Name: _____ Date: _____

The Hive and the Shelf

Reading level 14 · 1678 words

A beehive and a grocery shelf look unrelated, yet the story of Me & the Bees Lemonade runs through both. The company began in 2009, in Texas, when its founder, Mikaila Ulmer, was four years old. A magazine profile in summer 2025 said she still manages it. This book follows the company from a lemonade stand to a store shelf, and follows the bees that give it its purpose. At each step it asks the same three questions: who counted, what did they count, and when? Each number below carries its date. The answers differ more than any single headline suggests. Along the way come state food rules, a television pitch and the biology of a hive.

The origin is documented in her own words. In 2009, bees stung her twice in one week. "When I was four years old, I got stung by two bees in one week," she said later. She was encouraged to turn that fear into a research project, and she said she learned that bees were dying at an alarming rate. That is a claim about a whole population, and a population is measured by counting. Later screens set her sentence beside counts published by a federal agency and by university teams, because a founder's sentence and a survey are different kinds of evidence. She was four then, and the counts cited here run through 2026.

The product came from an old recipe. Reports say it was her great-grandmother's flaxseed lemonade, from a cookbook of the 1940s, and that Mikaila added honey. She began at youth business events in Texas, including Lemonade Day and the Acton Children's Business Fair, and one report said a local pizza shop and a Whole Foods Market in Texas soon sold it. Notice the order. A tested product came first, and the packaging, the investor and the distributor came later. In 2016, the name changed from BeeSweet Lemonade to Me & the Bees Lemonade, after she asked customers, contacts and classmates for ideas. Each of those later steps is described below with its date.

Selling food is regulated in layers, and each layer answers a different risk. In Texas, the health department said in guidance revised in September 2019 that a booth handling open food or drink for the public generally needs a permit. It also said that children's neighborhood lemonade stands pose minimal risk when hygiene is good, so in the areas it serves, those stands need no permit. A 2019 state law, House Bill 234, bars cities, counties and local health authorities from requiring a license, permit or fee for the occasional sale of lemonade or other nonalcoholic drinks by someone under 18, on private property or in a public park. These are Texas rules, and other states differ. The department's reasoning was about hygiene and risk, not about age alone.

The next layer begins when a product is made to be sold through other businesses. Texas

requires a food manufacturer license for firms that process or package food for public sale, and it names bottling plants for soft drinks and juice. A firm that puts its name and address on a label is responsible for the product, even if another firm makes it. Storing and distributing food to stores falls under wholesale licenses. Under federal law, facilities that make, process, pack or hold food for people in the United States generally register with the Food and Drug Administration, and renew every other year. As of May 2017, a commercial facility near San Antonio made her lemonade.

The health department's guidance for manufacturers also touches bees directly: beekeepers who sell raw honey from their own hives count as farms, and farm-level work is generally exempt from that license. The health department ties the lemonade-stand exception to the type and volume of drinks sold, and to its judgment that no health hazard will result. By this book's reading, the same logic explains the layers. As a product moves farther from the person who made it, and as more buyers depend on it, the state asks more of the business. A neighborhood stand reaches a few households. A bottle that travels through a distributor can reach many stores, and many more people have to trust how it was made.

In March 2015, at ten years old, she pitched on ABC's Shark Tank, a television show on which entrepreneurs ask investors for money in exchange for a share of their company. Reports agree that Daymond John invested $60,000 for a 25 percent stake in her company. The arithmetic of a stake is simple but often misread. One report said the offer also included an East Coast distribution deal. Twenty-five percent means one quarter of the company, not one quarter of its sales. An investor shares in the future value of the whole company, which is a different bargain from a loan. A pitch is a short talk that explains a business and asks for backing.

The shelf deal is easy to date. On March 31, 2016, Time reported that Whole Foods had agreed to sell her lemonade in 55 stores across Arkansas, Texas, Louisiana and Oklahoma. An NBC report a few days earlier named Florida as well. She also announced wider distribution through United Natural Foods, a company that supplies stores. Reports in 2016 and 2017 both say a distribution deal with that company followed. The Whole Foods figure counts stores, not bottles sold. A store count says how many places carry a product, not how much of it sells there. By this book's reading, a distributor matters because it lets a small brand reach many stores through one partner instead of building each relationship alone.

Then the figures that count the company's scale begin to disagree. Beverage Industry reported about 600 retailers in February 2019, and more than 360,000 bottles sold a year. A Texas news report in September 2019 said the company was sold in 40 states and more than 1,500 stores, as H-E-B announced its classic flavor for the checkout counters of all 350 H-E-B stores in Texas. A magazine profile in summer 2025 reported more than 600 stores. The units differ, retailers and stores, and so do the dates. Each report counted something real, but a claim about the size of a business can be compared with another only when both give the

same unit and the same date.

Now the bees. Pollination moves pollen from the male anther of a flower to the female stigma, and it can lead to seeds and fruit. The U.S. Department of Agriculture's research service says honey bees provide pollination for a wide variety of crops and over one-third of U.S. produce. A University of Missouri extension page adds a caution. It says honey bees are important in a typical Missouri garden but that native pollinators play an even more vital role, and that estimates of the honey bee share in a Midwest landscape vary widely, from 5 to 30 percent. The same page adds that, as a single species, honey bees are the most important pollinator.

Inside the hive, work is divided by caste and by age. A University of Delaware page says a colony typically has a queen, workers and drones, that a queen may lay up to 1,500 eggs a day at her peak, and that a colony's efficiency rises up to about 60,000 workers. Another set of lecture notes gives 1,500 to 2,000 eggs and says estimates vary. A University of Florida page says a worker first cleans cells, then nurses larvae up to 100 times a day, and later may become a forager. Missouri's page adds that a wild colony usually has 14,000 to 25,000 members and a domesticated one up to 60,000. It calls honey bees eusocial: they share reproduction, overlap generations and care for the young together.

Honey itself is the product of a drying process. Mississippi State University Extension says nectar can contain up to 80 percent water, that foragers add the enzyme invertase as they swallow it, and that bees fan their wings in the hive to reduce the water. The U.S. Department of Agriculture's voluntary grade standard for extracted honey sets at least 81.4 percent soluble solids for its top two grades, which leaves at most 18.6 percent water. By this book's arithmetic, 100 grams of nectar at 80 percent water holds 20 grams of solids. Those solids make about 25 grams of honey, so roughly three-quarters of the nectar's weight leaves as water. Honey is therefore nectar with most of its water removed, and the bees do the removing.

Now the counts that bear on her 2009 sentence. In June 2025, the department's research service reported that over 60 percent of commercial beekeeping colonies had been lost since the prior summer. It said Varroa mites spread viruses, including deformed wing virus A and B and acute bee paralysis virus, and that viruses are a likely end-stage cause of colony death. The word likely matters, because the agency stopped short of calling the viruses the whole story. It added that its results do not rule out other long-known challenges. A survey of 702 beekeepers, reported in February 2025, gave commercial operations an average loss of 62 percent from June 2024 to February 2025. Auburn University and its partners reported 55.6 percent for 2024-25 and 39.9 percent for April 2025 to April 2026.

These figures do not conflict so much as measure different things: different groups of beekeepers, different months, and managed hives rather than wild bees. A loss rate is not a head count. The U.S. Department of Agriculture counted 2.81 million colonies on January 1,

2026, for operations with five or more colonies, up 6 percent from a year earlier, while beekeepers add new colonies every quarter. So the surveys show heavy losses that beekeepers keep rebuilding, not a simple fall in the number of hives. In 2016, Mikaila Ulmer founded the Healthy Hive Foundation, and by 2019 she had taught more than 100 beekeeping classes. A founder's phrase starts the question; the counts begin to answer it.

Questions

1. What does a 25 percent stake in a company give an investor?

A. A quarter of the sales each day
B. A quarter of the company
C. A quarter of the workers

2. Why do the Texas rules treat a child's lemonade stand differently from a bottling business?

A. A stand carries lower risk and volume
B. Children always pay higher fees to the state
C. Bottles for stores are always made at home

3. Which statement fits the bee-loss figures best?

A. Every hive in the country was lost
B. All the surveys measured only wild bees everywhere
C. They count different groups and dates

4. In the sentence "Work is divided by caste and by age," what does divided mean?

A. Shared out
B. Hidden away
C. Added up

5. In the worked example, about how much of the nectar's weight leaves as water?

A. About one tenth
B. About half
C. About three-quarters

Words to know

pollination: moving pollen
wholesale: selling to stores
distributor: supplier to stores
enzyme: sugar-splitting helper
caste: kind of bee
stake: ownership share

Answer key: The Hive and the Shelf

1. B. A quarter of the company
2. A. A stand carries lower risk and volume
3. C. They count different groups and dates
4. A. Shared out
5. C. About three-quarters