Impact of CAS on Soil Health

*Filley, Voyles, Donkin*

Cyber-Animal Systems (CAS) facilitate the transdisciplinary investigation of reciprocal interactions between Precision Animal Agriculture (PAAg) and the Soil Microbiome. Data-centric open-loop and closed-loop interventions can impact soil sustainability.

- Controlling soil erosion and soil health by monitoring livestock movement and activity and influencing access to pasture and grazing.
- Real-time analysis and mapping of key components like potassium, fullerons, and nitrogen to gauge soil health.

**Faculty Researchers**

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Impact of CAS on Water Resources

*Newell, Garcia, Min, Heber*

CAS investigates ways to prevent pollution of water resources from livestock facilities such as antibiotics, trough water infused with supplements, and animal excreta.

- Data-based water management of farming facilities can prevent such contamination which also reduces overall usage and helps in recycling, thereby creating a sustainable system.

**Faculty Researchers**

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