



## The *New* American Farmer

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Karl Kupers

Harrington, Washington

### Summary of Operation

- *Wheat, barley, sunflowers, safflower, buckwheat, mustard, canola, legumes and reclamation grasses on 4,400 acres*
- *Flexible, no-till rotation of grain crops, cool- and warm-season grasses and broadleaf crops*

### Problems Addressed

*Moisture management.* Karl Kupers' farm falls within the "rain shadow" of the Cascade Mountains and, thus, receives just 12 inches of rain a year. In this dryland agricultural region, Washington farmers like Kupers strive all year long to both retain moisture and fight erosion — twin goals that are sometimes at cross purposes.

*Erosion and pest problems.* Most farmers in the area grow wheat, alternating with summer fallow. The fallow period relieves them of moisture concerns, as they aren't growing cash crops, but leaving exposed soil and making six to eight tillage trips within eight months exacerbates erosion. Moreover, growing wheat in a monocultural system creates an ideal situation for weeds and disease to gain a foothold.

### Background

In 1996, Kupers examined his options, looked at his soil, then weighed the risks and benefits of taking a new approach to crop rotation and tillage that would increase profits but also provide a more diverse environment that would save soil and discourage pests.

With help from a SARE farmer/rancher grant, Kupers began planting alternative crops like canola, millet, corn and buckwheat on 40-acre plots in a no-till system to see if the model would conserve the soil and still prove profitable. After several years of gradual expansion, Kupers now uses no-till and continuous cropping on the entire farm.

"This approach breaks the weed and disease cycles that can be such a factor in a single-crop system," says Kupers. "It also conserves and improves the soil, maximizes water retention, and offers a much broader spectrum of marketing opportunities."

Kupers owns all of his equipment, but leases the farmland in keeping with a tradition his family has kept for 53 years. When one of his landlords died, he decided to buy a parcel to keep it in agriculture. The other trustees who own his farm have accepted his transition to a no-till, diversified operation in part because he started small and managed his risk.

Kupers describes diversification as both a choice for farmers and as a shift in the farming environment, and it is a shift that can open up new markets and access to new consumers.

### Focal Point of Operation — Diversification and marketing

Under Kupers' approach, diversification, no-till, and direct marketing are integrally linked. Under traditional grain crop systems, others set the prices; with diversification, Kupers can match his crops to

opportunities and fluctuations in the marketplace. Using a system he calls “direct seeding,” he leaves his soil untouched, placing seeds into the soil with a retrofitted drill. The system preserves the scant soil moisture and minimizes erosion. And, just as importantly, he can match his crops to his variable conditions.

“I can respond to changes in the moisture content in the soil and go with the crop that I think will work best,” he says.

For example, if the area receives adequate precipitation, Kupers plants sunflowers as his broadleaf crop. If it’s dry, he grows buckwheat. He also considers rainfall the main decision-maker on whether to plan winter wheat or spring wheat.

He grows reclamation grasses for seed, which is used in the USDA Conservation Reserve Program. Warm-season crops might include sunflower, buckwheat and millet. Kupers seeds the warm-season crops in late spring or early summer after any danger of frost.

“There is no recipe,” he says. “I know my work would be much simpler if there were, but there are simply too many variables. I take into account the weed and pest cycles, market conditions, and moisture, and make decisions based on all these things.”

This flexible approach enables Kupers to do what he does best: market his products. With a partner, he formed a limited liability corporation from which they and 10 other growers market commodities under their “Shepherd’s Grain” label. They market mostly in their region, sending their Pacific Northwest-grown products to bakeries, food service businesses and high-end fast food outlets in the Pacific Northwest.

“This is the truest form of identity preserva-

tion,” he says. “We can walk into a bakery and look at the bag of flour and introduce the farmer that grew that crop and he can tell you what field it came from.”

Kupers is working to establish relationships with his buyers and the consumers who purchase from them. He wants them to better understand his environmentally sound “direct seeding system” and not only enjoy their product, but also like to guarantee him and the other Shepherd’s Grain farmers a reasonable return.

Teasing the marketing and production components apart is impossible, and is one of the benefits and burdens of a holistic approach. “You do have to know more,” he concedes, “but it’s all part of making the shift to sustainability.”

#### Economics and Profitability

Kupers’ profit can run 10 to 12 percent ahead of farmers in a wheat-and-fallow system, although those impressive numbers are dependent upon adequate rainfall. He’s satisfied with the farm’s current status, feeling that the extra effort of the no-till transition has paid off, but points out that he’s in it for the long term.

“Most of the real profits are in the future,” he says, because the cumulative impact of good soil management will bring increasing yields. That said, he is seeing improved profits now, along with operational savings, particularly in weed and disease management expenses.

“What I’m doing is a complete reversal of conventional farming,” he says, “and the profitability is only one part of the system. I’m not taking the profit out. I have the profit because I have a whole system that makes profitability sustainable.”

By diversifying, he tries different responses



Phil Rasmussen

*Karl Kupers estimates that his profit runs 10 to 12 percent ahead of farmers in a wheat and fallow system.*

to pests and weeds, and these new modes also bring with them savings in capital equipment costs. He can seed his 5,000-plus acres with one 30-foot drill because he spreads it out among different crops from March to early June. He can use one combine to harvest because he starts on grass in early July and finishes with sunflowers in late October. By contrast, a typical wheat rotation requires some 120 feet of drills and at least three combines, an additional sprayer — and more labor.

Kupers’ farm was certified by The Food Alliance, which verifies and endorses environmentally sound agriculture and makes consumers aware of the choices they can make to support sustainability. The effort aims to turn consumer support into more profits for farmers. Kupers was the first large-scale wheat farmer to earn The Food

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Alliance certification, and he hopes to lead by example.

“It’s not for me to tell my neighbors how to farm,” he says, “but I can farm in a new way and show that it’s profitable, and I can show that I can meet and exceed the returns on neighboring operations.”

### Environmental Benefits

Still, Kupers plays down his enhanced profitability and talks more about the enhanced environmental benefit — he feels strongly that environmental and economic goals should be understood as being, in the end, exactly the same thing.

Kupers’ varying crop rotations tend to break the weed and disease cycles that can plague single-crop operations, so he applies fewer inputs. Using no-till lessens erosion and also builds carbon in the soil. By improving the soil, Kupers hopes to reduce his reliance on commercial fertilizers. In 2000, soil tests revealed that the no-till system had improved soil porosity, making nitrogen more available to crops.

“This is what we want, as we can now apply our nitrogen in a more timely manner and reduce total needs,” he says. “Our goal is to create a healthy soil that feeds the plant.”

The driving force behind Kupers’ conversion to no-till is an ongoing commitment to the health of the land. For Kupers, profitability and soil conservation are linked. “I’ve learned that if I feed the soil, the soil will take care of the plant,” he says.

### Community and Quality of Life Benefits

Kupers farmed his land conventionally for 23 years, but over the past several years — since his first SARE grant and his first test plots of no-till alternative cropping — his satisfaction with farming has increased. “For me, personally, it’s a way of defining my

moral position with the land,” he says.

Conserving and building the soil brings rewards that can’t always be counted in direct dollars but are central to the farming enterprise. The added work of marketing a range of farm products adds variety and interest to the job, a bonus for this unusually energetic farmer. He seems temperamentally suited to making quick but informed decisions.

“Sometimes I don’t know for sure what I’m going to plant until I’ve been in the field and seen the conditions,” he says. The soil itself, along with an understanding of market conditions off the farm, combine to support a flexible approach that Kupers clearly values.

While it’s true that as a tenant Kupers may not have the option to pass the farm along to the next generation, he understands that the improved land has its own kind of legacy, quite apart from who is actually farming it. He describes his relationship with the land as a “moral passion;” this moral momentum has informed his choices as he has made a true paradigm shift toward diversity. One result is that he has become an advocate for sustainable alternatives to conventional farming. He helped to bring the canola industry to Washington state, and has become a sought-after speaker on agricultural issues.

### Transition Advice

Kupers thinks that farmers starting with no-till, diversified cropping should start small, much the way he did. “There’s a learning curve,” he says, “and you will make some mistakes.”

The most common mistake, he says, is impatience.

“It takes five to seven years to get the land through the transition to decide which crops

will suit your individual conditions,” he says. Making a gradual change in selected fields means the stakes are lower and the temptation to fall back into conventional is easier to resist.

“It’s important not to get discouraged and start plowing again,” says Kupers, “because you will lose everything you were on the road to gaining. Commitment is important.”

### The Future

Now that Kupers has made the transition from test plots to placing the whole farm in diversified no-till, it seems that in some way the future is already here. But the conservation and improvement of the soil on Kupers’ farm is an ongoing process, as is the seasonal selection of crops, an important element in the farm’s long-term sustainability. Because the rotation is open, Kupers has a continuing option of trying something new.

On the marketing side, he knows “eco-friendly” food can capture 40 percent or more of market share, a lofty yet attainable goal.

“Our long range goal is to develop a value chain with the consumer that adds a diverse market for products raised under a direct seed system through an assurance that the producer receives a true cost of production and a reasonable rate of return.”

■ *Helen Husher*

### For more information:

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*Editor’s note: This profile, originally published in 2001, was updated in 2004.*