

# MEMBER SPOTLIGHT

## The Sting

**It's hard to sugarcoat beekeeping, but the hobby does have its benefits.**

Frank Kilzer is vice president of material and facility resources for St. Alexius Medical Center in Bismarck, N.D. It's a big job, encompassing purchasing, printing, central supply, sterile processing, engineering, environmental services, biomedical engineering, safety and emergency preparedness, food and nutrition, security and home care/hospice. He's responsible for hundreds of people. Yet there was a time when Kilzer managed thousands - no, hundreds of thousands - of workers ... and some real prima donnas too.

For about 15 years, starting in 1975, Kilzer was a honeybee keeper. It started out as a hobby he picked up from his father, and ended as a fairly ambitious project, one which found him bottling hundreds of pounds of honey a year and transporting thousands of his bees to California and Oklahoma for the winter. But one spring, when interstate shipments of bees were halted due to a mite infestation, he figured the hobby had outgrown him. So he gave it up. Yet he still has all the hardware and thinks about some day donning his protective suit and stirring up some bees.

Kilzer was raised on a farm about eight miles from Bentley, N.D. He was the second oldest of a family of eight girls and three boys. His father was an inquisitive, hands-on, fix-it type of guy. "He was always making things better," recalls Kilzer. "If he saw something on a piece of farm machinery that worked well on one manufacturer's equipment, he'd buy the parts and put them on his machinery. If he saw a deficiency, he'd work to make it better."

Kilzer attributes his own fix-it, do-it-yourself mentality to his father. For example, when he got into the supply chain, he quickly saw how inefficient it was. After watching a grocer scan shelves with a bar-code reader in the mid-1970s, he decided to implement a similar system at St. Alexius. It took him 10 years of trial and error, but finally, in 1986, St. Alexius built its own bar-coding system rather than buy an existing one.

Kilzer recalls the day that his father decided to order some honeybees out of the Sears, Roebuck catalog. "On warm Sunday afternoons, he'd work on a few honey hives," recalls Kilzer. "We'd get stung, and it hurt, but it was a very interesting hobby. I thought I would do it too some day."

Kilzer received his grade school education in a one-room schoolhouse that was situated on his grandfather's land. Then he attended St. Mary's High School in New England, N.D., about 60 miles from the farm. Upon graduation, he went to Bismarck to attend Bismarck State College. But he wasn't to get his degree until 1992, when he graduated from the University of Mary.

That's because, in February 1968, he got a job as an inventory and distribution clerk at St. Alexius. "My career took off rapidly, so I delayed going back to school," he says. Indeed, work kept him busy. But he did find time to get married and start a family. As the Kilzers' boys got older, he decided to follow through on his childhood thoughts and take up beekeeping. It would get him back to the family farm, and provide an opportunity to spend time with his boys.

### Life in the colony

Bees build their geometrically precise honeycombs on frames inside large wooden boxes. As the colony grows, the beekeeper stacks more boxes on top. The average colony has 60,000 bees. At the center of the hive's activity is the queen bee. According to Kilzer, the queen mates once with a handful of drones, then lays up to 2,000 eggs a day throughout honey season. Worker bees only live from three to five weeks, so she has to work hard to maintain the colony's population.

After a year of hard work, the queen bee may be tired and may not be able to perform her duties as needed. That's when the workers make some big decisions. They feed selected larvae generous portions of what is called royal jelly, a high-protein secretion from their glands. The result is the queen - a sexually mature female. Befitting her status, she is raised in a specially constructed cell, which is sealed with beeswax. When she is ready to emerge, she chews her way out. She may have to kill the existing queen bee in order to establish her reign.

In order to maximize the colony's honey output, the beekeeper usually doesn't wait for the worker bees to install a new queen. Rather, he or she buys a queen from a source, extracts the existing queen from the hive (recognizable because she's a quarter-inch longer than the rest of the bees), then inserts the new queen. She is encased in a little screen cage, which has a sugar gel at one end, which the workers have to eat through in order to reach her. As they do so, they're getting used to the queen, who is emitting a chemical called a pheromone.

### **Extracting honey**

Beekeepers such as Kilzer buy extractors to in effect "spin" honey out of the comb, like a centrifuge. "You'd start this in late summer, when the bees would start to cap the honey," he says. But keepers only extract honey from what is called a honey "super," that is, a box used exclusively for storing honey. The honey super can weigh up to 35 pounds when filled with honey. When the weather turns cold, the bees live off the honey they have produced.

When Kilzer began his hobby, he would keep his hives warm in the cold North Dakota winter by wrapping them in fiberglass insulation. "But it's a big process," he says. "It also becomes a challenge with the warm weather coming and going. You'd have to keep it from getting too hot inside the hive." As the number of his beehives grew, Kilzer sought a different way of dealing with his bees during the winter. He began shipping them to beekeepers in states such as California and Oklahoma, who would use them to pollinate trees and flowers there.

As his hobby grew, however, so did the headaches. One winter, the Sacramento River in California flooded and wiped out many of his hives. Then, the next year, a bee mite (parasite) infestation caused authorities to temporarily halt the transport of bees across state lines. "I ended up with that mite in several hives," he says. "It was a struggle to get the hives back. Put that on top of the growing size of the operation, and I decided maybe it was time to move on." And so, in 1990, he gave up his beekeeping.

### **No regrets**

Kilzer doesn't regret his beekeeping days, and even thinks about getting back into it eventually. The reason is simple: Bees are fascinating.

"Each colony is like a person, with its own temperament," he says. "Some are very docile, some are more aggressive, some are absolutely aggressive." Just as fascinating is the fact that they build their cells with precision in absolute darkness; every one is exactly the same.

"The other thing that's interesting is that they communicate with each other by doing a dance. That's how they tell the rest of the colony where the honey source is. By virtue of how they buzz and shake, they can actually tell not only the direction of the source, but its distance."

Yes, there are occupational hazards associated with beekeeping. "I got stung hundreds and hundreds of times," he says. Beekeepers wear protective gear, smoke the hives, and move the bees at night, when they crawl rather than fly. "But when you handle bees, you're going to get stung."

But he owes a debt of gratitude to bees. Not only did they bring him closer to his sons, but to nature as well. "A great benefit of raising them is the awareness you develop of the environment, and the sensitivity you get toward things that affect the environment. You're aware of the times of year that flowers bloom; the first frost; the impact of rain on the floral season. You really develop a closeness with nature. I enjoyed that."

**Sidebar:****Management lessons learned from bees****By Frank Kilzer**

Honeybees are best known for skills at producing honey and pollinating fruits, nuts and other flowering corps. Yet there is much that we as managers can learn from these small insects.

**Servant leadership**

Watching the queen bee take her cue from worker bees as she lays more than two thousand eggs each day is what servant leadership is all about. If she does not accept the guidance and input of her workers and exert her energies toward meeting their expectations, the colony will not survive. A queen bee is the ultimate servant leader, committed to doing whatever is necessary for her staff so they can succeed.

**Mentorship**

During the nectar-gathering season, the average life expectancy of a honeybee is only six weeks. As a result, they have developed a tremendous mentorship program to train their young in order to assure the survival of the colony. Young bees spend their first three weeks of life inside the beehive learning to feed and nurture young larvae. Through this intensive training effort, the colony is assured of a sufficient and well-trained workforce to gather adequate nectar and be able to sustain itself through long periods when there are no floral sources.

**Teamwork**

With approximately 60,000 honeybees in an active colony, it is essential that they work together toward the common goal of collecting honey, lest they suffer the consequence of mass confusion -- starvation. Even though they are working in total darkness inside the beehive, they work as a team and get the job done.

**Respect**

Each honeybee travels a distance equal to one trip around the globe in order to gather enough nectar to produce one tablespoon of honey. A colony of honeybees working together can produce over 100 pounds of honey during the summer. This is certainly a testament to the value of having a committed and happy work force that works together as a team. It also speaks to the importance of treating your work force fairly and with respect, as the queen does. An important lesson learned from raising honeybees: If you mishandle the worker bees, you will get stung ... literally.