



FROM THE GROUND UP

WHO WE ARE:

A farmer-led research and collaboration project, working to improve real world, on-farm performance of conservation practices in Midwest agriculture to generate outcomes that farmers need, such as:

- Yield stability
- Extreme weather protection
- Profitability

Research Highlights:

- 6 ranchers are applying treatments at field scales ranging from 3-7 acres.
- Besides the control, 3 soil treatments are applied by drone to established pastures after 3 continuous days of soil temperatures >45 degrees, and a second round is applied in the fall.
- Livestock graze across all treatments for 24 hours, 30 days after nutrient application, and we take measurements throughout the growing seasons.

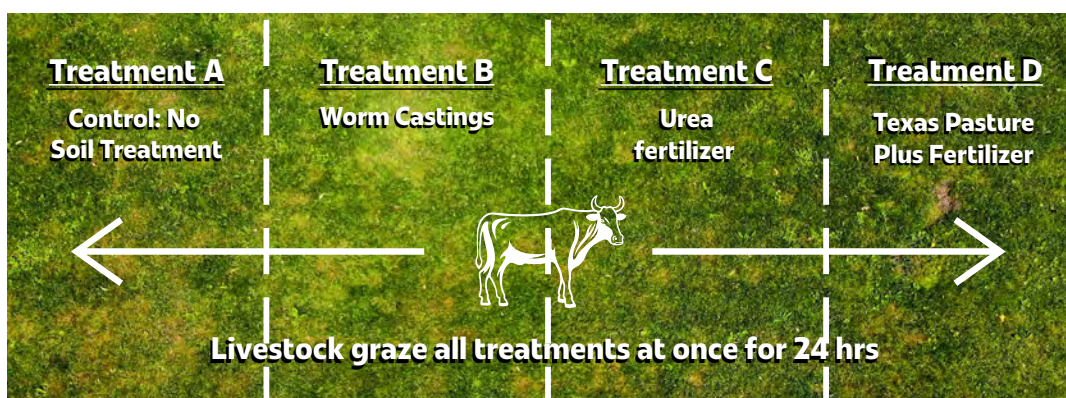
SW MISSOURI GRAZING NODE:

Testing Alternative Soil Treatments
Led by farmer Adam Boman



Adam Boman, a Southwest Missouri livestock farmer raising sheep and grass-finished cattle, and employing rotational grazing management practices, is leading a FTGUp research project that tests the impacts of four different soil treatments on soil health, pasture yield, and forage quality.

Adam recruited interested ranchers and together - with the support of FTGUp researchers - they designed a protocol to measure the outcomes.



What are we Measuring?

How well practices perform on working farms by looking at:

- Forage yield and nutrient quality
- Canopy cover and species diversity
- Soil health, moisture and carbon sequestration
- Economic impact



What factors might explain variability in performance between farms by analyzing:

- Weather conditions and patterns
- Soil biophysical characteristics
- Management practices

What are **Worm Castings**?

Worm castings are nutrient-rich droppings from earthworms that have digested organic matter. Castings are packed with essential microbes that can help enhance soil structure and improve water retention by releasing nutrients slowly overtime, avoiding "fertilizer burn".

For More Information about From the Ground Up:

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