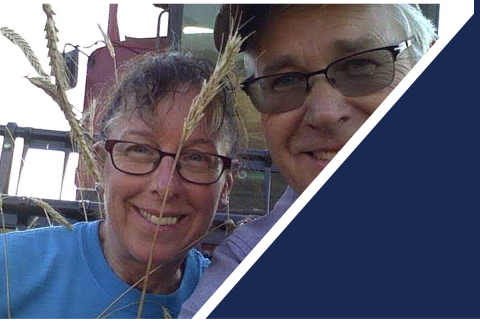


Voices From Our Network
Continuous Living Cover Farmers
- Bent Gate Farms -

GreenLands BlueWaters

Mark Peterson of Stanton, Iowa, has seen a dramatic increase in organic matter in his less than ten years of farming with cover crops, which allows the soil to absorb an extra inch of water during rainstorms and store it in drought.

Mark Peterson, Bent Gate Farms, Stanton, Iowa

Mark Peterson has been involved with agriculture all his adult life in one form or another. He and his wife Melanie farm about 500 acres of their own and rented land, growing conventional corn, soybeans, wheat, oats, and rye, and a rotation of single- and multi-species cover crops, along with what Mark calls "non-income producing livestock" - a dog, cats, and horses. Peterson is a past board president of Practical Farmers of Iowa (PFI) and is in his final year as a board member.

We asked Mark about his cover crop rotation and how it insulates against unpredictability, and about where he finds hope these days. We have condensed and edited his words for length and clarity.

Getting into cover crops

The family we purchased our farm from in 2003 was extraordinarily generous with us and the farm was in great shape. I wanted to make sure that whenever we were done with it, we left it in even better shape. I considered organic. I went to a meeting on organic with presenters who were Practical Farmer members. While we didn't go that direction, they were infectious enough that I joined PFI on the spot. It was PFI and PFI Strategic Initiatives Director Sarah Carlson who were instrumental in getting me going on cover crops.

I'm in small grains to break up a corn/soybean "rotation" – if you even want to call it that. The small grains add a third crop that's harvested in July, and then we plant a multi-species cover crop, which needs a longer growing period than you'll have following corn or soybeans in Iowa. The small grains are the gateway to get us to the multi-species cover crop, which is the ultimate goal.

In less than 10 years doing this, we have seen an increase in organic matter in excess of one full percentage point, which is huge. That's a free 20 pounds of nitrogen and an extra inch of water-holding capacity. That's a benefit in two ways: when we have one of these almost-annual "hundred-year floods," the ground will absorb an extra inch, and then this summer when it got really dry, that's an extra inch of water you're holding on to.

The impact of keeping ground covered

One piece of land hadn't been treated very well prior to us farming it. Our soil agronomist said it was the lowest fertility level that he'd seen in any piece of ground, with a corn suitability rating (CSR) in the 40s (much Iowa farm ground has a CSR in the 90s). We fumbled around with it for a few years and then decided to get drastic.

It was the first piece that we put out with small grains, followed by a multi-species cover crop. I intended to no-till a crop into the cover crop the next spring, but it grew so well that I was nervous about doing that. So we made the decision to bring a neighbor's cattle in and process the cover crop into these nice cow pies. They did an awesome job of it. Now we graze all of our multi-species cover crop. I think it's key to get the biology of the manure.

We did no-till corn into it the next spring, followed by no-till soybeans, and corn again the following year. And that second year corn crop was slightly over 200bu/acre! -on this very low-CSR ground. I was gobsmacked, to say the least. It was unbelievable.

Committing to a new way of farming

It does take some commitment. The multi-species cover crop rotation is not a year that you're going to make a lot of money – but I don't know that you do with corn and soybeans anyway.

It is some work to mess around with small grains, and that's what you have to do. It's either that or fallow up to the multi-species cover crop. I'm able to market my small grains: we've got a market for wheat 50 miles away; I can market my oats right out of the field to cattle producers; and we sell the rye as cover crop seed.

And then you have to deal with the cattle, which means fence. We formed an alliance with a cattle producer neighbor, and he doesn't mind stringing fence. There's a little income there because he pays a little rent on the grazing rights.

Resilience in uncertain times

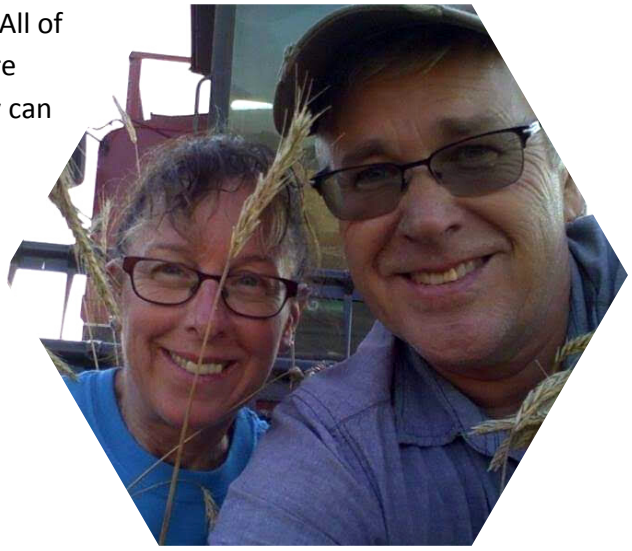
There's so many different kinds of uncertainty right now, none of which we can control. With all these big rain events, anything I can do to insulate myself from too much or too little water, too much or too little heat… The extra organic matter helps with that, plus with the cover crops, the surface between your planted rows will be at a lower temperature than with bare black ground.

And then we've got wildly variable prices. We put a lot of rye on in the fall, and we're planning on no-tilling our soybeans into it without terminating the rye right away. I see the potential to take out a pass of chemicals and still raise a good crop. The cereal rye has a natural effect to cut down on weed pressure. It's not anything magical; if you've got a good enough stand out there, the rye's been growing all winter and it's got a head start on the weeds. The soybeans kind of like it. So anything a person can do to cut down on costs, whether adding fertility or being able to cut down on weed control, you can make yourself more financially resilient too.

Finding hope

Where do I find hope? In 2020?!

Well, I find hope in these newer "old" methods: we're going back to how it used to be before herbicides or synthetic fertilizers came into play. Cover crops and small grains were used as fertility enhancements and natural weed control. As we're going back to those methods, we are becoming more resilient. All of this is consumer-driven, so the hope is that people are becoming more aware – to a point – of where their food is coming from and that they can play a role in asking for things to be more environmentally-friendly.



I see hope in the younger generation. There's a movement of younger folks in PFI who are going back to the land. They don't need the shiniest equipment; they pick and choose what they want to keep updated; using older, smaller equipment, and farming what I call deep rather than wide – getting more off an acre rather than having to farm half the county. They're more labor-oriented and less mechanically-oriented. That's very hopeful. I hope it continues to expand.