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**Brian Keehner, farmer  
Farmersburg, IA**

### **The Challenge**

Brian’s interest in soil health began in college. “When I came back to the farm I asked myself how can we improve our soils to increase productivity?”

His answer was to tweak aspects of his operation to improve his productivity.

However, he doesn’t just want to adopt but he wants to also measure and monitor progress, something he believes all farmers should be doing.

### **Discovery**

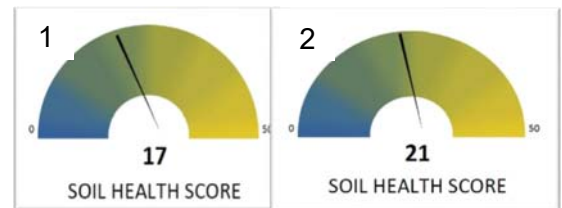
Brian rented a field that he felt had been neglected. He felt this was a good opportunity to document the influence of cover crops on soil health and that soil respiration could be a tool to record such improvements.

### **WHY BRIAN SELECTED SOLVITA SOIL TESTING**

“NRCS suggested a Solvita test and I went on-line to find Woods End Laboratories, and I sent in my samples,” said Keehner. “I wanted to measure change in my soil and felt that Solvita provided that solution. 2015 was my first test and I wanted to learn.” From the results he realized he needs to continue to do things differently and to measure along the way.

### **Results**

Brian compared a no-till field planted to soybeans and an adjacent field planted to a *perennial cover crop*. The no-till field had CO<sub>2</sub>-Burst and SLAN readings of 86 and 98 ppm. The field in perennial cover had CO<sub>2</sub>-Burst and SLAN readings of 98 and 108 ppm. “I was not surprised by the results,” said Keehner. “Everything I been told said the soil under the perennial would be better and it was.”



Soil Results for No-till soy (L) and Perennial Cover (R)

### **Cover crop in Iowa Corn**



Brian Keehner is a young farmer in Dubuque County, Iowa. He has been farming for 4 years. He is focusing on corn and soybeans and wants to optimize his crop production and quality by focusing on the health of the soil. The cover crop showed him what is possible and he will continue planting cover crops, adding more diversity to his cocktail and interseed covers in standing corn at V4-V5.