



VUJC Land Stewardship Initiative

soil health...the root of everything



2005- image of the farm prior to LSI formation





Planned improvements for the property. Many of these occurred in the early years of the Initiative.

Recent Google Earth Image shows many of the improvements put in place on the farm throughout the years.

Indiana Baseball
Hall of Fame

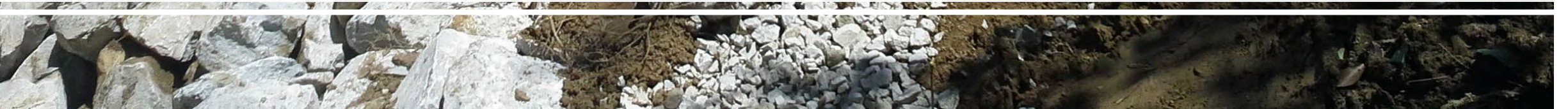




Turning erosion prone soil
into a Grassed Waterway-
2014



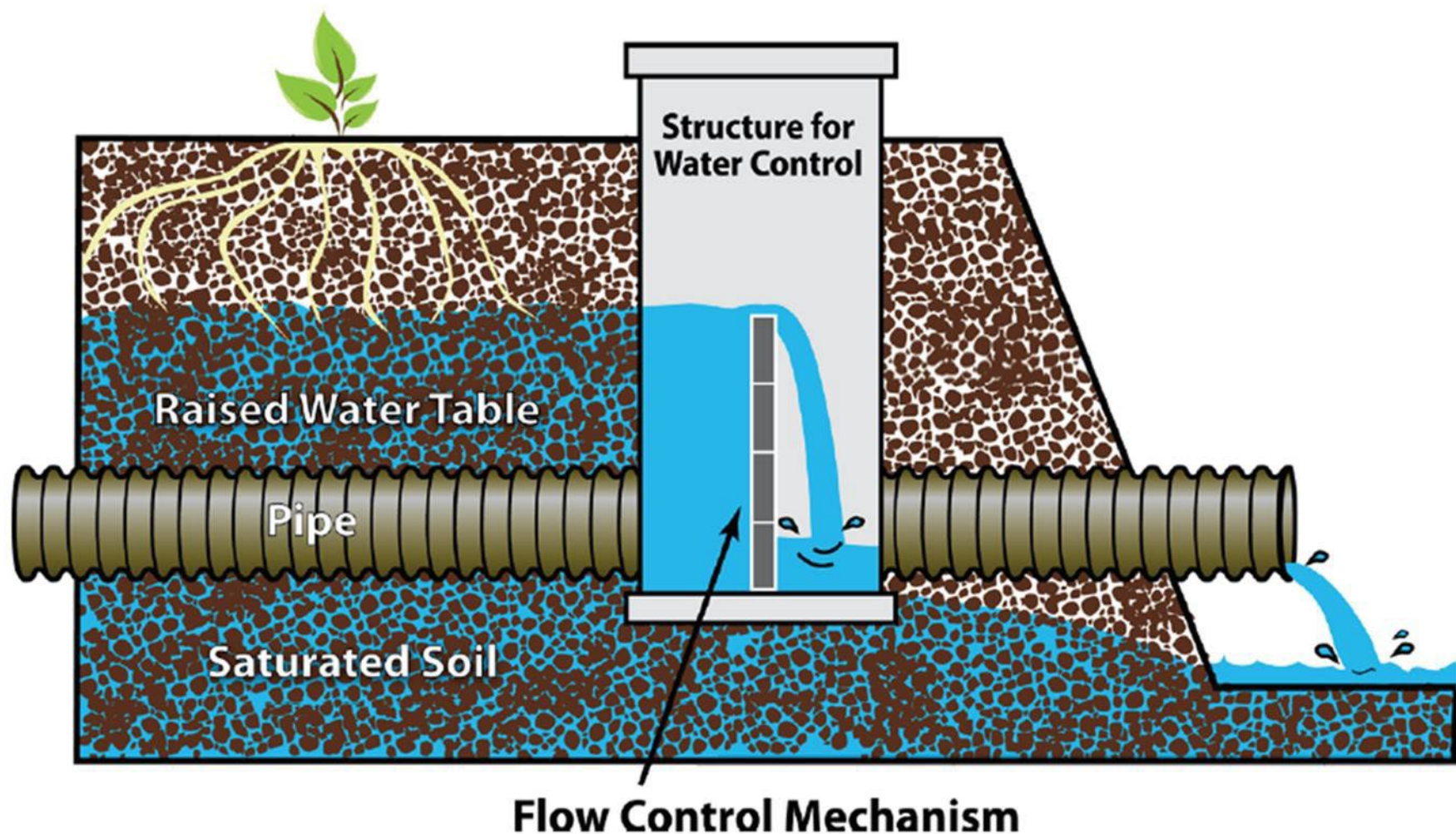
2014- Rock Chute installation at the end of Grassed Waterways



Installation of the Stop Log System in Field 1



NRCS Conservation Solutions...
Drainage Water Management



2015- adding additional Grassed Waterways
in more fields



Installation of French Drains in Field 5 to address drainage issues - 2019





This lower lying area in Field 1 has been prone to holding a large pool of water after a significant rain reducing yields. In 2020 Bart Pitstick and Alan Smock installed a hidden drain to resolve the issue. The two men dug down several feet to the existing tile line in the field and added a junction and a vertical perforated pipe. A cap was placed on the top of the structure approximately one-foot underground. The hole was filled with gravel creating pore space and allowing water to infiltrate more easily. In May, a significant rain event tested the system and it passed with flying colors!



10 year plus volunteer Alan Smock, has been around to witness changes in management strategy on the property.

As a former SWCD board member and LSI Ag committee chair, he has witnessed significant changes in the soil structure over the course of time.

These are some of the changes he has both seen and helped to facilitate:

Planting 2012- planting soybeans in the fields while construction for a new building on VUJC campus was under way.





Planting 2016- planting into terminated cover crops





2019 – Planting green into standing cover crop of Cereal Rye. This was followed immediately by roller crimping.







2021- first year planting green into all acres.



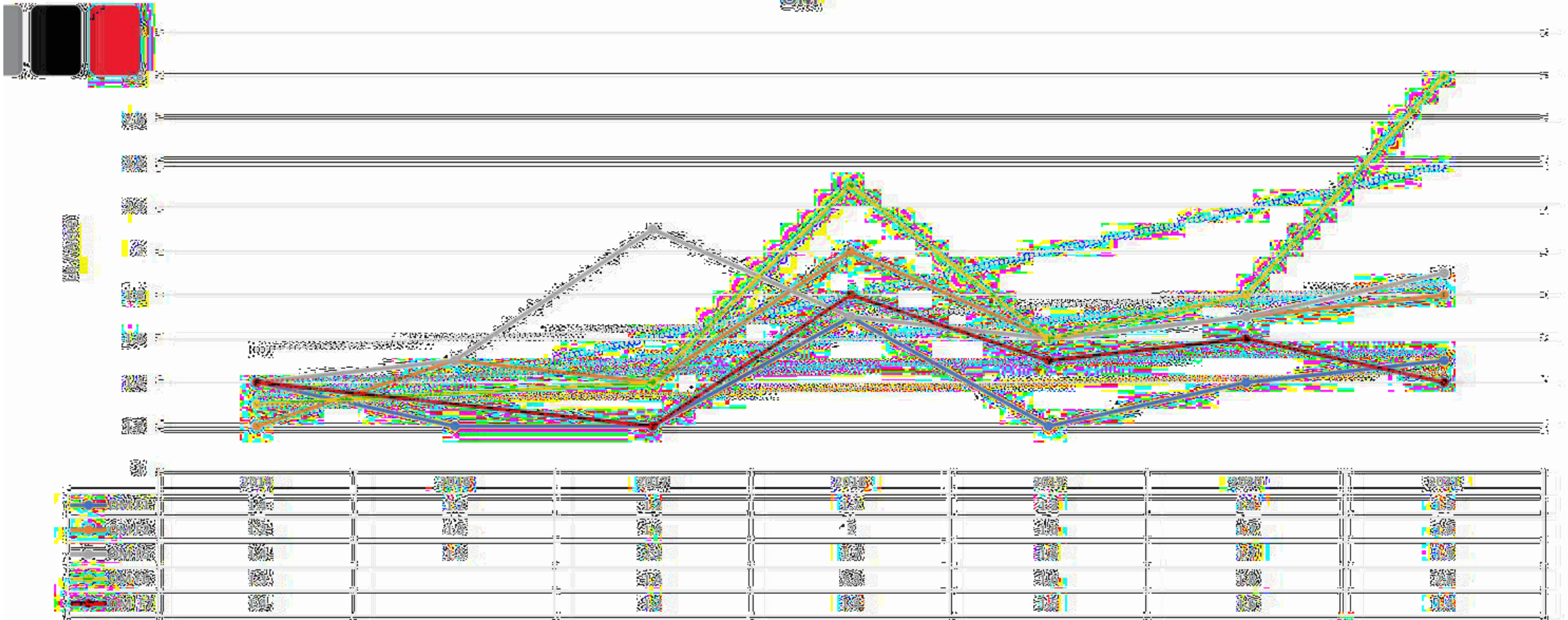
2022- planting green into a diverse 5 way mix of Oats, Barley, Rape, Crimson Clover and Winter Peas





With improved management practice came increase in organic matter

OM

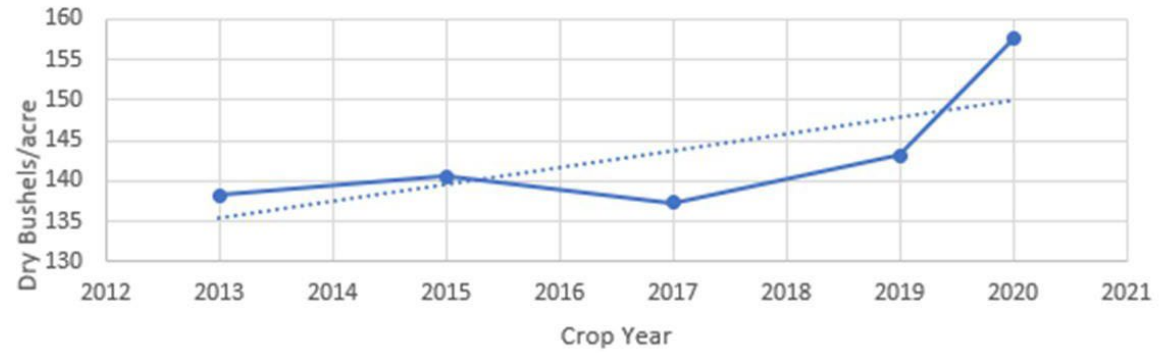


Superior Ag

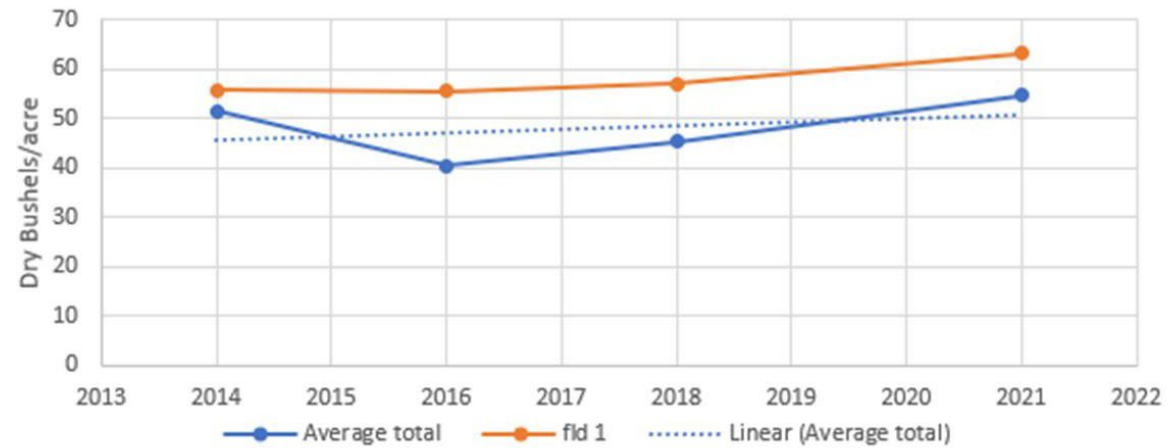
GROW WITH US

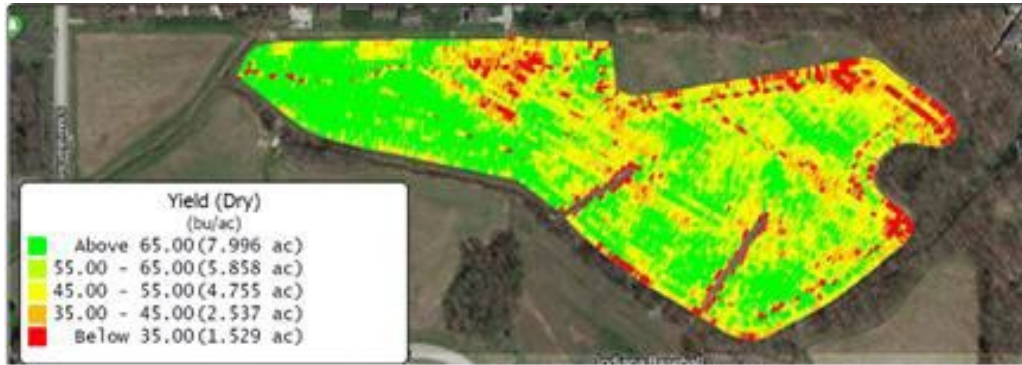
Increase in
yield

LSI Historical Corn yield

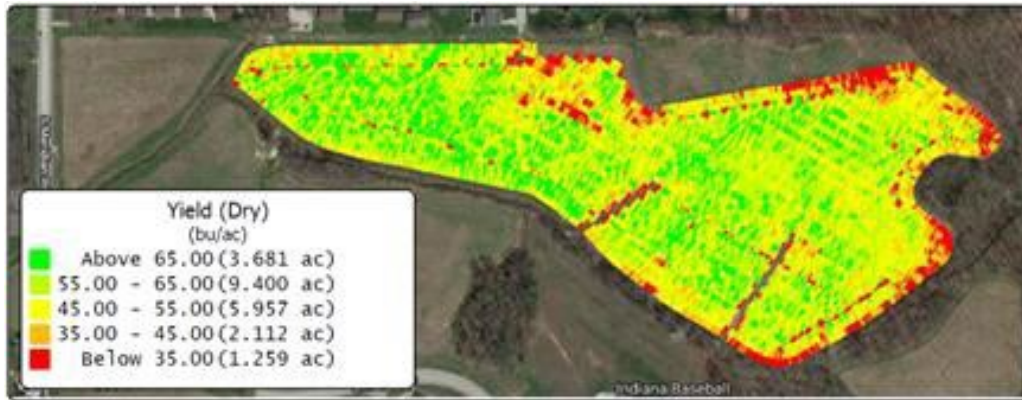


LSI Historical Soybean Yield





Year:2018
Avg. Yield:
58.95 bu/ac



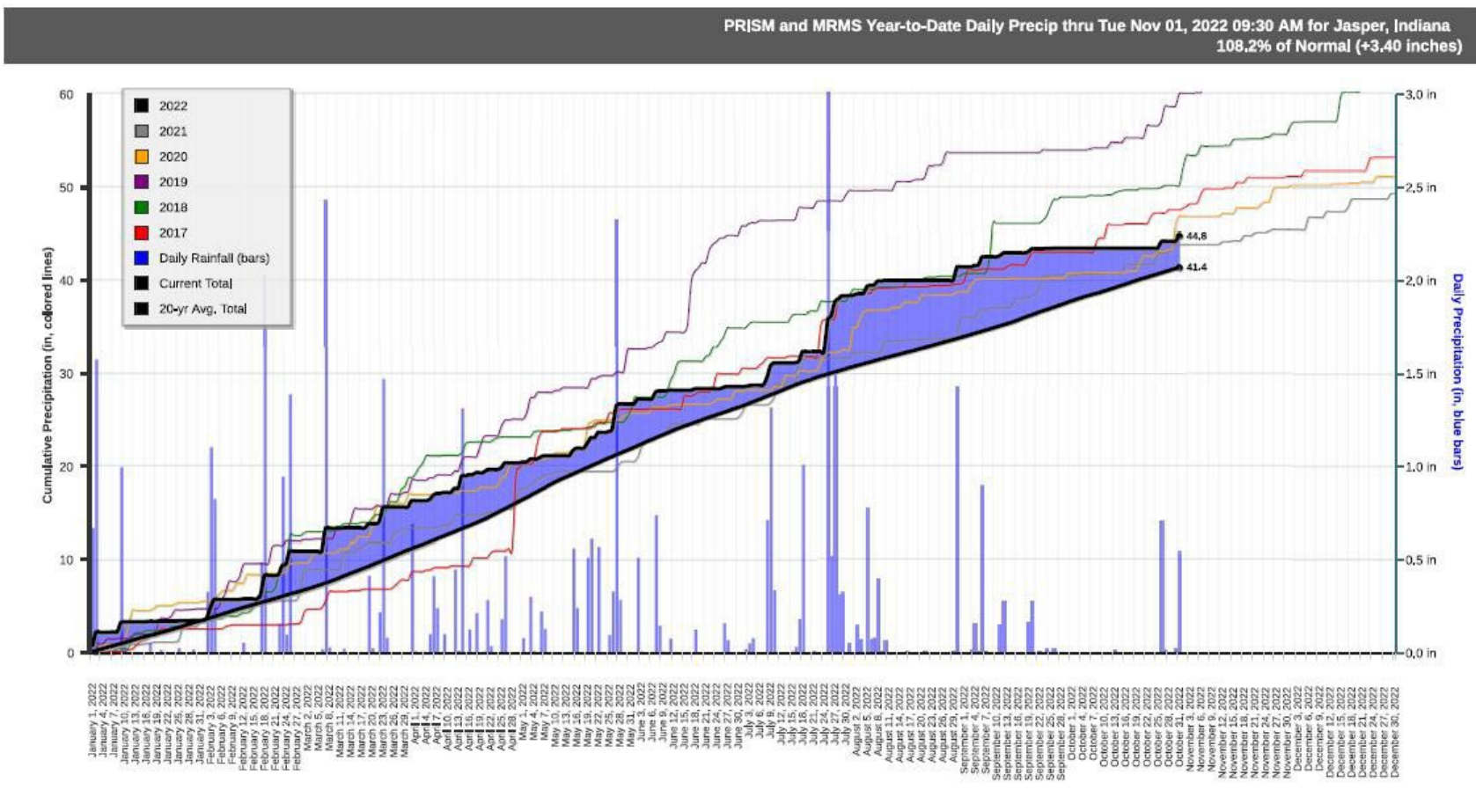
Year: 2016
Avg. Yield:
55.43 bu/ac

And an increase
in the overall
functionality of
the soil.



Year 2014
Avg. Yield
52.65 bu/ac

However, weather has a strong impact!



April 28, 2017 10 inch rain overnight. Full WASCOB slowly releasing water.



A neighboring
conventionally tilled
field up stream from
LSI with soil being
detached and
transported down
stream





Water from LSI fields running
cleanly into a ditch before
joining the muddied water in
Jahn Creek.



- A day or two later. The cover crops on the LSI fields have armored the surface and prevented soil erosion. The farm upstream will form a crust on top of the soil and will be tilled again before planting.




- A comparison of the color due to increased OM in the no tilled cover cropped soil (right) and the conventionally tilled soil in the same field that has not seen the increase in organic matter (left).





- Slump test using the same soil type from field 2 demonstrating aggregate stability in the NTCC sample (right) compared to the conventionally farmed sample on the left.
- Notice both the color and water holding capacity differences between the two samples.



2022 farm demonstration
of summer cover crop
species



We look forward to a future of continued demonstration and education for our local farmers and citizens.

High school students



Elementary students





Women4theLand participants



And other local presentations





As the host site of the 2022 State Soil Judging contest we are reaching wider and wider audiences



Our Future Is
BRIGHT!