Graphical Interface to Determine Cover Crop and Soil Organic Matter N Credits

This nitrogen fertilizer recommendation tool is currently under research and this interface is provided for educational purposes only. The recommendations need to be validated through further field experimentation.

Inputs Corn Yield Goal (bu/ac)

180
Sand Content (%)
39
Clay Content (%)
17 17
Soil Organic Matter (%)
2.4
Winterkilled Cover Crop Biomass N (lbs/ac)
0 0
Spring Cover Crop Biomass N (lbs/ac)
60 60
Spring Cover Crop C:N Ratio
25 25

Diagnostics and Results

Microbial Carbon Use Efficiency

0.20

Nitrogen Yield Gap
11 bu/ac

Critical C:N Ratio for N Immobilization
49:1

Cover Crop Yield Credit
16 bu/ac

Supplemental Nitrogen Fertilizer Requirement
64 lbs N/ac



Use the Form Below to Predict Cover Crop Biomass N Content from Greenseeker NDVI Sensor

This calibration of the Greenseeker sensor to predict cover crop nitrogen is based on research published by White et al. (2019) in an article that is freely available to the public here.

Cover Crop Type for NDVI Conversion to Biomass N

Cereal Rye/Triticale in Spring

NDVI Value

Cover Crop Biomass Nitrogen (lbs/ac)

Recommendations of nitrogen applications to achieve a certain yield goal for corn.



Estimations of CUE for this tool are currently based on soil texture.