



Sweet Success Beekeepers Restore Pollinator Habitat

Above: (Left to right) Tim and Diane McDonald maintain bee hives on their 180 acre property.

Tim McDonald, of Blue River, Wisconsin, has been a bee keeper for the past 25 years. He recently restored 48 acres of his property to include natural habitat for bees through the NRCS Environmental Quality Incentives Program (EQIP). Tim and his wife, Diane, have maintained 300-400 colonies of bees, including 250 honey producing colonies and the rest nucleus half-size colonies. These colonies were built up for winter time to use as replacement colonies for over-winter losses. In midsummer when populations peak, Tim has around 60,000 bees in each colony.

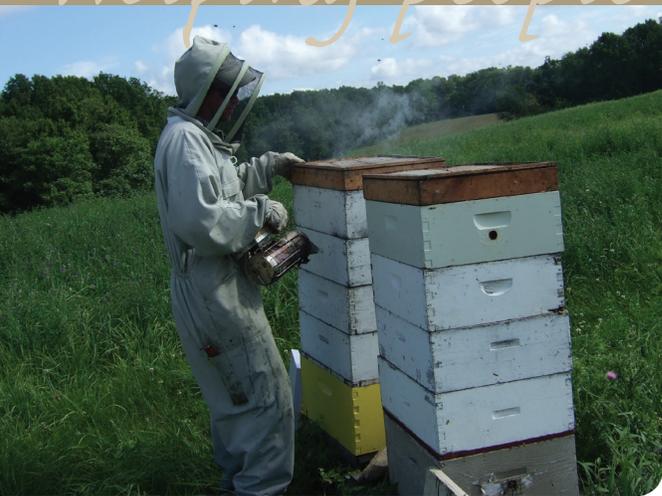
When Tim was a child, he frequently visited a multi-use shop in Pardeeville that also housed a honey facility. The shop at one time managed 1,500 colonies of bees. The owner mentioned Tim should try managing a few bee hives. McDonald went out with the owner to look at some of the bees in the hives and he was intrigued. "We had a smoker going and opened the top of the first hive...that was my introduction to bees and I'll never forget it, it was amazing to see even though we both got stung a couple times." Tim started with three colonies, adding 30 or 40 colonies more over the next few years and ending with hundreds of colonies. "No matter how long you've been doing it, the really neat thing about bees is you learn something new every year." Beekeepers have to stay current with continued education due to challenges in changing environments and invasive species. "Health issues with the bees, including lack of forage area and varroa mites are a prime concern. We're lucky here because things are hilly; it's hard to till here from fence to fence, so some forage stays

for pollinators," said McDonald. "Certain plant varieties and clovers are tough to come by on tilled property and forested areas in Wisconsin. We knew we wanted to help by providing increased pollinator habitat on our property."

From June to September, the Midwest is home to more than 65 percent of commercially managed honey bees in the country. It is a critical time when bees require abundant and diverse forage across broad landscapes to build up hive strength for the winter. "It's a really tough world out there for bees. With the lack of available forage and critical health issues, our society will be facing serious crop production issues in the future. NRCS is making a difference in helping landowners, like Tim, through our pollinator initiative in creating additional habitat that's bee-friendly," said District Conservationist, Carlton Peterson, Richland Center Service Center.

McDonald's bees are kept in over 400 hives across a 75-mile loop in 17 partnering yards during the summer. Tim places around 24 hives in each partnering yard so areas don't get over saturated with bees resulting in a lack of forage. "It's a challenge to find good locations for bees; the habitat where you get different plants blossoming at different times. They need a variety of different food sources," said Tim. In the winter, Tim brings all the bees back to his 180 acre property to overwinter and keep an eye on things. McDonald explains further, "In late winter and early spring, I check to see if the bees are low on food, and have access to them to see how things are going."

Helping people help the land



Tim McDonald works with beehives in protective gear on his farm.

In 2013, through the EQIP Driftless Area Landscape Conservation Initiative, Tim added 15 acres of pollinator habitat and 25 acres of tree and shrub site preparation and plantings for habitat improvement and winter cover. In 2015, through the EQIP Honey Bee Pollinator Initiative, he also interseeded 8.5 acres of white clover into existing forage. EQIP assistance provided to landowners, like McDonald, provide guidance and support to farmers and ranchers to implement conservation practices that provide safe and diverse food sources for honey bees.

NRCS staff provided financial assistance through EQIP and also the technical assistance Tim needed, including, site visits, a planting plan, providing options for obtaining seeds, and completing the final inspection of the plantings. McDonald's bees have also helped pollinate a few area orchards. "The bees would stay on my land until orchards were ready, then we'd take them out for pollination, and after, spread them out to the bee yards for summer," explains Tim.

"To keep them strong means they have to have really good nutrition to stay healthy." Tim found out about the program and talked to his local District Conservationist, Carlton Peterson. "We had nothing before on our land, just a bit of alfalfa; the pollinator habitat plantings are starting to ramp up now, they take time to establish and spread; we're in the third year now; we are seeing a lot of the varying grasses coming up and are excited to start seeing forbs soon," said Tim. "With the pollinator habitat, it's nice because plants are chosen to bloom in early, mid, and late season, so that's really a plus to have forage available during those times."

Honey bees are Tim's true passion and calling. He's great with them, and works non-stop because he loves it. McDonald understands the importance of conservation to keep bees healthy and thriving. He says it's worth a few stings here and there to help pollinate the crops and food we all eat and need. "Bees are my thing, if I can leave something better than

it was when it started; that means a lot to me." Tim and Diane have also extracted, bottled, and labeled honey as part of their successful bee business.

"Specific to this habitat planting, I wanted to experiment with native habitat restoration for years but the seed costs on the plantings, including forbs, are very expensive," explained Tim. "NRCS made it possible to plant native habitat with forbs to help bees in the area. The program worked really well with what we wanted to do and the cost sharing made our goal achievable, so we jumped in." Tim says the working relationship with NRCS was great. "My local DC, Carlton Peterson was very helpful, a really good experience over all; trying conservation practices can be intimidating because it takes a lot of time and effort, but we did it because we really had NRCS we could rely on."



Close-up of a honey bee foraging. All pictures provided courtesy of Tim McDonald.