



The *New* American Farmer

Michael and Marie Heath, M&M Heath Farms

Buhl, Idaho

Summary of Operation

- *Potatoes, specialty beans, tomatoes, lettuce, winter squash, alfalfa, dry beans, sweet corn & grain grown on 450 acres, 90% certified organic, sold wholesale and to direct markets*
- *20 head of brood cows*
- *400 broilers and 30 layers*

Problems Addressed

Over-use of chemicals. When he graduated from an agricultural college in the 1960s, Mike Heath began growing potatoes in Idaho much as he had been taught — applying fungicides at regular intervals as the labels dictated. Those methods were not only expensive, but they also ignored the potential of a systems approach to control crop-damaging pests.

Poor potato prices. With Idaho potato producers earning just 2-4 cents per pound of potatoes in 2000, the future does not look bright for area farmers unwilling or unable to reduce input prices, diversify or add value to their product.

Background

In 1969, Heath went to Malaysia and the South Pacific islands as part of a church program to help farmers improve their production practices. It didn't take many months of Heath's 10 years abroad to realize the Asian approach had merits. A young farmer who had gone to the University of Idaho to study "modern" agriculture, Heath received an eye-opening crash course in farming without chemicals.

"I went there as a farm adviser, but I learned a lot more than I taught," Heath says.

Working with Chinese farmers who had relocated to Malaysia, Heath was fascinated by their integrated approach to raising crops and livestock for small markets. "They showed the importance of community, working together and creating farming systems," he says. "Since I was also familiar with research in integrated pest management, I became convinced that we need to work with nature instead of trying to control it."

Heath adopted that as his guiding principle when he returned to farm in Idaho. With his former in-laws on their farm, he grew grain, sweet corn and hay and began trying to grow the latter organically. He imported ladybugs to help control aphids rather than the standard spraying and began better managing crop rotations.

Throughout the 1980s, Heath rented more parcels, increasing his farmed acreage from his former in-laws' 200 to his current 450. He began growing potatoes organically on some of his irrigated acres. When market prices dipped, he added other vegetables, becoming one of the first Idaho growers to raise squash.

Focal Point of Operation — Diversification

Heath grows an array of crops and, in keeping with his plan to maximize profits, markets those in many ways. Raising potatoes, specialty beans, tomatoes, winter squash, alfalfa, dry beans, sweet corn, wheat, barley and hay not only opens up niche markets, but also helps limit pests that thrive on a single food source. Indeed, Heath has made crop rotations the cornerstone of the farm operation.

Heath is different from other Idaho farmers because he grows mixed vegetables on two acres and raises cattle and chickens to earn extra income and provide soil fertility. “I’m a firm believer that diversification in crops and markets is the only way a farmer can survive in agriculture these days,” Heath says. All of his operation is certified organic or in transition.

If rotations in general are key to Heath’s management of pest and soil fertility, then alfalfa is the linchpin. Every five or six years, Heath rotates his crop and vegetable fields into an alfalfa crop, which he leaves for two or three years.

His rotation spans about seven years: alfalfa hay for at least three, followed by a row crop like potatoes, beans or sweet corn, then a year of wheat or barley. In year six, Heath plants another row crop, follows with a year of a grain, then rotates back to hay. Each year, he grows a variety of vegetables too numerous to list — 12 different kinds of squash on 20 acres, for example.

Heath sells wheat organically to a national wholesaler and barley as malt to a national brewery. In a symbiotic relationship, Heath sells hay to area dairies and receives compost along with payment. Some of Heath’s potatoes, grown annually on 20 to 40 acres, go directly to the processor, but many of his high-value “fresh packs” — Yukon golds,

yellow finns and russets — are sold to direct markets.

Recently, Heath added a season-extending greenhouse, with organic lettuce as a main crop.

The farm supports a healthy number of beneficial insects, and Heath keeps preda-

crops. While he raises the herd organically, he doesn’t sell the cows for a premium for lack of a USDA-certified processor. Instead, he sells the yearlings on the open market — after retaining some for the family.

The chickens roost in a hen house and have regular access to a one-acre pasture, where they spread their own manure. They eat



Karen Murphy

Michael and Marie Heath rotate a wide variety of crops to both open up niche markets and limit pests.

tors guessing with the long rotation. The exception is managing the devastating Colorado potato beetle. Heath grows potatoes far from previous potato plots — or lets five to seven years elapse. With the University of Idaho, Heath is fine-tuning his rotation to better control the beetles, growing winter wheat after potatoes to confuse the beetles with a tall canopy. Very occasionally, Heath sprays with a biological control.

Weeds pose the greatest challenge. Heath cultivates before planting and just as the crops emerge. If weeds are persistent, he hires hand-weeders during the June peak.

Heath runs his cow/calf operation on permanent pasture not suitable for growing

organic wheat in addition to grazing. To guard against predators, Heath’s dog spends most nights in the hen house. A local processor slaughters the birds, then Heath sells frozen poultry directly to local customers.

Many of the commodity crops ship to wholesalers in California, Oregon and Washington or are sent to market via brokers. Marketing directly to different outlets gives Heath a chance to explore more profitable opportunities. In a unique arrangement, Heath partners with five other farmers to provide produce to a CSA group in the Sun Valley, two hours away. The enterprise, provides farm “subscriptions” to consumers who pay an up-front seasonal fee.

Heath grows a share of the crops, serves as the drop-off point for his partners, then trucks the bounty each week to the tourist-frequented Sun Valley. Delivering to the group of about 80 members affords Heath access to farmers markets and to three small grocery stores. He times his trips so the activities dovetail. Finally, Heath sells some of his crops to a consumer co-op in Boise.

“The CSA works well because I don’t have the time to grow some of the specialty crops that others do,” he says. “I participate in the farmers market on the same day — and supply some retailers — and make only one trip.”

Travel is required. Heath’s small town of Buhl doesn’t provide a big enough — or interested enough — market for organic produce. At least for now, although Heath hopes to interest local grocery stores in some locally produced products.

“I hate the idea that the food I sell to wholesalers is shipped to California or Utah and then shipped back to Idaho,” he says. “I would like to sell more food regionally and directly to local markets. My direct markets are most profitable, but we have a small population.”

Economics and Profitability

Heath makes the most profit from organic specialty potatoes, dried beans and squash. Selling under an “organic” label has made a big difference, particularly with continuing low prices for conventional commodities. Prices for conventional spuds in 2002 and 2003 averaged \$3 to \$4, while the break-even price remained at \$4.50.

“If it wasn’t for the organic markets I have, this year would have been really, really difficult,” Heath says. “Everything we grow in Idaho has taken a hit.”

By contrast, his fresh pack potatoes sold for

\$14 for a 50-pound box. Specialty potatoes such as Yukon Gold and reds bring an even higher premium; Heath can earn up to \$18 for a 50-pound box.

Heath’s organic system requires more labor — and more costs associated with that labor, particularly during potato and squash harvest. He usually hires three full-timers for the full season, with that number jumping to 10 during harvest. Most of the workers are local and have spouses who work nearby; about three-quarters of them have worked for Heath for years. A three-year average of Heath’s farm expenses shows that he spends 41 percent of his annual costs on labor.

“Every year, we look at our profit and loss statement and find a lot we can improve on,” he says. “But we’re doing OK.”

Environmental Benefits

To build soil fertility, Heath incorporates compost, both from his hen house and the local dairies that buy his hay. He rarely applies any additional nutrients or minerals, instead opting to grow nitrogen-fixing legumes like alfalfa before heavy nitrogen feeders. Heath tries to maximize his organic matter and uses conservation tillage to slow erosion. As a result, Heath’s soil tests at about 3 percent organic matter, compared to a county average of about 1 percent, something he attributes to his alfalfa-heavy rotations.

To minimize pest damage, Heath has devised rotations that confound insects. For example, he controls wire worms, which tend to build up in grass crops, through rotation with non-grass crops.

Community and Quality of Life Benefits

Heath employs up to 10 workers a year, and says he provides them a fair return for their work. “We distribute our income — we put food on the table for a lot of people,” he

says.

Heath has built valuable relationships with three other farmers in south central Idaho, with whom he cooperatively sells to the CSA and other markets. Regular contact with customers has served to build a healthy connection between farmer and food buyer.

Transition Advice

“Start small, go slow and don’t bet the whole farm on anything new,” Heath says.

When transitioning to organic, producers should consider growing hay first. “You come out with the best soil to get started, the easiest ability to use compost and stop using pesticides,” he says.

The Future

Heath plans to try to get even more local with his products. With his core group of peers, Heath is trying to get their produce in local grocery store chains. He also is involved in trying to get the local farmers market into a permanent building.

“In Idaho, it’s tough to talk about a local food system,” he says. “But we’re talking to Albertsons, and we’re starting to get a toe-hold.”

■ Valerie Berton

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