Growing Against the Grain
It's a risky business, but could yield an oatstanding harvest

When Shea-Lynn Ramthun took over the family business five years ago, she knew something had to change. It was up to her to shake things up. So she launched a new side business, and joined the mafia.

Sure, it was a risk, but she wasn't afraid to get her hands dirty. She took money from her nest egg to buy into the new business, and finally, beginning next year, she plans to reap the rewards.

This week I met Ramthun, who doesn't hide her underground connections. "I'm a proud member of the Oat Mafia," the sixth generation Minnesota farmer told me.

Together, with 200 other Minnesota and Iowa farmers, she's working to improve soil health, diversify crops, and shore up water quality. All of this could be achieved if they succeed in creating a new market supply chain for food-grade oats. But it's a grinding process.

Sowing Her Oats

Ramthun's dad had been cash-renting the family operation, known as Flying J Farm, as he pursued his career as a pilot. When he said he wanted to sell it, Shea-Lynn decided to move back and take over the family farm near Cannon Falls.

She set to work, switching to no-till, adding cover crops, and diversifying the 250-acre operation. She also found work as a soil health organizer for the Land Stewardship Project (LSP), a private, nonprofit founded in 1982 to foster land stewardship, and promote sustainable agriculture within a community.

At a LSP farmer-to-farmer meeting in 2022, she heard Minnesota corn and soybean farmer Martin Larsen tell how he had begun growing food--grade oats in 2018, delivering them to a small miller across the state line in Iowa. In 2022, he and a dozen other farmers secured a contract through a pilot program with Oatly, a Swedish maker of milk alternatives.

"Grandpa always had some acres in oats, and a small herd of beef cattle," she said. "The oats were primarily fed to our horses and weaned calves, but Grandpa always said they were good for the soil."

Ramthun was sold. She added food grade oats to her crop rotation.

How Oats Lost Their Edge

The Upper Midwest, Minnesota, Wisconsin, the Dakotas, and parts of Iowa, once was a traditional oat-growing territory. Oats were the go-to crop to break up the corn monoculture, disrupt the weed cycle, and reduce soil erosion. Beginning in the 1950s, herbicides became a game-changer for getting rid of weeds. Soybeans rapidly made inroads after World War II, and became part of a three-way crop rotation. But as export demand grew in the 1970s, farmers began shifting from raising livestock to the more lucrative cash grain combo of corn and soybeans, reducing their physical labor. Government price supports also provided an incentive.

In 1988, the North American Free Trade Agreement (NAFTA) was passed, and our neighbor to the north, Canada could export more of its oats here. In 1989, the Canadian Wheat Board surrendered control to the free market. Oats are a cool-season crop, and Canada was well-suited to expand. Oats became a niche-crop in the U.S.

Consumer Market Expands

Before long, the U.S. became the largest oat importer in the world. Quaker Oats, a subsidiary of PepsiCo, which operates the world's largest cereal plant in Cedar Rapids, and General Mills, based in the Twin Cities, turned to Canada in the 1980s to secure their supply of food-grade oats. Today a total of 95% of the oats Americans consume are grown in Canada.

In recent years, however, the market for food-grade oats began expanding beyond oatmeal cereal and granola. By 2021, oat milk sales soared to $350 million. The demand for gluten-free products pushed sales of oat flour.

Food-grade oats require higher standards for purity and density than oats fed to livestock. "We kept hearing row crop farmers complain we can't grow high-quality oats like Canada," Ramthun says. The average was about 34 pounds, but 38 pounds per bushel is the minimum threshold for food-grade oats. Comparatively few research dollars have flowed to oats. Oats don't require hybrid seeds, or as much fertilizer, to grow.

But recently the University of Minnesota developed a new oat variety called MN-Amber. After many on-farm trials, it achieved better yields, heavier test weights, and more grain protein. It's no longer your grandpa's oats.

Ramthun said she has increased the yield on her 60 acres of oats to 38-39 pounds and raised the test weight to 38.

A small mill in St. Ansgar would continue to buy their food-grade oats, but there was less competitive pricing. It also grinds wheat and barley, so oats can't be 100% guaranteed to be free of allergens.

"The Oat Mafia decided to work as a group to market our oats," Ramthun says. "We begged and pleaded with Quaker Oats and General Mills to buy our food-grade oats."

Buying domestic oats would save the companies freight costs, and avoid the potential for temperamental tariffs against Canadian products.

But their pleas have fallen on deaf ears so far. The supply chain stopped them in their tracks. Without a market, why would farmers grow food-grade oats?

Oats Yield Multiple Benefits

There are multiple benefits to growing oats, Ramthun says. They require less nitrogen than corn, and as a result, less nitrates end up in the water. Nitrates are a problem in Minnesota, as well as Iowa. In the driftless region of Minnesota, where the karst topography is similar to northeastern Iowa, it's estimated that about 9,000 residents drink water with unsafe levels of nitrate.

Oats can stem the tide of nitrates, since it's an early spring crop that can absorb the fertilizer that often washes away during late spring rains. Oat Mafia member Martin Larsen, who farms and works part-time for Olmsted County's soil and water conservation district, collects water samples in a network of caves beneath southeastern Minnesota fields. He has found up to 60% fewer nitrates beneath oat acres than corn acres. Research data backs up Larsen's claims.

After Ramthun harvests her oats in late July, she grows red clover to protect the soil from erosion. She also turns out her cattle on the clover, as the summer pastures grow thin. Her oat crop also saves money on inputs, including fertilizer, an expensive and hard-to-obtain input.

"I would probably continue to grow oats, despite the lack of markets," she says. But she farms a relatively small operation. It may not pencil out for larger operations without a stable market and supply chain.

However, the government and industry support system for oats is lackluster. Oats had no prioritized insurance programs until 2023, when the USDA expanded an insurance program to protect oats against price volatility. Oat bins also require a different air flow than corn or soybeans.

Risky Business of Food

The self-proclaimed Oat Mafia had continued to grow to about 125 farmers, with 50,000 acres of land, and 6,000 acres of oats. But thousands of bushels of food-grade oats were languishing in the bin for lack of a dedicated processor.

Then Latimer, Iowa farmer and Oat Mafia member Landon Plagge suggested building their own food-grade mill. They applied for a $1.5 million USDA Resilient Food Systems Infrastructure Grant, and the City of Albert Lea offered tax incentives. Investors, including the Oat Mafia members, added almost $20 million.

The oats must be grown using regenerative practices, and be traceable.

This week, Ramthun was asked at the Iowa Women in Agriculture Conference why the mill was not built in Iowa. "Minnesota, and Albert Lea just wanted it more, compared to Iowa," she replied.

The $68 million Green Acres Milling plant is a bit behind schedule, but will open its doors in September. It will process about four million bushels of oats annually, and employ two dozen people. Ramthun sold her food-grade oats for $3.25 per bushel last year; but this spring, she will deliver oats to Green Acres Milling for $7.00 per bushel.

"I'm a proud investor in Green Acres Milling," she says. "I know oats aren't a silver bullet, but they are a game changer for us."

Another interested Minnesota buyer, Seven Sundays, an environmentally focused cereal company, has expressed interest. Oat milk sales reached $860 million in 2025, and are projected to grow to $1.74 billion in 2031.

Reversing Ingrained Habits

Many times I've heard well-meaning nonfarmers ask, "Why can't farmers grow more food for people? Why can't farmers grow different crops?"

Landon Plagge, Shea-Lynn Ramthun, and other farmers agree that they need to move beyond commodities and grow more food crops for people

During the depths of the '80s farm crisis, I was writing for *Successful Farming* magazine when we launched two national ADAPT100 conferences (Ag Diversification Adds Profit Today). A total of 100 workshops showcased alternative crops, from asparagus to zinnias, to fit into a conventional cash grain operation and add possibly 20% to the farm's gross income. Many new crops evolved from changing consumer habits. Contract production of oats was mentioned at that time. ADAPT100's cardinal rule of growing any alternate crop was: FIND YOUR MARKET FIRST. No one suggested growing a crop without identifying a market for it.

Food-grade oats has attracted a market. Joining Cheerios and Quaker's Simply Granola, consumers today can enjoy oat milk lattes and Quaker Oat protein-packed Shake & Go, as well as oat flour in their pancakes and muffins.

The consumer demand is here. But, as members of the 200-member Oat Mafia know, it's not that simple. They need the processing infrastructure and supply chain to push their food-grade oats out to American consumers. They also require USDA support and research priorities to help even the playing field and reduce their risks in launching a new crop. It's not enough to alter the agricultural landscape by growing food-grade oats; the economic

landscape also must be transformed. In return, farmers can do more to improve their soil and the water quality for themselves and their neighbors.

It's no secret that farmers today are struggling, as soybean export markets have been pulled out from them, and input costs rise due to blocked access. Without federal assistance, many would go under. "When prices for other crops are lower, you're more apt to think outside the box, and try something different," Ramthun says. She describes herself as stubborn, and is sustained by the support of her husband and two children. "I'm looking forward to oats having their moment in the sun," she says.

Food-grade oats someday may pay off for members of the Oat Mafia, but It's a substantial risk. Not all farmers will benefit, due to climate and moisture conditions.

It's a tough row to hoe when you go rogue in agriculture. The Oat Mafia must fight to establish their turf and protect it. After all, growing against the grain ain't for sissies.