

How can cows on the move help rebuild entire ecosystems?

Phenomenon: Managed grazing on cover crops--a practice of regenerative agriculture--can keep soil from becoming compacted.		
Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
Planning and Carrying Out Investigations - Plan an investigation individually and collaboratively, and in the design: identify independent and dependent variables and controls, what tools are needed to do the gathering, how measurements will be recorded, and how many data are needed to support a claim. Analyzing and Interpreting Data - Analyze and interpret data to provide evidence for phenomena. Constructing Explanations - Apply scientific reasoning to show why the data or evidence is adequate for the explanation or conclusion.	LS2.C: Ecosystem Dynamics, Functioning, and Resilience Ecosystems are dynamic in nature; their characteristics can vary over time. Disruptions to any physical or biological component of an ecosystem can lead to shifts in all its populations.	Stability and Change Stability might be disturbed either by sudden events or gradual changes that accumulate over time.
This lesson could be one in a series of lessons building toward: MS-LS2-4. Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations. [Clarification Statement: Emphasis is on recognizing patterns in data and making warranted inferences about changes in populations, and on evaluating empirical evidence supporting arguments about changes to ecosystems.]		