Natural Beekeeping

Horizontal Hives Support Healthy Pollinators

by JILL HENDERSON

If you have ever dreamed of keeping bees but found the process complicated, expensive, or the potential for losing your investment to disease and pests all too real, then you have never met Dr. Leo Sharashkin. He is a prominent wild bee enthusiast, educator and apiarist who practices an ancient method of catching and keeping wild bees in specially designed horizontal hives.

If you have had the good fortune to meet Sharashkin or to hear him speak to a room full of enthusiastic beekeepers or the crowd that inevitably gathers around his Horizontal Hive booth at growers’ conferences across the country, you already know that his knowledge of bees is boundless and the methods he uses to keep them, truly inspiring. Whether you are a budding beekeeper or an experienced apiarist, you can keep happy and productive bees with less work and money than you ever imagined possible and do so in a sustainable way.

Sharashkin came to the United States from Russia and studied at the University of Missouri-Columbia, where he earned his Ph.D. in agroforestry. He currently lives and works on his rural homestead in the south-central Missouri Ozarks with his wife and four children.

Sharashkin’s interest in sustainable agriculture began as a child growing up in Russia where his family, like many others, raised much of their

Horizontal hives make beekeeping accessible to all. With the bee-gentle natural approach, children are great help at the apiary, without fear of being stung.

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own fruits, vegetables and honey on small plots of land in the countryside known as dachas. As part of his research he completed an agricultural production study showing that gardeners and small farmers produced a whopping 53 percent of food in post-Soviet Russia on these tiny plots of land and did so with less inputs and labor than large commercial farms.

Sharashkin has edited several books including; Keeping Bees With a Smile: A Vision and Practice of Natural Apiculture by his friend and mentor, Fedor Lazutin; Growing Vegetables With a Smile; Growing Fruit With a Smile by Nikolay Kurdyumov; and Keeping Bees in Horizontal Hives: A Complete Guide to Apiculture by Georges de Layens. In addition to giving multiple presentations on natural beekeeping each year, Sharashkin conducts an intensive two-day beekeeping workshop near his home where he runs his business, Horizontal Hive.

The tradition of beekeeping goes back to antiquity. No one really knows how long mankind has been tapping natural sources of wild honey or exactly when the first human thought to keep bees close at hand. Today, the majority of commercial and recreational beekeepers in the United States keep their bees in classic vertical Langstroth hives that consist of a series of square boxes stacked on top of each other. The bottom two boxes in a Langstroth hive are home to the queen bee and her brood. Between this and the next set of boxes, which are known as honey supers, is a thin mesh screen called a bee excluder, which prevents the queen from entering and “fouling” honey stores by laying eggs in those frames.

Sharashkin suggests that Langstroth hives are only good for “migratory commercial beekeepers” because they are relatively lightweight and can be stacked and moved on flatbed trucks across the country where the bees are used to pollinate agricultural fields and orchards. While Langstroth hives allow access to the bees, the apiarist can only open one box at a time from the top down, which creates stress on the bees and requires a lot of heavy lifting by the beekeeper. Sharashkin doesn’t use Langstroth hives and

Sharashkin sums up the advantages of using horizontal hives: “There’s no heavy lifting, making it bee-gentle and beekeeper-gentle at the same time. In a horizontal hive you have access to all of the frames at once, minimizing disturbance, and bees have access to the whole volume of the hive so they can grow at their own pace. With a horizontal hive, it doesn’t require the skill and years of experience to learn exactly when to expand the brood nest, because the bees are doing that for you.”

When I asked Sharashkin a question about his method of keeping bees, he quickly corrected me by saying, “I would like to stress that this is not my method, because the approaches I use are time-tested and have been used by beekeepers for thousands of years, so we are talking about practices that are very ancient.”

Indeed, keeping wild bees is not a new idea, and horizontal hives are not a new invention, but rather, a tidy take on natural bee trees and bee gums that many cultures around the world have used to keep wild bees within easy reach. And like Sharashkin, early apiarists didn’t fool around with their bees much, either – they simply let them do what bees naturally do best. Unless there is something noticeably wrong with a hive, Sharashkin says that he generally only opens his hives once in the spring and again in the fall. Repeatedly disturbing the hive is a major source of stress that weakens the colony and leads to problems such as increased susceptibility to parasites and diseases, and an increase in aggressive behavior.

For many, the most captivating aspect of Sharashkin’s approach to beekeeping is that he relies entirely on catching local swarms of wild bees to populate his hives using catch boxes baited with propolis and lemongrass oil. When asked about the difference between wild bees and those that most people purchase when starting a hive, Sharashkin explains, “The European honeybee is not native to North America, but was brought here by European settlers and became naturalized. There is tremendous variation in the traits in the different races and strains of wild honeybees depending
on where they live. They need to be adapted to the particular conditions of the area, including temperatures in the summer and winter, and even the blooming patterns of the local vegetation, to survive. So instead of having just one honeybee all over its native range, we have populations of honeybees that have their own unique traits and being adapted to the local conditions makes all the difference to their health and survival. Commercial bees are selected and bred for maximum honey production, gentleness and other traits that are beneficial to the beekeeper, but not the bees.”

According to Sharashkin, the problem with purchasing bees from a breeder is multifaceted. If you want to keep bees in Michigan and the bees you purchased came from Texas, they will not be adapted to long, cold winter conditions and may struggle or die without a lot of intervention on your part. On the other hand, feral honeybees are already adapted to your specific local weather conditions, have survived in the wild, are naturally hardy and have already figured out how to deal with pests, diseases and predators. They also have an innate sense of when to go into or break out of winter hibernation, the right time to begin egg-laying and how much honey they need and how to allocate it in order to survive the winter.

He also talked about the stress that bees go through when shipped across the country, saying that this can impact the queen’s overall fertility, which is necessary to build a strong colony as soon as possible.

“Matching the strain of bee to your local conditions is really a question of life and death for your colony. If you are not matching these, then you will have to rectify this mismatch with extra management.”

After hearing Sharashkin talk about the superiority of wild bees, I couldn’t help but wonder how he knew for sure that the bees he catches are really wild and not overbred European bees absconding from a nearby hive.

“When swarms emerge from a hive they usually travel a mile or less to find their new home,” he said. “I control whether I catch really wild swarms or bees from someone else’s hives by not placing my swarm catching boxes within 3 miles of any known apiary.” He went on to say that even if he did catch a swarm of traditionally bred bees that they would still be superior to packaged bees. If that swarm survived and were kept using a natural method, the queen would mate with wild drones and the colony as a whole would slowly transition into a naturalized variety and become “local” over several years’ time. Sharashkin calls bees like this survival stock. Yet, not all producers want what’s best, but rather, they just want more, faster.

“The problem with beekeeping and agriculture at large is that we are too impatient. We don’t want to wait a few seasons for nature to produce a resilient variety, we want it straightaway and many are prepared to pay the price for having less than optimal stock, whether it be animals, bees, or the plants that we put into our farm.” But for the patient beekeeper, catching and keeping wild swarms naturally is not only easier, more humane and healthier for bees, the environment and humans, but ultimately much more successful and rewarding.

When asked how he convinced traditional beekeepers to switch to a more natural method, Sharashkin answered frankly, saying that he doesn’t have time to convince anyone of the superiority of the natural approach he uses because there is such a tremendous interest from those who already want to adopt a more sustainable way.

Dr. Leo Sharashkin’s natural beekeeping seminars attract hundreds of participants from all over the United States and around the world.

PHOTO COURTESY OF DMITRY KABARGIN

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Bees foraging on a wide diversity of local plants stay healthier and produce honey with a rich, complex flavor.
and honey at the same time. So, for those who tend commercially, the best argument is not anything I can say, but just seeing this other method at work.”

The other drawback for big, commercial producers is that natural beekeeping doesn’t produce as much honey. Sharashkin harvests roughly 20 pounds of honey from each hive, leaving the rest for the bees. Although that isn’t enough to satisfy commercial beekeepers, it is more than enough for most recreational or self-sufficient apiarists. Depending on how many hives you have, the excess honey you harvest could be worth a small fortune to those who appreciate real, pure, unadulterated honey harvested from bees raised in a humane and natural way without sugar or chemicals of any kind.

“Increased production comes at the greater expense of management. If a colony is forced to produce the maximum amount of honey possible, it will also be out of balance in terms of pests and parasites. If you grow your colony too big for the sake of maximum honey production then it becomes like a monoculture, which is a breeding ground for all types of pests and diseases. So, by limiting my honey harvest to 20 pounds per hive, I am able to keep it at the natural level where the harvest is not as big of a stress for the colony and where I can obtain this production with minimal management and effort.”

Sharashkin is an enthusiastic and earnest proponent of natural beekeeping. His research, experience and passion for preserving the genetic diversity of local naturalized bees and the environment in which they live is highly contagious — even for non-beekeepers. The honey he produces in his beautiful and functional horizontal hives is of the highest quality and of superb and complex flavor because the bees have complete access to and free-choice of a huge array of flowering native plants throughout their forage range, not just one or two monocrops like clover and alfalfa.

Sharashkin makes keeping bees in a way that closely mimics nature’s designs as easy and realistic as any beekeeper could imagine, only opening his stationary hives two or three times per season at most.

“I open the hive in the spring, making sure the hive is alive and well and add more frames for the bees to store honey in,” he said. “Then, if the colony looks good, I basically do not touch them until October or early November when I pull the frames with honeycomb, extract the honey and put the frames back in the hive. If I see that a colony is not doing well I may open the box in the middle of summer, but this is more of an exception than a rule. I keep telling people that keeping bees is simpler than growing vegetables, because with vegetables you need to plant the seed, water it, mulch it and protect it from pests and deer and so on. It’s a lot of effort on your part. But with honeybees — because they are still a wild animal — you can put them in a hive and leave them alone for the entire season, and if they are worth their salt, they will still be there at the end of the season with some surplus honey to share with you.”

Jill Henderson is an artist, author and organic gardener. She is editor of Show Me Oz (showmeoz.wordpress.com), a weekly blog featuring articles on gardening, seed saving, nature ecology, wild edible and medicinal plants and culinary herbs. She has written three books: The Healing Power of Kitchen Herbs, A Journey of Seasons: A Year in the Ozarks High Country and The Garden Seed Saving Guide.