

Figure 1.

Sustainability Benefit	Alfalfa	Corn	Soybean	Cover Crops
Carbon Sequestration	+	0/-	0/-	+
Improved Soil Structure	+			+
Nitrogen credits	++		+	+*
Water Use Efficiency	+	+	+	+
Decreased Erosion	+			+
Decreased Surface Nutrient Leaching	+			+ ^a
Decreased Subsurface Nutrient Leaching (> 4 ft)	+			
Increased Soil Microbial Diversity	+			+

++ = maximum potential

+* = some, but not all, cover crop species have this ability (annual legumes only, and reduced compared to alfalfa)

0/- = net neutral or negative

^a = large amount of species variability in ability and degree of impact

(Meccage 2021)