



“The soil tests impressed me with the amount of available nutrients and biological activity in my soils”

Chris Mehrle, farmer
Mehrle Farms Inc
Caruthersville, Missouri

The Challenge

One of the challenges to growers in the region is controlling Palmer amaranth. Chris was applying so many chemicals so many different times during the season that he felt it was imperative to do something different.

His consultant advised him to plant some cover crops to see if they would suppress weeds and along the way improve soil structure and fertility. As a no-tiller he was game to add cover crops into his rotation.



Chris's soils provide a great stock of worms for fishing.

Discovery

Mehrle observed that growing cover crops reduced weed pressure and significantly cut his herbicide bill. Also, he noted better water-infiltration and nutrient retention, less runoff, less erosion, and clearer streams. He expanded planting cover crops to 100% of his acreage. While he is planting grass and cereal covers to suppress pigweeds and palmers, he plans to diversify species for soil health and nutrient cycling. And the side benefit – more night crawlers available as fishing bait.

SOLVITA SOIL TESTING

Since he was into planting cover crops, a friend and seedsman encouraged him to submit soil samples to check soil health. He completed this request in 2015 and will repeat again in 2016.

Results

Mehrle submitted three soil samples to Woods End Labs for a Soil Health Test. The Solvita burst test values all exceeded 130 ppm, rated high, even though organic matter levels were below 3%. Clearly the presence of cover crops increased the amount of soil available carbon that stimulates microbial activity and CO₂ respiration. Mehrle was impressed by the amount of N, P and K that was found available to the crop, so he could reduce his fertilizer bill, along with his herbicide costs.



Soybeans in rye stubble.

Chris Mehrle runs Mehrle Farms Inc. near Caruthersville Missouri, the Bootheel region of the state and in the Mississippi floodplain. He produces soybean, sorghum and sometimes corn. He has no-tilled since 1992 and three years ago began to plant cover crops. Presently he plants annual ryegrass and cereal rye on 100% of his acres.