

Nutrients Contained in Soil Organic Matter (SOM)		
Nutrient	Total amount per acre contained in 3% SOM*	Total amount available per acre per year with 2% annual decomposition of SOM
Nitrogen (N)	3,000 lbs.	60 lbs.
Phosphorus (P)	300 lbs.	6 lbs.
Potassium (K)	300 lbs.	6 lbs.
Sulfur (S)	300 lbs.	6 lbs.
*An acre of soil, 6 inches deep, weighs an average of 2,000,000 lbs. At 3%, the total SOM would be 60,000 lbs. This is assumed to be 50% carbon, and SOM typically has a 10:1 ratio of carbon to nitrogen, so nitrogen would be 5% of the total SOM. (1,2)		

Annual Value of Nutrients Supplied by Soil Organic Matter (SOM)			
Nutrient	Lbs. supplied by SOM, per acre per year	Value/lb. in 2012 dollars (3,4)	Total value from SOM per acre per year
Nitrogen (N)	60	\$0.60 (applied as urea)	\$36
Phosphorus (P)	6	\$0.72	\$4.32
Potassium (K)	6	\$0.54	\$3.24
Sulfur (S)	6	\$0.59	\$3.54
TOTAL value of plant nutrients from 3% SOM, per acre per year:			\$47.10