

FALL/WINTER 2021

# RURAL PAPERS

REPORTING WITH COMMENTARY ON AGRICULTURAL & RURAL ISSUES



**KRC**

KANSAS RURAL CENTER



## *Our Mission*

The Kansas Rural Center (KRC) is a non-profit organization founded in 1979. We promote the long-term health of the land and its people through research, education, and advocacy. KRC cultivates grassroots support for public policies that encourage family farming and stewardship of soil and water. KRC is committed to economically viable, ecologically sound, and socially just farm and food systems.

## *Our Vision*

KRC believes that diversified farming systems hold the key to preserving, developing, and maintaining a food and farming future that provides healthy food, a healthy environment and social structure, and meaningful livelihoods.

## *Rural Papers*

Rural Papers is the voice of Kansas Rural Center. It is published 3-6 times a year, in print and digitally. Rural Papers is jointly edited by KRC Staff. Reprints of articles are encouraged with acknowledgement of Rural Papers and the author.

## *Gratitude*

KRC Staff would like to extend a special thanks to Marjorie Van Buren for her copy-editing, Hannah Bannister for her volunteer efforts with KRC throughout 2021, and to Miriam Goertzen-Regier and Tom King for their contributions to this issue.



# KRC

KANSAS RURAL CENTER

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# ANNOUNCING NEW KRC EXECUTIVE DIRECTOR

*Longtime partner and collaborator, Tom Buller, will lead Kansas Rural Center*



As a representative of the KRC Hiring Committee, I am proud to share with the KRC community that Tom Buller will be the next Executive Director of the Kansas Rural Center. Tom worked with KRC on multiple projects in the past, including researching and writing for “Growing Under Cover” and presenting at KRC conferences several times. He has most recently been a Horticulture Extension Agent for the Douglas County Extension Office, has been and continues to be the owner/operator of an organic farm where he lives with his family in Lawrence, and has played integral roles with the Lawrence Farmers Market (and its board) as well as the KC Food Hub.

We are thrilled to bring Tom on as the next leader of the organization. He has a strong background with the organizations, realities, opportunities and challenges rural communities, farmers, and KRC as an organization are facing. As Board President, I believe in the vision Tom has for further developing the organization’s capacity, growing the reach of our mission, and supporting the needs throughout the state and region to build a socially just as well as economically

and ecologically sustainable food and farming system.

The Board and I would also like to thank our Interim Director Zack Pistora for his work during the leadership transition this year. He and our current staff, Ryan Goertzen-Regier and Kaitlin Stanley, as well as our long-time staffperson, Joanna Will, who left the organization at the start of October, have shown integrity, passion, and a willingness to roll up their sleeves and get to work to ensure our organization’s programs and relationships were not only secured but enhanced throughout this year.

I am proud of the work KRC is currently embarking on (much of which is highlighted in these pages!), and looking forward to what is on the horizon with hope, confidence, and a readiness to keep up the work.

With gratitude and great optimism,

**JENNIFER KONGS**  
**KANSAS RURAL CENTER**

Above: Tom Buller, who will be joining KRC as the Executive Director in December.

# SAVOR THE SEASON & THE WORK OF KRC

If you ask me, it's hard to beat this time of year. This turn of season is particularly special, and not all because of the pumpkin pie and apple cider. The beautiful change of color and 'fall' of the leaves of our deciduous trees is always worth our attention. For farmers, there's a unique sense of pride, satisfaction, and gratitude you get from harvesting the crops and animals that required so much nourishment, time, and work through the year. While plenty of us stay busy in preparation of the cold, as the squirrels do in burying their acorns, the daylight's

*Report from Interim Executive Director, Zack Pistor*

our company line. With the amazing support and service of our volunteers, donors, Board of Directors and Staff, the organization and its work were already good, but it just got better with Tom.

Like the squirrels staying busy and preparing for the months

Finally, in the spirit of harvest, it's that time of year for KRC to collect all we can to maintain our organization and sustain our important work. To that end, I'm turning to you to consider KRC for your end-of-year charity. You can bet I'll be donating too. Furthermore, do lend your time and talents by getting involved

*“As the air chills, perhaps we people should too. Because there's no better time than now to soak up the social sanctity of our family and friends before we hole ourselves up for winter.”*

dwindling of autumn seems to allow nature to slow down a bit and present a time for us to cherish that around us. As the air chills, perhaps we people should too. Because there's no better time than now to soak up the social sanctity of our family and friends before we hole ourselves up for winter. And let that togetherness be sweeter with that pumpkin pie and apple cider, locally sourced or homemade, of course.

This time of year is sweet and special for the Kansas Rural Center too. For one, we celebrate a turn of our own with the arrival of our new Executive Director, Tom Buller. New in Directorship he may be, Tom is about as familiar, or familial, to KRC as one can be. When it comes to sustainable food and farming systems, Tom's knowledge and experience runs deep, and he both talks and walks

ahead, so too are we in our upcoming projects. As you'll read more about in this Rural Papers edition, the Kansas Rural Center has secured several exciting grant initiatives to further our work next year. We will be engaging with communities to discuss their connections with food and farming systems through *Sunflower Stories* podcast and increase civic engagement. KRC will continue its work of getting more locally-sourced, healthy fruit and vegetables on the school plate while giving our specialty crop growers the know-how on how schools can be direct sales outlets. We'll also be developing programs to help beginning and underrepresented farmers get into the sustainable agriculture business, as well as helping those needing land or needing to pass on land.

with us in our educational or advocacy efforts. Even in a year with tremendous adaptation and transition (like dealing with 'Delta' and the goodbyes and hellos to friends on the staff and board), KRC offered a lot of valuable programming and camaraderie on sustainable food systems and rural prosperity worthy of your support. Financial or otherwise, your involvement goes a long way for us to continue our information-sharing with farmers and communities, conferences, policy advocacy, and more. We're quite thankful for you!

Appreciate your attention and all your support. 'Til next time!

# ON TO NEW HORIZONS



*Joanna Will, Program Coordinator,  
leaves KRC after ten years to focus  
on farming and family*

Above: Joanna Will with a few members of her guardian dog pack at Prairie Turnip Farm. Right: Joanna at a KRC event.



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My final day with KRC was September 30th. For those who don't know, I stepped down in order to shift my whole focus to my farm and family. I am so grateful for having had the opportunity to work for KRC over the past near-decade. The people I have met and worked for and with are bar-none and the connections I have made enriched my life immeasurably. I have greatly enjoyed doing this good work, and feel happy and confident leaving the task in the capable hands of the current staff. I cannot put into words how much I treasure the friendships I have made and the shared experiences I have had with my KRC co-workers, the Board, and the people I have met along the way. The current staff is a stellar one, with good energy and brilliance and I will be excited to watch incredible things unfold in the coming years. Thank you so much for all you ALL do for KRC, and keep up the wonderful work for this exceptional organization! ~ Joanna

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## STAY IN TOUCH WITH JOANNA

Prairie Turnip Farm - <http://prairieturnipfarm.com/>  
Instagram - @prairieturnipfarm  
E-mail - [joannarwill@gmail.com](mailto:joannarwill@gmail.com)



# BOARD MEMBER SPOTLIGHT

## WESTON MCCARY SCALABLE SOLUTIONS THROUGH RESEARCH & EDUCATION



Launched in 2015, the primary focus of the Precision Agriculture program at Northwest Kansas Technical College in Goodland has been to educate young producers, agriculture professionals, and STEM students on how to increase economic return on investment and global competitiveness while reducing chemical footprint, building better soil health, increasing product quality, and reducing water use. These concepts are being taught through the blending of sustainable field practices and modern technology. Field practices include: crop rotation, no-till, cover crops, wildlife habitats, playas, fallowing, BMP's, land-use conversion, carbon sequestration, moisture holding capacity, run-off and leaching prevention, organic cropping, grazing integration, pollinator zones, terracing, etc. Many of the technologies being taught in tandem include: GNSS tractor guidance, section control, electromagnetic soil mapping, grid and zone soil sampling, variable rate seeding and application equipment, prescription machine control, geographic information systems, single pass optimization, satellite remote sensing, unmanned aerial systems, subsurface irrigation, VRI pivot irrigation, soil moisture

probes, solar technologies, IoT field sensor connectivity, on-farm automations, etc.

The Precision Agriculture program has successfully secured over 1.2 million dollars in funding to date, much of which has been used to operate its 300-acre water research and technology farm, as well as sponsor equipment adoption for area producers. Between 2017 and 2021, the program has paid for and installed over fifty soil moisture probes in northwest Kansas, as well as sponsored pivot controller upgrades, field sensor installations, soil mapping and field aerial imagery capture for over 12,000 acres of irrigated farmland - all at no cost to participating producers. In that time, the department's Tech Farm has been enrolled and maintained as one of the Kansas Water Office's Water Technology Farms, as well as conducted over sixty separate irrigation related research projects for university, industry and private partners.

Current plans for the program beyond its continued irrigation and tech research includes obtaining and customizing an air seeder that will be specifically used for planting wildlife corners, buffer strips, and cover-crop mixes for producers

and partner projects. Other projects include expanding the department's indoor horticulture lab and robotic indoor garden, to utilize reclaimed water and fertility resources and operate one-hundred percent off of roof-top solar energy for the production of consumable produce. Discussions and funding pursuits are currently under way to convert an additional twenty-five acres of commercial crop land into pollinator and wildlife habitat. One local apiary partner has expressed an interest to move and maintain one of their bee colonies to the site for various types of research to be conducted.

The Precision Agriculture department staff has been humbled by overwhelming support from our industry and educational partners, as well as many of the local producers and government agencies. We are striving to do our best to address the numerous challenges and concerns confronting agriculture today through research and education. We are committed to educate students, producers and professionals alike about scalable solutions for broad-acre commercial agriculture, as well as small niche farming operations.

Weston McCary serves on the Board of Directors at KRC and is the Director of Precision Agriculture at Northwest Kansas Technical College

*Kansas Rural Center Programs*

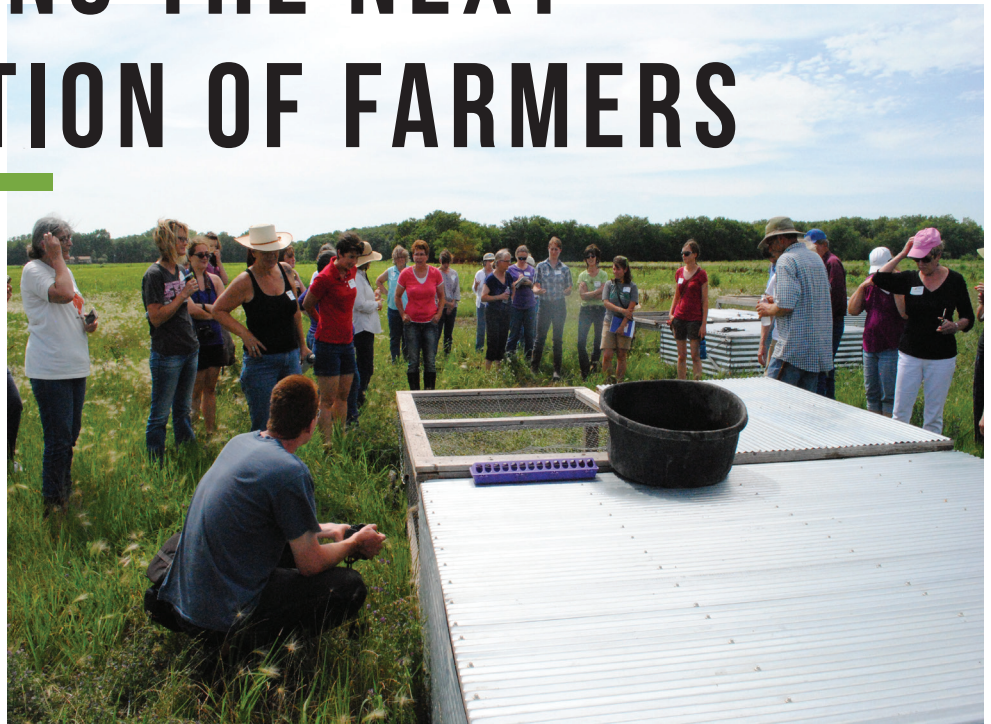
# PREPARING THE NEXT GENERATION OF FARMERS

The Kansas Rural Center is excited to announce the formation of its beginning farmer and rancher training program, made possible with generous funding by the USDA National Institute of Food and Agriculture's (NIFA) Beginning Farmer and Rancher Development Program (BFRDP).

Over the next year, KRC will form the curriculum for its beginning farmer and rancher training with feedback from new and prospective farmers, as well as partners from around Kansas and the Farm Beginnings Collaborative. A conference focused on hearing from and providing resources to beginning farmers will occur in February 2022 near Salina, KS as COVID-19 pandemic conditions permit.

The Farm Beginnings Collaborative (FBC) is a national alliance of independent regional groups of farmers, farmer networks, and farmer-training support organizations, which are working together to promote Farm Beginnings, a beginning farmer training model that is farmer-led, community based, and focused on sustainable agriculture. The long-term goal of the Farm Beginnings Collaborative (FBC) is to expand the use of farmer-to-farmer training models as a proven approach for increasing the number of farmers producing food for local and regional food systems.

Kansas Rural Center's beginning farmer training program will feature instruction on business formation and management, recordkeeping, access to land



Above: KRC Farmer Training Workshop

and capital, state and federal farm assistance programs, and many more topics. Farmers and other agriculture professionals will provide the primary instruction for each farmer cohort, with classroom instruction in the winter months and farm tours and workshops during the growing season. Opportunities for beginning farmers and ranchers to take part in mentorships are also being explored.

“KRC has a long history of providing agricultural education to Kansans, and we’re grateful to have the opportunity to focus specifically on beginning farmers and ranchers with our future programming, made possible by this grant,” Ryan Goertzen-Regier, KRC’s program manager, said of the project. “The challenges people getting started in food production face can be quite daunting, and we need as many new farmers as possible to ensure adequate food production in Kansas while many farmers retire in the next several decades.”

This work is supported by the USDA National Institute of Food and Agriculture, Other Grants project 1027549.

# SUNFLOWER STORIES

## STRENGTHENING FOOD SYSTEMS THROUGH CIVIC ENGAGEMENT & STORYTELLING

Staff is busy working on our new Integrated Voter Engagement program, *Sunflower Stories*, that will seek to amplify the stories of farm and food system workers and advance civic activity related to foodsheds across the state of Kansas. The program includes collaborating with community stakeholders actively involved in local farm and food systems work in both rural and urban areas. Throughout this program, KRC will work to mobilize Kansans to encourage greater civic participation on issues specific to local foods and farming in order to strengthen communities and increase local and regional food system resilience. *Sunflower Stories* is supported by a generous 4-year grant from the Kansas Health Foundation.

*Sunflower Stories* builds upon KRC's previous Integrated Voter Engagement work connecting the importance of voting and civic engagement with long-term individual and community health. By convening communities in conversations around local food systems, amplifying their storytelling capacity through a KRC podcast, and strengthening their grassroots mobilization toolkits, this project seeks to fulfill the Kansas Health Foundation's goal of empowering communities to shape their food systems. "We're incredibly grateful to the Kansas Health Foundation for supporting KRC's important work of increasing access and participation of Kansans to preserve, develop, and improve their community's

food and farm future. This project is so exciting as it will enhance the appreciation and progress of a community toward culturally-appreciated healthy and local foods, a thriving environment and social structure, and meaningful livelihoods... all good things that help our Kansas towns stay resilient and vibrant." says Interim Director, Zack Pistora.



*stay tuned for more information about our 2022*

## FEDERAL FUNDING OPPORTUNITIES LISTENING SESSIONS

*& how the FARM BILL & INFRASTRUCTURE BILL impact our local farm & food system*

If you or your community is interested in becoming involved with Sunflower Stories, please contact KRC Local Food Programs Director, Kaitlin Stanley: [kstanley@kansasruralcenter.org](mailto:kstanley@kansasruralcenter.org) or 866.579.5469.



# HEALTHY SOILS HEALTHY COMMUNITIES?

## *Kansas Rural Center Programs*

KRC has a long history of promoting soil health in Kansas through soil health field days, grazing management workshops, and advocacy for conservation and sustainable agriculture. With the first year of grant funding from the National Healthy Soils Policy Network (NHSPN)\*in 2020-2021, KRC worked to gather data from farmers and ranchers with a statewide survey of farmers' attitudes about soil health practices and government involvement in promoting these practices in Kansas. The survey results\*\* were published in a report that was sent to all Kansas Senators and Representatives that sit on agriculture committees, and these elected officials, as well as other interested parties, were invited to two panel discussions with farmers about soil health and public policy meant to directly connect farmers to legislators.

KRC is excited to announce the continuation of our Soil Health Policy work in 2021-2022, made possible by a generous grant from the NHSPN. With the 2021-2022 round of grant funding KRC will continue to expand our outreach to farmers/ranchers as well as legislators to amplify the discussions around soil health policy in Kansas, and the survey results KRC gathered last year will be used to advise policy formation and promotion. KRC understands that direct feedback from farmers is critical in designing



*“When new state policies are crafted, we want farmers to be at the table.”*

legislation that will best support them and will recruit farmers who utilize practices that significantly improve soil health to meet and help guide the design of the bill. Other project outputs will be policy coverage of the soil health bill as it moves through the legislature, the creation of educational content about the Kansas legislative process and strategies to connect with legislators, and op-eds and interviews with farmers regarding soil health on their farms and public policy.

“We’re excited to continue this soil health policy work in the lead-up to the 2022 Kansas Legislative session,” KRC’s Program Manager, Ryan Goertzen-Regier, said of the project. “Soil health is a very hot topic right now, and when new state policies are crafted, we want farmers to be at the table speaking into that process. Even the most well-meaning legislation may have negative impacts, or not provide the

best benefits it could if farmers’ voices aren’t involved in the discussion, and our work this year will promote their involvement. KRC is passionate about both conserving our natural resources and ensuring that farmers can earn a living, so we hope to see a bill debated in the legislature that will address both needs in creative and sustainable ways. We are grateful to NHSPN for funding our continued work in this area!”

\*KRC is a current and founding member of the National Healthy Soils Policy Network.

\*\*You can access the Soil Health Report and the recordings of the panel discussions on the KRC website. If you are interested in participating in KRC’s Soil Health Policy work, please contact Program Manager, Ryan Goertzen-Regier at [ryangr@kansaruralcenter.org](mailto:ryangr@kansaruralcenter.org)

# SMALL FARMER COMMENTARY

## SATISFACTION ON THE FARM

*Miriam Goertzen-Regier*

Greetings from eastern Harvey County! I'm a fifth-generation Kansas farmer, growing wheat, soybeans, milo, and cover crops in a no-till system. When not working on my farm I help my parents on theirs where they raise antibiotic-free hogs for Niman Ranch, in addition to their crops. I can also be found at Grazing Plains Farm, one of the few remaining dairies in our county, where I am the head cheesemaker.

Here are some things that bring me joy, hope, or satisfaction on my farm these days:

Last winter I successfully had living



roots on all my acres - winter wheat, a cover crop of cereal rye and rapeseed, and the perennial grasses in the water ways. Once everything greened up in the spring and the ground had softened, I borrowed a soil probe from the co-op and took some samples. I was pleased to see living roots at all layers of the plugs that I pulled and the earthworms

that occasionally came up in the samples. This October I walked into a field a few days after a rain and was delighted to see lots of earthworm middens, the little piles of castings they make on the surface around their burrows. I also spotted a tiny, perfectly round dung ball, which I may have photographed and shown around proudly, possibly during meals. Clearly

there's more to healthy soil than earthworms and dung beetles, but I read their presence as a good sign.

A common critique of no-till systems is the heavy reliance on herbicides since you aren't using tillage to take out weeds. I have no affection for herbicides, particularly as I have watched weeds develop resistance, so even though I use them I'm always looking for ways to replace them with other weed-control methods. I've had some good results from using cover crops as a suppressant and would sometime like to try using a roller-crimper. There are some innovations in the works that will mechanically control weeds in-crop without disturbing the soil or using herbicides - technologies that have a lot of potential. I also hope to someday try out sowing milo and soybeans in narrower rows to achieve canopy more quickly and out-compete weeds that way.

I am one of the lucky ones in my generation that had an "in" when I wanted to start farming - I began my own farming when my parents offered to turn the management of a field over to me seven years ago, and since then other fields in our family have come my way. I don't take for granted that I've had a chance to slowly buy into shares of equipment rather than purchasing them up front, or that I have a network of family who have taught me the ins and outs of raising crops. I am grateful that I get to collaborate with my dad, brother and uncle, grateful for the support crew of my husband, mom, aunt, and others when we need a ride, a meal, or a parts run, and

*"I get to help them make the connection that food doesn't just come from a grocery store but from farms, grown by farmers, who are sometimes women. And that's pretty great."*

Above: Miriam making cheese (photo credit: Jason Schmidt)  
 Right Above: Miriam in the fields and harvest (photo credit: Miriam Goertzen-Regier)  
 Right Below: Kansas Farm to School team as the "Spice" Girls for the Halloween celebration at the NCAT Training





grateful for the openness in my family to trying different ways of doing things. My husband also comes from a farming family, and I enjoy getting to connect with them through that shared language. At a time when farmers increasingly work solo, I am grateful that I get to do this work alongside family.

Being one of only a handful of women in the county who are the primary operator of a farm brings the occasional question from those who haven't met a farmer also somehow being female (we manage). The flip side is that being different gives me opportunities to show younger generations that there's room for women in agriculture. I enjoy chances to show friends and their kids around my parents' hog farm, to have them out to glean ears of corn for their squirrel feeders from a harvested field, and to invite them to see harvest in action.



In return I get to watch them discover how funny and curious pigs are, get to see their satisfaction in picking something to feed their squirrely friends, and help them make the connection that food doesn't just come from a grocery store but from farms, grown by farmers, who are sometimes women. And that's pretty great.

You can follow Miriam's cheesemaking adventures on Instagram at [@grazing\\_plains\\_farm\\_llc](https://www.instagram.com/grazing_plains_farm_llc)

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# THE POTENTIAL OF PARTNERSHIPS TO INCREASE FARM TO SCHOOL ACROSS KANSAS



In October, KRC Local Food Programs Director, Kaitlin Stanley, joined members of our statewide Farm to School team at the Bringing the Farm to School Train-the-Trainer hosted by the National Center for Technology (NCAT) and the National Farm to School Network (NFSN). Here, team members developed plans to increase the success of Farm to School efforts across Kansas. Stay tuned for future updates including a shared resource hub, training for producers, and other solutions for farmers to overcome barriers and unlock the potential of the school market.



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# A WORLD OF CONNECTIONS

## *Kansas Rural Center Virtual Conference Review*

### BUILDING HEALTHY COMMUNITIES FROM THE GROUND UP

by Tom King

In 1924, as mechanization and chemicals were transforming agriculture in developed countries, the Austrian philosopher Rudolf Steiner delivered a series of lectures on his vision for an ecological and sustainable approach to farming, a system now known as biodynamic agriculture, practiced around the world.

In one of those lectures, he envisioned communities of plants merging together below ground, their roots growing “organized into a single entity... a common root being would arise for these plants.”

Soil scientists now refer to Steiner’s concept of the “common root being” as the common mycorrhizal

Nancy and Michael Phillips own and operate Lost Nation Orchard and Heartsong Farm Healing Herbs in Groveton, New Hampshire, growing apples, berries, vegetables, and medicinal herbs, using holistic and biodynamic practices.

an enzyme that breaks down the substrate, releasing mineral nutrients in their basic forms— “whole foods,” Phillips calls them. The process of breaking down organic matter also improves soil tilth and water retention. In exchange for the additional nutrients and water, plants secrete organic sugars, created through photosynthesis, which feed the mycorrhizae. This is a symbiotic relationship: the interaction between different organisms for mutual benefit.

*“Down in the soil are trillions and trillions of organisms. The whole evolutionary pathway began with bacteria and fungi and still connects to that life-web in the soil, on the surfaces of plants and within our bodies. We’re each a community of a hundred trillion organisms. When you start realizing that it’s this interconnected web of life on every level, you want to work with that.”*

*- Michael Phillips, EcoFarming Daily, September 2019.*

network. Myco means fungus, rhiza means root. That network is the fascinating topic of Michael Phillips’ latest book, “Mycorrhizal Planet: How Symbiotic Fungi Work with Roots to Support Plant Health and Build Soil Fertility,” and was the subject of his keynote presentation on KRC’s recent webinar, “Healthy Communities from the Ground Up.”

Mycorrhizal science is a developing field. “We’ve identified about 10 to 15 percent of fungal species to date. We’re still in kindergarten,” says Phillips. “We do know that 95 percent of plant species desire the symbiotic benefits of mycorrhizal associations; that is the normal way for plants to get nutrition. ...Our “NPK thinking”—that plants can only get nutrients through soluble ions—is wrong. A healthy ecosystem has 20 to 50 different species of fungi involved in the community.”

How do mycorrhizal associations benefit plants? Simply stated, mycorrhizae enhance a plant’s nutrient reach and uptake. They do this through hyphae, filaments which reach out into the soil and secrete

Mycorrhizal relationships also abet plant metabolisms, promote a systemic resistance to disease and aid in messaging. Yes, plants do communicate with each other, and with other species. And by teaming with certain soil bacteria—an interaction not yet fully understood—the mycorrhizal advantages to plants are significantly enhanced. “Disease and insect pressure are directly related to poor metabolism and nutrition,” Phillips says.

A healthy ecosystem is far more resilient to environmental stresses—the effects of climate change, for example. Equally important is the recent discovery that mycorrhizae sequester far more carbon in the soil than previously thought, up to 70 percent more—a serious implication given that the US agriculture industry alone emitted 698 million tons of carbon dioxide in 2018.

Phillips recommends a diversity of organisms (living plants), natural symbiosis (including mycorrhizal and microbial associations), and careful stewardship (“Don’t screw up”), as essentials in establishing healthy

### Books by Michael Phillips:

*The Herbalist's Way*, with Nancy Phillips (Chelsea Green 2005)

*The Apple Grower* (Chelsea Green, 2005)

*The Holistic Orchard* (Chelsea Green, 2011)

and sustainable communities, both below and above ground. Fungicides, herbicides and NPK thinking work against the biological connection. The question he asks himself most often is, "How can I enhance photosynthesis?" The answer to that is another question, "How can I be more fungal in my life?"

"The evolution across biological kingdoms points relentlessly to cooperation and support networks as the way to proceed in life." - Michael Phillips

Association, community, diversity, interaction, partnership, symbiosis... Phillips used these words repeatedly in his presentation. So did most of the other presenters. The mutually beneficial interactions of soil life are no different than the interactions of beings above ground.

Steven Bond deals with more than 500 Native American tribes in the Intertribal Agriculture Council. When he speaks of an arriving paradigm shift in agriculture, he knows those changes will involve a great deal of communication, cooperation and education. Despite differing tribal cultures and practices, symbiotic concepts and relationships are essential to forming a strong community capable of addressing challenges.

When Keisha Mcclish-Couts (Common Ground Producers and Growers) deploys her team of teenagers to deliver fresh produce to senior centers in Wichita, and Erica Blair (Kansas Healthy Food Initiative) helps a rural grocery store stay in business, their actions are akin to the workings of fungal

hyphae, extending the food reach of the human community. That reach also involves the ineffable qualities of caring and sharing, of bridging cultures and generations—food for the soul.

When Pantaleon Flores applies his ancestral culture and practices to growing and processing corn in Lawrence, he resurrects knowledge and philosophies far more in tune with natural systems than the ways of Big Ag. And when Kendra Davila (Peace Connections) goes neighborhood-making in Newton, she builds social capital and strengthens the metabolism of her community. Like healthy plant ecosystems, a healthy society is more resilient to stress.

When Nicholas Ward brings vermicompost worms to a school, children see the worms breaking down their lunch waste into castings which will in turn nourish the living soil. They get an immediate, and hopefully lasting sense of the interconnectedness of life. As Phillips says, "Little life forms come together to make the big picture possible."

Research is a vital act of careful stewardship, gathering information that will help you to not screw up. Ashlee Skinner's valuations of cover crops to feed the soil and sequester carbon and Tom Buller's trials of no-till, no chemical weed control methods are essential tools in restoring balance to the ecosystem.

And through working in politics, perhaps the most precarious environment of all, legislative and policy advocate Martha Terhaar (Kansas Appleseed) fulfills the mycorrhizal imperative to form associations and connections that benefit the community.

*The largest organism on Earth is a fungus: a giant *Armillaria ostoyae*, the honey mushroom, discovered in Oregon's Blue Mountains in 1998. It occupies 2,384 acres, nearly four square miles, and is estimated to be at least 2,400 years old. The second largest *Armillaria ostoyae* is in southwestern Washington state, occupying 1,500 acres or 2.5 square miles. "We think that these things are not very rare," says Tom Volk, a biology professor at the University of Wisconsin-La Crosse. "We think that they're in fact normal."*

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**VISIT THE KRC WEBSITE TO SIGN UP FOR EMAIL NEWSLETTERS & RECEIVE UPDATES ABOUT 2022 EVENTS**

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# IT'S POLICY WATCH TIME!

The Kansas Legislative Session will soon be upon us! Don't miss a minute. Follow KRC's Legislative and Policy Watch weekly e-update, written by Paul Johnson and edited by former Executive Director, Mary Fund.

To support our work in bringing Kansans the latest legislative news and analysis, please contribute to KRC today.

If you do not already receive emails from KRC and would like to receive Policy Watch, email [info@kansasruralcenter.org](mailto:info@kansasruralcenter.org) to sign up.

## LEGISLATIVE SESSION PREVIEW

*by Zack Pistora*

Here we go again; the ol' Kansas Legislature will be back in action come January. Folks, there will be plenty on our policy plates, both good and bad, you can bet on it. Here are a few issues we can expect.

**Food Sales Tax** There's been a lot of hoopla on the food sales tax from legislators and both Gubernatorial prospects recently, and rightly so. Kansas has the 2nd highest tax on food of any state, and we're overdue to lower taxes on food. Yet, to make the most direct impact for our state's farmers and communities, we ought to start by eliminating the food sales tax on direct-to-consumer sales and farmers' markets. This way we can incentivize local and more sustainable food consumption and

support those farmers helping their communities.

**Water** The top leaders for state water policy have been hard at work in considering new ways to support water resource conservation and management with both increased funding and programs. Representatives Ron Highland and Lindsay Vaughn, Water Committee Chair and Ranking Minority leader respectfully, are putting their heads together with agency officials and stakeholders to advance policy options. Over the last 13 years, Kansas lawmakers have shorted the State Water Plan Fund by \$80 million in annual dues. As a food and farm organization, it's important that we offer our voices for increased water conservation and protection.

**Conservation** Expect land protection to be a hot topic this year. A Special Committee to review the President's call for 30% land and water protection by 2030 is generating a lot of concern, despite the initiative's opportunity for state and local land protection, including voluntary conservation measures. We certainly could stand to have more land in conservation to help our soils, enable recreation, and avoid degradation. Separately, there is some talk that conservation easements may be restricted, say by limiting the easement to 50 years or by placing it under county control as previous bills have offered. Conservation easements in perpetuity are a voluntary property right and should not be interfered with.





# OP-ED: FARMERS NEED CONGRESS TO CHIP IN ON CLIMATE SMART AGRICULTURE

by Zack Pistora

Farmers are used to fixing things on their own. From fences to tractors to spigots, they're well-versed in the art of the do-it-yourself repair. While there is a lot that farmers can do to help mitigate the effects of climate change, addressing the climate emergency as a whole will require help from our friends in Congress.

Farming isn't easy in the first place, but extreme winds, heavy downpours, 100-year and 500-year flooding, volatile temperature swings, extended drought, new pest pressures, wildfires and more don't make it easier. Stanford University recently estimated \$27 billion in crop losses from rising temperatures over the past three decades in the United States, with anticipated greater financial damages to come (the U.S. Crop Insurance Program already costs taxpayers around \$9 billion annually).

Climate change is costing both farmers and taxpayers, and it's only going to get worse unless we take this bull by the horns.

Fortunately, there's still enough sunshine to make hay. Congress is working up a monumental reconciliation budget that offers a once-in-a-generation opportunity to address the Dust Bowl of today. Kansans are lucky to have Sen. Roger Marshall and Rep. Tracey Mann on the agriculture committees, as well as Sen. Jerry Moran on the Appropriations Committee. All three are intimately familiar with invaluable USDA farm programs and research that can aid farmers in adopting real solutions to mitigate environmental extremes.

Working lands conservation efforts such as the Conservation Stewardship Program, Environmental Quality Incentives Program, Regional Conservation Partnership Programs and more all help farmers utilize smart conservation practices on their land. Practices such as keeping living plants in the ground all year, planting perennial crops, and grazing animals in carefully managed systems are all means of effectively sequestering carbon in the soil.

The numbers are good: converting marginal cropland or poorly managed pasture to managed intensive rotational grazing, perennial conservation buffers or agroforestry can sequester 1,000 to 3,000 pounds of carbon per acre, according to the National Sustainable Agriculture Coalition. Similarly, upgrades to conventional farming such as little or no tillage, high plant diversity, cover crops, judicious use of agrochemicals and organic practices can sequester up 400 to 600 pounds of carbon per acre.

Well-managed farmland can return excess carbon in the air back to a productive use in the ground. These practices also decrease soil erosion and polluting run-off, increase farm biodiversity and better prepare farms to deal with the impacts of climate change. Conservation programs promote tested climate solutions that many farmers have already adopted, realizing both environmental and financial success.

Several farmers in Kansas can attest to this. It would be highly beneficial

to bulk up these programs and make them more widely accessible, especially to young farmers and socially disadvantaged farmers who have been traditionally underserved by government programs.

As a lifelong Kansan and budding young farmer, I know how important farming is to our state, the country, and world. In my role of directing a Kansas-based food and farm organization, I see how Kansas farmers strive for better practices to be more resilient, attempting to overcome challenges to the environment, market economy, and rural infrastructure. Yet, if we – including Congress – do not do more to support farmers in prevailing amid these challenges, then our food and farming system is more likely to falter than flourish.

Chipping in on climate-smart agriculture- \$30 billion for working lands programs, \$5 billion for resiliency-focused sustainable and organic agriculture research, and \$3 billion for value-added producer grants, local meat processing, on-farm renewable energy systems and more- will equip and empower farmers to do what's necessary to shut the barn door on climate change before the horse bolts. Such an investment will pay for itself in terms of better yields and economic output, as well as easing costs from crop losses, erosion and agrochemical pollution.

In the way that we all depend upon farmers for food, we're depending on congressional leadership for action with a down payment for our society's well-being. Congress, please bring home the bacon.

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