colonies of honeybees on private property within the City limits. Permit applications are made available through the Department of Neighborhood Services Environmental Section. Their permit application process requires a simple map with dimensions of the property with the location of the beehive in relation to the surrounding area. In the City of Milwaukee, proof of beekeeping competency must be provided.

I've included a link to a spreadsheet compiled last year that shows various Wisconsin cities' ordinances: <http://scott.offord.me/gE8C>

My hope is that this will serve as a good starting point for the City of Brookfield alderman while they consider the crafting of an ordinance.

If you have any questions or would like to discuss beekeeping further, please contact me.

Sincerely,
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Summary of Other Cities' Beekeeping Ordinances

Inspection Fees / Permit Cost

Creating a specific ordinance for beekeeping would allow a level of accountability that would improve safety and reduce nuisances. At this time, there are already many residents in the city of Brookfield who are keeping bees on their property. One advantage of requiring a permit for the hobby of beekeeping is that it would help the City to be more aware of where beehives and beekeepers are located within the city.

Many cities in the Greater Milwaukee area allow beekeeping and have a one or two year permit with a nominal processing fee.

Application Requirements

To help prevent hives from being poorly kept, some cities either suggest or require that the prospective or existing beekeeper attend beekeeping association meetings. Requiring the attendance of at least 3-6 beekeeping association meetings per year (for example, the Milwaukee Waukesha Beekeeping Association) is an example of a reasonable educational requirement.

Some Wisconsin cities require that the property owner, residents of the property and/or neighbors be notified that beekeeping activities are taking place on the property.

Some cities require the applicant to submit drawings that detail the proposed location of the hive in relation to property lines.

Setbacks

Cities in Wisconsin have varying requirements regarding setbacks that range anywhere from 5-25 feet from the property line. Some cities require that the hive entrance face inward (away from the closest property line) and that the first 10 feet of the bee's flight path must be on the property owner's lot. One example of a reasonable setback is in the city of Madison, Wisconsin, where it is required that the hive be placed no closer than 10 feet from public sidewalks, 3 feet from property lines, and 25 feet from adjacent dwellings.

Barriers

Flyway barriers such as fencing or shrubs are recommended in some cities around the Greater Milwaukee Area. For example, if the hive is located within 20 feet of the property line, a barrier

that is no shorter than 5 feet tall might be required. The purpose of this would be to encourage the bees to start flying higher sooner in their departure flight from the hive when they go out to forage.

Water Sources

Most cities in the United States that have beekeeping ordinances, recommend or require a constant supply of water or surface moisture to be provided for the bees within the immediate vicinity of the hive. Examples of water sources include a shallow dish of water that might contain rocks, a sponge or floating corks in it.

Number of Hives

The maximum number of hives per property ranges greatly from city to city in the State of Wisconsin. Some cities require no more than 6 hives per lot, where as other cities limit the maximum to 2 hives. An example of an ordinance is in Platteville, Wisconsin, where there is a maximum of 2 hives allowed for lots that are 1/2 an acre or less and a maximum of 4 hives for properties that are 1/2 - 1 acre in size and for lots that are 1 acre or more in size, a maximum of 6 hives are permitted.

Hive Splitting

Only a small number of cities in the United States have requirements or recommendations concerning splitting of hives. If mentioned at all, some cities require splitting a hive if the colony is temperamental, while other cities simply recommended splitting a hive only if it is overgrown. Some cities allow for an additional temporary hive to be located on the property for a short period of time in the case that splitting becomes necessary.

Permissible Equipment

Some cities require that the hive contain movable frames and that the beekeeping equipment be maintained for sound condition. Some cities put a limitation on the physical dimension of the hive, stating that a single hive be no more than 20 cubic feet. Some cities require a fence, natural barrier, hedge, or building to be used as a flyway barrier.

Neighbor Consent

In a rare cases, such as cities that tend to have very small lot sizes with houses that are close together, neighbor consent is a requirement. An example of this is where consent would be required for hives less than 50 feet from neighbor's dwellings. If neighbor content is required, the neighbors would have 14 days to file a written objection and to request a hearing. Most

cities do not require consent from neighbors and simply require that the applicant notify all residents of the property and the property owner of the proposed beekeeping activity. A reasonable requirement might be that all residents within 200 feet of the hive be notified that beekeeping activities will be taking place.

Bee Species / Strains

Some cities put limitations on the types of bees that can be kept. For example, only queens of European origin or only Italian, Carniolan or Cordovan are permissible. Or, simply, no *Apis mellifera scutellata* (the African honey bee) are permitted.

Nuisance Laws

The ordinances in some cities in Wisconsin mention that the beekeeping activity and bees should not interfere with the wellbeing of the city's residents and that nuisances caused by the keeping of bees must be remediated. In the case that a particular colony becomes extremely problematic or aggressive, some cities require that the queen should be replaced or that the colony be destroyed.

Hive Abandonment

Many cities require that the beekeeper must respond to hives that have deceased, overpopulated, or that have been abandoned. If a hive has been abandoned, discontinued or unmaintained for a period of 12 months, it is sometimes required that the hive be removed or dismantled by property owner.

Information About Bees

There are around 20,000 species of bees in the world, with more than 4,000 species in North America alone. Honey bees represent only a small fraction of the bee species. Wasps and hornets are not bees, however, they are in the same order (Hymenoptera) as sawflies, bees and ants.

Bees in General

- are furry and usually have a golden hue
- are very important in the pollination of flowers

Bumblebees

- are not honey bees
- live underground or in surface grass clumps

- feed on pollen and nectar
- do not store food for the winter
- only the queen survives the winter in cold climates

Wasps

- have narrow waists and are generally not covered with fuzzy hairs, usually smooth and shiny in texture and might be brightly colored, with black and yellow patterns
- need pollen and nectar and feed on flies, aphids, mosquitoes and caterpillars
- build nests from mud, use wood to make paper nests or dig holes in the ground
- help with pollination, but are much less efficient
- do not produce or store any honey
- are likely to be a nuisance at picnics and barbecues
- known to attack, even when unprovoked and will chase people when in attack mode
- don't die when they sting and can sting multiple times

Honeybees

- are reluctant to sting because they will die if their stinger becomes detached
- will generally leave you alone unless provoked
- store honey in their hive to feed on during the winter
- live in hollow spaces, hollow trees, empty fallen logs, or in man-made beehives

What Bees Give Us

Organic Honey - no added preservatives, no added flavoring, no added coloring.

Beeswax - used in skin care products, candles, furniture polish, etc.

Royal Jelly - contains vitamins, amino acids and is a potent antioxidant

Propolis - antibacterial, antifungal, antiviral, anti-inflammatory

Bee Pollen - anti-inflammatory, helps those suffering from allergies

How Bees Make Honey

Bees ingest nectar from the flowers of plants and trees. In the hive, the bees regurgitate the nectar for as much as twenty to thirty minutes. The digestive enzymes and gastric acid of the bees turn the nectar's sucrose into a mixture of glucose and fructose. When it becomes suitable for storage, the bees place the honey into honeycomb cells, which are left unsealed. The bees flutter their wings, which causes water to evaporate from the honey, making it thicker, until it contains no more than 18% water. The bees then cap the cells with wax to seal them.

The Decline of the Honeybee Population

Honeybees are in trouble and constantly facing new threats. In 2015, an 11-year British study showed a definitive relationship between increasing agricultural use of neonicotinoid and escalating honey bee colony losses. This is the first field study to establish a link between neonicotinoids and colony collapse disorder (CCD).

Many of the country's crops would not exist without honey bees. One-third of the human diet is derived from insect-pollinated plants, and honey bees are responsible for 80 percent of this pollination. There is a need to promote and nurture honey bee populations worldwide.

Honeybee Stings

Honeybees live in a highly organized and structured society that has developed a community lifestyle to ensure survival. They are, in general, not aggressive unless they believe that the colony is in danger. While foraging away from the hive, they are concerned only with the task of collecting food for the continuation of the hive and are normally docile unless they are being handled roughly (swatted at or stepped on).

While male drone bees do not have stingers, a worker bee can sting if provoked. However, the stinger of a worker bee is barbed, and if she stings a tough-skinned creature (such as a human/mammal), the stinger and poison sac can be torn from her abdomen. This results in death for that worker bee.



Photos: A honeybee crawls gently on a hand for around five minutes, then flies away.

Allergies and Bees

The United States Forest Service estimates that the percent of population with allergic reactions to stinging insects range from 0.5 to 5 percent (or about 13 million people nationwide). However the bucket of stinging insects includes wasps, yellow jackets, hornets, Africanized honeybees,

(Non-Africanized) honeybees, fire ants, etc. with half the anaphylaxis deaths (about 50 of the approximately 100 per year) coming from fire ant attacks. Another number that has been stated is around 3.3%, and is from a study done in 1989 specific to honeybee or yellow jacket venom.

It is also important to note that of the group of people who have an allergy to honeybee or yellow jacket venom, only a small subset of those people have a severe enough allergy that it would lead to an anaphylactic reaction. To put this in perspective, it is similar to the varying degrees of nut allergies that people are more familiar with. The vast majority of people can eat nuts with no issues, some have a mild to medium reaction causing swelling, and an even smaller subset has a severe anaphylactic reaction.

What most cities have considered while looking at allowing beekeeping is whether the addition of human-managed hives creates an appreciable risk to the population beyond the stinging insects that occur locally in nature. The fact that many densely populated cities have passed regulations to allow beekeeping in the past few years, shows that they do not believe urban beekeeping substantially increases risk to their residents.

Urban Beekeeping

Many cities across the country are introducing ordinances that allow urban beekeeping. Most have found that the way honey bees naturally live and forage works well in an urban setting.

Urban beekeeping is great for gardeners as fruits, vegetables, and flowers benefit from insect pollination. Flower and vegetable gardens also provide a continuous supply of food sources for the bees throughout the growing season.

Noah Wilson-Rich presented an excellent talk on [Urban Beekeeping in a video](#) recorded at TEDxBoston in 2012. The video mentions how urban beekeeping is showing better overwintering result than anywhere else, making urban keepers even more important in world's ecosystem.

Conclusion

- Reasonable beekeeping guidelines for the City of Brookfield need to be established
- Honeybees already exist in our city and are important to our ecosystem
- Honeybees rarely sting and if they do, it is only to protect their colony
- Only a very small subset of people in the world have a severe enough allergy to bee stings that would lead to an anaphylactic reaction
- Many larger cities that have passed regulations allowing urban beekeeping are much more densely populated than Brookfield
- Of all the stinging insects, the honeybee has the most benefit to the environment and community around it through pollination and the production of honey

References

- [Spreadsheet of various Wisconsin city ordinances](#)
- [Facts from National Honey Bee Day website](#)
- [Types of bees](#)
- Bee stings: <http://www.ars.usda.gov/Research/docs.htm?docid=11067&page=8>
- Bee stings: http://entnemdept.ufl.edu/creatures/MISC/BEES/euro_honey_bee.htm
- Bee stings: <http://city.milwaukee.gov/Env/Bee-Keeping-In-Milwaukee.htm>
- [Percent of allergic persons](#)
- [Beekeeping in Milwaukee](#)
- [Beekeeping in Wauwatosa](#)
- [Bee Sting Allergies and Municipal Regulations](#)
- [American Beekeeping Federation](#)
- [Noah Wilson-Rich video on Urban Beekeeping](#)