

Wou've heard the adage an apple a day keeps the doctor away, but have you ever heard a spoonful of honey a day keeps the allergies at bay? While it's not scientifically proven, many consumers swear by eating raw or unprocessed local honey to regularly expose themselves to the area's pollen, building up immunity over time. Raw honey is also packed with antioxidants that may help lower blood pressure, contains traces of vitamins and minerals, can be used as a healthier sugar replacement, suppresses cough, and even promotes burn and wound healing.

If you've ever been interested in where to find your own local raw honey or just want to learn more about what is involved with beekeeping, we discovered there are several Jackson Electric members involved with this process. While we weren't able to identify every beekeeper out there, we were able to learn from three who were referred to us.

Meet the Beekeepers

Each beekeeper has a unique story on how they got involved. For Joe Williams, it was education, Phil Hazard is carrying on a family tradition, and Ed Davis was looking for pollination of his apple trees.

Joe Williams "When my son was in the Scouts in 1994, they were going to do away with the beekeeping merit badge," says Joe Williams of rural Black River Falls. "At that time, we started beekeeping so that he could earn that badge, and I've been doing it ever since." Joe got an early start to beekeeping, which he learned through his involvement in the Boy Scouts.



1. Joe Williams is a longtime beekeeper and enjoys sharing his knowledge with others. 2. Joe removes one of 10 frames in the box. 3. Can you spot the queen? Hint: she's longer than the others.



1. Phil Hazard is a third-generation beekeeper. 2. Phil moved his family's honey production equipment from Columbia County to Jackson County. While the equipment is made for the larger-scale operation they once had, it gets the job done. 3. One of the fun signs at the Hazard property.

He then used that knowledge while serving as a Scout Master for 28 years.

You probably know Joe if you ever visited the Buzz and Brew Shop he had in downtown Black River Falls or from his hive demonstrations at the Jackson County Fair. If you've ever had a chance to talk with Joe about his beekeeping, you'll easily identify how passionate he is about the subject and his eagerness to teach the subject to others. "I taught beekeeping at Western Technical College when they offered adult education courses, and I now help out with the Black River Falls High School's land lab," he says.

Phil Hazard "In 1902 my grandpa got his first bees when he was 12 years old. As an adult he started an apple orchard in Columbia County and began keeping bees to help with pollination," shares Phil Hazard of the Fairchild area. "My dad took over the bees, his brother the apple orchard in the 1970s. In the 1980s he had over 1,000 hives. I then took over the beekeeping and have since moved the equipment here."

Phil has followed in his grandfather's footsteps, planting his own apple orchard and using the bees for pollination, as well as honey production. He has a honey production facility and is considering setting up a honey retail area in his shop. "I like doing it because it's in my heritage," says Phil. "The most fulfilling aspect is extracting the honey and seeing the end result."





1. Ed Davis has observed a noticeable difference in apple production after keeping bees for pollination. 2. Ed's friend built this beekeeping toolbox for easy, quick access to all his equipment. Some items include leather gloves and a smoker to



calm aggressive bees.

Ed Davis "I originally sought out bees because of poor pollination for my apple trees back in the early 1980s," shares Ed Davis of rural Melrose. "There weren't a lot of beekeepers at that time, so I learned on my own. I stopped beekeeping for several years, but I got back into it about 10-12 years ago."

Ed's favorite parts of beekeeping are watching the bees and the honey harvest. Honeybees are the premiere pollinators, and the evidence is found in the apple orchard. "I've noticed a difference in how many apples were produced after taking up beekeeping again," says Ed.

Asked the most fulfilling aspect of beekeeping, Ed says, "Watching the bees come in and out of the hive is an enjoyable hobby. Harvesting honey is a lot of fun, and I get the grandkids involved. It's a relaxing process."

Beekeeping 101

All three beekeepers recommend the first step to getting started in beekeeping is to find a good mentor and network state to state with other beekeepers. How do you locate other beekeepers? Ed says, "Find a bee club or take a class."

There are several varieties of bees that you can order for your hive, all with different characteristics and temperaments. The last two years, Joe has kept the Saskatraz variety, wellsuited for cold temperatures. Phil keeps mostly the Italian species, which are the most common. Bees and equipment can be purchased from online distributors, such as a Californiabased company that Phil works with. "You just have to make sure they have a nice home with enough room, and a water source," says Joe.

The bottom boxes of a hive are called deep or brood boxes. This is where the eggs are laid and the brood is raised. More boxes may be added as the hive grows. The honey is in the boxes at the top. Frames are placed in these boxes to hold the honeycomb. "You need to check on them every week or two to make sure they're filling frames and have enough room," says Ed. "If there's not enough room, they'll swarm."

"If you've ever witnessed a dark cloud of bees that looks like a funnel, you have experienced swarming," adds Joe.

"I compare it to a student who is striving. If they are excelling at the tasks you have given them, give them more work to do, otherwise they get frustrated. In the case of honeybees, you give them more work by adding a box," Phil shares.

To check on the bees, some beekeepers wear the full protective bee suit, while others who are more comfortable will very seldom wear the suit. They may just wear the head veil. "If you're calm, they'll leave you alone," Ed advises. "They don't like dark-colored clothing," he adds.

Three different bees live in the hive: drones, the queen, and workers. The drones are bigger and fatter. The drones only leave the hive for a few hours each day, as their sole function is to fertilize the queen. "Drones don't have stingers, and the workers push them out of the hive before winter," says Joe.

The queen is longer than a worker bee and lays eggs. "A good queen that's laying eggs is key to maintaining a healthy hive," says Ed. "Your queen can live up to five years and lay 1,500 to 2,000 eggs per day. Worker bees only live about 15-35 days," he adds.

Throughout the summer, the worker bees, which are all females, collect pollen to make the honey that is harvested around August through Labor Day. "It takes one worker bee 2,000 flights to make one teaspoon of honey," Joe states.

The worker bees are the only ones that have a stinger. "They don't want to sting you unless they feel threatened. It's their last resort, as they will die once they sting you," says Joe.

"If a honeybee does sting you, their single stinger with a barb will be left in your skin, along with a venomous sac. You must scrape the stinger off to remove it properly," advises Phil.

Generally, late summer is when honey is harvested. Depending on the time frame, your honey may have a different flavor depending on the pollen that was available to the bees at that time. A good honey harvest really depends on the weather, as does any agricultural crop, and the pollen available for the bees to collect. "The ideal would be nice days with rain once a week. Rain washes the nectar out of flowers, so there's not as much production right after a rainy day," Phil suggests.

To start the honey extraction process, the frames are removed from the honey supers. A hot knife or uncapping tool is used to uncap the frames, which is removing a thin layer of beeswax to expose the honey. These caps form when the worker bees dry the honey in the comb down to 15-18%. This is the moisture content needed to produce honey that will never spoil. "This is the wax you can make products out of," says Ed. "My daughter makes soap out of the wax."

After uncapping, the centrifugal force from a stainless-steel spinner tank is used to force the honey out of the comb cells in the frame. Finally, the honey is filtered before bottling. "This is what you call raw honey," says Joe. "Commercial honey is pasteurized so that it doesn't crystallize. The reason behind this is that commercial producers believe that consumers won't want to purchase honey that has crystallized on the shelf."

Unfortunately, there is a misconception that crystallization of honey is bad. It's not bad at all and is a natural process. "All you have to do is warm it up to get it back to honey," says Ed. "When honey is heated over 115 degrees, it loses all the benefits of raw honey."

Once honey production season is over and temperatures begin to drop, it's time to winter over your bees. Once you take the honey off, your bees need food. The bees stay in the hive most of the time, exiting briefly throughout the day. "I feed them

sugar water or a high fructose sweetener over the winter," Phil explains. "They will cluster together, moving around to eat and stay warm."

"You should winterize a brood box for your bees to live in over the winter. By rotating around in their cluster, their bodies will create humidity," adds Ed. "It can actually get very warm in the hive, and it's suggested to tilt your boxes slightly to



The results of bear damage.

prevent rainfall drowning produced from the excess humidity."

When it comes to protecting your hive, additional care techniques include treating your honeybees for diseases and mites during a time when they are not producing honey. "You will also need to protect your hive from bears, one of the greatest threats. Installing an electric fence at a low level should prevent them from getting to your

hive as they will be walking into it on all fours," explains Joe.

While beekeeping is not necessarily profitable unless you have many bees and/or ship your bees out to be used for pollination, all three of these beekeepers continue their work because they enjoy it. "They're fascinating little creatures," Joe, Phil, and Ed unanimously conclude.—*Brandi Shramek*, *Member Relations Advisor*

MIKE ANDERSON MEMORIAL RECIPIENT – JACKSON COUNTY ANIMAL SHELTER

"We're here to serve the animal residents of Jackson County whenever they need help," shares Barb Pfaff of the Jackson County Animal Shelter. "I enjoy being able to be here to serve these animals. They have somewhere to go and someone to care for them."

The Jackson County Animal Shelter was chosen as this year's Mike Anderson Memorial recipient organization. Asked how the funds may be used, Barb says, "I think it would be best to think about what Mike would have liked it used for. There are multiple ways that we can use the funds, all of which benefit the health of the animals."

If you haven't visited the new animal shelter, they are now open to visitors and volunteers on Mondays and Wednesday through Saturday from 1 to 4 p.m. The new facility offers more space, better quality of air, and natural lighting that the old shelter was unable to offer. "We have been able to have up to 80 cats at one time and are still not crowded," Barb says. "The cats are in a healthy and comfortable environment with access to a big window," she adds.



Funds were raised to build a new Jackson County Animal Shelter and the ribbon cutting was held in July 2020. The shelter is located off Hwy. 54, across the street from the Jackson County Health and Human Services building. If you're interested in adopting a pet, call 715.284.0251.

On the canine side of things, the shelter went from space for nine kennels to 22 kennels with indoor and outdoor access, which offers the dogs a much better living condition while waiting for adoption.

The most progressive addition to the shelter is a safe drop room that is open after hours, even in the middle of the night. "If someone is in crisis or finds a

WATER HEATER REMINDERS

As of September 30, 2021, Jackson Electric will no longer be offering after-hours water heater service calls and new and replacement water heater pick-up. Please contact our office the next business day to request service or to pick up your water heater. When you call to request service, please have the serial number of your water heater available so we can determine the warranty status of your unit.

Lifetime water heater warranties for 85- and 100-gallon water heaters are to the original owner only. Warranty qualifications differ with commercial and dairy applications. Please contact our office for more information.



Jackson Electric director Jerry Huber presents the Mike Anderson Memorial to Barb Pfaff of the Jackson County Animal Shelter. This award was announced at Jackson Electric's virtual annual meeting August 24.

stray, the room is always open for them to safely go in and put them in one of the available cages," says Barb. "We're not just a rescue; we're here for you and the animals that need us most."

Additionally, accessibility of the new shelter brought new opportunities to collaborate with the residents of Pine View Care Center through the Pet Squad Program. "On Thursday afternoons the residents can come in, visit with the animals, and choose one to take a picture with to be our featured pet," explains Barb. "Our featured animals are being adopted, even by people several hours away. If we can feature these animals, that's what's going to be the difference in them leaving the shelter and finding their forever home."



Supporting Our Communities

Jackson Electric recently donated \$2,500 to the Melrose Volunteer Fire Department and Melrose First Responders. These funds will assist these organizations in purchasing a Utility Terrain Vehicle which will aid in their emergency services. Jackson Electric utilized its Federated Youth Foundation funds, which come from the cooperative's unclaimed capital credits. Presenting the check to the fire department's representative Ben Rodenberg, middle, is Jackson Electric's Director/President Gary Woods, left, and Carol Blaken, Jackson Electric's member relations manager.

CAPITAL CREDITS ALLOCATION

A notice of your capital credits allocation will be stated on your September billing statement. This notice shows the amount earned and credited to your capital credits account for the year 2020. This is notification of your allocated capital credits amount in the cooperative, not a capital credits retirement check or credit.

Allocation of net margins are set aside into the member's account to be used by the cooperative as operating capital for reliability improvements and maintenance over a period of years. An allocation is made annually based upon the member's patronage from the previous year.

Some members may receive a capital credits retirement check or credit on their billing statement in December. Annually, the board of directors decides the amount and years to retire based on the financial needs of the cooperative.

If you move from our service lines, please inform us of your new address so we can keep you updated on your capital credits account and send any retirement you are eligible to receive.

FIND SAVINGS DURING HEATING MONTHS

It's time to prepare for the cold winter weather. If you're in the market to purchase a new heating system or upgrade your existing system, make sure you do your research on electric heat pumps. Heat pumps, air source and geothermal, are the most reliable, costeffective, and energy efficient way to heat and cool your home.

Heat pumps "move" heat rather than "generate" it; therefore, they provide up to four times more heat energy than the amount of electrical energy they consume. This makes heat pumps a very energy efficient means to heat your home.

Select a Heat Pump That's Right for You

1. Seek out a qualified HVAC contractor to install the unit. Your HVAC contractor will be able to determine the correct sizing of your heat pump. Too large of a heat pump will not cool and dehumidify properly. Too small of a unit will result in higher heating bills.



2. A geothermal heat pump will provide the lowest heating and cooling costs, but it costs more upfront. The payback may be quicker with an air source heat pump. Include Jackson Electric's \$500 per ton rebate on an air source heat pump,

and the price is competitive, if not less, than the price of a fossil fuel furnace and central air conditioning unit. Qualified geothermal heat pumps may also receive a \$500 per ton rebate.

- 3. Compare energy costs with fossil fuels. If you have a 92-percent energy efficient LP furnace, you'd have to purchase LP at \$0.74 a gallon to compete with Jackson Electric's dual fuel rate. LP prices are volatile, whereas electric rates maintain stability.
- 4. Compare the heating efficiency of each unit. Heating efficiency is measured by using Heat Seasonal Performance Factor (HSPF), which indicates how many BTUs of heat are produced per watt of energy consumed. The higher the number, the more efficient the unit. Because our area has more heating days than cooling, the HSPF is more important than the cooling performance (SEER).
- 5. Compare cooling efficiency ratings if you are considering the purchase of a central air conditioning unit. Heat pumps not only heat the house in the winter, but they reverse to cool the home in the summer. The cooling efficiency is measured using the Seasonal Energy Efficiency Ratio (SEER). The higher the SEER rating, the higher the efficiency.

If you have questions about heat pumps, please go to www.jackelec.com/electric-heat-options or contact our office.

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