Field Notes

Kerr Center for Sustainable Agriculture E-Newsletter

E-Field Notes
January 2026

Happy New Year!

If you're champing at the bit to get out from under the ice and get your gardens and flocks started, we can help scratch that itch with news of more sustainable ways to keep them pest-free - from **biodegradable citronella-treated mulch** to **natural feed additives to replace antibiotics in poultry**.

For those of you upping your conservation game, whether by **establishing or enhancing wetland habitat, or improving soil health (or both!)**, we're also sharing a hot tip about **cost-share programs** to support those projects.

Still looking for a new year's resolution? What about **starting a regular donation to the Kerr Center**? **Thanks!**

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Plant-Protecting Mulch without Pesticides or Plastics

With its ability to reduce both weed pressure and water demand, **plasticulture has established a solid foothold** among home and market gardeners alike - **but it's not without its drawbacks**.

For one thing, plasticulture **doesn't combat insect pests**. Each season's end, it also sends a sizable load of **non-recyclable plastic waste** to the landfill. Now, **new research is suggesting** a way around both of those obstacles to a **more sustainable system of plasticulture**.

Researchers in Brazil have developed a **biodegradable film** that can be used as a mulching sheet, providing **similar water retention and weed suppression benefits to polyethylene plastic** without the added waste.

The research team also found a way to incorporate pest control, by **treating the biodegradable film with citronella oil**. They hypothesized that the **natural insect repellent** would **reduce pest damage to crops**.

In both lab and greenhouse experiments, the researchers compared strawberry plants grown with 1) no mulch, 2) plastic mulch, and 3) the new biodegradable mulch. The biodegradable mulch treatments included both a no-citronella control, and one treated with citronella oil.

The scientists measured the effect of the citronella by counting the number of silverleaf whitefly eggs on the strawberry plants in each treatment. As expected, they found an average of **six whitefly eggs on plants protected by citronella-treated biodegradable mulch, versus thirty or more eggs per plant in the unprotected treatments**.

The **study** was published in the journal *Agricultural Science & Technology*.

Cost-Shares Available for Soil Health, Wetland Restoration

Land managers looking to recover part of the costs of their stewardship practices can **apply by March 1 for two cost-share programs available through the Oklahoma Conservation Commission**.

The **Restoring Natural Ecology in Wetlands (ReNEW) Cost-Share Program** offers technical and financial assistance to landowners interested in **restoring, creating, or enhancing a wetland** on their property.

Applicants throughout the state are eligible for the ReNEW program. Participating producers receive funding for up to 80% of total restoration costs, capped at $35,000 per project.

The **Soil Health Implementation Program (SHIP)** is a new initiative designed to advance **soil health and regenerative agricultural practices** throughout the state. There is no upper or lower limit on the size of eligible operations.

The program requires a three-year commitment. During that time, participating producers will design and implement a custom-tailored conservation plan, as well as hosting a field day to share results. They receive up to a total of $40,000 in reimbursements for implementing practices in the conservation plan.

For more information or to apply for **ReNEW**, visit the **program webpage**, or contact Maggie Woods by **email** or phone (405-431-0958) or Sarah Gilmer by **email** or phone (405-522-6908).

For more information or to apply for **SHIP**, visit the **program webpage**, or contact Greg Kloxin by **email** or phone (405-522-4737) or Meg Greski by **email** or phone (580-827-5070).

Natural Alternatives to Antibiotics in Poultry Production

Reducing antibiotic use in livestock production carries **major benefits**. On the producer's side, it's one requirement for organic certification - and even without the organic label, there's still a **price premium** to be had for **"antibiotic-free" animal products**.

Society wins as well, since the **large share of antibiotics used to produce livestock - 70% of all antibiotics sold worldwide** - is a **major driver behind the evolution and spread of** **antibiotic-resistant strains** **of pathogenic bacteria**.

So, when scientists come up with a n**atural remedy that works as well as antibiotics** for treating a major disease of livestock, it's big news.

Researchers at Clemson University are doing just that, finding that **commonly available feed supplements are as, or even more, effective at treating necrotic enteritis**, a gut disease of poultry, **as conventional antibiotics**.

The researchers tested everyday **"natural" products, like black cumin and kefir, as treatments for necrotic enteritis**. In one **study**, **either of these treatments alone reduced the rate of the disease, and both together dropped it to undetectable levels**. The **combination of black cumin and kefir also reduced chickens' mortality** rate from necrotic enteritis more than a conventional antibiotic.

Both black cumin and kefir are widely available, inexpensive, and easy to incorporate into poultry rations. As such, these findings represent an opportunity for both commercial and small-scale poultry operations to take a significant step away from conventional antibiotics while maintaining or even enhancing the health of their flocks.

Late Winter Events: Monarch Institute, Sourdough, Global Agribusiness, Shop Talks, Organics, Home Gardening, Moths....

Get your hands in the dough at an **introduction to sourdough workshop** (Feb. 2, Edmond), or in the soil with **Home Gardening 101** (Feb. 7, OKC).

Or, use nothing more than your fingers on the keyboard to learn about monarch butterflies in the **Online North American Monarch Institute** (Feb. 2), trade tips with other farmers in a **Good Idea Shop Talks webinar** (Feb. 5), and add moth identification to your nature skills in **The Secret Lives of Moths** (Feb. 10).

On Feb. 3 in Stillwater, you can catch OSU's latest **Agritalks: Global Perspectives seminar** on global agribusiness in Asia. A little farther afield gets you to the **Missouri Organic Association's annual conference** (Feb. 6-7; Columbia, MO).

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.

February 2026

MON **2**

February 2

Online North American Monarch Institute

online

The Online North American Monarch Institute (NAMI) is an intensive professional development opportunity for educators.

MON **2**

February 2 @ 6:00 pm - 7:30 pm

Introduction to Sourdough (workshop)

Edmond Library 10 S Boulevard, Edmond, OK, United States

Learn how to make, care for, and bake with sourdough starter in this beginner-friendly introduction to sourdough bread workshop.

TUE **3**

February 3 @ 3:00 pm - 4:00 pm

Working Across Asia: Trade, Culture, and Perspectives from 20 Years in Global Agribusiness

Stillwater Stillwater, OK, United States

The latest AgriTalks: Global Perspectives is, "Working Across Asia: Trade, Culture, and Perspectives from 20 Years in Global Agribusiness."

THU **5**

February 5 @ 11:30 am - 12:30 pm

Good Idea Shop Talks

online

Good Idea Shop Talks is a virtual meet-up series for crop and livestock producers to exchange ideas for troubleshooting on-farm challenges.

FRI **6**

February 6 - February 7

Missouri Organic Association Annual Conference

Columbia, MO Columbia, MO, United States

The Missouri Organic Association Annual Conference covers soil health, marketing, specialty crops, livestock, certification, and more.

SAT **7**

February 7 @ 9:00 am - 3:00 pm

Home Gardening 101

Oklahoma County OSU Extension Center 2500 NE 63rd St., Oklahoma City, OK, United States

This Home Gardening 101 course is a fun and instructional workshop covering everything the home gardener needs to know.

TUE **10**

February 10 @ 1:00 pm - 2:30 pm

The Secret Life of Moths: An Introduction to Moth Identification and Ecology (webinar)

online

The Secret Life of Moths will guide you through the essentials of moth identification and ecology in a 1.5-hour webinar.

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