

Do Whatever It Takes

After analyzing production costs, weather expectations and anticipated supply and demand for nine crops, four family members determine each year's cropping mix.

By Frank Lessiter, Editor

FEW NO-TILL OPERATIONS keep more detailed accounting records than the Wittman family farm at Culdesac, Idaho.

Their accounting system has paid big dividends in analyzing all aspects of this highly diversified crop, cattle and timber operation, while giving managers the ability to quickly react to ever-changing economic conditions.

Management responsibilities are split among four family members:

- ❖ Dick Wittman handles general management, finances, marketing and oversees logging of the ranch's forest land.
- ❖ Crops manager Bob Wittman tackles production tactics for 9,000 acres of wheat, barley, lentils, canola, peas, garbanzo beans, mustard, grass seed and hay.
- ❖ Todd Wittman manages the farm's equipment, conservation programs and oversees

specialty crop operations.

❖ Pete Wittman manages the ranch's 300-cow beef herd and is implementing a new hunting and recreation program.

Proof Needed. The partners experimented with direct seeding with hoe opener and disc drills for about 15 years. They retired

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the plows in the mid-'80s when they moved to 100% minimum tillage.

After years of experimenting, they switched to 100% no-till (called direct seeding in the Pacific Northwest) in 1999.

They credit the system with reducing costs, letting them farm more acres in less time, allowing them to qualify for incentives through USDA's Conservation Stewardship Program, decreasing equipment investments and boosting margins.

They use 33- and 45-foot-wide air seeders that no-till paired rows on 9- to 12-inch centers. Harvesting is done with four combines.

The Wittmans have traditionally grown winter and spring wheat, barley, peas and lentils. In good years, wheat can yield 120 bushels per acre; 80 bushels is the average.

Changing Needs. "We have considerable diversity in our cropping mix, as the economy and the weather have wreaked havoc with some of our traditional crop alternatives," Dick says. "So we study enterprise costs and margins closely and look at fall and spring rotation alternatives annually that will produce a favorable financial projection

— without compromising our soil quality and rotational programs. As a result, we've added garbanzo beans, marrowfat peas, canola and mustard to our rotations.

"We do whatever it takes to make a crop. We will use a one-pass system where possible, but occasionally use a two-pass system. Summer fallow is rare and is usually tied to consecutive low moisture years or a serious weed problem. While we prefer a one-pass system with our hoe drill, the actual seeding strategy depends on the amount and type of residue, soils, crops and the weather.

"We don't miss intensive tillage and busting up iron all spring, summer and fall — then having to spend all winter putting it back together. We like the improved soil quality, tilth, soil life, drainage and reduced plant disease that has resulted from a combination of diverse rotations and direct seeding.

"We like spending less money on fuel and labor, and we like how direct seeding provides for a limited team of people to farm more acres with less stress. It incentivizes us to constantly innovate and adapt cropping ideas for each soil, elevation and climate."



TEAM EFFORT. Dick (left), Bob (middle) and Todd Wittman make up 75% of the family's management team. Peter Wittman handles the cow-calf and recreational units in this highly diversified operation.

Will It Pay? Dick says new ideas and technology must make sense both agronomically and economically, such as the field mapping they have been doing for 5 years. They want to see the results of long-term, on-farm research and testing in normal weather before reaching conclusions.

Auto-steer is now standard on many operating units and the family is beginning to experiment with variable-rate fertilizer application since fertilizer makes up 16% to 22% of total production costs.

TIMELY SEEDING IS CRITICAL. With 9,000 acres of crops to seed in the fall and spring, the family relies on two air seeders to no-till paired rows on 9- to 12-inch centers.

"With auto-steer, we have seen a reduction of 5% to 10% in overlap," Dick says. "This represents a huge cost savings in inputs, labor and machinery costs. And it means we can go longer without replacing equipment."

Thanks to direct seeding and precision technology, the Wittman family is finding that farming is fun again. They're convinced new technologies offer a solid reason why future generations of farm-grown talent will want to continue living on the land.



THOUGHTS ON SEQUESTERING CARBON

The Wittman family of Culdesac, Idaho, has been selling carbon credits since 2002 when they started with 100 acres through a program put together by the Pacific Northwest Direct Seeding Association.

For an update on their carbon sequestration experience, the *No-Till Farmer* editors recently posed several questions to Dick Wittman, a member of the steering committee with the Ag Carbon Marketing Working Group based in Washington, D.C.

Q: What are the pros and cons of no-tillers selling carbon credits?

A: Experimenting with carbon trading has had more educational than financial benefit. It has raised the importance of measuring how much good we are doing for soil quality, particularly in building back organic carbon.

It has forced producers to seriously look at a new "environmental services" commodity that we have to sell on the world market.

Carbon sequestration has been very valuable in helping society understand the environmental benefits provided by direct seeding or no-till. Improved air, soil and water quality, reduced erosion and increased wildlife numbers are the results.

We need to see ourselves less as farmers, foresters, livestock producers or range managers and more as carbon managers. Everything we do to expand biomass production starts with converting carbon to useable biomass. The carbon-trading dialogue has helped growers better understand the importance of not only producing carbon biomass, but also keeping it in the ground instead of the air to improve the climate.

Q: What carbon payments have you earned?

A: Our original 2002 lease for 10 years called for a payment of \$2.50 per ton of carbon credits. The amount of carbon dioxide sequestered per year was figured at 0.55 tons per acre from our no-tilled ground. We were also paid for the amount of carbon sequestered over the years with direct seeding prior to signing the contract.

For example, let's say we had direct-seeded for 7 years prior to signing the contract. As a result, we received a credit of 0.55 tons per acre per year times \$2.50 per ton for 7 years, which equals \$9.60 per acre. At the end of the period, we still own the carbon credits.

Q: Is sequestering carbon and getting paid for it a "no-brainer" for no-tillers?

A: Much of the carbon sequestered over

the past decade has been done under a broad set of measurement assumptions based on a "one-size-fits-all" approach.

The ag industry is still struggling to prove to the environmental and regulatory communities that it has adequate measurement tools to consistently and accurately measure sequestered carbon.

The question is whether it can be measured in a cost-effective fashion that considers the diverse climates and soils we have across the country. No-tillers who want to capture their real carbon values will need accurate measurement tools.

Q: Should no-tillers sell carbon credits now at a token price or wait for a new government climate bill that might lead to higher prices?

A: It may be easier to sell carbon credits now with a less stringent protocol. But if a producer can meet the tougher protocols that are likely with a cap-and-trade based climate bill, carbon credits could eventually trade in the \$10- to \$30-per-ton range.

Q: Will no-tillers get credit for "prior years" of sequestered carbon in a new climate bill?

A: This will most likely only happen if farmers can tap the allowance pool to compensate early adopters.

Many carbon contracts signed in the last few years for cropland, Conservation Reserve Program ground and pasture allowed producers to be paid for no-till looking back for up to 10 years.

A new climate bill is not likely to allow past sequestration as an eligible offset due to concerns about additionality.

A no-tiller may be well advised to put a little money in the bank now on offsets generated in previous years rather than risk receiving no past history credits in future contracts.

Q: What are some of the pitfalls with carbon contracts?

A: You're placing a constraint on future land-management practices when you sign a contract. Examine the contract language carefully.

Make sure you are willing to commit not only yourself, but future owners or operators who may farm your land with direct-seeding or no-till practices.

Q: Will we see carbon sequestration grow among no-tillers in the next 5 years?

A: I believe it will occur on a much broader scale. This will be particularly true if Congress passes a climate bill and emitters can access ag offsets.

Q: How can we increase carbon payments?

A: The payments can be raised in several ways:

- By increasing the per-acre amount of sequestered carbon. This will happen as growers minimize ground disturbance and maximize residue retention.

- By increasing the demand for carbon credits. This will likely arise if we end up with a government climate bill that has an aggressive plan for restricting emissions and also allows ag offsets. With a new climate bill, carbon credits could be in the range of \$10 to \$30 per ton.

Q: Why are U.S. growers paid much less for sequestering carbon than European offset providers?

A: U.S. producers haven't received carbon sequestration payments anywhere close to the European market because we operate in a completely voluntary carbon trading market. Europe adopted the Kyoto treaty that mandated a multistage cap on emissions. Early efforts to comply saw their prices surge to more than \$35 per ton.

Q: Should the U.S. adopt the European carbon plan?

A: The European system experienced

several hiccups that are providing U.S. skeptics with ammunition to maintain that we shouldn't go down a similar path.

Europe over-issued allowances and underestimated the creativity of carbon-offset providers. The quantity and quality of the carbon emission offset projects grossly exceeded the expectations of the regulatory market.

This ended up flooding the market with offsets and actually drove European carbon sequestration prices nearly down to U.S. levels at one point.

In reality, Europe has done us a favor by adopting a trading system and demonstrating how creative offset providers can be. We can learn from the European experiences, avoid their mistakes and end up with a better model of our own.

For more information on carbon trading, see: <http://agcarbonmarkets.com>.