



Grazing for Resilience:

Bouncing Forward from Catastrophic Events

Introductions



Food Animal Concerns Trust (FACT) is a national nonprofit organization that works to ensure that all food-producing animals are raised in a humane and healthy manner.



Larissa McKenna & Samantha Gasson

FACT's Humane Farming Program Team

Email Larissa: lmckenna@foodanimalconcerns.org

Email Sam: sgasson@foodanimalconcerns.org

Website: foodanimalconcernstrust.org/farmer

FACT's services to support livestock and poultry farmers include:

- **Conference scholarships** (ongoing)
- **Customized handouts** (ongoing)
- **Free webinars** (ongoing)
- **Fund-a-Farmer Grants** (not currently accepting applications)
- **Humane Farming Mentorship Program** (not currently accepting applications)
- **Financial and Business Training** (not currently accepting applications)



Grazing for Resilience:

Bouncing Forward from Catastrophic Events

JUSTIN MORRIS AND LINDA POOLE, REGENERATIVE GRAZING SPECIALISTS

All images by Linda Poole except as noted



About NCAT

National Center for Appropriate Technology (NCAT) is a national nonprofit organization that helps people build resilient communities through local and sustainable solutions that reduce poverty, strengthen self-reliance, and protect natural resources.



ATTRA information service for farmers and ranchers:

- Free technical assistance; 800-346-9140, askanag@ncat.org
- Farmer-friendly publications, videos, tutorials, podcasts, webinars
- ATTRA.NCAT.ORG



We are here to help!

Armed to Farm

- ARMEDTOFARM.ORG



Soil for Water

- SOILFORWATER.ORG



AgriSolar Clearinghouse

- AGRISOLARCLEARINGHOUSE.ORG



Meeting Plan

- ▶ Meet the teachers
- ▶ Catastrophe: Montana, 2021
- ▶ Grazing 101
- ▶ Pathways to resilience
- ▶ Q and A at the end



Linda Poole, Montana

- ▶ Range, watershed, wildlife management
- ▶ WA, OR, MT, CO
- ▶ Raising sheep, cattle, horses for 40+ years



Justin Morris, Idaho

- ▶ Animal and range science
- ▶ Technical assistance:
 - Grazing lands and croplands
 - 17 years
- ▶ Hawaii to New York



Create your Farmers.gov account for secure self-service business tools like managing loans, viewing farm records and eSigning documents.

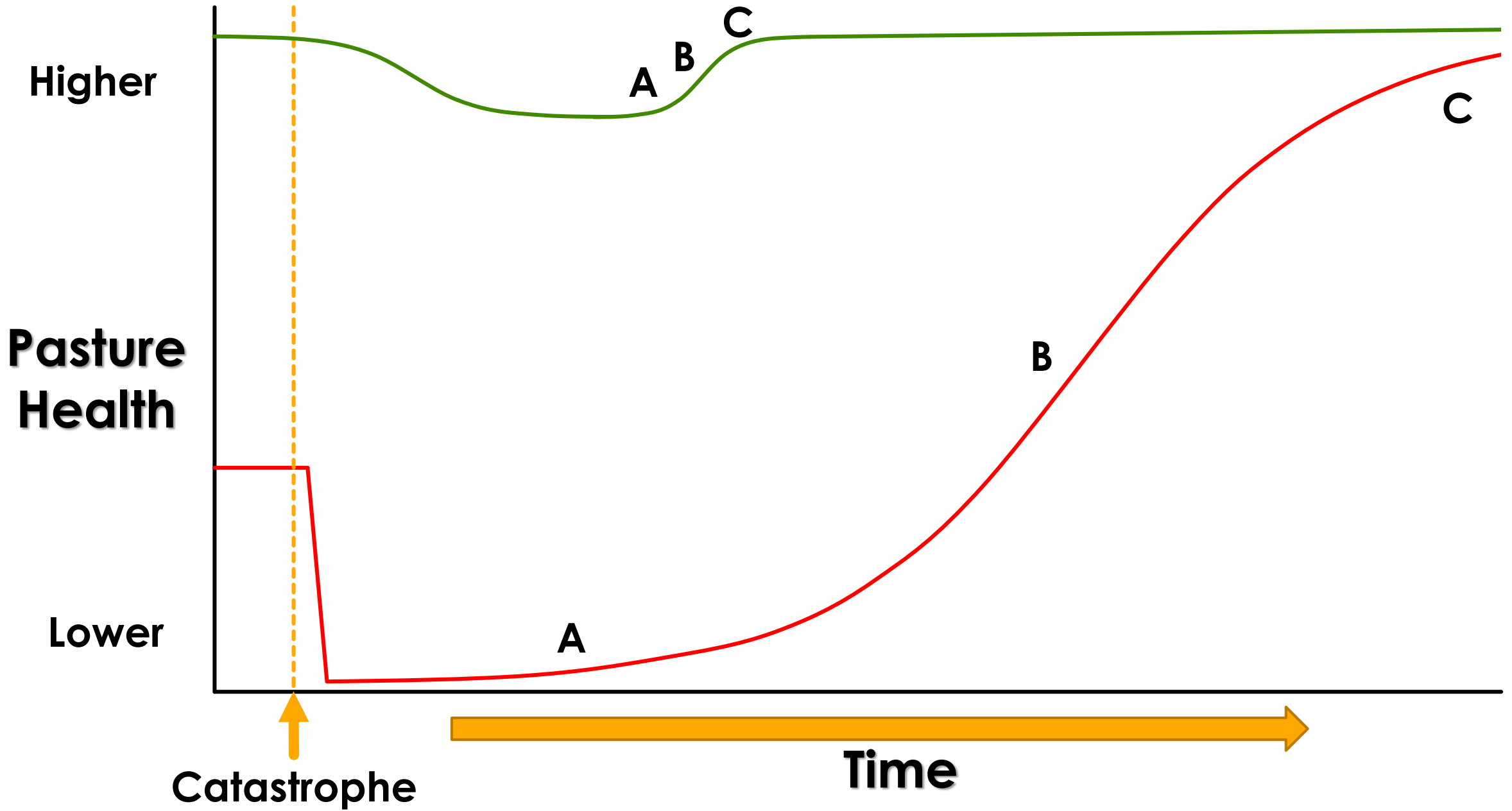
DISMISS



A Look Back at 2021: Building Resilience in the Face of Natural Disasters

Feedback





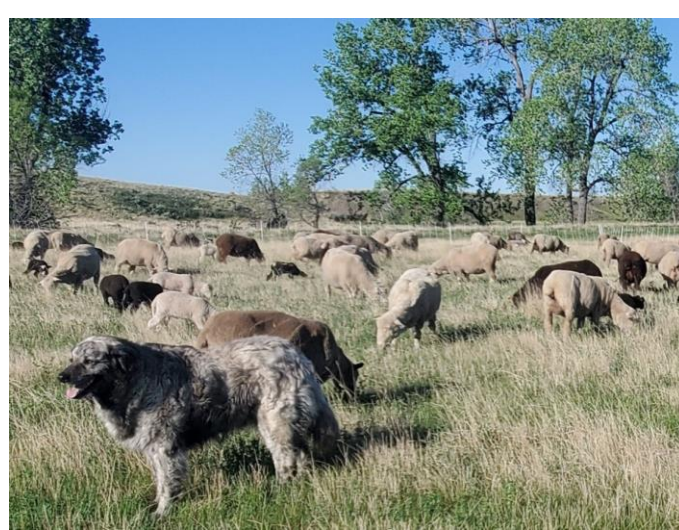


“We’re looking at conditions we haven’t seen for a thousand years in Montana and probably longer in terms of the drought. Temperatures are exceeding what we have seen for the last 11,000 years.” – Cathy Whitlock, paleoclimatologist, Montana State University



Photo: APNews.com





**May 2020 – Mar: pasture + supplement
Jul – Sep: pasture + supplement**

**Apr: corral, full feed
Sep: most livestock sold**

**May – Jun: lambing, pasture
Oct – Apr 2022: bale grazing, corral**



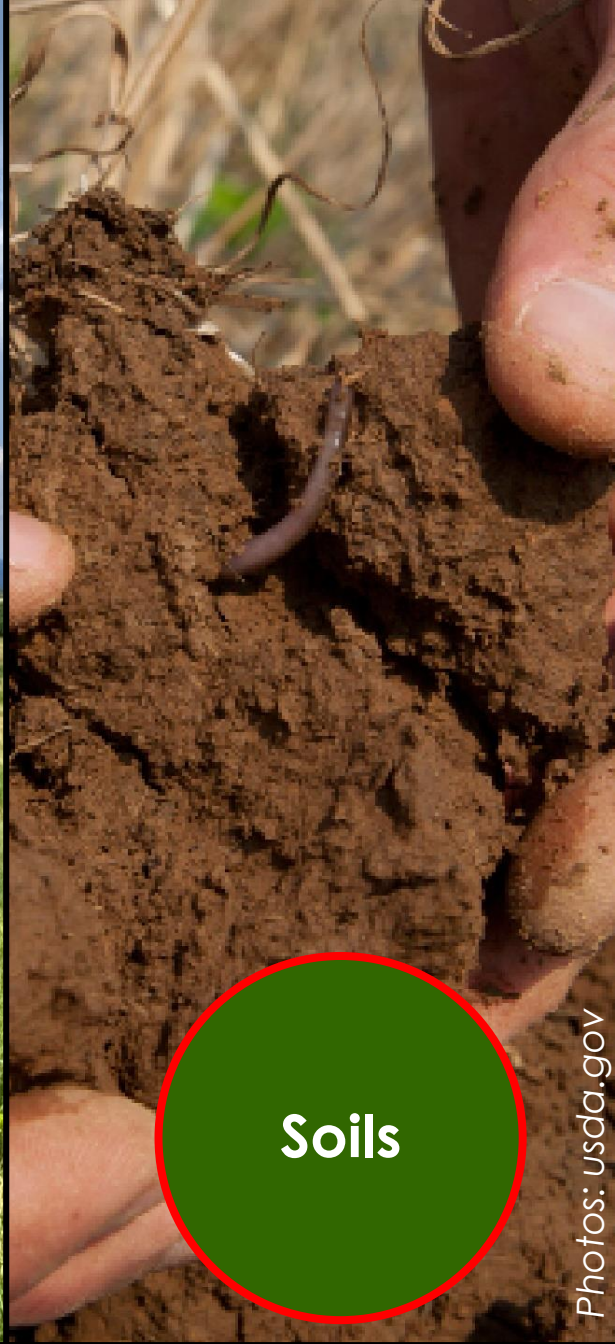
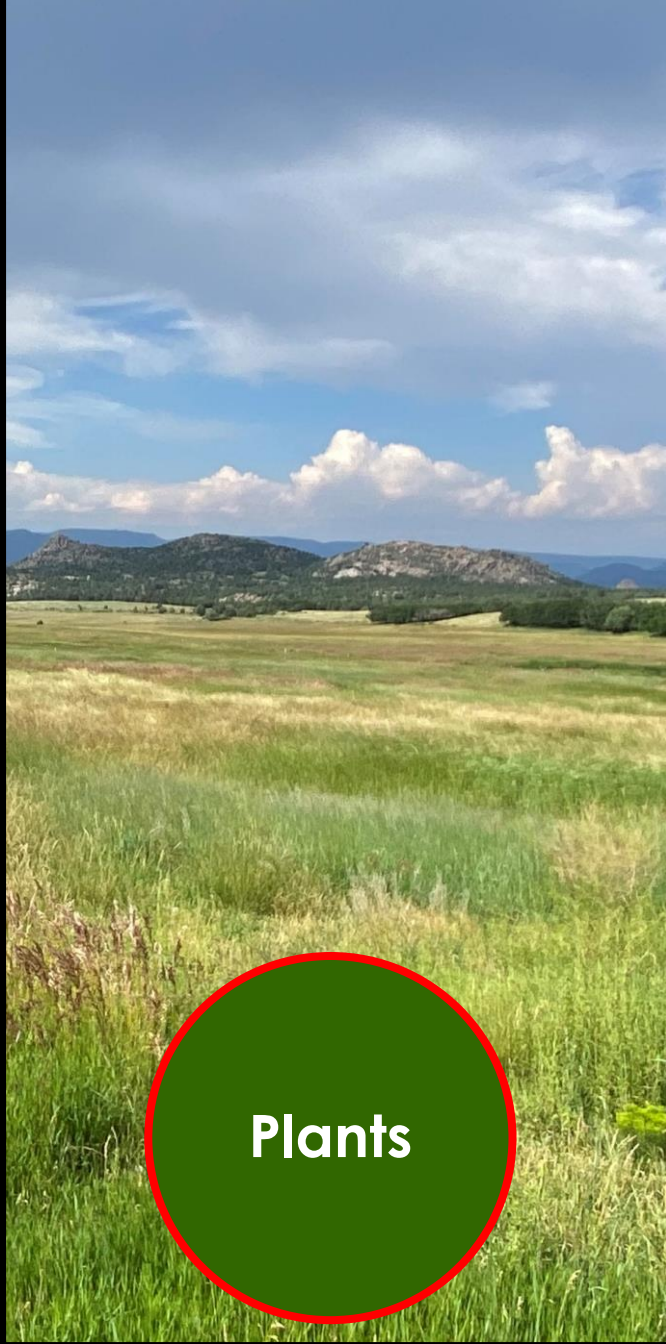
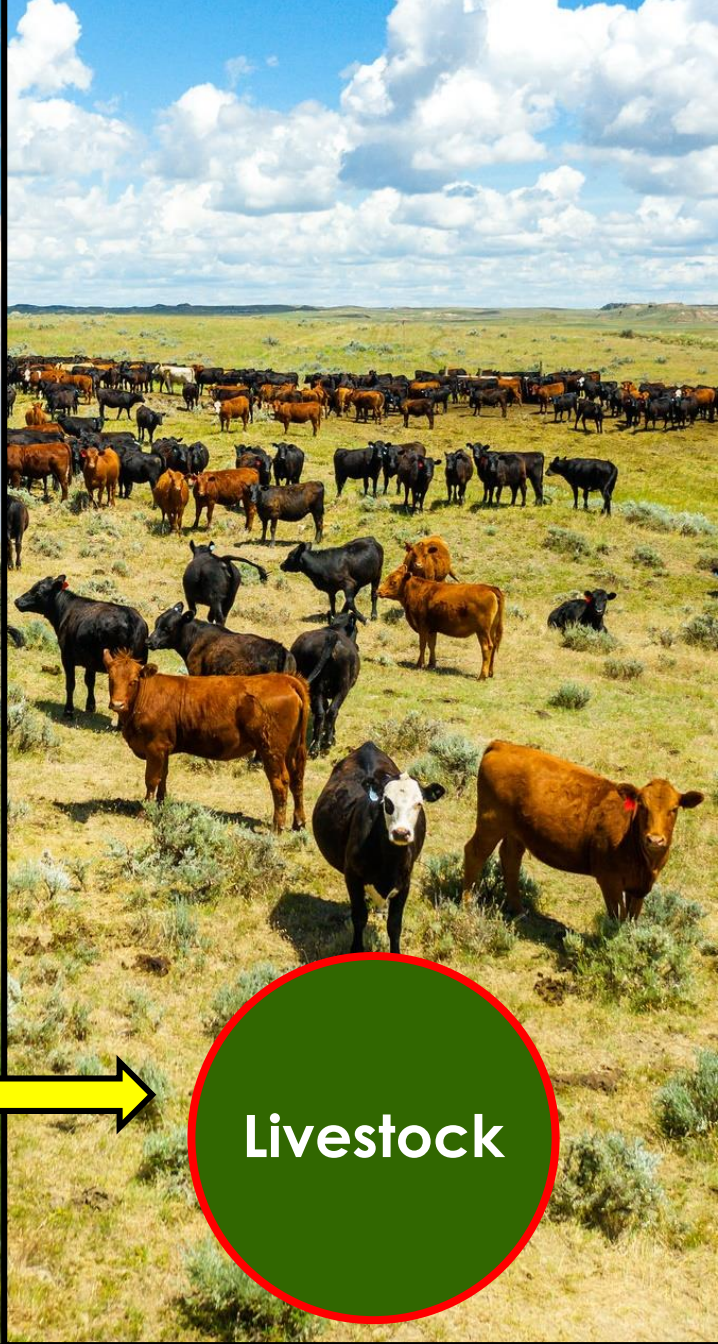


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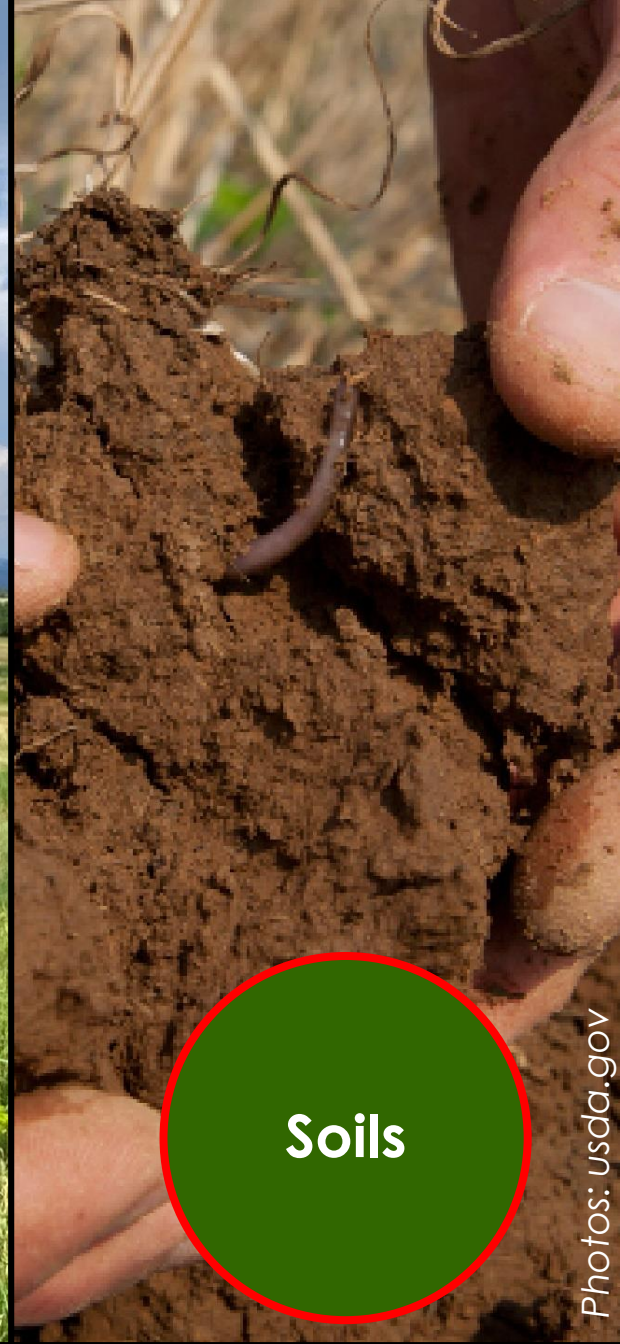
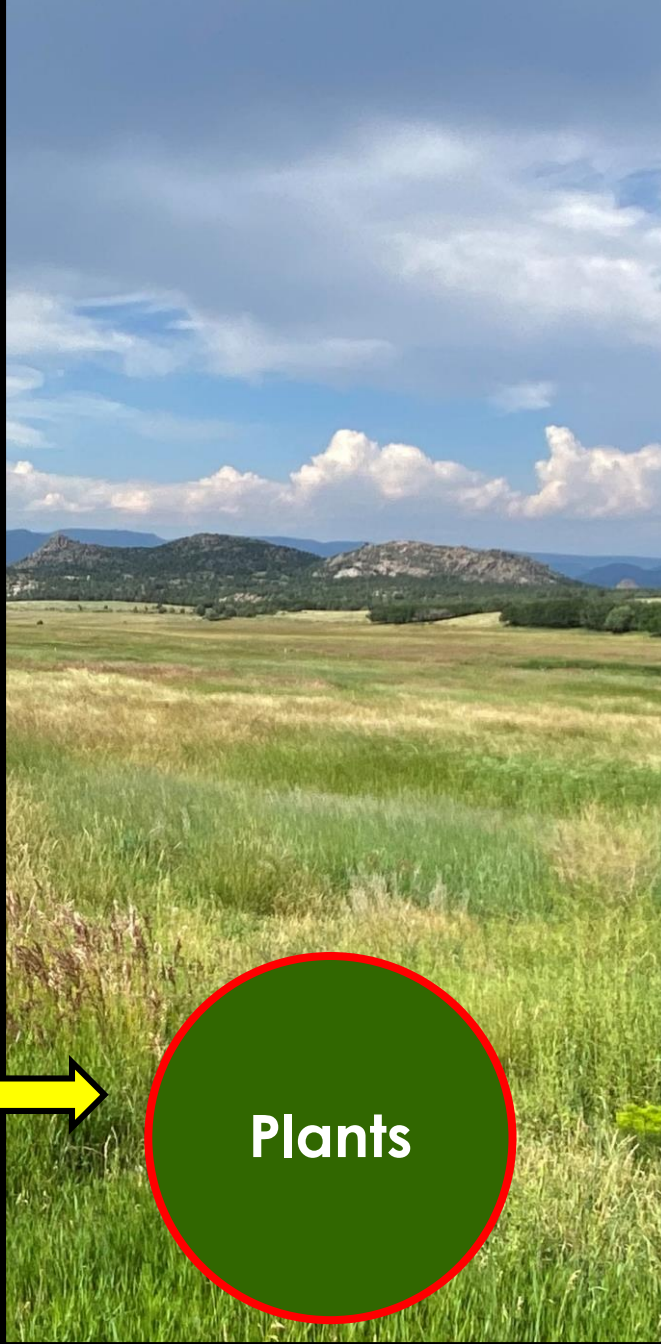
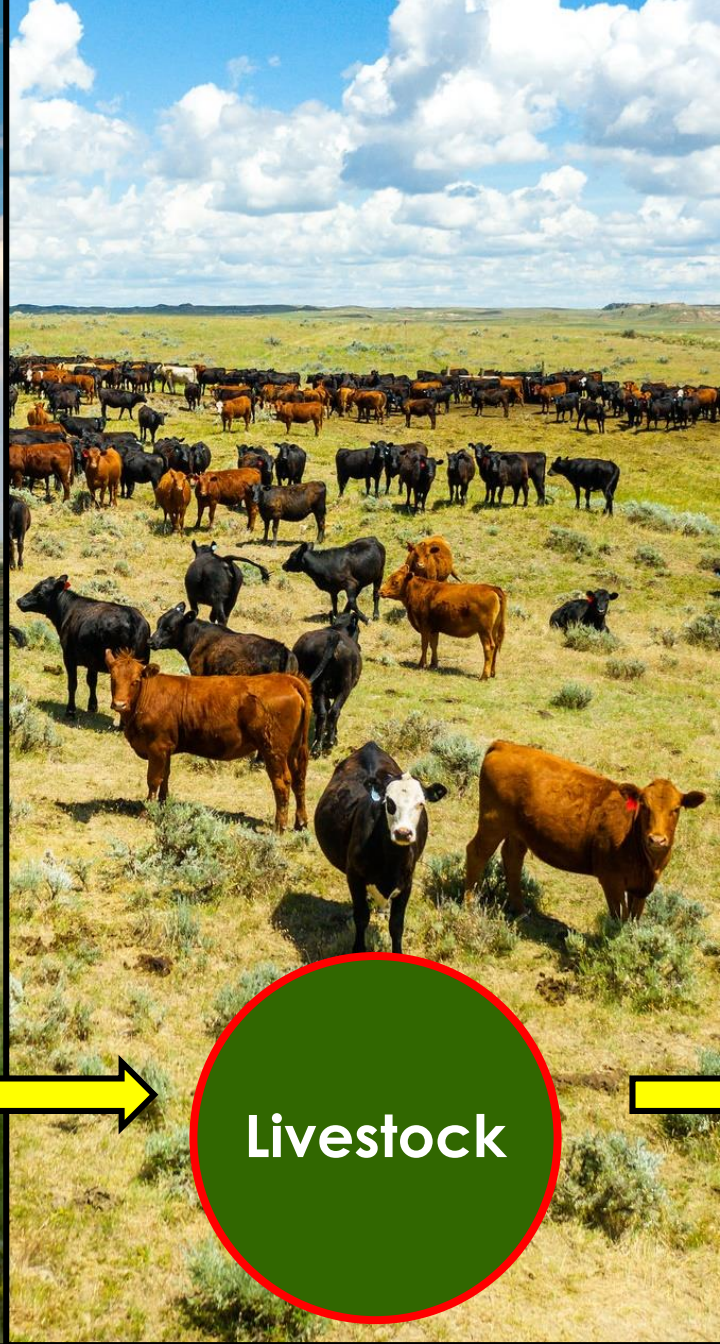
Grazier

Livestock

Plants

Soils

Photos: usda.gov



Grazier



Livestock



Plants

Soils

Converting Light Into Life

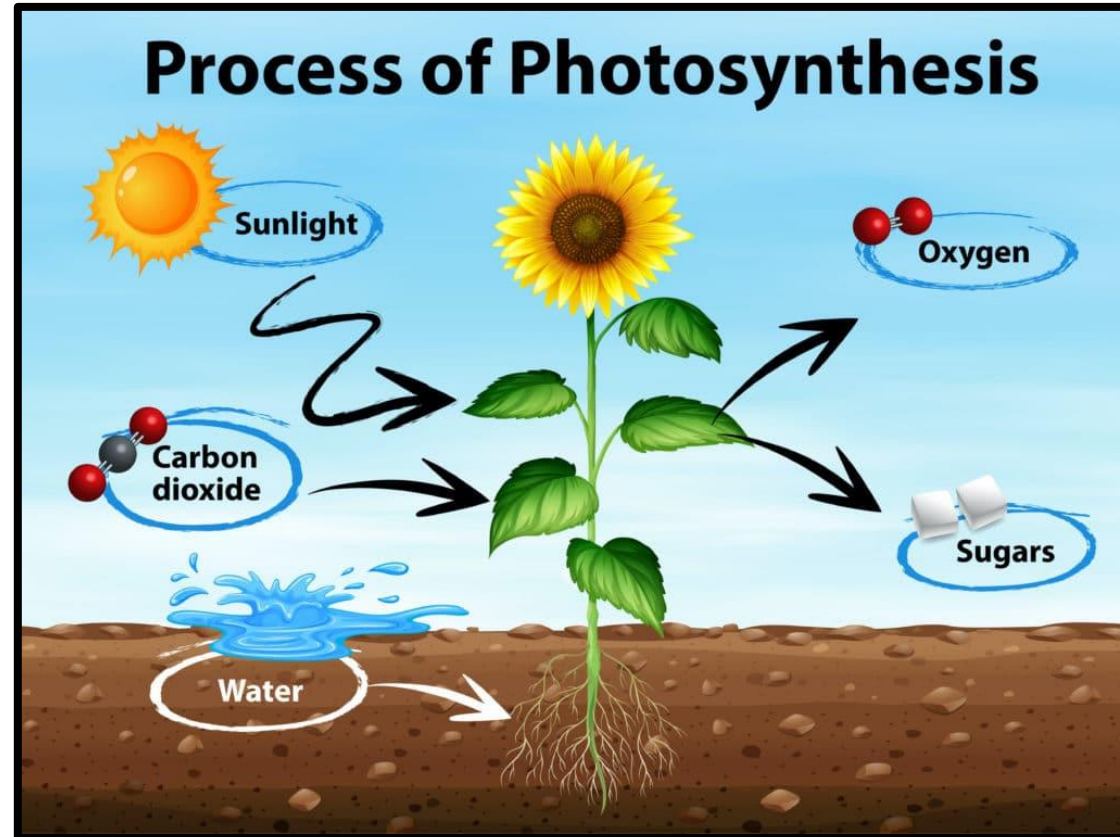


Image courtesy of science-sparks.com



Impact of Single Grazing on Plant Root Growth

% Top Reduction	% of Roots Not Growing by Day 3 After Clipping	Number of Days Roots Stopped Growing
0	0	0
40		
50	2	
60	50	
70	78	
80	100	12
90		17

What Happens to Leaves Affects Roots

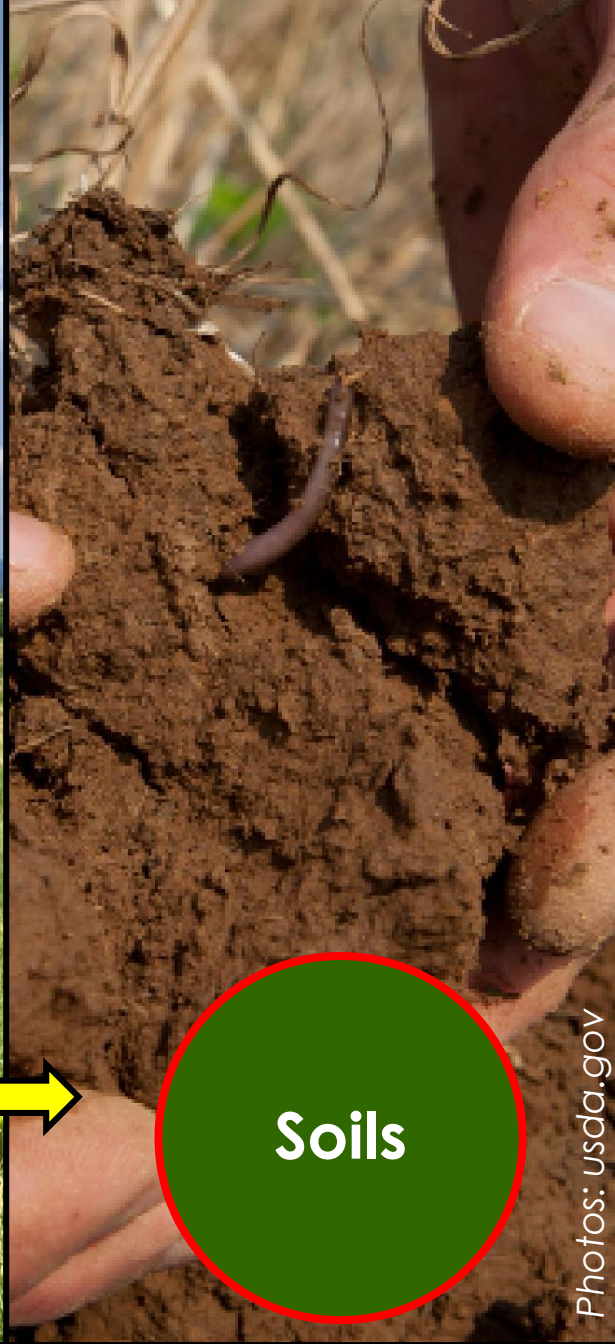
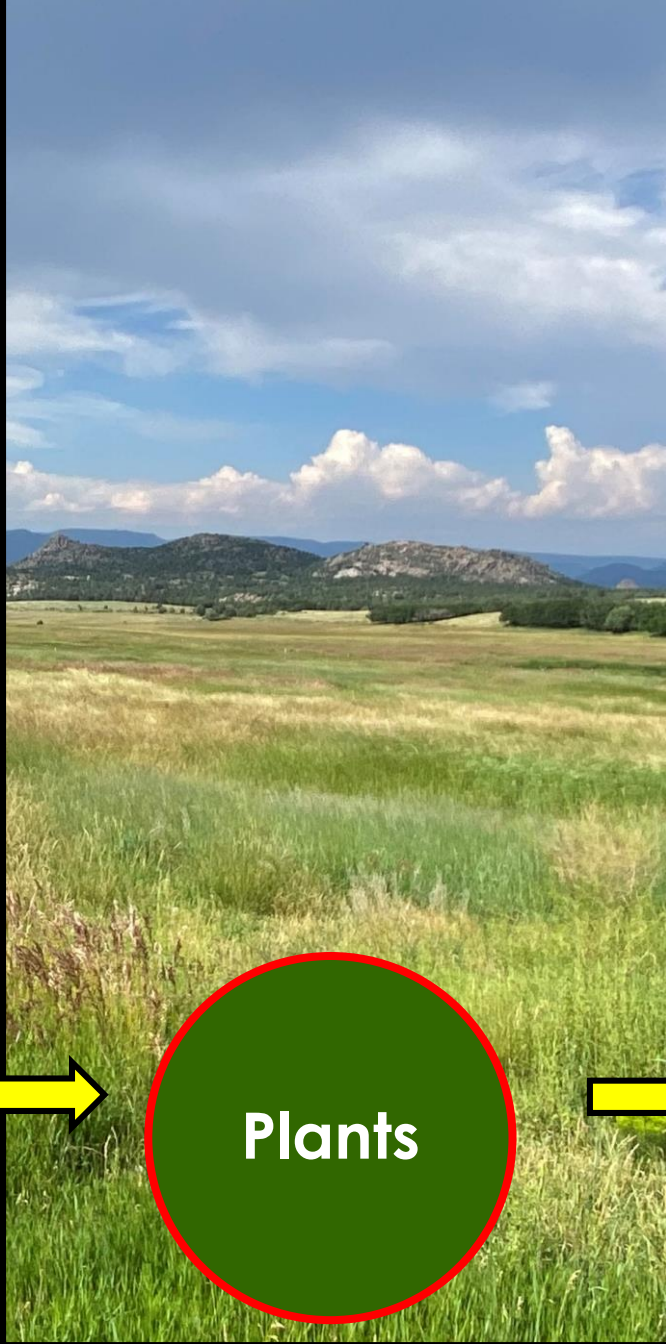
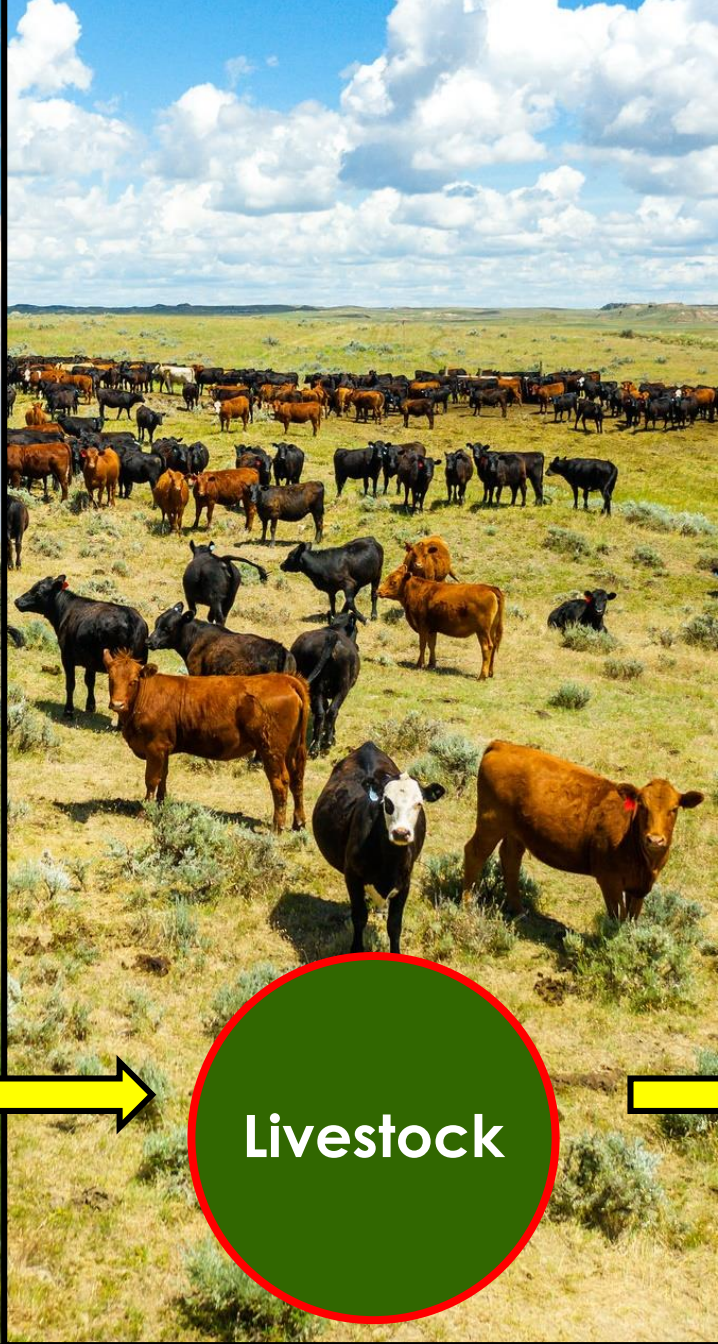


Tall Fescue

Tall Fescue
(Continuously
Grazed)

Orchardgrass

Tall Fescue
KY Bluegrass



Grazier



Livestock



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Photos: usda.gov

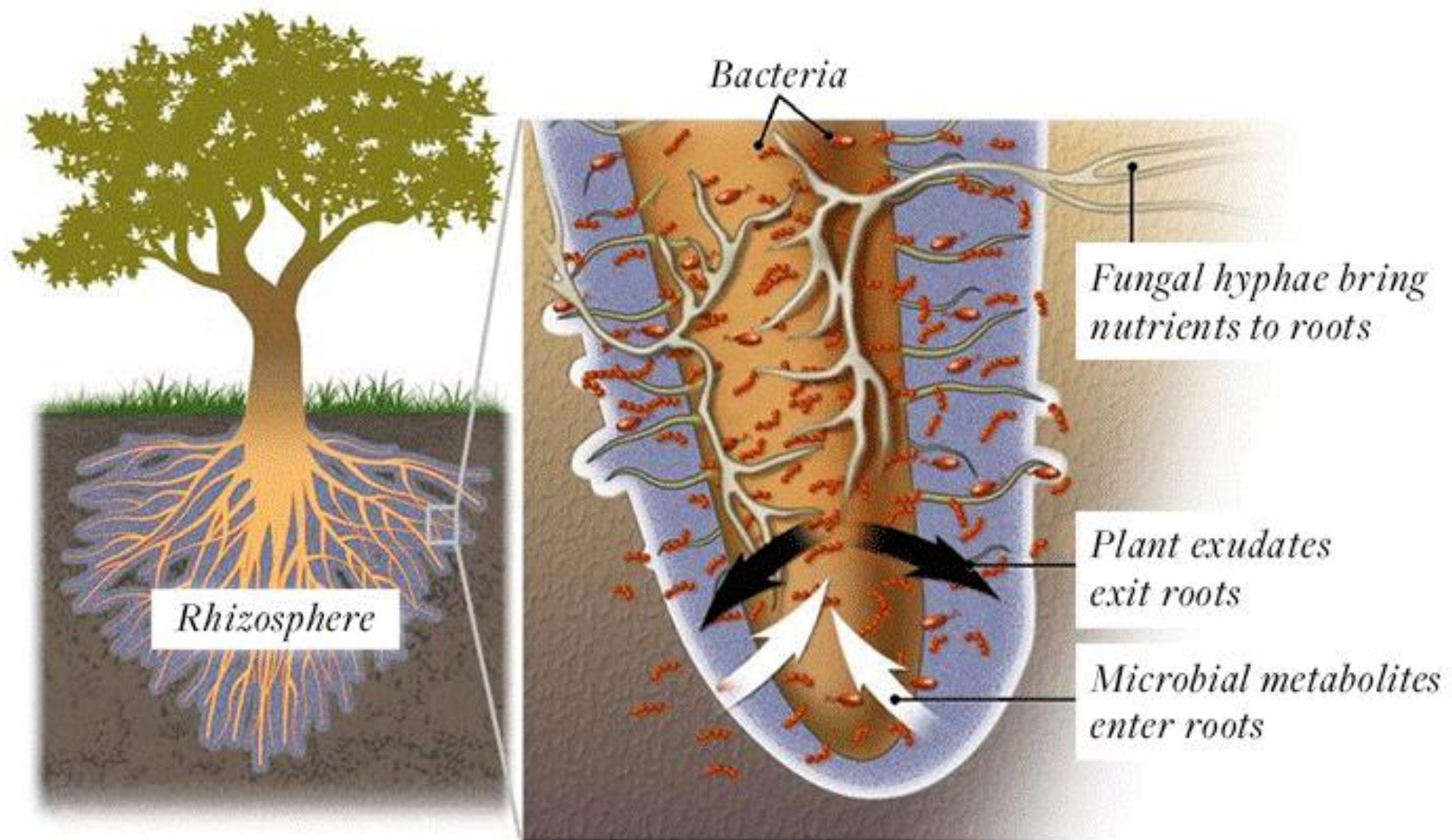


Image courtesy of David Montgomery

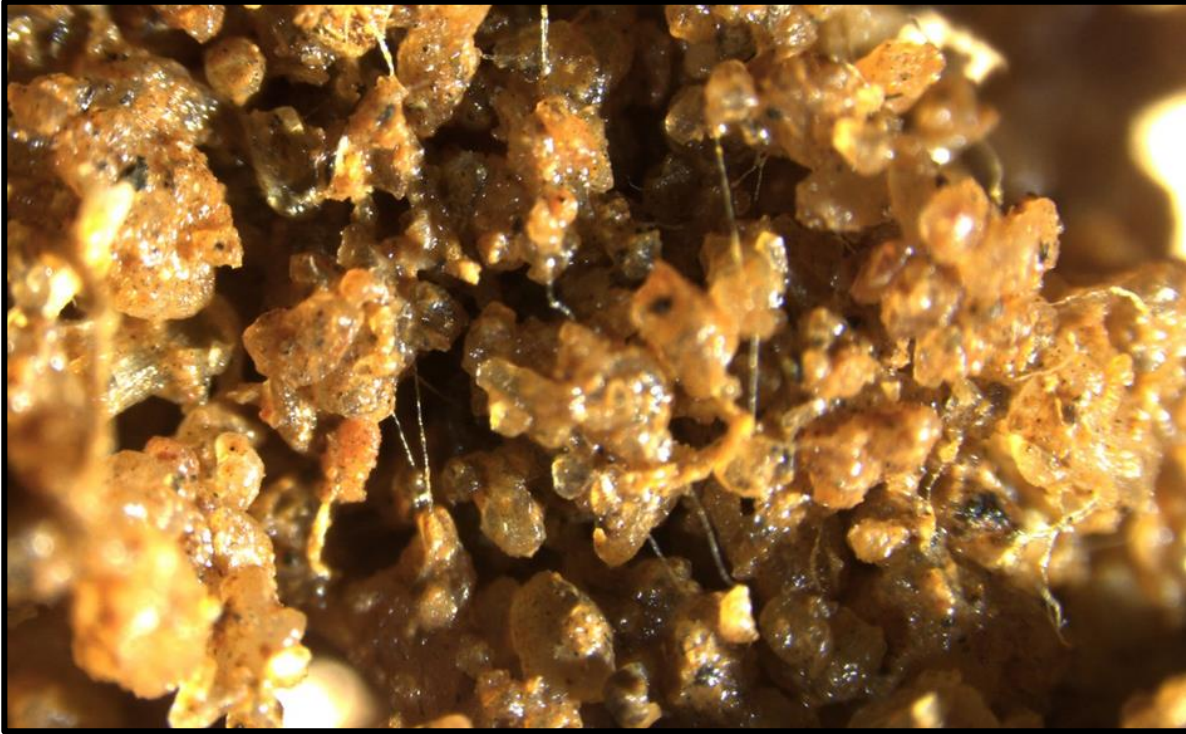
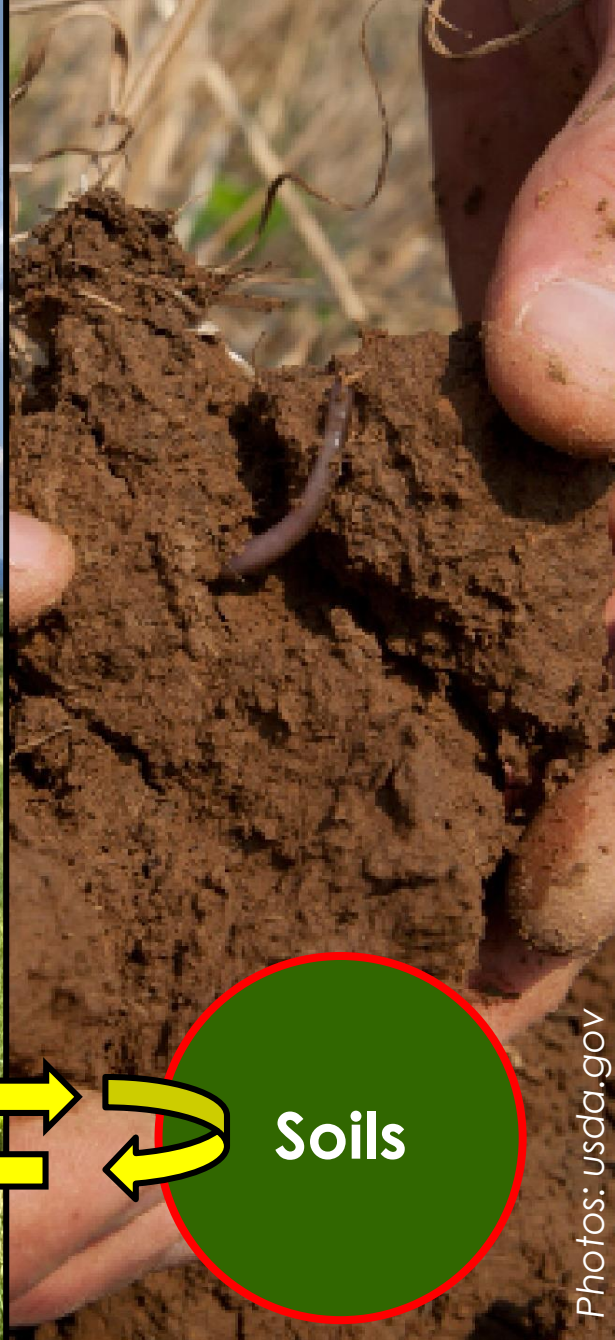
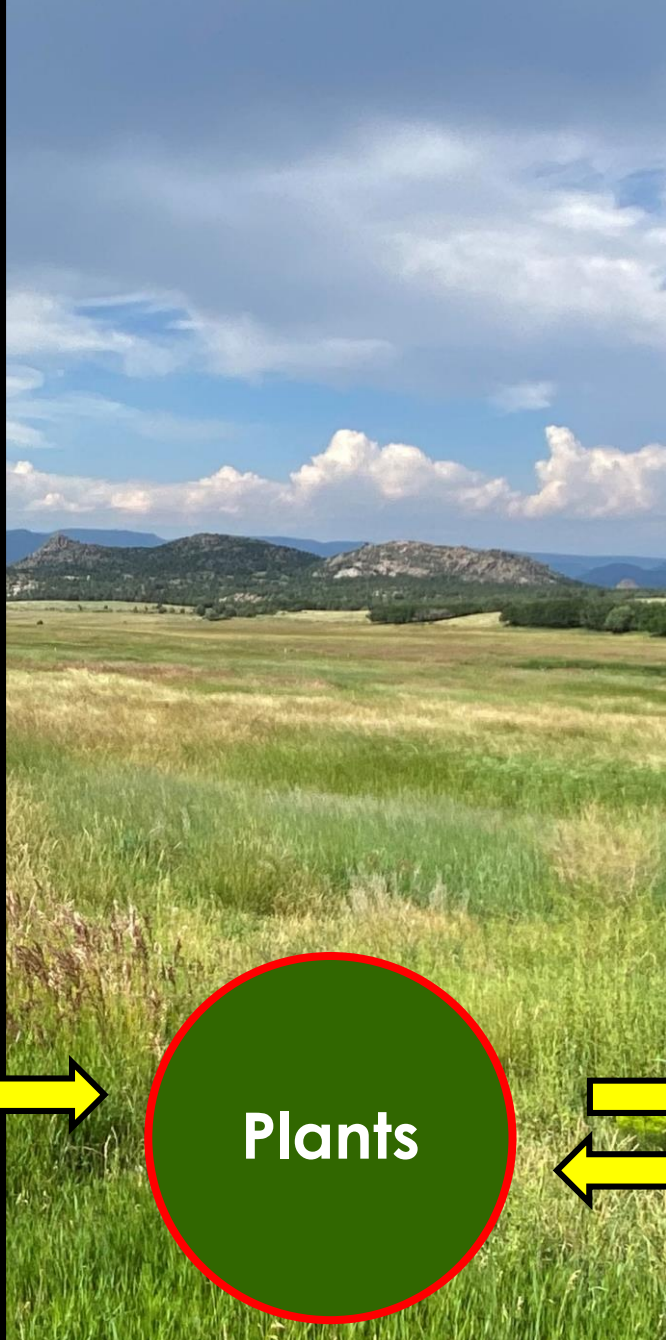
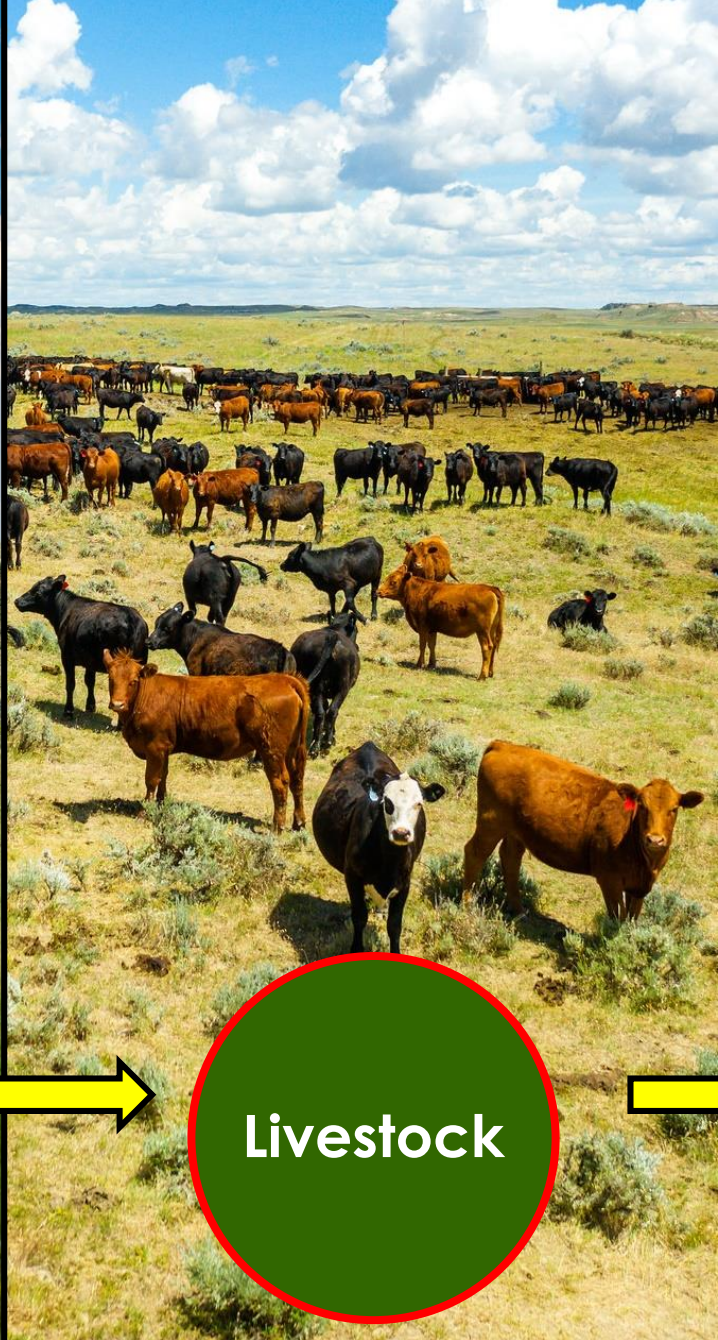


Image courtesy of Phil Lee



Image courtesy of Phil Lee



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Image courtesy of Carnegie Institution for Science



Image courtesy of Carnegie Institution for Science

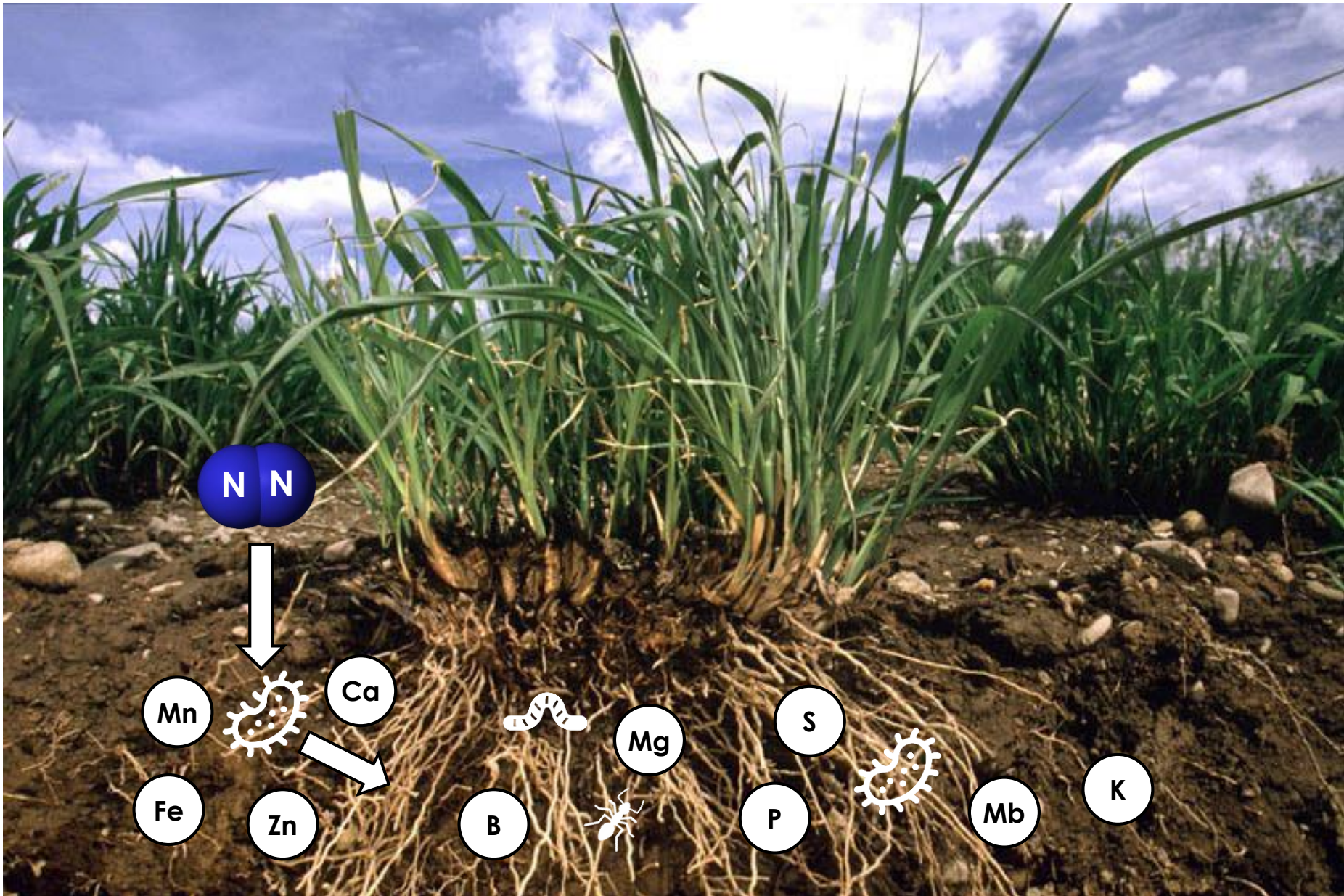


Image courtesy of Carnegie Institution for Science

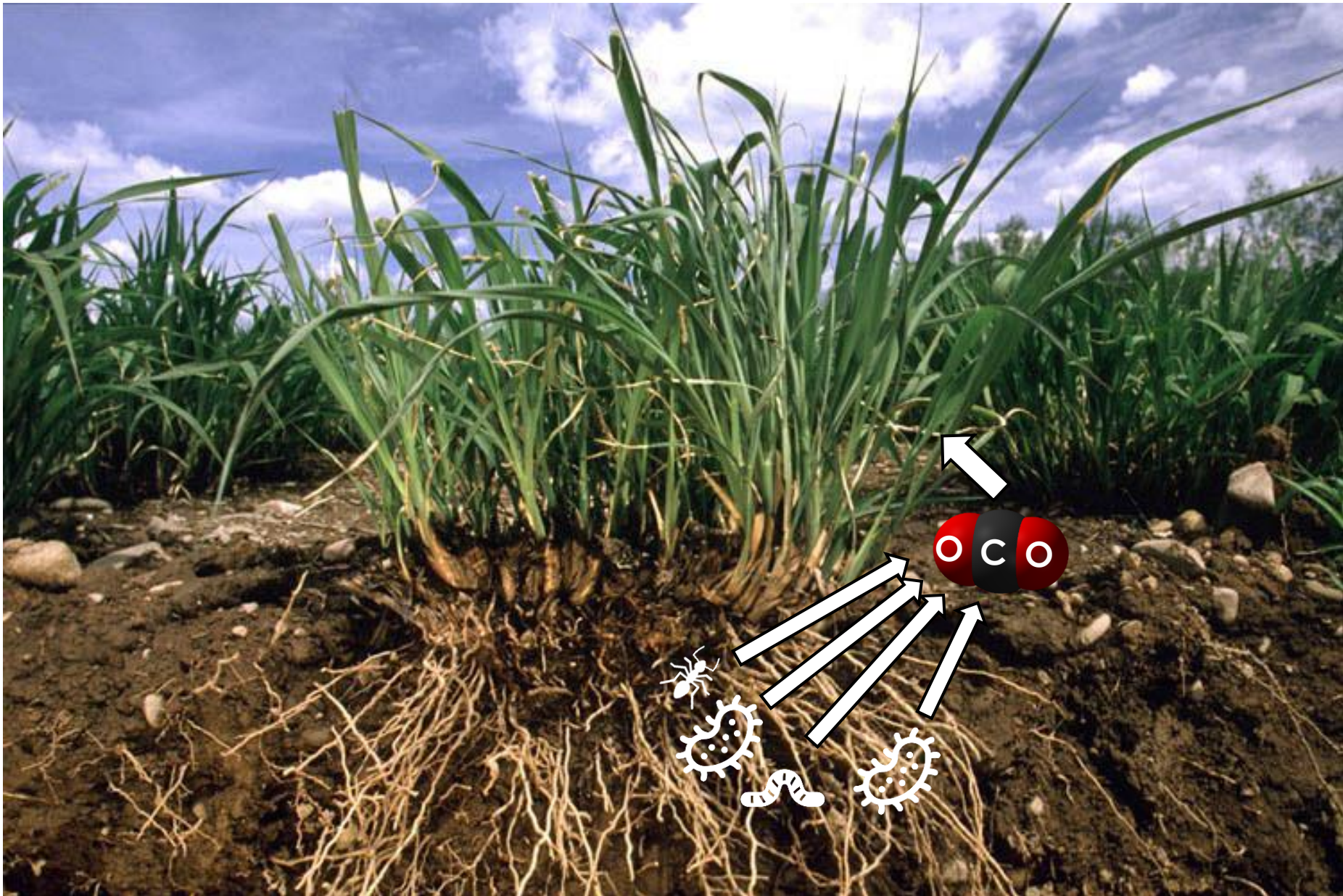
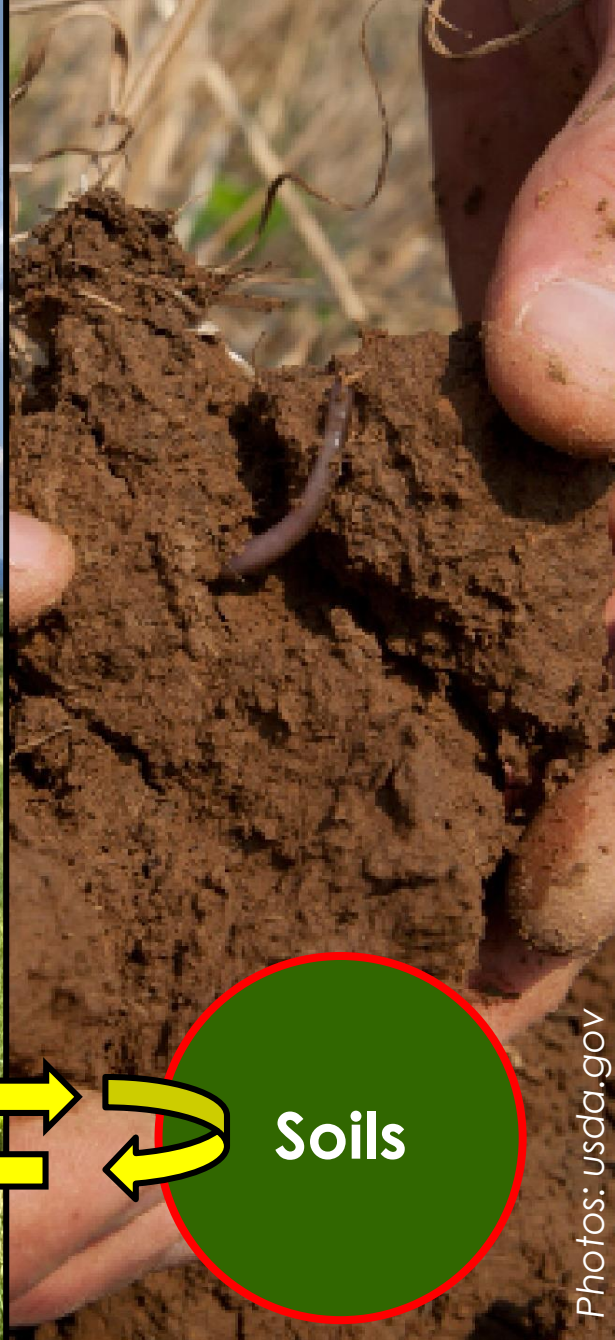
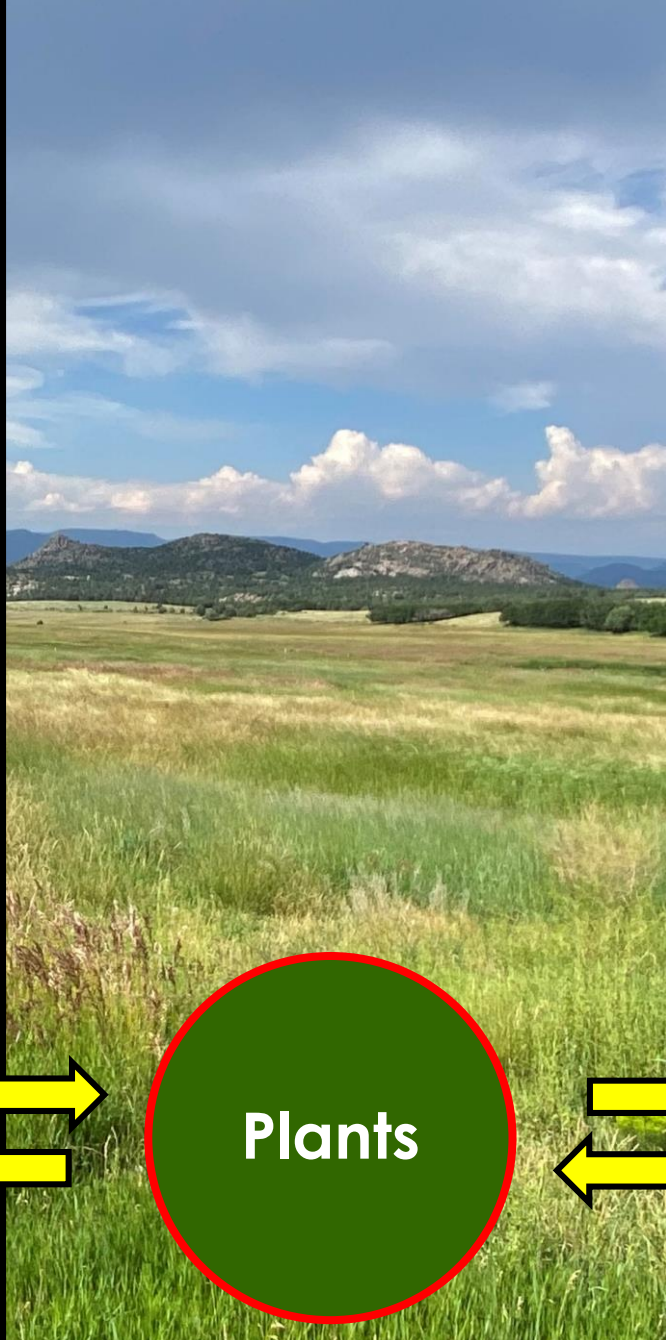
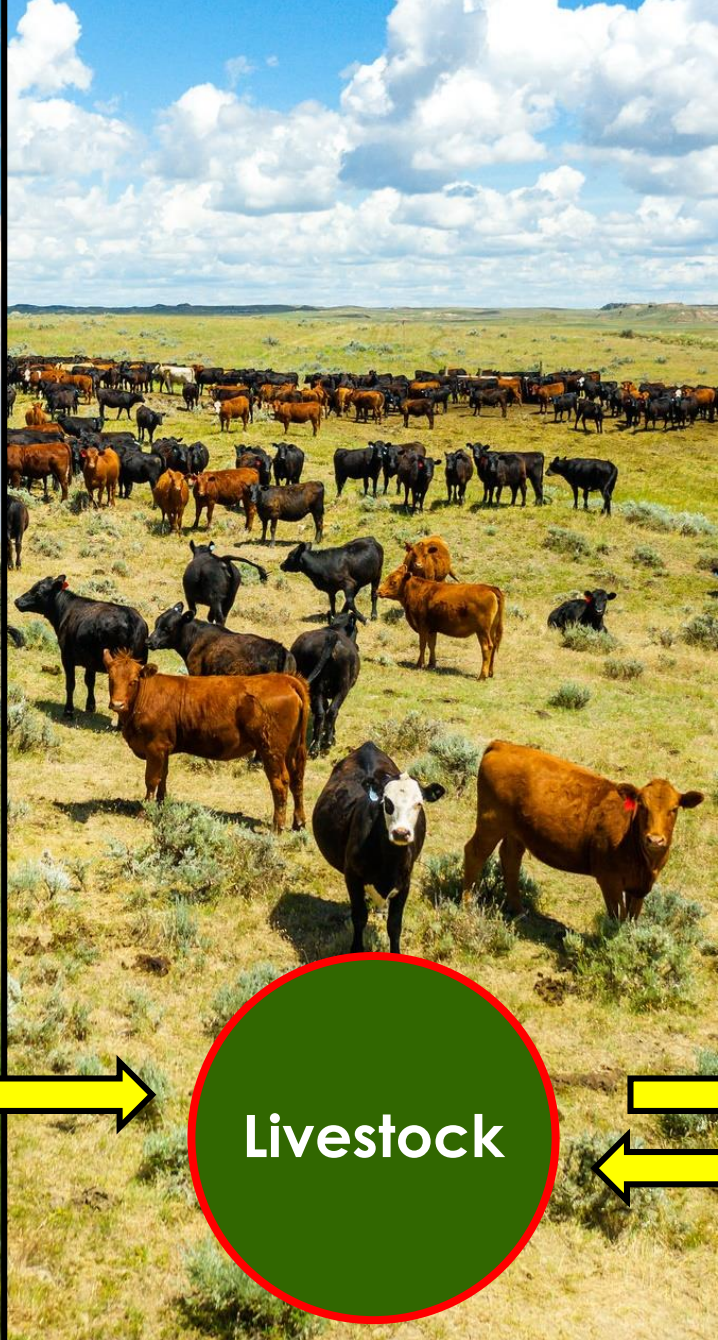


Image courtesy of Carnegie Institution for Science



Grazier



Livestock

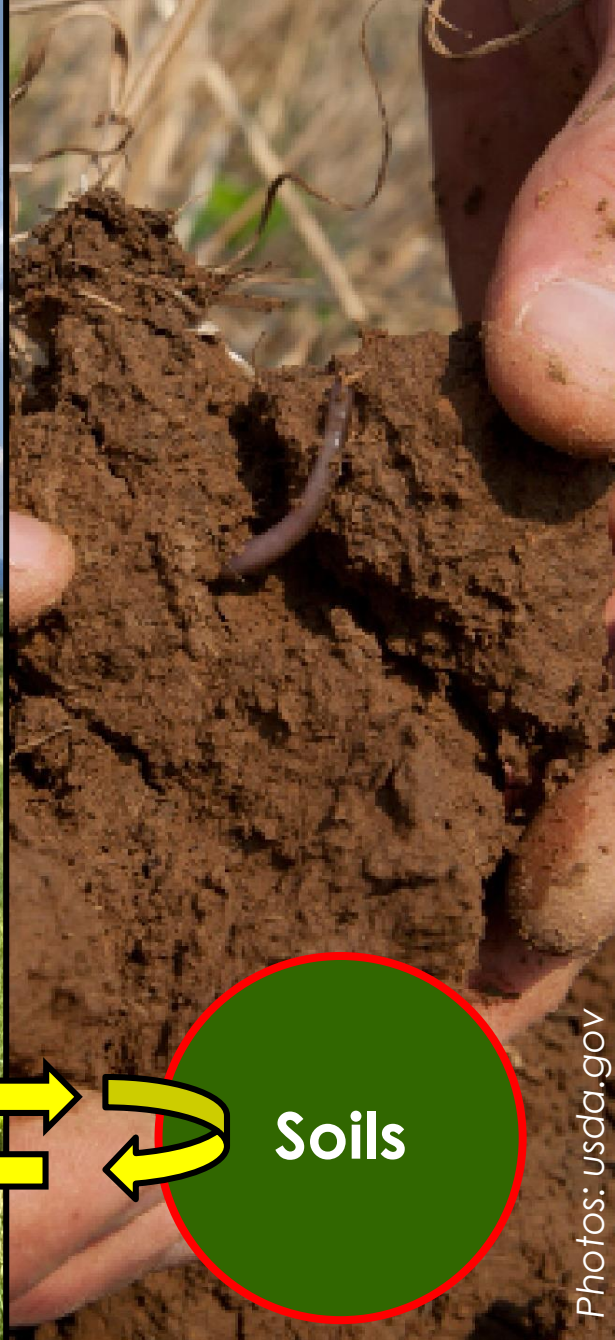
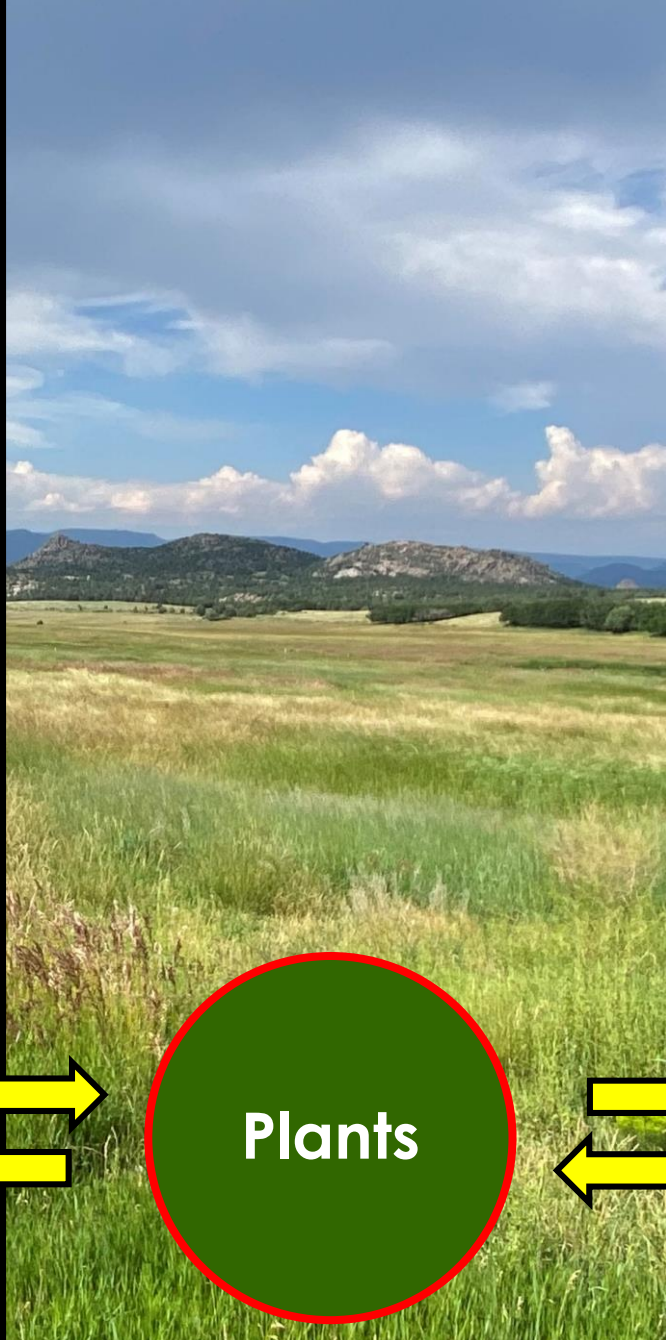
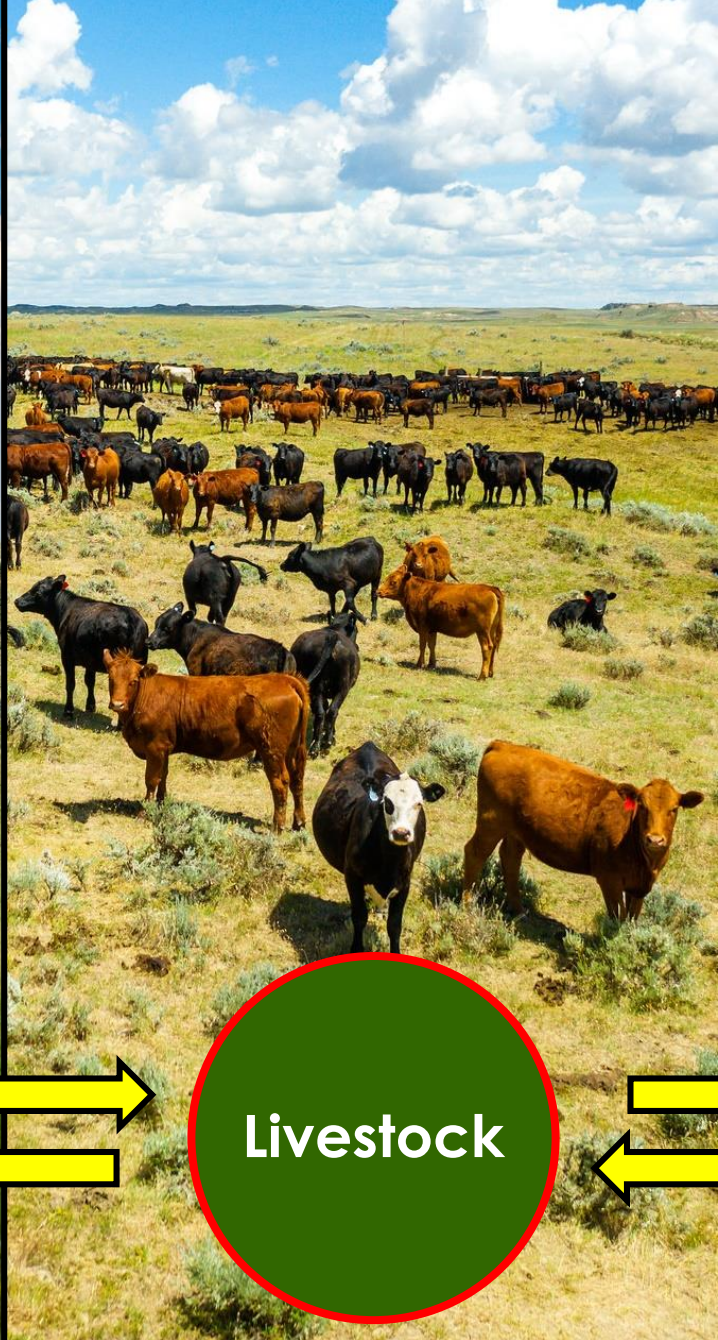


Plants



Soils

Photos: usda.gov



Grazier

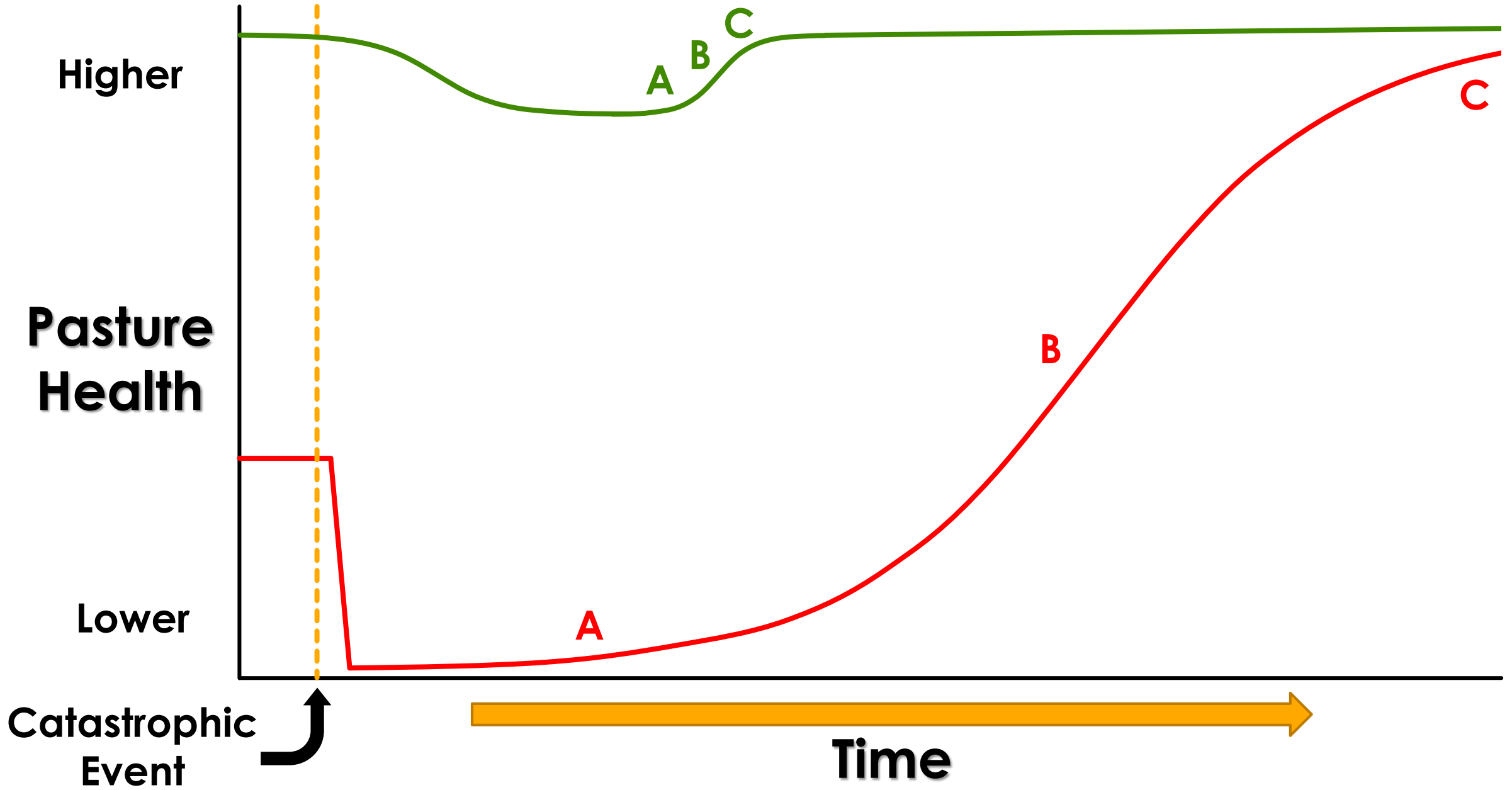
Livestock

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Photos: usda.gov



Soil Health Principles



*Images courtesy of:
Farmtario - upper right
Fine Art America - upper
left*

Pasture for Life - lower

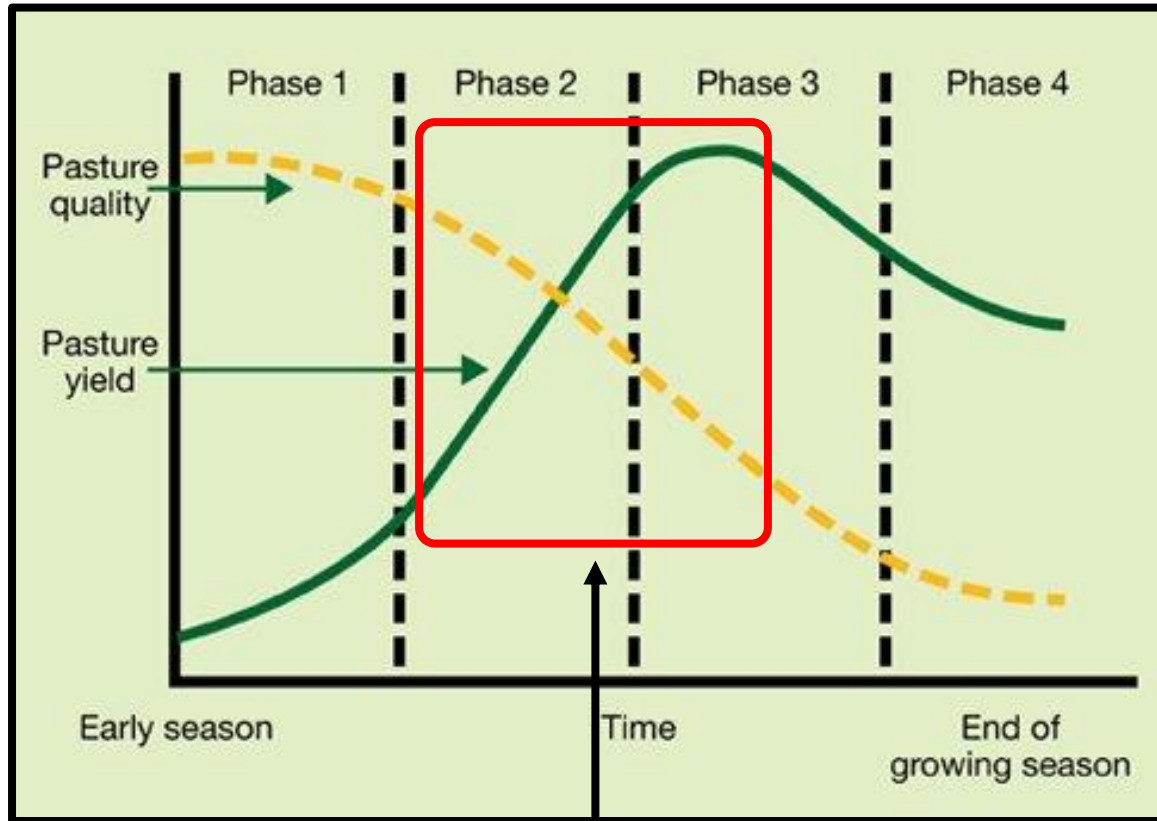
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Grazing Guidelines for Improving Soil Health and Recovering from Catastrophe

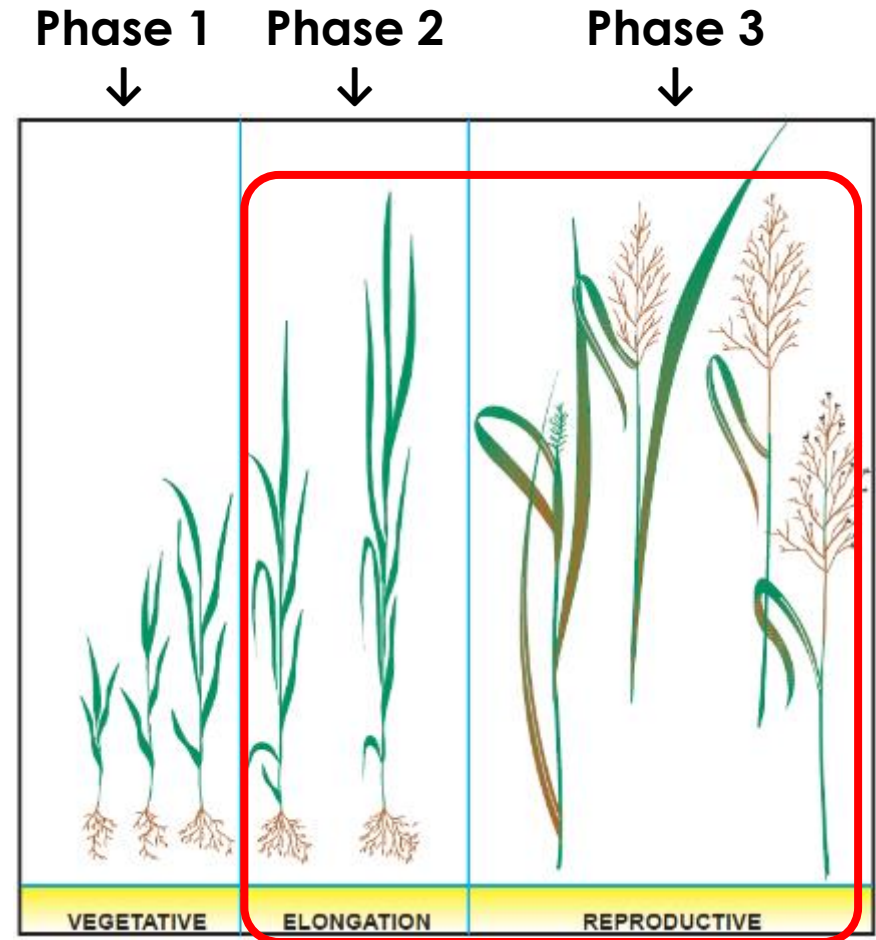
1. Begin grazing in phase 2 or phase 3 when pasture has been decimated



When Should Livestock Arrive?



Base image courtesy of Meat & Livestock Australia



Base image from drought.unl.edu

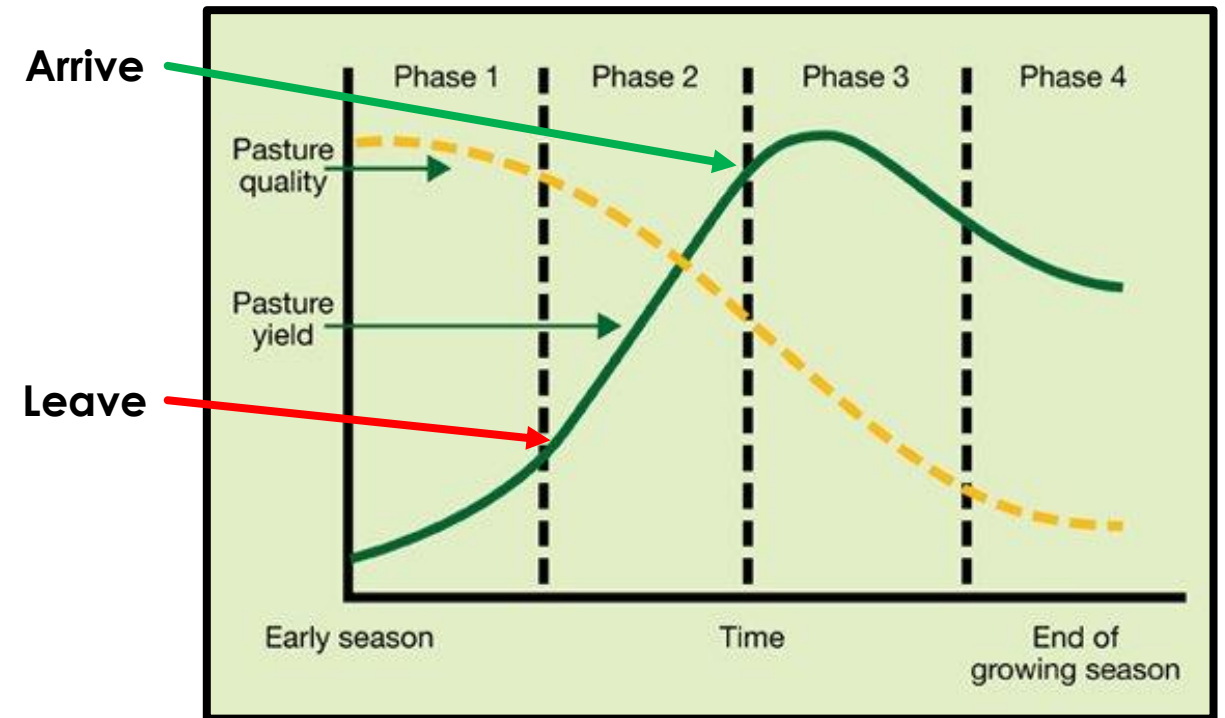
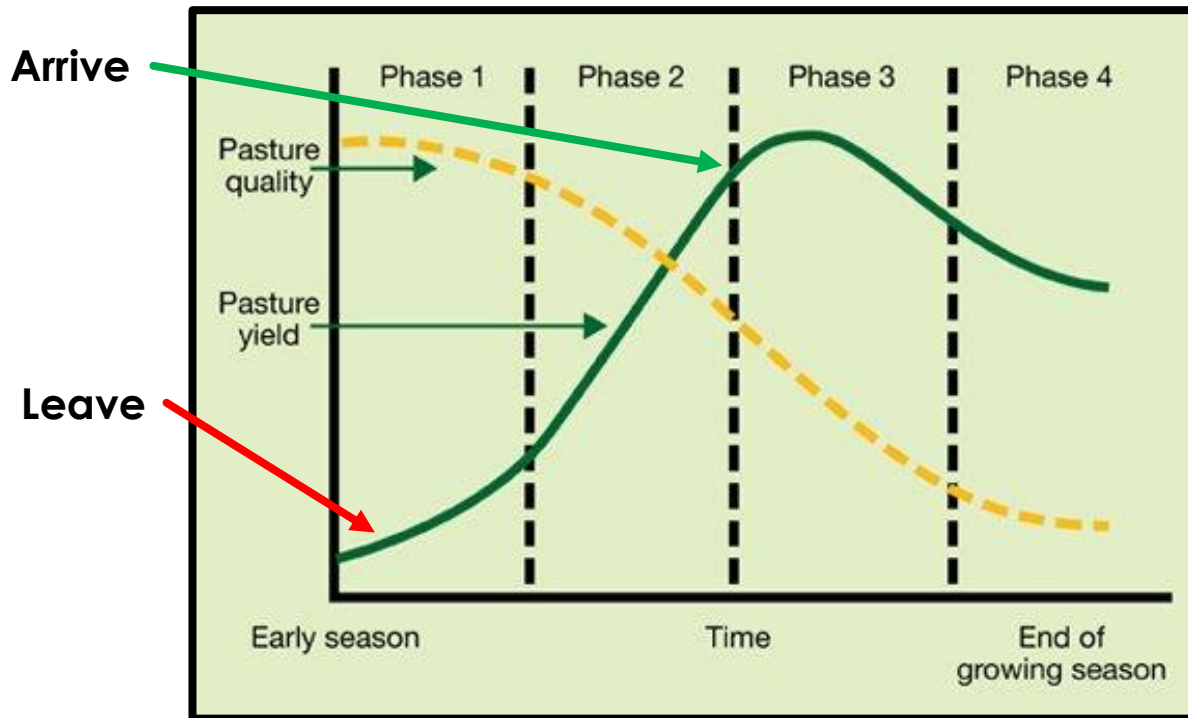
Optimal Phase for Grazing

Grazing Guidelines for Improving Soil Health and Recovering from Catastrophe

1. Begin grazing in phase 2 or phase 3 when pasture has been decimated
2. Stop grazing at bottom of phase 2 or earlier; leave 50% or more



When Should Animals Arrive, How Long Should They Stay and When Can They Return?



Base images courtesy of Meat and Livestock Australia

Grazing Guidelines for Improving Soil Health and Recovering from Catastrophe

1. Begin grazing in phase 2 or phase 3 when pasture has been decimated
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4. Monitor pasture growth rates to adjust how fast or slow livestock are moving through the rotation

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5. Don't bring animals back until pasture has fully recovered



When Can Livestock Return? When Plants Are Recovered

- ▶ Plants regrown to at least the top of the elongation growth phase (phase 2) or later
- ▶ No evidence of previous grazing such as chewed leaf tips
- ▶ As dark green as possible
- ▶ Oldest leaves attached at the bottom are turning brown



*Image courtesy of Hay and Forage
Grower*

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6. If no pasture is fully recovered before second graze, move livestock to one area, feed hay until recovery takes place

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5. Don't bring animals back *until* pasture has fully recovered
6. If no pasture is fully recovered before second graze, move livestock to one area, feed hay until recovery takes place
7. Fluctuate grazing timing, duration, frequency and intensity



Catastrophe? Opportunity?



Photo: usda.gov

Pivot your pasture?

- ▶ Thrive in the new normal
 - Extreme temps, events
 - How's your topsoil?
- ▶ Diversity
 - Warm and cool season plants
 - Rooting depths
 - Herbs, shrubs, trees
- ▶ What comes back?
 - It depends. . .
 - Grazing to shift plant communities



Pivot your livestock?

- ▶ Thrive in the new normal
 - Extreme temps, events
 - What's your forage now?
- ▶ Destock, restock?
- ▶ Species, breeds, classes, flocks
- ▶ Fewer, better animals
- ▶ The power of heterosis



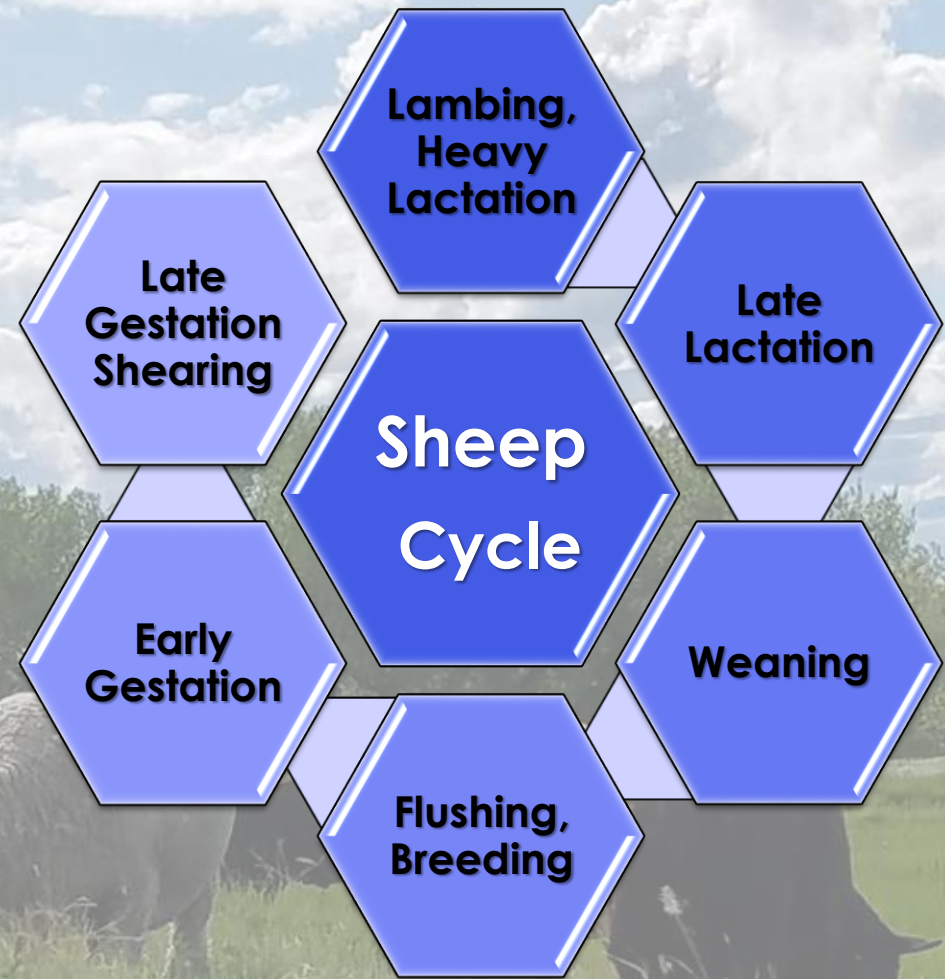
Photo: Weaver Ranch, New Mexico



Pivot your business plan?

- ▶ Thrive in the new normal
 - Extreme temps, events
 - What's your holistic goal?
- ▶ Landowner to leaser
- ▶ Goods to services











**Always
plan,
monitor,
learn,
partner,
take care of
the land and
each other.**
- Dale &
Janet Veseth



Erik Tucker, Colorado

(719) 980-3745

- Stockmanship
- Grazing
- Marketing
- Soil health principles

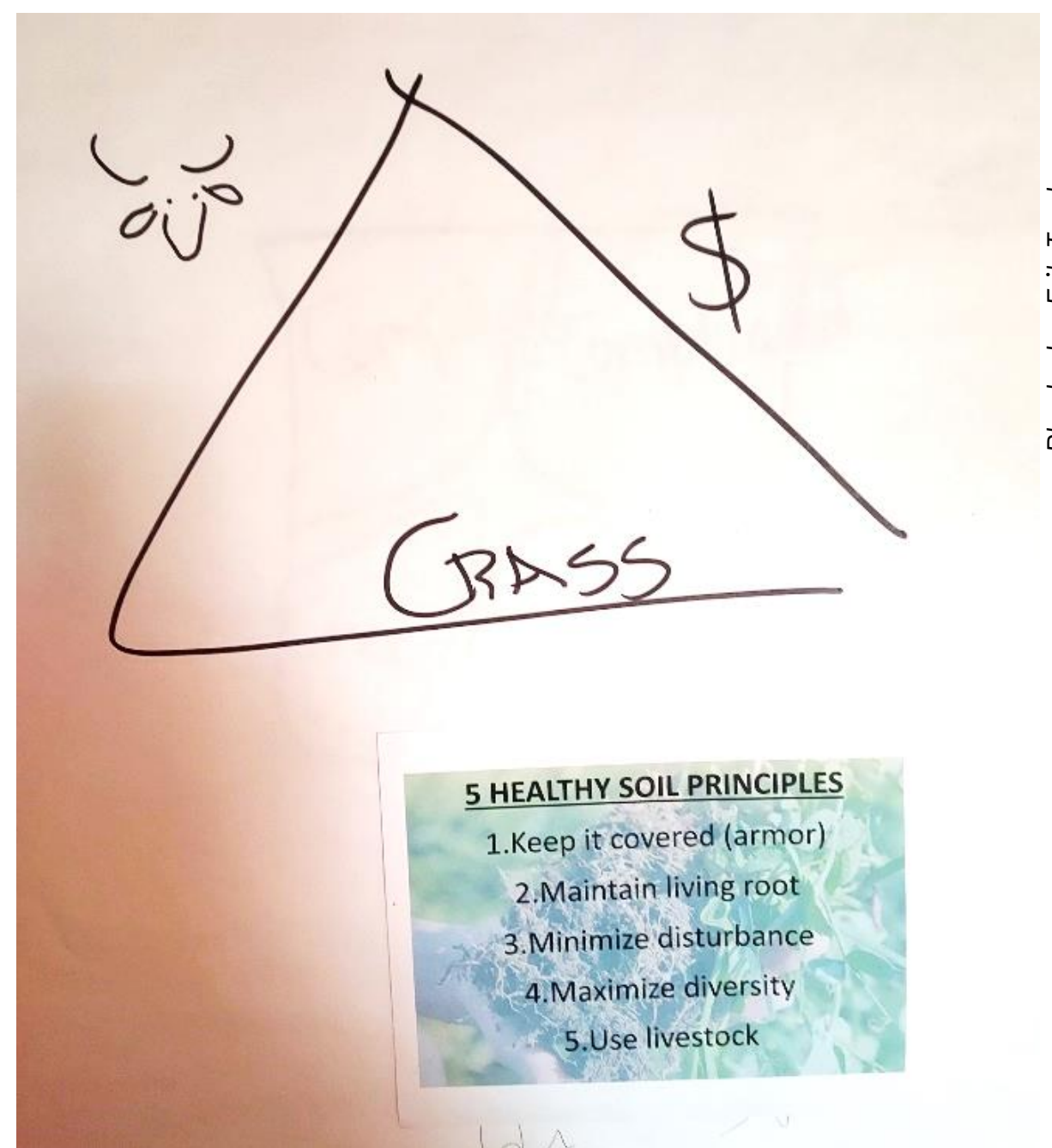


Photo by Erik Tucker

Doug Avery, “The Resilient Farmer”

- ▶ Always run under, not over.
- ▶ Either you win or you learn.
- ▶ **I thought the problem was drought, it wasn't. My problem was the way I farmed, and the way I thought about things.**
- ▶ When we're sunk in our difficulties, immersed in our habitual way of doing things, we often can't see. But if we get another pair of eyes on the job, if we **grab a helping hand, that's when change becomes possible.**
- ▶ What was happening ticked all the boxes for how to deal with depression: create hope, connect with people, learn new things; take notice of what's going on in the world; stay focused on what you can influence. It all begins with that word “hope”, as **without hope, nothing else follows.**





- ❖ National Suicide Prevention Lifeline 24/7/365: **1-800-273-8255**
- ❖ Use the [online Lifeline Crisis Chat](#).
- ❖ Visit [National Suicide Prevention Lifeline](#).

Questions?



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ATTRA.NCAT.ORG

forum.SoilForWater.org



Thank you!



— ATTRA.NCAT.ORG —

Connect with **FACT**

Food Animal Concerns Trust

Upcoming webinars

- 🐔 **January 31:** Converting Woodland into Silvopasture Part 1
- 🐔 **February 7:** Converting Woodland into Silvopasture Part 2
- 🐔 **February 24:** Medicinal Grazing and Unexpected Outcomes
- 🐔 **March 7:** Beefing Up Your Farm's Brand & Online Presence

Grants, Scholarships, Training, Mentorship & More!

- 🐔 **Scholarships** – *ongoing*
- 🐔 **Customized handouts** on the nutritional benefits of food from pastured animals

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