Field Notes

Kerr Center for Sustainable Agriculture E-Newsletter

E-Field Notes
February 2026

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Are you ready to get started gardening already? So is our **new Horticulturalist, Tom Zink**! In this issue, David Redhage introduces him, and then Tom himself explains his **plans for the horticulture program this year**.

Soil health is key to any gardening - or farming, or ranching - endeavor. We're sharing news about **how to both build and monitor soil health**:

- One great way to boost soil health - that also creates many other benefits - is to **add a poultry enterprise** to your existing operations, and ATTRA has a **new resource explaining the ins and outs**.
- Another multi-benefit approach to enhancing soil health is to incorporate **prairie strips** into crop fields. The resulting **improvements in soil health can be amazingly quick!**
- Typically, tracking those changes has been tedious and time-consuming, involving multiple soil samples and lots of labwork - but a **new approach is streamlining soil health monitoring by borrowing tech from earthquake scientists**.

Speaking of monitoring, we notice when you **donate to the Kerr Center** - and **we appreciate it!**

President's Note: Tom Zink

I would like to take the opportunity to **welcome Tom Zink to the Kerr Center team**. Tom is a military veteran and spent several years market farming after leaving the military.

Tom is working on a home garden demonstration project at the horticulture farm. Tom's first newsletter article in this month's newsletter outlines the project.

Over the next several months, Tom will be writing about various aspects of growing vegetable crops in eastern Oklahoma. Below is a brief bio describing Tom's experience:

Tom graduated from Moore High School in 2007, and went into the Army as a Cav Scout from 2009-2013, with a deployment to Afghanistan. He began backyard gardening in 2013-2015, which led to market farming of many different crops, but specializing in year-round microgreens, lettuce, and baby root crops from 2016-2022, selling at the farmers market and various restaurants in the Fort Smith, Arkansas, area. In 2023, he began homesteading, later joining the team at the Kerr Center as a Horticulturalist.

Planning a Year One Garden

by Tom Zink, Horticulturalist

With the advent of more sunny days, many of us are looking forward to the growing season. **Now is the time to start making plans and breaking ground**. It's important that we value our growing spaces to not only maximize crop production but minimize the amount of work needed in the garden.

This year at the Kerr Center, we've decided to grow along with you as home growers to help make the effort easier. We will also be **growing as close to organic/natural as we possibly can, and getting most of our amendments locally**.

We must ask ourselves several questions before we get started. **What crops/varieties should we grow? Will they grow here in USDA Zone 7? How much space do I have to produce these crops?** Proper planning of the garden will help increase success and mitigate the work throughout the season.

Selecting crops your family enjoys should be the highest priority. Luckily for us here in Zone 7, we have an abundance to pick from. Early in the spring, consider leafy greens like lettuce, kale, and chard, and root crops like potatoes and beets. Snap peas and spinach are also options, but might not be viable for long due to how quickly spring temperatures increase here in eastern Oklahoma.

As the heat approaches, focus on summer crops like tomatoes, squash, cucumbers, collards, okra, and melons. Start warm-season crops in early April once the frost threat has passed. With the onset of fall, shift selections back to cooler season crops and those that overwinter, like garlic and spinach, and root crops, such as beets, turnips, and radishes.

Garden size and growing methods will also dictate your variety selection. At the Kerr Center, we will be demonstrating **four different growing styles** that can be scaled up or down depending on your limitations and starting cost. Demonstration methods include:

- a high tunnel with built 4' x 24' raised beds
- a high tunnel with in-ground 30" x 35' raised beds
- a standard 40' x 40' field plot
- a flood table hydroponic system

All of these have their own pros and cons....

Poultry on Diversified Farms

If you're farming and *not* raising poultry, you're probably *thinking* about raising poultry. The advantages are just too numerous and commonly discussed to ignore: **easy integration with other enterprises, additional income, increased soil fertility, pest management**... the list goes on and on.

ATTRA Sustainable Agriculture

NCAT A program of the National Center for Appropriate Technology • 800-346-9140 • attra.ncat.org

Poultry on Diversified Farms: A Guide to Profitability and Sustainability

By Mike Lewis, NCAT Senior Manager, and Summer Miracle, NCAT Project Coordinator
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This publication is produced by the National Center for Appropriate Technology through the ATTRA Sustainable Agriculture program, under a cooperative agreement with USDA Rural Development. attra.ncat.org.

This guide introduces poultry farming for small-scale, diversified operations, offering insights into enterprise options, economic benefits of poultry, and strategies for managing costs and maximizing revenue. Beginning with a comprehensive overview of start-up and operating expenses, the guide delves into potential revenue streams, market opportunities, and risk-management strategies tailored for small-scale producers. It also highlights economic efficiencies and financing options to help farmers make informed investment decisions. Focusing on sustainable practices, this resource equips farmers with the tools to build resilient poultry enterprises that contribute to their broader farm goals.

Photo: Darron Gaus, NCAT

Introduction

For small, diversified farms, adding poultry can be a flexible and profitable way to enhance an existing operation. Not only can poultry products like eggs and meat provide steady income, but they also support bigger farm goals by managing waste and enriching soil. Whether you're raising chickens or experimenting with other types of poultry, like quail, ducks, geese, or turkeys, these birds can be integrated into, or rotated with crops, orchards, or other livestock to help create a more sustainable and balanced farm. Poultry enterprises can easily adapt to meet both the needs of the farm and local market demands, making them an ideal choice for diversified operations.

Why Economics Matter for Small-Scale Poultry Farming

A solid understanding of poultry economics is essential for any small-scale farmer hoping to make their poultry enterprise profitable. Economics guides decisions on how much to invest in housing and equipment, the best sales outlets, and managing risk. Feed is the largest operating cost, so knowing its cost—and rates of feed conversion to eggs or meat—is essential to determining product pricing. Small-scale producers benefit most from finding ways to keep costs down and maximize productivity, often by using resources they already have on hand. Although poultry productivity depends

attra.ncat.org Page 1

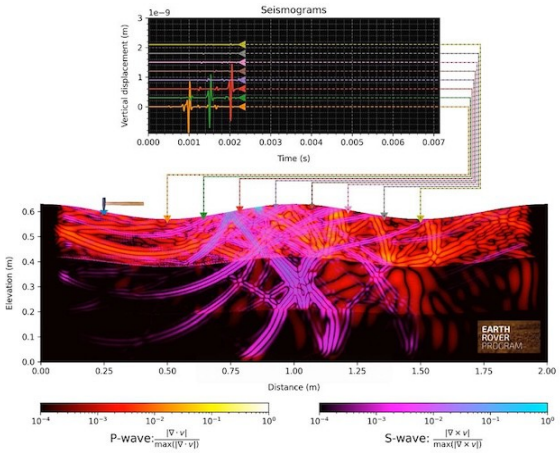
In its 20 pages, the guide covers different potential poultry enterprises, discusses the economic benefits of each, and also offers strategies for keeping costs down and revenues up. It starts, fittingly enough, with a look at start-up costs and operating expenses.

The guide then moves on to talk about different potential revenue streams, market opportunities, and risk-management strategies, all focused on small-scale producers and sustainable practices. It also devotes ample space to economics, including a discussion of different financing options.

As the title suggests, all this information on poultry enterprises is presented not in isolation, but rather from the standpoint of how they can integrate with other enterprises to help farmers achieve their broader farm goals.

Poultry on Diversified Farms is available free in electronic format from the ATTRA website.

"Soilsmology"



A tool long used for measuring earthquakes is now shaking up the soil science field with its potential to make soil testing much quicker and cheaper. The **Earth Rover Program** is **adapting seismographic techniques to be able to monitor soil health in real time, with minimal soil disturbance**. The researchers call this combination of soil science and seismology, "soilsmology."

Researchers lay out a small array of sensors on the ground, and then move from point to point tapping the soil surface with a hammer. By analyzing the waves registered by the sensors, they can **create a 3-D image of the soil profile, and estimate variables like topsoil depth, bulk density, and carbon content - all without digging up a single spadeful of soil or setting foot in a lab**.

As an example of how game-changing this approach could be, consider just one of those variables, bulk density, which is used as a measure of soil compaction. When soils become too compacted, one remedy is subsoiling, but it's usually applied at field or pasture scale. With this new approach, the same fix could be applied to much more limited areas, in only the areas where compaction is too great.

The same **tools could provide much more data on how soils respond to various conservation practices**, and over what timeframes, **helping land managers** choose the approaches that **have the greatest impact in their particular circumstances**.

The program is currently conducting trials in the UK, Kenya, Colombia, and France, with plans to expand to Germany, Romania, and the United States. ***Keep an ear to the ground for further updates!***

Soil Health Soars Swiftly with Prairie Strips

Over the past few years, farmers and scientists have discovered many **benefits of "prairie strips**." These long, narrow plots of **native vegetation, interspersed between crop rows**, can **create pollinator habitat, boost biodiversity, cut soil erosion, and improve water quality** - all while taking up **only about 10% of total field acreage**.

New research at Iowa State has just added another item to this list of **prairie strips**' ecological blessings: they **increase soil health - and quickly**.

More specifically, under prairie strips, **soil water holding capacity increased by 7%, soil organic matter by 23%, and microbial biomass by more than half - 54%. Soil aggregate stability** - a measure of soils' ability to resist erosion - **increased by a whopping 80%**.

All these changes occurred within ten years of the prairie strips' initial planting.

While all those improvements in soil health occurred under the prairie strips themselves, others extended outward into the **soils beneath crop plants. Soil moisture and nutrients were higher** up to three feet away from the strips. Changes in **soil microbial composition** extended even farther, with higher activity levels of enzymes involved in carbon and nutrient cycling.

"Our related projects show that **prairie strips are a relatively quick way to build soil health** in the top of the soil profile," said Cole Dutter, lead author on the study. "We think there is a lot of potential to expand these benefits throughout fields and even improve yields."

The **study** was published in the *Journal of Soil and Water Conservation*.

Late Winter Events: Conservation Cost-Shares, Container Veggies, Gardening Conference, Blue Thumb, Homesteading Expo, Monarchs....

Apply by March 1 for cost-shares to help finance **wetland restoration and enhancement** and **soil health improvement** through the Oklahoma Conservation Commission's **ReNEW and SHIP** programs.

Get back in gardening gear with a workshop on **growing cool-season veggies in containers** (Mar. 3, Shawnee), and a **spring gardening workshop** (Mar. 6, Ada). Help protect Oklahoma streams by getting trained as a **Blue Thumb** volunteer stream monitor (Mar. 7, Stillwater).

Catch the **Oklahoma Homesteading Expo**, March 20-21 in Pryor.

Journey virtually through the monarch butterflies' winter home from the comfort of your own in the latest Monarch Joint Venture webinar (Mar. 24).

There are many more sustainable agriculture educational activities going on, and we're adding more to the calendar all the time. Get the latest on our online **events calendar.**

Don't forget that you can also use our online calendar to **keep yourself and your friends up to date** on these and other upcoming events, including our tours:
- **Subscribe to our feed** and receive **updates to your personal calendar** as they are made.
- **Share events on the calendar** via a number of **different social media sites**, including Facebook, Twitter, and Pinterest.

March 2026

SUN 1

March 1

Restoring Natural Ecology in Wetlands (ReNEW) Cost-Share Program (application deadline)

March 1, 2026, is the deadline for applications to the Restoring Natural Ecology in Wetlands (ReNEW) Cost-Share Program.

SUN 1

March 1

Soil Health Implementation Program (SHIP – application deadline)

March 1, 2026, is the deadline for applications to the Oklahoma Conservation Commission's Soil Health Implementation Program (SHIP).

TUE 3

March 3 @ 3:00 pm - 4:00 pm

Cool Season Veggies in Containers

Shawnee Shawnee, OK, United States

Join in to learn about growing healthy cool season veggies in simple containers or small spaces. Free seeds will be available.

FRI 6

March 6 @ 8:30 am - 4:00 pm

Spring Gardening Conference

Ada Ada, OK, United States

Topics for the Spring Gardening Conference include growing tomatoes in Oklahoma, seed saving, farmers markets, and more.

SAT 7

March 7 @ 8:30 am - March 8 @ 4:30 pm

Blue Thumb Training – Stillwater

Oklahoma State University 311 N. Monroe, Stillwater, United States

Love science and being outdoors? Help protect Oklahoma streams by becoming a certified Blue Thumb stream monitor at this training in Stillwater.

FRI 20

March 20 - March 21

Okie Homesteading Expo

Mayes County Fairgrounds 2200 NE 1st St., Pryor, OK, United States

The annual Okie Homesteading Expo is Oklahoma's largest Homesteading educational event with some of the best educators from across the nation.

TUE 24

March 24 @ 1:00 pm - 2:00 pm

A Journey Through the Monarch's Winter Home (MJV webinar series)

online

Join this free webinar to take a journey through the monarch's winter home - presented by Court Whelan, Natural Habitat Adventures.

Support the Kerr Center

Since 1965 the Kerr Center has been reaching out to folks in Oklahoma and beyond. Today, the Friends of the Kerr Center help us continue this vital work! If you enjoy reading this newsletter or visiting our website, please consider making a gift to the Kerr Center today!

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