



The story behind an early adopter of cover cropping; Gabe Brown. Taking his farm from failure due extreme climate adversity to a world leading example of soil health and profitability

So then 1998 came along, and Gabe lost 80 percent of his crop to hail, making it four devastating years of crop failure in a row. But Gabe tells people that it was the best thing that ever could have happened to him because it taught him that he had to learn how to take care of his most precious resource.

When he started, he did soil tests on his farm like most farmers do testing the soil every year to see what nutrients are in there. His organic matter levels were only 1.7 to 1.9 percent compared to seven to eight percent back 200 years ago historically for the area. Gabe says, “We have degraded all 75 percent of the organic matter in our soil. That’s common in conventional agriculture”

He tells people, “One of the buzz words today is “sustainable.” Everybody wants to be sustainable. My question is why in the world would we want to sustain a degraded resource? My operation today is still degraded. We need to be regenerative. We need to work on regenerating our soils, not just sustaining a degraded resource”.

After four years of crop failures Gabe really changed the way he operated and his thought process grew. There was a local district conservationist with the USDA Natural Resources Conservation Service (NRCS), Jay Fuhrer, who took an interest in what was happening on his place and helped him learn about the importance of soil health and how to rebuild his soil.

Results?

Organic matter tripled

So from organic matter levels being 1.7 to 1.9 percent, he tested those same fields again last summer and they measured from 5.3 to 6.1 percent which was triple the amount of organic matter now in his soil.

Earthworms increased 60 fold increasing nutrients and infiltration

Then this past spring, his son did earthworm counts in their cropland and from no earthworms when he started in a 12”x12”x2” slice of soil, he averaged over 60. That’s considerable when you start with zero. That’s just the earthworms. It doesn’t count the myriad of other billions of soil organisms that are also in there.

Earthworms bring a lot of benefits. Obviously the channels that they make are very nutrient-dense, their castings and their secretions, are also very nutrient-dense. Gabe says that when you grow a crop in a soil that’s full of earthworms, those plants are going to follow the roots and are going to follow those channels that those earthworms make, and the nutrients will be supplied to the plant.

Also earthworms improve water infiltration. When Gabe took over the farm, he could only infiltrate a half of an inch of rainfall per hour. In other words, if we had a rainfall event of an inch, over half of it was going to run off taking soil with it. Now, in the last test he did, he can now infiltrate over eight inches of rainfall per hour, which is huge so whatever rainfall comes, he can store it and sequester it.

Part 2

Farming Secrets says: There are tremendous benefits to having biology in the soil

Ref: *Regenerative Soil Management: A Special Interview with Gabe Brown* By Dr. Joseph Mercola