



GROWING FROM A HOBBYIST TO A COMMERCIAL BEEKEEPER ISAAC BARNES' 12-YEAR JOURNEY

Jayne, Isaac, and their two younger children, (the others are in school.) standing near their honey house with new addition to hold larger extracting equipment in the background.

by MARY and BILL WEAVER

Photos Courtesy of Isaac Barnes and Bill Weaver

Starting with the gift of one hive and building up to over 600 hives has been a 12-year journey “with lots of twists and turns” for Isaac Barnes of Williamsport, Ohio. But today, with the help of his wife, Jayne, they are supporting their family of four young children solely on the income they produce from beekeeping, pollination, and the sale of honey, handcrafted beeswax soap, candles, and pollen.

Barnes' first hive was a kit from Jayne. "We weren't married yet. She gave it to me in 2003 for a Christmas present. Soon I had two hives. I was working as a golf course turf manager while Jayne was working on her Master's degree in Missoula, Montana. I kept my two hives on the golf course."

The next "twist and turn" came when Isaac put a 'Looking for work' ad in the *American Bee Journal*. It was answered from the "late great" Wayne Morris who needed beekeeping help. Morris had about 5,000 hives in the Bitterroot Valley. "I remember I was on the golf course when

he called. He asked, 'What's your experience?' I answered confidently, 'Well, I'm up to 5 hives now.'

"He must have been desperate. He had just three full-time workers and several part-timers. I put in a year in commercial bees, working 40 to 50-hour weeks on average. During the first two months the crew was pulling honey. My job was to scrape lids. Now I wish I could go back and do it over again, seeing more details, taking mental notes. Too often I didn't look much beyond those darn lids I was scraping."

In October that year Morris moved the bees to the beautiful high desert valley

around Bishop, California into rabbit brush. After that it was a move to the "warm, avocado-laden hillsides" of Ventura in southern California. In February, Isaac helped to move about 3500 hives into almonds.

It was a hectic, exhausting life, but, "That year of working in commercial beekeeping was the first step for me in imagining myself in the beekeeping business."

When Jayne finished her Master's degree, she and Isaac moved back to Ohio, near his family's farm. "While she did social work, I was back working on the golf course for 2 years, substitute teaching during the winter. Meanwhile, my heart was with my bees. I



(l) Isaac's hives on buckwheat he planted for his bees. (r) Isaac with Mason and Maizie in beeyard. The children show no fear.





(l) Taking off late summer honey crop with helper Seth Brumfield (in full suit.) (r) Isaac blows remaining bees out of honey super using leaf blower.

was spending all my spare time working with my bees and building more bee equipment in our garage, which I had immediately converted into my ‘shop.’”

In 2008, Isaac got his teaching certificate. He found a teaching job just down the road. “In my spare time, I kept adding more and more hives, and we found incredibly good markets for our honey,” selling at several peripheral farmers markets around Columbus, Ohio, only 35 miles away. “The bees were paying for themselves with enough left over to keep building hive numbers.”

In another stroke of good fortune, a new bee club started in Circleville, only 10 miles from their home—The Scioto Valley Beekeepers. There Isaac met a mentor, Jim North. Jim had been keeping bees for 40 years and currently has about 500 hives.

Isaac noted, “Nobody here was doing what I had seen in Montana. There, they sold honey for 90 cents a pound in barrels.

At the farmers markets near Columbus, we could sell local raw honey bottled for, at that time, \$6 a pound.

“Selling bottled honey for full retail price is one good way a first-generation beekeeper can make enough money to expand hive numbers,” explained Isaac. “Many beekeepers have the farmer’s mentality of not wanting to mess with customers and set retail prices. It can be a lot of trouble to figure out labels. But the difference in price for the exact same honey is worth it. That profit can make it possible to build a serious beekeeping business from scratch.”

“By 2009, I was close to 100 hives.” Isaac kept pouring money into bees and equipment, and devoting weekends and summers to his outgrown “hobby.” Soon he had more honey than he could sell just at the farmers markets. Whole Foods approached the Barnes’, and they worked out a wholesale price for local, raw, bottled honey, giving considerable real estate on



their store shelves. “Selling direct to grocery stores was still better money than selling honey by the bucket.”

Isaac’s dream of having a full-time beekeeping business of his own was growing brighter. “With checks coming in from Whole Foods, I began to think, ‘Maybe this really can work.’”

“By 2011, our income from bees equaled my income from teaching. I enjoyed some aspects of teaching, but did not enjoy trying to force information down the throats of kids who didn’t want to learn. Jayne had quit social work, and we were expecting our third baby. By the end of 2011, we were probably netting 25,000 to \$30,000 on bees, and we decided to go 100% with bees, bottled honey, handcrafted beeswax soap, and other products from the hive.”

It was a risk that paid off. “A lot of doors opened to get us to where we could go full-time with the bees.” Isaac just crested 500 hives the summer of 2015, still selling all his honey bottled, with sales now including more grocery stores, and Jayne’s handcrafted beeswax soap business was going gangbusters.

“We had met a beekeeper from northern Ohio who extracted and sold his seasonal honey separately. That gave us the idea to sell our spring honey separately, which made it possible to make an extra dollar a pound, \$8 for spring honey at the markets. This honey was gorgeous, light and delicate and made from the bloom of black locust and honeysuckle. Most years we didn’t get a lot of spring honey because we were making splits. Our labeled Spring Honey sold out quickly. Having our honey from each season separated also gave our customers more choices.”

Fortunately, in 2015, the bees gathered a bonanza of nearly 9,000 pounds of spring honey, much of it black locust. “It’s just a matter of weather and having the bees built up. We had two weeks of near 80 degree temperatures with good flying weather. We had a great May.”

Isaac was so busy, he reported in their blog, “I’m seeing bees in my sleep, by day and by night. I live in a haze of honey. Central Ohio has turned into a bee buffet.”



Seth Brumfield working at end of gleaming refurbished extracting line in new addition.



Part of larger extracting line installed in August 2015, with wax spinner

Honey crops have varied widely for the Barnes family, depending on the weather and their success with overwintering. An average yield would be 50 to 60 pounds per hive. "2010 was a great year for us. We averaged over 100 pounds per hive. In 2012, we averaged 80 pounds per hive. We thought, 'Hey, maybe we can make a go of this.'"

Then disaster struck. "In 2013, we had terrible honey production and later, the worst winter survival we've ever had—30%. It was a real eye-opener. Even though we pulled off every drop of honey that we could, and fed like crazy, we only averaged 27 pounds per hive. It was partly Jayne's hard work in developing her soap business that pulled us through."

"\$7 a Pound Times Zero Pounds Still Equals Zero"

Following the best spring honey crop ever, the summer of 2015 brought its own taste of misfortune. The hives were strong



Isaac working while Maizie, all suited up, takes a break.

and full of bees ready, willing, and eager to forage. But it rained almost constantly through the summer nectar flow.

"What we really needed was the sheer volume of the soybean flow, but it never really got started. For good honey production in Ohio, and for soybean honey production specifically, the best weather is dry and hot." That summer of 2015, with all the rain, the Barnes' summer honey production was nil. As Isaac put it dryly, "Zero pounds times \$7 a pound still equals zero."

Their situation was very serious, but Isaac and Jayne could still joke about it in their blogs. In one blog they reported, "We have Lake Honeyrun in the driveway, and the Great River Honeyrunssissippi running through our back yard.

Thank goodness for the excellent spring honey crop that year. "It was beautiful. Light, translucent, and delicate in flavor. I usually store my spring honey in buckets, because there isn't enough of it for barrels, but I'm rethinking that," Isaac said at the time.

Planting Buckwheat for the Bees

Old-timers may remember dark, strong-flavored buckwheat honey as the pariah of honeys in some locations where consumers are not familiar with it, bringing low prices. Not so with the Barnes' farmers market customers. The buckwheat honey Isaac produces is a sought-after varietal and brings a premium price of \$8 a pound.

The first year Isaac rented 20 acres of land on his Brother's farm to plant buckwheat. The 700 pound crop he produced helped to pay for some packages he needed to buy at the last minute. The packages likely would have produced no honey, had it not been for the buckwheat. In his blog, Isaac called them his "buckwheat babies." The packages, purchased from Gardners in Georgia when a nuc order he'd placed earlier was delayed, built up on the first buckwheat bloom and obligingly produced the valuable 700 pound crop on the second bloom. (Buckwheat plants have a quick turnaround from flowering to reseeding themselves to flowering again.)

The next year he took 31 hives to an Amish area to feast on buckwheat, where they produced a 900 pound crop of honey. This year Isaac is again renting land to plant buckwheat, but is planting earlier. "I figured if I got the seed planted by April 20, I might be able to get 3 flowerings," he explained, although the plowing and planting did consume a whole day of his time in the midst of split-making season. But if he succeeds in getting three successive flowerings, his time in a busy season will have been amply repaid.

Pollinating Apples and Pumpkins in Ohio

Isaac is fortunate to have two large Ohio orchards for pollination customers. "I like pollinating apples better than pumpkins," he stated. "I move 150 to 200 hives into apples. I can bring the hives back in ten



Mason and Maizie putting new frames in supers.

days, and most years I can plop them in another location and still make locust honey. In some of my yards, when the bees come out of apples, they're near autumn olive in full bloom.

"The bees seem to flourish on apple pollination," he continued.

"I've had some problems with sprays and stresses, but for the most part, the bees don't miss a beat. They almost always gain weight no matter what the weather does. In years when pollination time is clear and calm, the bees can even make a few frames of apple honey."

After spring pollination, it is time-consuming to check the brood and spread the hives around in the honey production yards. Isaac now makes up nucs for pollinating pumpkin and vine crops. "I make up 30-50 nucs in time to build up before pumpkin pollination starts in late July. They are much easier to move at that time of year



Isaac with settling tank emptying first honey extracted on larger equipment into barrels.



Mason, Maizie, and Bridger with old supers to be fixed up

than full-sized hives with a honey crop. I throw brood together and notch in a queen cell, and let the bees raise their own queens. Each nuc had a new queen laying like crazy by the end of June. They made honey last fall and had close to 100% survival through the winter, even after the chemical stress of pumpkins. And they were some of the first that needed to be split in the spring. I think summer splits are the way to go.” Isaac moves a total of about 100 hives into pumpkins, both the June nuks and the full-sized hives freshly stripped of honey supers.

“I upped the price of pumpkin pollination to \$110 per hive. It’s high, but the bees have to be there for a long time, and don’t make honey. In fact, my hives on pumpkins sometimes need to be fed.”

“Last year we had some bees on pumpkins about an hour south, in the more



Finishing cuts on cut comb honey with knife. Excess honey drains through holes in stainless steel.

woodsy area of Ohio, surrounded by hay fields. There’s never any honey flow in that area. I checked them, and they were light as a feather, even though they were full of bees and all had new queens. They were definitely candidates for summer starving. I drove down and gave them all syrup and pollen patties.”

Success with Bait Hives

In 2012, Isaac made gains in hive numbers when, after hearing pointers by Club President Dan Williams on using bait hives, he decided to put out 30 of them.

“I used old busted, out-of-commission deep boxes.” (Because the internal cavity size matters to scout bees looking for a home, an old super is generally too small to be attractive to them.) “I put in a couple of old frames and a lemongrass lure. Dan also suggested ‘painting the tops of the frames’ with a couple of old, squashed queen bees in alcohol. The theory is that after the alcohol evaporates, the queen pheromone remains,” explained Isaac.

The height at which bait hives are placed also matters to scout bees. It’s best not to place them low to the ground. Isaac’s photos showed his bait hives securely attached to the tops of sturdy wooden fence posts, or within reach in trees.

“Two days after setting out the bait hives, I checked ten of them. Four of the ten had swarms, and there appeared to be considerable bee interest in the others (scout bees?) Either that was a super-good swarm season, or Dan Williams was on to something.” By the end of July, Isaac had caught 30 swarms, a fun project.

Comb Honey- A Valuable Product!

Comb honey has been a great “value-added” product for the Barnes family. There is never enough comb/chunk honey to meet the demand at their farmers markets, and prices are good. “The grocery stores sell cut-comb honey for \$15 a square. We sell it for \$10, and customers don’t blink. They snap it up. Some years we’re sold out by Christmas.”

Parts of comb honey frames that aren’t completely capped also make a value-added product that is in high demand, chunk honey. Even the very small pieces can be sold as chunk honey in their two-ounce jars with dressy gold lids, which are the perfect size for souvenirs, samples, and gifts.

All their comb honey is stored in two large freezers immediately after it’s cut and boxed. Even what is sold immediately is first frozen, to kill any wax moth eggs or tiny larvae that could be lurking in the comb, waiting for their chance to destroy the pristine product. Sometimes excess comb honey is stored in Isaac’s sister Becky’s big walk-in produce cooler. The cold temperatures will keep wax moth eggs and larvae from developing until there is room in the freezers.

“You need strong bees and a strong, extended honey flow to draw out and fill supers of comb honey,” noted Isaac. He also sells



Employee Seth Brumfield cuts squares of cut comb honey to size with square cutter.

Ross Rounds, a round comb honey pack. “They are a pain to produce, but as you can see, the end product is beautiful. (See photo.) The bees seem to avoid working in the supers containing the round sections like the plague. You just about have to find a hive on the verge of swarming to really force the bees up into the super. There’s something they don’t like about that small, round space with the thin sheet of wax foundation. A decent nectar flow definitely helps.”

Honey House Too Small to Accommodate Growth

As Isaac’s operation grew, the existing honey house and extracting system were way too small to accommodate the volume of honey coming through.

Isaac carefully planned the addition to the honey house and shopped for larger, more efficient extracting equipment far ahead of time. He poured the foundation for the large extracting room addition in Thanksgiving 2014, with the help of friend and neighbor Mike. “I needed someone who could finish the concrete pad when it was poured. He’s worked with concrete forever- a real artist. Mike is also an electrician and carpenter, and Isaac has had a lot of framing experience. Together they finished the addition, using red siding that matched the rest of the honey house.

Isaac also found a Cowen 60-frame, in-line extracting system for $\frac{1}{4}$ the price of new. “The frames move on a chain, then get pushed into the extractor while the uncapper continues to run. It’s almost the same extracting system we used when I worked for Wayne Morris in Montana. It’s too big for us, but we needed to improve on what we had. After the new addition was finished, it seemed cavernous with our former 33-frame extractor that had to be loaded, frame by frame, by hand.”

The arrangement with the seller of the extracting system, a migratory beekeeper whose bees spent their summers on the South Dakota sweet clover honey flow, was that Isaac would pick up the extractor in early spring. But the best plans can go awry. "The extractor didn't arrive in South Dakota until July, and I didn't get it set up until August, pushing back our summer extracting schedule."

But the system is just what Isaac needed, and with the cappings spinner, fits perfectly in the new honey house addition. With the cappings spinner, the formerly heat-darkened cappings honey, which Isaac used to sell for a low price as baker's honey, is now spun out unheated, and retains its full quality and value.

Yes, at $\frac{1}{4}$ the price of new, the system did need some work. "I ordered 2 motors and had to replace many bearings and some other parts." But when we visited August 27, 2015, the system was up and running, and Isaac was ready to pull some of their summer honey and start doing trial runs to make sure everything was working properly.

The uncapper is the present bottleneck and will be the next upgrade. Isaac uses a "Handyman" uncapper from Cowen. "The uncapping knives are run by a motor, but the frames are placed in the uncapper by hand," Isaac commented, "and then cranked down into the machine."

An employee, Lafe Blair, puts in 8 to 10 hour days extracting, for weeks on end, while Isaac pulls honey in the bee yards. "Lafe is one in a million," said Isaac. "He also helps with the bees and does a lot of bottling and labeling."

Selling pollen

As Isaac writes in a blog September 2014, "Goldenrod came on in golden brilliance, and I became very much a recluse in the bee yards putting pollen traps on 70 hives, collecting pollen and checking on some 400 hives." A month later the traps



Part of cut-comb and chunk honey harvest.

came off. The strong bees pulled in a freezer full of beautiful goldenrod and aster pollen. Whole Foods has agreed to carry pollen along with their honey.

Oldest son Mason, 8, sometimes helps to empty the pollen traps, and Maizie (6) and 4-year-old Bridger help to spread the pollen so it dries evenly on the large mesh sheets Isaac has set up, with a small fan under the lower shelf to keep air circulating around the pollen. "Maizie is a born manager," chuckled Isaac. "She'll say, 'Bridger, this is the way you need to put on your hair net before you work.'"

The 2014 Great Honey House Fire

In November of 2014, Isaac had just turned 39 and had run "another" marathon. (He has run in more than 35 marathons, and placed first in two.) "He's a happy runner," said Jayne. The bee business was building nicely, the hives were ready for winter, and their crop of honey and wax

was safely stored in the honey house. Things were looking good, until the Great Honey House Fire, which could have destroyed everything they had worked so hard for.

"We had a stove at the entrance to the honey house, where we sometimes set things like crates when we came back from market." A crate must have bumped a knob on the stove just before Jayne took tired baby Eden to the house for a nap.

"She returned 30 minutes later, to find the honey house full of smoke, with water rushing down from the ceiling. In a strange quirk of fate, a water pipe on the ceiling had burst, and the water had already put out the fire!"

Nevertheless, 8 firemen on two large fire trucks and several family members quickly arrived to see if their help was needed.

"We could have lost the entire honey house, the year's supply of honey, our infrastructure, beeswax, soap, pollen and bottled



Isaac with jars of cleaned pollen in honey house.



Grocery stores have given considerable "real estate" on shelves to Honeyrun Honey.



(l) Seasonal honey extracted separately, with 3 different colored lids, gives customers a choice. (r) Labeled Ross Rounds.

honey," marvels Isaac. "We had insurance, but hadn't covered nearly what the contents of the honey house were worth at that time of year."

Fortunately, to save time during construction, Isaac had taken the dubious short-cut of running the water pipes up the room side of the wall, instead of enclosing them inside the walls. The fire had apparently moved up the wall, causing the water pipe running along the ceiling just over the main fire to burst. "You couldn't have invented this story!"

"We were so lucky," exclaimed Isaac and Jayne. "Thank you, Lord."

By December 10, everything had been cleaned up. A new wall, window, and water lines were in place. The stove was no longer at the door as a convenient plopping place for crates when they returned from market. It had been replaced by Isaac's old teaching podium, a large stump.

The Barnes family was still in business!

Mites: to Treat or Not to Treat?

"For the first 2 or 3 years that I kept bees in Ohio, even though I had seen the mite treatments used in the Montana operation, I didn't treat. I just lost bees," recalls Isaac. "I guess I was kind of against treatment, like a lot of hobbyists. I wanted to be chemical free, and I thought during those years that mite problems could be fixed, if you had less than 100 hives and had the time, by splitting hives and breaking the brood cycle.

"It was not obvious to me until I began doing alcohol washes on a regular basis that the mites were building up enough to kill my hives. (I've since read that sugar shakes don't give as clear a picture of mite numbers as alcohol washes.)"

"Then I could see the problem. I had learned the hard way. Now, if I do alcohol washes and see the mites are really coming on in July or early August, I plan to have all the hives treated with MiteAway Quick Strips® before the end of August. I use two strips in August and one in June. I cross my fingers that temperatures won't be above 90 degrees and kill queens or below 70, making the acid less volatile."

"My hives are generally broodless in mid-December, and I now use oxalic acid at that time. I spray the seams, using Randy Oliver's percentages, and it leaves the hives more or less mite-free."

Isaac is clearly doing something right. This past spring, he found he had a less than 10% hive loss.

I left my wife for Ed Eisele"

That's how one of Isaac's blogs began in 2015. (Isaac took a creative writing minor in college, and his and Jayne's blogs make fun reading at www.honeyrunfarm.com). Ed was selling a forklift in Michigan, and Isaac traveled from Ohio to pick it up, stopping at the Albion Dadant branch along the way to load up on pollen patties.

Now that he has a beeyard forklift, hauled on a trailer behind his bee truck to move bees or pick up honey, life has become less exhausting.

Isaac was captivated by Eisele's huge new honey house and by Eisele as a person. Isaac makes a point of learning as much as he can from experienced beekeepers when the opportunity arises. He also follows Randy Oliver's "Scientific Beekeeping" column in the *American Bee Journal* closely.

In addition, he has become a part of a Facebook page for commercial beekeepers. "There are quite a few big beekeepers who contribute to the page. I've learned a lot."

Dreams for the Future

Although Isaac is very contented with his current life, working with Jayne to raise, teach, and all-around enjoy their four bright, energetic small children, for the distant future, the Siren Song of commercial beekeeping still beckons.

Though necessary, coordinating the bottling and delivery of their honey can get tedious for Isaac. For now, building hive numbers requires earning a retail price on the honey and spending time away from the bees. Someday he'd rather put his full attention on simply beekeeping, and let the hard work of selling honey "be someone else's headache."

Fortunately, wife Jayne is a natural "people person," who is quite content spending much of her days dealing with customers and orders and the flexible scheduling requests of their employees.

"I would rather sell all our honey by the bucket in large lots, and spend my time in the bee yard producing larger honey crops, while also earning money doing migratory pollination." Those high pollination fees in California almonds are quite enticing, and he would enjoy spending part of his year as a migratory pollinator... someday.

As for now, as their blogs state, "We wake up every day to do a job we love. We feel fortunate to be able to raise our children in the Ohio countryside near extended family." It has worked out well for Isaac and Jayne that beekeeping, "which began as a simple hobby, quickly turned into much more...first a serious obsession, then a sideline occupation, and now a full-time job and a way of life."

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