From Allen Williams, 6th generation family farmer and founding partner of Grass Fed Insights, LLC, Understanding Ag, LLC and the Soil Health Academy

First, Dr. David Montgomery, Professor of Geology at University of Washington, the U.S. has lost at least half of its organic matter since the colonial period. David is the author of Dirt: The Erosion of Civilizations, Growing a Revolution: Bringing Our Soil Back to Life, and What Your Food Ate.

What we know is that Soil Organic Matter (SOM) had to be in the low double digits in many areas of North America historically. How do we know this? Because we have been able to build back to the low double digits in a number of places. For example, Gabe Brown has taken soils in North Dakota that were an average of 1.5% and reached 11% SOM in under 20 years.

I took soils on my farm in Mississippi and went from 1.3% SOM to over 5.0% SOM in four years.

We have many more examples of this on farms all over the U.S.

The global soil carbon content has dropped significantly over the past 400 years due to poor agricultural practices. I cannot verify that the average is less than 1%, but C tracks with SOM, so it has to be low.

We have documented, with sound regenerative practices, using the 6-3-4 approach, rates of SOM and soil C improvement of between 0.35% and 1.0% annually for the first 5+ years of regenerative practices. For example, going from 1.5% SOM to over 4% SOM in the first 4-5 years of regenerative practices.

The 6-3-4TM Explained - Understanding Ag

We have worked with more than 4000 farmers and on over 33 million acres in the U.S., plus 42 other countries, so we have a really good handle on what can happen.

Support data set available upon request