LONG GONE ORGANIC

After years of growing organic crops, Big Sandy farmer brings new locally grown produce to Montana tables

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This page: Managing soil fertility without chemicals, Bob Quinn plants peas in rotation with wheat because they fix nitrogen in the soil. Facing page: Surrounded by experimental varieties of wheat, Quinn gestures to show anticipated crop height as he leads an annual tour.

Bob Quinn stops in front of a white, red-trimmed outbuilding behind his house, opens the door, then an inner one, and descends steep wood stairs into a cool underground room. From bins on shelves, he selects potatoes to send home with me. Some are dusty red, some are grayish and some are even purple. He describes their various attributes and how to cook them. The potatoes are fresh, homegrown food, but they're also data. Bob Quinn is an organic farmer and a scientist brimming with ideas that expand Montana's agricultural horizons.

Quinn, 60, lives near Big Sandy on land his grandfather first farmed in 1920. Mainly he grows wheat. Considering his grandfather and father also grew wheat, Quinn's first innovation was to do it differently by going organic in the 1980s.

Quinn hadn't planned on farming at all. After earning a Ph.D. in biochemistry at UC-Davis, he was poised to go into plant-science research. But doubts emerged. As his studies advanced, more and more he found himself indoors, away from fields and dirt. "People believed the lab was where answers to future problems lay," he says. When he heard a professor and farmer bragging to each other about spraying peaches with petroleum oil at a certain stage of development, turning them blush red while inside they stayed green, good for shipping and shelf life, he thought, "Maybe modern agriculture isn't going in the right direction."

Still, when his father, Mack, became Farm Bureau president in 1979 and Bob returned to run the 3,200-acre farm, he took up the same techniques and inputs (fertilizer and ▸

Quinn treasures the sundial in the center of his vegetable and flower garden beside the house. He worked with a sundial designer to develop it with technical accuracy for the latitude on his farm.

herbicides) that farmers in that area had used for decades. For several years he farmed "conventionally." But he began to notice how, each year, the cost of inputs (about $25,000 the last year he used them) matched the amount of government farming subsidies. "Chemical companies had figured out how to transfer money from the U.S. Treasury to themselves," Quinn chuckles. Without the subsidies, grain farms weren't profitable. That looked like a failed system to him. He noticed the climate at organizational meetings was often negative. "People complained the government should pay us more."

Chasing down some organic grain a customer requested, he traveled to an organic farm near Plentywood. The farmer's enthusiasm intrigued Quinn, even though the biochemist in him laughed at the notion that a plant knew, or cared, whether a nitrogen molecule came from a manure pile or a bag of fertilizer. (Now he explains organic farmers feed soil, not plants.) He began studying sustainable agriculture and attended his first organic trade show. "These farmers were growing their own fertilizer. They looked at farms as living organisms responding to what's done to them, not as precisely controlled factories. They shared what worked and what didn't. I love experimentation, especially when you learn something," he says.

In 1986, Quinn planted his first organic crop. During normal years, he did as well economically as conventional producers; during drought, he did better. Today, Montana is the top U.S. producer of organic wheat.

Quinn's wheat, though, is a bit different. For years around nearby Fort Benton, people had been growing a "giant" variety of wheat now and then as a novelty. A World War II airman had sent the original seeds home to his wheat-growing dad; supposedly, a friend had found them in an Egyptian tomb. (More likely, Quinn says, they were acquired in a market.) The grain was higher than usual in protein.

On a lark, Quinn took a sample to a health-food show. The owner of a macrobiotic food store ordered as much as he could grow—at first, a half-acre, then 20 acres, then 60. People who were wheat-sensitive could eat the grain without suffering. Research showed it was a variety called khorasan. Quinn trademarked the name kamut, an ancient Egyptian word for "wheat," for organically grown khorasan, and began licensing its production. Now his company, Kamut International, sells most of the grain to Italy. Pasta makers love it.

Kamut's success allowed Quinn freer range. He's still researching khorasan, cooperating with Italian scientists investigating the causes of wheat sensitivities. But many other issues in organic, sustainable farming claim his attention and efforts. Most central are cropping systems: which plants should be planted where, when, and how in order to feed soil, interrupt pest and weed cycles, and keep the ground covered with a high-quality crop. Changing climate and other variables keep that research evergreen. "Bob's the guy I like to talk shop with," says fellow organic producer Helen Atthowe, "even though we live in different parts of the state and have different systems. He's the most innovative farmer in Montana."

Quinn joins other producers in trying new crops like George black medic, a nitrogen-fixer, and black corn. With the German motor company Elsbett, he's working to identify a good high-yield oil crop for diesel engines. "When people say you can't do something," he says, "I start my research."

For over 20 years, Quinn has farmed, experimented, and helped build organic farming networks, markets and policy. Meanwhile, his thinking evolves. "The last six years, I've started looking at local food production. My export of wheat across oceans doesn't fit my organic philosophy. I can justify it as a health thing, but it's not a basic wheat the Italians can grow on their own. People shouldn't depend on other parts of the world for food."

That goes for Montanans too, Quinn and his colleagues believe. Jonda Crosby, executive director of AERO, a sustainability-building nonprofit in Helena, explains. "Montana is a food desert. We're not growing food here, we're growing commodities. There aren't many places to buy nutritious food, let alone grow it." Also, the food-processing infrastructure and know-how Montana once had is gone. "There're no jobs in that sector. Communities are dying," Crosby says.

Bob Quinn hopes to change that. On a half-acre next to his house, he's growing potatoes, onions, tomatoes, squash and fruit. Like his grandfather when he first arrived in this water-poor region, like wheat farmers here today, he's not irrigating. He tracks which varieties make it, which don't and why. He has a vision: Montana farmers growing fresh organic food for themselves and their communities, and everyone benefitting—farmers, making more money on fewer acres; local consumers, with access to nutritious, good-tasting food; and small Montana towns, bolstered by young families who can afford to stay and farm. Throw in small industries like community oil presses, cleaning mills, or pasta manufacturers and the picture bustles and pulses—words that, these days, don't describe many Montana downtowns. "Locally produced food, fuel, and fertilizer is Homeland Security," a banner on the wall of Quinn's garage reads. "It was on my buggy in the Memorial Day Parade," he says.

Thirty-one-year-old Jacob Cowgill helped Quinn in the vegetable plot the past two summers. "We started with 40 potato varieties and replanted 24 last year," he says. In a side experiment, they interplanted a few rows of eggplant to draw Colorado potato beetles away from the potatoes. "Instead of walking 50 rows of potatoes to find and squish beetles, we hoped to walk two rows of eggplant." They also planted bush beans, reputed to repel the pests. Neither outcome was clearly successful—yet. "We'd have to do it for a few more years to tell," Cowgill says.

But if all goes according to plan, Cowgill won't be helping Quinn this summer. After several years in Missoula, Cowgill, who grew up near Eden and Sand Coulee, and his wife, a Dutton native, got the chance to lease 15 acres near Conrad. On a half-acre, they'll grow vegetables to sell at the Great Falls Farmers Market. On the rest, field crops—several varieties of wheat and lentils. And on the side, heritage turkeys.

"Bob Quinn is a pioneer," says Cowgill. "What we're doing is absolutely more possible because of him." M