

## Reason #1. Water

Using PrairieFood increases water holding capacity. How?

1. Carbon is a sponge for water. PrairieFood itself is carbon rich and it also helps build soil carbon.
2. When it rains, a PrairieFood-treated soil soaks it up, reducing run-off.
3. PrairieFood helps decrease erosion by increasing infiltration.

At right: Photos were taken 40 rows apart in this dryland field on 8/12/21. Both areas received a starter fertilizer. The plot on the left also received 122# N and 10# S, while the plot on the right received 40 gallons/acre of PrairieFood.



No PrairieFood



 PrairieFood



PrairieFood trials have shown a wide range of responses in SOM, from no change under extensive tillage to a 2.5% increase in one season with regenerative practices of no-till and cover crops. In addition to verifying with soil tests, increases in SOM are visible with PrairieFood: Above left – a cover crop under PrairieFood showed extensive root development and earthworm activity. Above right – soil aggregation and water holding capacity increased markedly under multiple years of PrairieFood applications. Images from 2021 taken by Mike Sughroue.

## Reason #2. Carbon

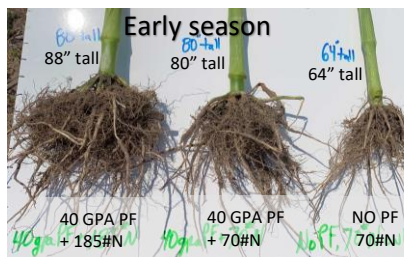
Using PrairieFood increases soil organic matter (SOM). How?

1. PrairieFood feeds soil biology, restoring the soil's functionality, helping plants grow.
2. Plants photosynthesize to grow, pulling carbon out of the atmosphere.
3. Plants feed some of this carbon to soil biology helping it build SOM and a healthier, better functioning soil.
4. The rate of increase in SOM depends on starting soil conditions and practices. PrairieFood coupled with regenerative practices has shown the greatest gains.

## Reason #3. Nutrients

Using PrairieFood increases nutrient use efficiency. How?

1. PrairieFood's microcarbons feed all types of soil microbes simultaneously.
2. Soil microbes transform nutrients into plant-available forms.
3. PrairieFood supports natural nutrient cycling by feeding the soil microbes.
4. Nutrient cycling works better when soils don't dry out.
5. PrairieFood's soil carbon building and carbon sponge enhance nutrient cycling.



All images are from the same irrigated corn field; N was applied through the pivot during the growing season. **Enhanced nutrient cycling in PrairieFood-treated soils increases nutrient use efficiency.**

Using yield estimates and assuming \$0.50/lb N and \$94/ac PrairieFood, PrairieFood increased the bottom line \$107 to \$151/ac. In addition, PrairieFood increases overall soil health metrics, which reduces input costs in future growing seasons.

