



NATIONAL CENTER
FOR APPROPRIATE
TECHNOLOGY

GROWING HOPE

Practical Tools for Our Changing Climate

Climate
and Soils

Ecosystem
Health

Community
Resiliency

ATTRACAT.ORG

WEEK ONE: CLIMATE AND SOILS

Tuesday, February 28, 2023

- 11 a.m.–12 p.m. EST

Conference Opening Keynote: Dr. Rattan Lal, 2020 World Food Prize Awardee and Distinguished University Professor of Soil Science, Ohio State University

- 12–2 p.m. EST

Carbon Farm Planning

Dr. Jeff Creque, Carbon Cycle Institute

Loren Poncia, Stemple Creek Ranch

Molly Taylor, PT Ranch

Carbon is the principal energy pathway on farms and ranches. Meanwhile, harmful levels of carbon dioxide are building up in our atmosphere as a direct result of human-caused greenhouse gas emissions. Through agricultural practices that maintain living roots, minimally disturb the soil, integrate agroforestry systems, utilize alternative soil amendments, and incorporate species diversity, agroecosystems can harness photosynthetic potential to capture atmospheric carbon and store it in above ground biomass and below ground healthy soils. Carbon Farm Planning identifies all opportunities for enhanced carbon capture and storage on farms and ranches with concurrent co-benefits, including improved water holding capacity, biodiversity and productivity.

Thursday, March 2, 2023

- 12–2 p.m. EST

Fertilizer Reduction

Mark Schonbeck, Organic Farming Research Foundation

Emily Oakley and Mike Appel, Three Springs Farm

The use of synthetic fertilizer is one of the leading causes of greenhouse gas emissions in agriculture. In this session we'll discuss how fertilizer reduction can be accomplished while maintaining productivity and profitability. Farmers and ranchers will share their stories of how they have achieved zero synthetic fertilizer use on their operations, and the benefits they have seen from opting out of the synthetic input system.

WEEK TWO: ECOSYSTEM HEALTH

Tuesday, March 7, 2023

- 11 a.m.–12 p.m. EST

Keynote: Eric Toensmeier, Author of *The Carbon Farming Solution*, *Perennial Vegetables*, *Paradise Lot*, and *Edible Forest Gardens*

If you
miss any of the
conference sessions,
they will be
posted on our
YouTube channel.



(WEEK TWO continued)

- 12–2 p.m. EST

Agroforestry

Meghan Giroux, Founder and Executive Director of Interlace Commons

Kate MacFarland, Agroforester for the USDA National Agroforestry Center

Gary Bentrup, Research Landscape Planner for the USDA National Agroforestry Center

Ellie Honan, Coastal Roots Farm

Agroforestry has huge potential as a nature-based climate solution that also provides benefits to farmers outside of carbon sequestration. Trees can be incorporated into the farm to provide shade for livestock, add additional enterprises, increase biodiversity, provide wildlife habitat, and much more. In this session we will look at the many ways agroforestry practices can be incorporated into the farmscape to benefit the farm and the climate.

Thursday, March 9, 2023

- 12–2 p.m. EST

Grazing for the Climate

Karl Thidemann, Soil4Climate

Maloi Lannan, Red Clover Lambs

Meagan Lannan, Barney Creek Livestock

Denice Rackley, Sheep & Sheepdog Farmer and Ag Researcher and Writer

Janet McNally, Tamarack Lamb & Wool

Cattle, sheep, and goats can be a powerful tool to sequester carbon in grasslands when managed well. In this session, we will explore the positive impact ruminants can have on soil health, the agroecosystem, climate, and farm profitability. The conversation around livestock's climate impact is full of contradictory messages, and we will look at the various claims surrounding this topic.

Ranchers from around the country who are currently grazing regeneratively will share their stories.

WEEK THREE: COMMUNITY RESILIENCY

Tuesday, March 14

- 11 a.m.–12 p.m. EST

Keynote: Dr. Elizabeth Heilman, Wichita State University

- 12–2 p.m. EST

Pathways to Resilience

Kendra Kimbirauskas, Goat Mountain Pastured Meats, and Senior Director of Agriculture & Food Systems with State Innovation Exchange (SiX)

Jeremy Brown, Broadview Ag

Farming and ranching is a stressful occupation in the best circumstances but adding the unpredictability of climate change on top of that makes it especially challenging. Producers will have to overcome adverse circumstances at some point in their careers, and there are resources available to support them. In this session we will highlight ways farmers are building resilience on their farms in the face of increasing weather extremes, and we will hear stories of farmers who have gotten through disaster and learned important lessons along the way.

Thursday, March 16

- 12–2 p.m. EST

Power of Community

Kimberly Ratcliff, Caney Creek Ranch

Thea O'Carroll, Yield Organic

To build farm and farmer resiliency, organizations and individuals are consciously building community to cultivate curiosity and spark conversation, to empower one another through shared learning, to support and lift each other through difficult times and to celebrate progress along the way. In this session we will feature stories of community building and the importance of social support to make agriculture socially as well as ecologically regenerative.

WEEK ONE:
CLIMATE AND SOILS

TUESDAY, FEBRUARY 28, 2023

11 a.m.- 12 p.m. EST

Conference Opening Keynote, Dr. Rattan Lal



WEEK ONE: CLIMATE AND SOILS

TUESDAY, FEBRUARY 28, 2023

Carbon Farm Planning

12 – 2 p.m. EST

What are your top three takeaways?

1.

2.

3.



WEEK ONE: CLIMATE AND SOILS

TUESDAY, FEBRUARY 28, 2023



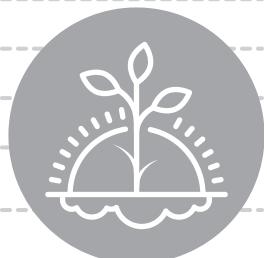
WEEK ONE: CLIMATE AND SOILS

TUESDAY, FEBRUARY 28, 2023

Draw your farm or ranch's carbon cycle, and list opportunities for increased carbon storage and for decreased carbon emissions.
Highlight one low-hanging fruit type change you could make to improve your carbon footprint?



Listen to *Episode 284. Carbon Farm Planning*
from ATTRA's *Voices from the Field*.



WEEK ONE:
CLIMATE AND SOILS

TUESDAY, FEBRUARY 28, 2023



WEEK ONE: CLIMATE AND SOILS

THURSDAY, MARCH 2, 2023

Fertilizer Reduction

12 – 2 p.m. EST

What are your top three takeaways?

1.

2.

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WEEK ONE:
CLIMATE AND SOILS

THURSDAY, MARCH 2, 2023



WEEK ONE: CLIMATE AND SOILS

THURSDAY, MARCH 2, 2023

Are there any small changes you can make to your operation to build soil fertility biologically?



Listen to *Episode 260, Rising Fertilizer Costs.*

Look to History for Answers from ATTRA's

Voices from the Field.



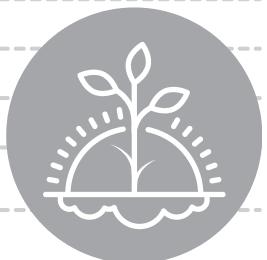
WEEK ONE:
CLIMATE AND SOILS

THURSDAY, MARCH 2, 2023



WEEK ONE: CLIMATE AND SOILS

THURSDAY, MARCH 2, 2023



WEEK TWO:
ECOSYSTEM HEALTH

TUESDAY, MARCH 7, 2023

11 a.m.- 12 p.m. EST

Keynote Eric Toensmeier



WEEK TWO: ECOSYSTEM HEALTH

TUESDAY, MARCH 7, 2023

Agroforestry

12 – 2 p.m. EST

What are your top three takeaways?

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WEEK TWO: ECOSYSTEM HEALTH

TUESDAY, MARCH 7, 2023



WEEK TWO: ECOSYSTEM HEALTH

TUESDAY, MARCH 7, 2023

Are there spaces on your farm or ranch that could benefit from agroforestry practices? How could you add or manage trees to benefit your soil, livestock, profitability, and the climate as a whole?



Listen to *Episode 240. Urban Agroforestry for Dryland Environments* from ATTRA's *Voices from the Field*.



WEEK TWO:
ECOSYSTEM HEALTH

TUESDAY, MARCH 7, 2023



WEEK TWO:
ECOSYSTEM HEALTH

THURSDAY, MARCH 9, 2023

Grazing for the Climate

12 – 2 p.m. EST

What are your top three takeaways?

1.

2.

3.



WEEK TWO:
ECOSYSTEM HEALTH

THURSDAY, MARCH 9, 2023



Listen to Episode 244. She's Raising
Sheep: Indiana's Denice Rackley
from ATTRA's Voices from the Field.

WEEK TWO: ECOSYSTEM HEALTH

THURSDAY, MARCH 9, 2023

What opportunities do you see on your farm to improve your grazing management?



Listen to *Episode 262. She's Raising Sheep:*

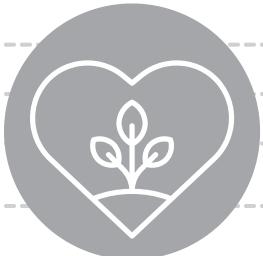
Minnesota Shepherd Janet McNally from

ATTRA's *Voices from the Field*.



WEEK TWO:
ECOSYSTEM HEALTH

THURSDAY, MARCH 9, 2023



Listen to *Episode 272. She's Raising Sheep: Minnesota Shepherd Janet McNally, Part 2*
from ATTRA's *Voices from the Field*.

WEEK TWO:
ECOSYSTEM HEALTH

THURSDAY, MARCH 9, 2023



Listen to *Episode 282. She's Raising Sheep.*

Montana Shepherd Maloi Lannan from

ATTRA's *Voices from the Field*.



WEEK THREE:
COMMUNITY RESILIENCY

TUESDAY, MARCH 14, 2023

11 a.m.- 12 p.m. EST

Keynote Dr. Elizabeth Heilman, Wichita State University



WEEK THREE: COMMUNITY RESILIENCY

TUESDAY, MARCH 14, 2023

Pathways to Resilience

12 – 2 p.m. EST

What are your top three takeaways?

1.

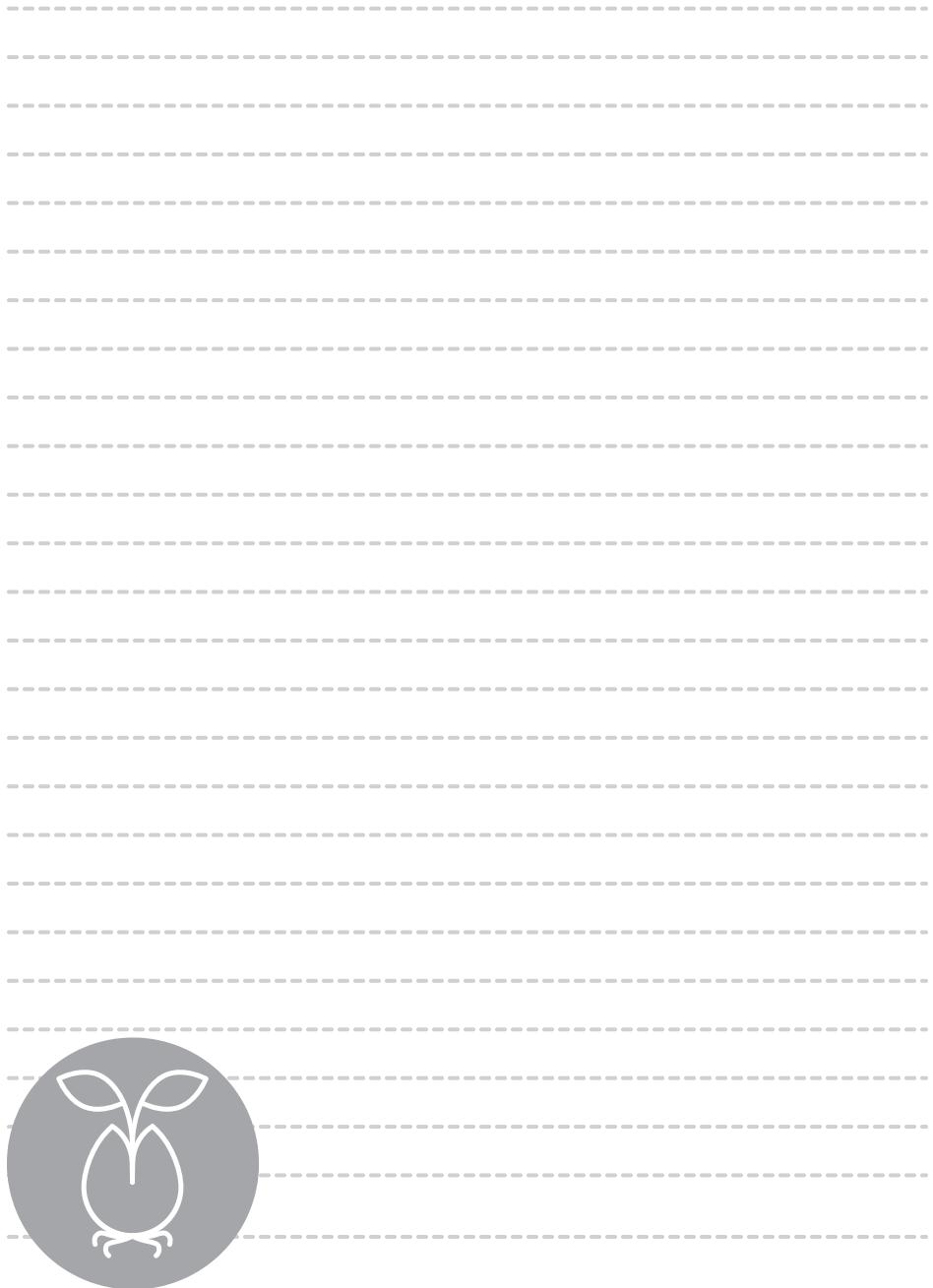
2.

3.



WEEK THREE:
COMMUNITY RESILIENCY

TUESDAY, MARCH 14, 2023



WEEK THREE: COMMUNITY RESILIENCY

TUESDAY, MARCH 14, 2023

What is one small action can you take to improve your wellbeing?
Who is someone you could brainstorm with about ways to grow
your wellbeing?



Listen to *Episode 274. Study Explores the Effects of Stress on Farmer Well-Being* from ATTRA's *Voices from the Field*.



WEEK THREE: COMMUNITY RESILIENCY

TUESDAY, MARCH 14, 2023



WEEK THREE: COMMUNITY RESILIENCY

THURSDAY, MARCH 16, 2023

Power of Community

12 – 2 p.m. EST

What are your top three takeaways?

1.

2.

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WEEK THREE: COMMUNITY RESILIENCY

THURSDAY, MARCH 16, 2023



WEEK THREE:
COMMUNITY RESILIENCY

THURSDAY, MARCH 16, 2023

What community connections can you strengthen or build up to increase resilience for farms and ranches in your local area?



Listen to *Episode 156, Mississippi*

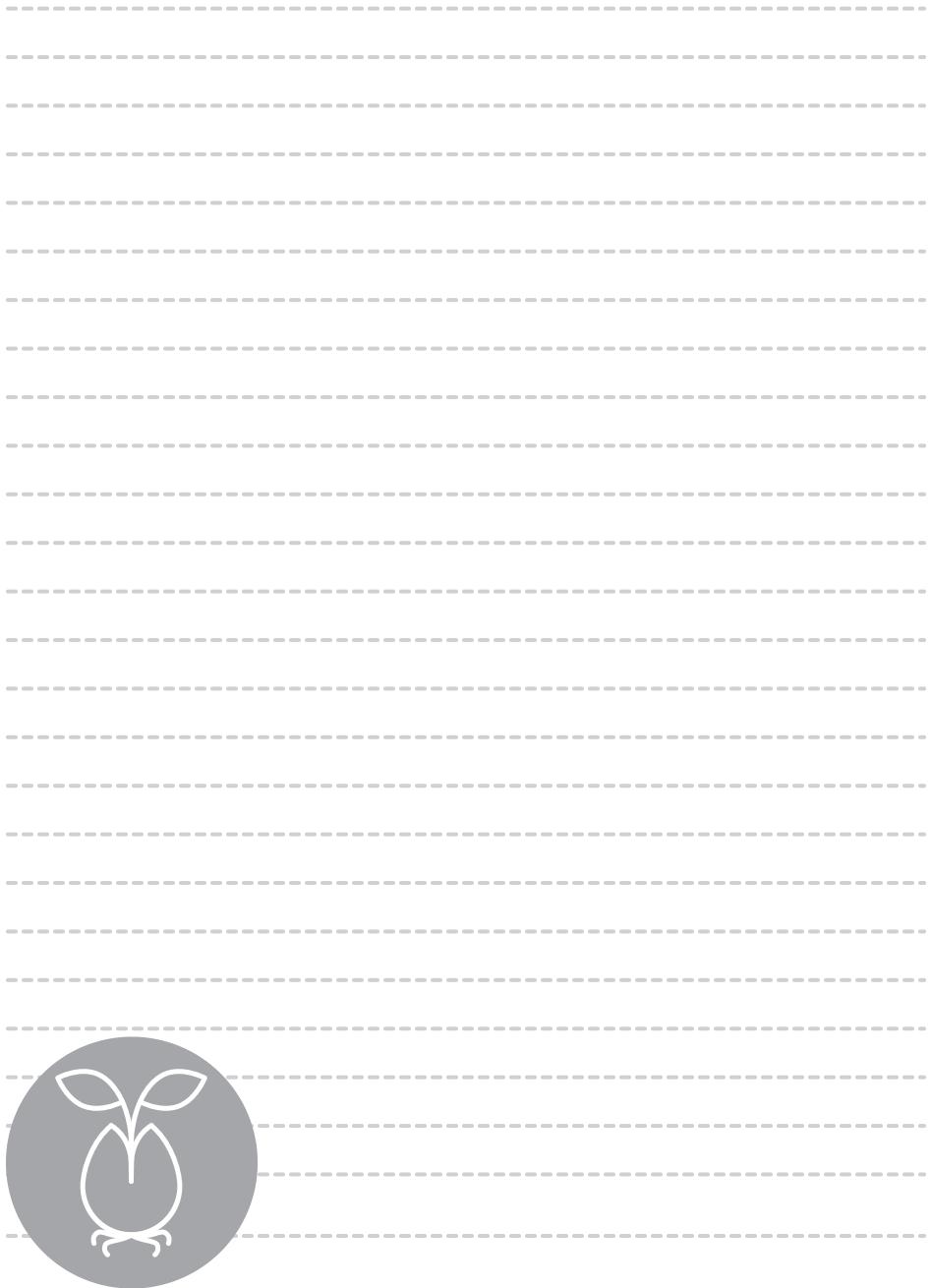
Minority Farmers Alliance

from ATTRA's *Voices from the Field*.



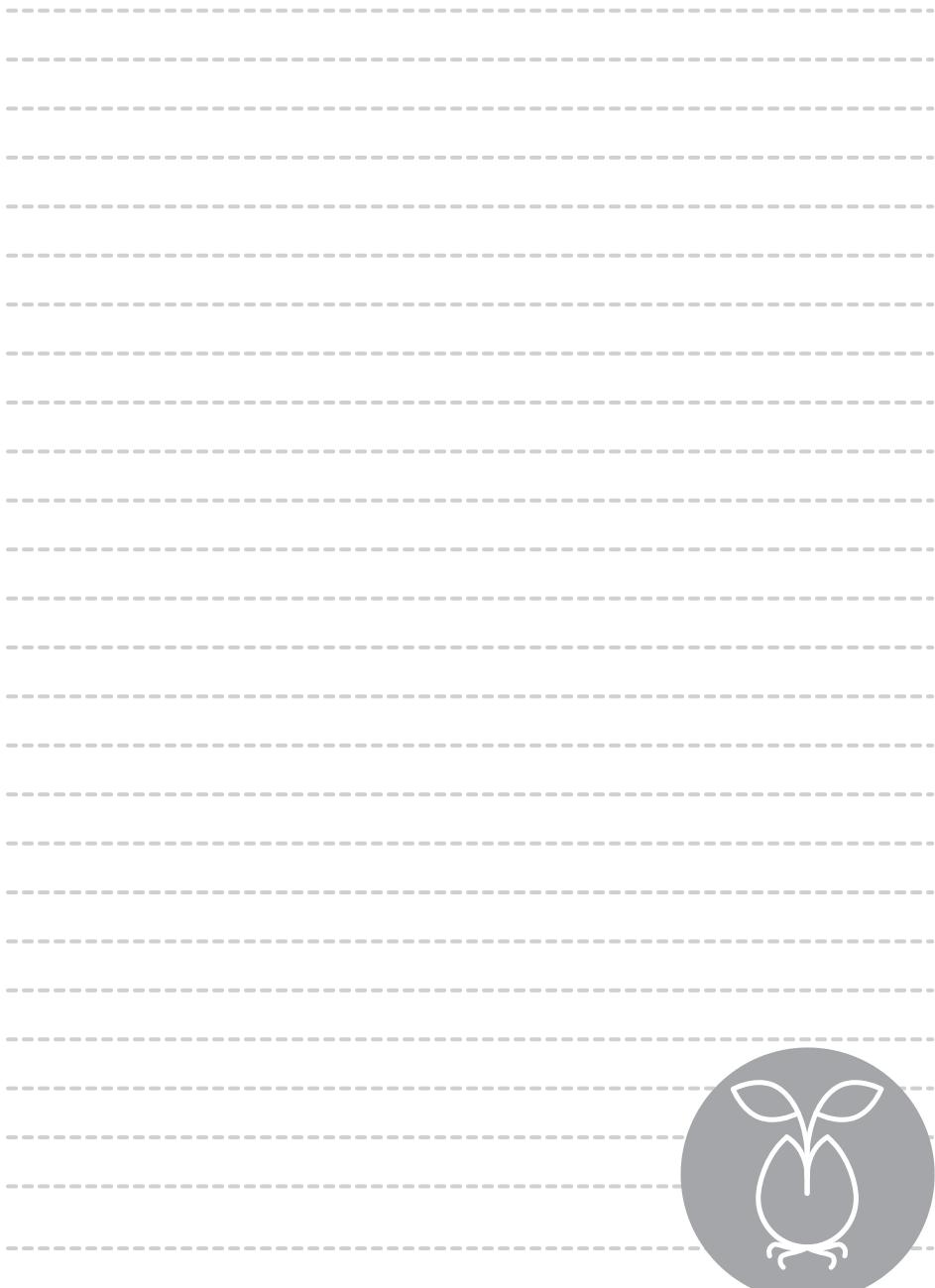
WEEK THREE:
COMMUNITY RESILIENCY

THURSDAY, MARCH 16, 2023



WEEK THREE:
COMMUNITY RESILIENCY

THURSDAY, MARCH 16, 2023



NOTES

DATE

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Grow Your Vision

Use this space to paste, tape, or draw images that represent your vision for how you would like to grow your farm.

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Mission: Climate!

Writing climate adaptation and mitigation into your farm's mission can be a useful way to keep building toward long-term resilience. If your farm has a mission statement, is there a way to include your climate-related goals to it?

If you don't already have a farm mission statement, here are some questions you can ask yourself to work toward a mission statement based on your farm and your values:

What farming practices are critical to my farm vision?

(for example: local marketing, soil health, diversity, etc.)

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How will your farm relate to your social and ecological community? Look at your answers to these questions and see what resonates the most with you. See if you can come up with a mission statement that includes these elements.

Example:

"Our family's mission is to grow 100% grassfed beef on diverse, healthy pastures for our local community."

Or

"Our farm provides a diverse array of delicious produce to our region. We grow our fruits and vegetables in ways that benefit the soil and the climate."

Or

"Our farm grows climate smart commodities using practices that sequester carbon, reduce greenhouse gas emissions, and benefits the natural ecosystems around us."

Be as simple or as creative as you want. Be specific to your farm, your business model, your family, your goals, your passions, and your community.

Creating a mission statement may seem like a small thing, but it can be a powerful guide for decision-making, keeping your work in line with your beliefs.



NCAT PROGRAMS:



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ARMEDTOFARM.ORG



SOILFORWATER.ORG



AGRISOLARCLEARINGHOUSE.ORG





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