



THE **carrot**  
PROJECT

TURNER HILL  
MALTING CO.

## CLIENT UPDATE

### BUSINESS DETAILS

**Turner Hill Malting Co.**  
**South Egremont, MA**

Darrell Turner  
Microloan Recipient, 2016

### FARM SNAPSHOT

Turner Hill Malting Company is one of only two malting houses in Massachusetts supplying local breweries with malted barley. Farmer/Engineer Darrell Turner contracts directly with owners of two local brew houses who've long sought a local source of this primary ingredient for their recipes, now produced in small batches in Darrell's new facility in Egremont, MA.

### INNOVATION

Darrell Turner's background in mechanical engineering gives him faith that "there is a solution to every problem. 'Can't' isn't a word in my dictionary. If I come up with an idea, there isn't any way it 'can't' be done." He retrofitted the assets of his family's mid-size dairy farm, reimagining the operation to ensure its future, meanwhile capitalizing on local demand for farm-to-mug beverages to found his own company, Turner Hill Malting Co.

## LOAN HISTORY

Darrell grew up helping his family manage one of the last remaining operating mid-sized dairy farms in Massachusetts—Turner Farms, Inc., in Egremont, MA. The farm was started by Darrell's great grandfather and has been in business for more than 100 years. After a decade off the farm to get his degree in mechanical engineering, Darrell rejoined his father and uncle to care for their 130 head herd and work their 600 acres on "Turner Hill"—the affectionate local nickname for the farm with stunning views of the Berkshire Hills. "We Turners love our machines," Darrell says—and now they've

leveraged that love into a new incarnation of the farm, in which Darrell is now a full partner: Turner Farms is now into their sixth season doing custom fieldwork for area dairy farms, a niche that has given the farm a new foothold in long-term sustainability. They've also introduced milking robots in their own operation, leaving Darrell with more time to work on his malting.

Back in 2015, Darrell was having a beer and chatting with the bar owner of a local brewery. The brewer was passionate about local ingredients but couldn't find a source for the principal ingredient in beer, malted barley. Most of the malted barley was coming from huge malt houses in the

mid-west U.S. or Canada. This sparked a brainstorm for Darrell—and after visiting several more local brew masters who cited the same issue, he decided to build a local malt house.

Darrell needed to come up with the capital to design and build a 15' x 15' small-capacity malt house. His proposed facility would be capable of producing his test-batches of malted barley and then ramping up to four small batches a month. Without much credit history, Darrell didn't think he'd have good luck at a bank, but his proposal was well received at The Carrot Project, who, in 2017, approved a micro-loan for Darrell's project.

## OVERVIEW OF OUTCOMES

### Farm to mug: Batch by batch, Darrell helps local brewers produce a more local beer.

With the Carrot Project loan, Darrell designed and built his prototype malt house, a two-vessel, mostly-automated system that first soaked the raw barley until sprouting, then dried the grain. Darrell then cleaned the malted barley with an 1890s seed cleaner he modified for his purposes. In 2020, based on the success of the prototype, and backed by strong demand for locally malted barley, Darrell secured funding from Berkshire Agricultural Ventures to build a 20 x 30 building, outfitted with equipment all of his own creation. The new building tripled the size of his operation, and now that he can produce bigger batches, he can begin to truly meet demand.

Big Elm Brewery, located in nearby Sheffield, MA—one of Darrell's original clients—is now able to get enough barley from Turner Malting to devote one beer, called “the 413” entirely to his product (413 is the area code in Western MA). Darrell's product is also used in the Shire Brew House's “Townie Lager.”

Most recently, Darrell has expanded into specialty malting—he recently finished building a roaster for the grain. The roasting process creates a specialty malt that enhances the flavor and color of beer. This specialty malt, he says, is what the brewers are extremely keen to source locally, even more-so than the base malt.

Darrell sources the raw barley that he malts from a farm in Maine, where the drier climate is more conducive to growing the grain than the wetter weather of the Berkshires. The barley is harvested in late summer, and Darrell receives his annual twelve-ton delivery in early autumn. He stores the raw barley in a grain silo, where it keeps year-round, and malts or roasts two batches a month.

While his malt house is still only one of two in the state, Darrell isn't alone in his interest in increasing the use of local grain ingredients in beverages and bread. He is a member of the newly formed Northeast Grainshed Alliance (NGA), founded three years ago by brewers, bakers, grain growers, and maltsters, to promote use of local grain by creating consumer excitement, awareness, and demand. To that end, NGA offers a local grain brand, all members sign a statement committing themselves to using and producing as much local grain as possible, and, per their website, the NGA encourages peer-to-peer education to help create “a second wave of craft beverage and bread producers.”

Darrell notes that when he was designing his malt house, he had to learn primarily by trial and error. He says that while there is a lot to read about malting barley on a large, industrial scale, there hasn't been much written to date to guide a small-scale operation. To help future small-scale maltsters, he has been documenting his process, so that going forward, there will be a blueprint for small-batch malting. Darrell also held an open house in April of 2022 for the NGA, with the idea that other prospective maltsters and members of the general public could see how malting is done on a small scale.

## ON THE HORIZON

In the coming years, Darrell plans to keep building steadily on his success to date, so that he can continue to boost production and increase his sales base accordingly. “There could be so much more beer that is not only brewed locally but made of local ingredients,” he says, stressing that what he's been able to produce to date, “hardly puts a dent” in brewers' demand for a local malt.

Someday, Darrell would like to experiment with growing raw barley on his family's land. In general, the tendency towards wet weather in the Northeast makes this climate not ideal for growing barley. However, Darrell has been following the developments at Cornell University and Hartwick College, where botanists have been conducting research and field trials to breed a barley variety tailored to the Northeast. If and when that variety became available, Darrell would scout out a well-drained location with lots of air circulation among his family's 600 acres and do some tests. If this could be successful, not only would it shrink Darrell's costs and his carbon footprint for shipping grain, it would also fit into Turner Farms' current crop rotation plan (barley likes to follow soybeans, just like corn), and it could provide another income stream towards the dairy farm's long-term sustainability.

“Being able to get more local products into any of the beers would be win-win,” Darrell says. Meanwhile, he wants to help make the link for people that, “it takes four square feet of land to produce the grain for every pint of beer you drink—and 18 for a loaf of bread!”—so imagine how many square feet of local farmland you could support by eating and drinking products made with local grain.