

## Session 1

**Speaker:** Doug Spencer

**Title:** Reducing Grassland Vulnerability to Woody Encroachment - A Better Strategy

**Summary:** Woody encroachment is one of the greatest threats facing grasslands in the Great Plains. In 2022 alone, Great Plains grasslands lost an estimated 11.9 million tons of production due to woody encroachment. That missing production could have fed 2.5 million head of cows for a year or if wrapped into 1200 pound bales and stacked in a row, that bale row would wrap three-quarters of the way around the globe. While that is a significant loss in potential production, the ecosystem service impacts don't stop there. Join this session to better understand woody encroachment impacts to ecosystem services, gain a clearer understanding of the threat via a "vulnerability lens", and learn how a "Defend the Core, Grow the Core" strategy can help prioritize on-the-ground efforts to prevent grassland loss. Defended, intact grassland is the shared vision of the Great Plains Grassland Initiative (GPGI); a rancher driven, science informed, and agency supported effort to conserve the last remaining iconic grassland regions in the Great Plains biome.

**Speaker Background(s):** Reducing Grassland Vulnerability to Woody Encroachment – A Better Strategy Woody encroachment is one of the greatest threats facing grasslands in the Great Plains. In 2022 alone, Great Plains grasslands lost an estimated 11.9 million tons of production due to woody encroachment. That missing production could have fed 2.5 million head of cows for a year or if wrapped into 1200 pound bales and stacked in a row, that bale row would wrap three-quarters of the way around the globe. While that is a significant loss in potential production, the ecosystem service impacts don't stop there. Join this session to better understand woody encroachment impacts to ecosystem services, gain a clearer understanding of the threat via a "vulnerability lens", and learn how a "Defend the Core, Grow the Core" strategy can help prioritize on-the-ground efforts to prevent grassland loss. Defended, intact grassland is the shared vision of the Great Plains Grassland Initiative (GPGI); a rancher driven, science informed, and agency supported effort to conserve the last remaining iconic grassland regions in the Great Plains biome.

## Session 2

**Speaker:** Marlon Winger

**Title:** How Soil Functions

**Summary:** Audience members will learn through visual demonstration "How Soil Functions". Improving soil health on your farm is a process or journey and the more we emulate nature, we can start to decrease inputs costs and begin to regenerate the soil to its function capacity. Managing for soil health is one of the easiest and most effective ways for farmers to increase crop productivity and profitability while improving the environment. Results are often realized immediately, and last well into the future. Using these five basic principles is the key to improving the health of your soil. 1. Keep the soil covered as much as possible. 2. Disturb the soil as little as possible. 3. Keep plants growing throughout the year to feed the soil microbes. 4. Diversify as much as possible using crop rotation and cover crops. 5. Integrate livestock into the cropping system.

**Speaker Background(s):** Regional Soil Health Specialist (Colorado, New Mexico, West Texas, Wyoming, Indigenous Practices Team) Marlon Winger earned a BS and MS degrees at Utah State University in Plant Science. He grew up on a family-owned dairy farm in Dayton, Idaho, where he found his professional passion for life (Agriculture). Worked as a County Agricultural Agent for Utah State University Extension service for 9 years in Price, Utah. Has been working

for the USDA - Natural Resource Conservation Service (NRCS) for 18 years, as Area Agronomist in Northern Utah and State Agronomist in Idaho, currently works as the Regional Soil Health Specialist for CO, UT, NM, and west TX. Marlon and his family lives on a ranchette in Logan, Utah where the family raises, pasture, sheep, goats, and a large garden. Besides his great family, job satisfaction comes from meeting with producers as they learn to implement the principles of soil health.

### **Session 3**

**Speaker:** Jeff Steffen

**Title:** "Proving the Economic Value of Extended Rotations and Cover Crops"

**Summary:** Jeff will show historical data from a 5-year rotation with cover crops and analyze the economics of the total "systems approach" of farming for soil health including extending rotations and incorporating livestock. He will also show economic comparisons with the more traditional Corn, Soybean rotation in his area.

**Speaker Background(s):** Producer, Northeast Nebraska Jeff and Jolene Steffen farm around 600 acres in Northeast Nebraska about 10 miles south of the South Dakota border. About 500 of these acres are row crops. They currently grow Corn, Oats, Soybeans, Buckwheat, Cereal Rye and Peas for cash crops. They also graze Cow Calf pairs on full season annual cover crops and winter graze cover crops and crop residue. They have been continuous no-till for 30 plus years but only in the last 10 years have they really concentrated on soil health with cover crops being implemented on the entire farm. Jeff and Jolene also raise non-GMO Soybeans and Oats for certified seed. Jeff is on the Nebraska Natural Resource Commission and serves on the board of his local Natural Resource District. They also love Nature and Wildlife: as West Bow Creek runs through the middle of their farm.

### **Session 4**

**Speaker:** Ariel Greenwood

**Title:** Soil Health in the Desert Southwest

**Summary:** Grazing in a semi-arid region. Practical strategies for erosion control and wetland health on working lands Mitigating erosion and enhancing stream health on working agricultural land. Time, materials, funding, and lessons learned so far from a manager on a commercial cow-calf operation on leased land in semi-arid New Mexico.

**Speaker Background(s):** Rancher, Wagon Mound, New Mexico Ariel Greenwood works with her husband Sam Ryerson and daughter Helen managing a commercial cow operation on a high-elevation leased ranch in northeastern New Mexico. She has also worked on ranches in California and Montana, and is interested in how developing our understanding of pasture and range hydrology can support progressive ranch management and make operations more resilient to erratic weather and drought.

### **Session 5**

**Speaker:** Brice Custer

**Title:** Farming Above Your Means

**Professional Development CEU Area:** Business planning, budgeting, and financial analysis  
**CEUs requested:** 1

**Summary:** Audience members will learn way to cover your risk. Brice will talk about using insurance and other crop tools to protect the risk that is uncovered in your cropping system.

He will also discuss the economics of less is more. More yield doesn't always equate to more profit.

**Speaker Background(s):** No-till Producer, Hays, KS Brice Custer is the owner and operator of Custer Farms LLC. Brice, his wife Shanon and two young boys live in Hays, KS. He operates a no-till farming operation that includes growing corn, wheat, milo oats, and barley. In 2008 he started planting cover crops into the summer fallow period. A few years later he started to realize the weed suppression and soil health improvement that the cover crops were providing. With the growing interest in cover crops and having his own seed available, his cover crop seed sales operation took off. Now the farm is growing, selling and mixing cover crop seed year around.

## **Session 6**

**Speaker:** Will Stutterhiem

**Title:** Stress and coping mechanisms for dealing with agricultural-related stress issues.

**Summary:** Audience members will learn about signs of stress and also how the brain is affected by these stressors. Agriculture is in tough times and many producers are struggling to deal with volatile markets, droughts, floods, and other factors beyond their control.

**Speaker Background(s):** Will Stutterheim, LCP, is a Fort Hays State University Instructor with over 20 years of experience in mental health therapy and education. Will grew up on a multi-generation farm in northwest Kansas. As a child, he saw the struggles and stress his parents went through when they were required to leave the farm during tough times. This experience inspired Will to become a therapist in hopes of helping others manage struggles and stressors throughout their life. Will received his Master of Science in Clinical Psychology from Fort Hays State University in 2003. After graduating, Will worked as a mental health therapist for 13 years in Phillipsburg, Kansas, a rural farming community. He helped many individuals and families struggling to cope with the pressure of agriculture and multi-generational farming with a focus on managing stress and building resilience. Will has also presented to numerous classes and at conferences about the unique challenges those in agriculture face regarding stress and learning to cope with the uncertainty that occurs with an agricultural career.

## **Session 7**

**Speaker:** Dr. Dwayne Beck

**Title:** What we've seen Keynote

**Summary:** Dr. Beck will share insights on how to weigh options for rotations in the high plains. Incorporating residue management, herbicides modes of action, and marketing can give us a better idea of how to manage the systems approach.

**Speaker Background(s):** Professor Emeritus, Dakota Lakes Research Farm Professor Emeritus Dwayne L. Beck is the former Research Manager at Dakota Lakes Research Farm in Pierre, South Dakota. He received his B.S. in Chemistry from Northern State University in 1975 and a Ph.D. in Agronomy from South Dakota State University in 1983. Prior to the beginning of DLRF in 1990, he was the Research Manager at James Valley Research Center at SDSU. He formally retired as DLRF manager in February of 2022 but remains active in the effort. Dr. Beck's emphasis is on designing no-till systems for irrigated and dryland areas in arid and semi-arid ecosystems in North America and elsewhere. His primary achievements deal with the development of programs that have allowed producers to profitably adopt no-till techniques in large portions of the great plains and prairies. Primary in this effort was the identification of the extremely important role played by crop rotation in minimizing weed, disease, and insect problems while increasing potential profitability. The Dakota Lakes Research Farm consists of

1,320 acres of land in three parcels representing the major soil types in the region. About 250 acres is irrigated. The entire operation is managed using no-till techniques. Dr. Beck was inducted into the South Dakota Hall of Fame in 2007. The Dakota Lakes Research Farm Corporation is a not-for-profit corporation (501 C3) that owns the land and fixed facility used to perform this research. It is governed by a Board of Directors consisting of active farmers. Research is performed by scientists from South Dakota State University, USDA-ARS, and other appropriate institutions. Over 2,000 visitors tour the station each year. Learn more at [www.dakotalakes.com](http://www.dakotalakes.com).

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### **Session 8**

**Speaker:** Dr. Dwayne Beck

**Title:** Beck on Rotations

**Summary:** Rotations discussion for the Northern Plains. Discussing residue management, herbicides, and marketing of crop rotations in the great plains.

**Speaker Background(s):** Professor Emeritus, Dakota Lakes Research Farm Professor Emeritus Dwayne L. Beck is the former Research Manager at Dakota Lakes Research Farm in Pierre, South Dakota. He received his B.S. in Chemistry from Northern State University in 1975 and a Ph.D. in Agronomy from South Dakota State University in 1983. Prior to the beginning of DLRF in 1990, he was the Research Manager at James Valley Research Center at SDSU. He formally retired as DLRF manager in February of 2022 but remains active in the effort. Dr. Beck's emphasis is on designing no-till systems for irrigated and dryland areas in arid and semi-arid ecosystems in North America and elsewhere. His primary achievements deal with the development of programs that have allowed producers to profitably adopt no-till techniques in large portions of the great plains and prairies. Primary in this effort was the identification of the extremely important role played by crop rotation in minimizing weed, disease, and insect problems while increasing potential profitability. The Dakota Lakes Research Farm consists of 1,320 acres of land in three parcels representing the major soil types in the region. About 250 acres is irrigated. The entire operation is managed using no-till techniques. Dr. Beck was inducted into the South Dakota Hall of Fame in 2007. The Dakota Lakes Research Farm Corporation is a not-for-profit corporation (501 C3) that owns the land and fixed facility used to perform this research. It is governed by a Board of Directors consisting of active farmers. Research is performed by scientists from South Dakota State University, USDA-ARS, and other appropriate institutions. Over 2,000 visitors tour the station each year. Learn more at [www.dakotalakes.com](http://www.dakotalakes.com).

### **Session 9**

**Speaker:** Candy Thomas

**Title:** Rainfall Simulator

**Summary:** Rainfall simulator

**Speaker Background(s):** Candy Thomas, Salina, Kansas, is a regional soil health specialist in the Kansas state office of USDA-NRCS. Serving in an advisory role on the board of directors since 2013, Candy believes NRCS goals align closely with those of No-till on the Plains in helping people help the land. NRCS has developed many tools and standards to help farmers improve soil health and soil conservation.

### **Session 10**

**Speaker:** Jeff Lowenfels

**Title:** Lowenfells Keynote

**Summary:** Jeff uses his sense of humor and speaking ability to teach the science behind organic growing. He is known for his highly entertaining lectures which have converted tens of thousands of gardeners at venues throughout North and South America. . He is also a highly respected and popular, national, garden writer, former President of the Garden Writers of America (now GardenComm), a GWA Fellow and was inducted into the GWA Hall of Fame, the highest honor a garden writer can achieve. Most important, Jeff is the founder of a now national program that started as "Plant a Row for Bean's," the soup kitchen in Anchorage, and is now "Plant A Row for The Hungry." The program is active all 50 states and Canada and has resulted in millions pounds of garden produce being donated to feed the hungry every year. Jeff is as passionate about "Plant a Row" as he is about organics. He encourages gardeners every where he goes to participate in the program and constantly reminds his fellow garden communicators of the pressing need to solve the hunger problem

**Speaker Background(s):** Keynote Speaker, Author of "Teaming with Fungi, Teaming with Microbes, and Teaming with Bacteria" Jeff Lowenfels is a leader in the organic gardening/sustainability movement as a result of his best-selling books on the science behind organics known as the Teaming Series. These books are international best sellers and have been translated into numerous languages ranging from Italian, French, Spanish and Dutch to Korean, Romanian and Turkish. Jeff uses his sense of humor and speaking ability to teach the science behind organic growing. He is known for his highly entertaining lectures which have converted tens of thousands of gardeners at venues throughout North and South America. Lowenfels also pens the longest running garden column in North America, having never missed a week in over 48 years. The combination of garden writing and law earned him the moniker of "America's Dirtiest Lawyer." The trilogy, now a tetralogy, made him "Lord of The Roots," the moniker he keeps now that he has retired from law. "Teaming With Microbes: The Organic Gardener's Guide To The Soil Food Web," "Teaming With Nutrients, The Organic Gardener's Guide to Optimizing Plant Nutrition," "Teaming With Fungi, The Organic Growers Guide to Mycorrhizae," " "Teaming With Bacteria, The Organic Gardener's Guide to Endophytic Bacteria and the Rhizophagy Cycle." "DIY Autoflowering Cannabis" Jeff uses his sense of humor and speaking ability to teach the science behind organic growing. He is known for his highly entertaining lectures which have converted tens of thousands of gardeners at venues throughout North and South America. . He is also a highly respected and popular, national, garden writer, former President of the Garden Writers of America (now GardenComm), a GWA Fellow and was inducted into the GWA Hall of Fame, the highest honor a garden writer can achieve. Most important, Jeff is the founder of a now national program that started as "Plant a Row for Bean's," the soup kitchen in Anchorage, and is now "Plant A Row for The Hungry." The program is active all 50 states and Canada and has resulted in millions pounds of garden produce being donated to feed the hungry every year. Jeff is as passionate about "Plant a Row" as he is about organics. He encourages gardeners every where he goes to participate in the program and constantly reminds his fellow garden communicators of the pressing need to solve the hunger problem.

## **Session11**

**Speaker:** Jeff Lowenfels

**Title:** Lowenfels Breakout

**Summary:** Lowenfels breakout on understanding plant nutrition with microbes and fungi. An in depth look at composting and how you can increase plant health and nutrition.

**Speaker Background(s):** Keynote Speaker, Author of "Teaming with Fungi, Teaming with Microbes, and Teaming with Bacteria" Jeff Lowenfels is a leader in the organic gardening/sustainability movement as a result of his best-selling books on the science behind organics known as the Teaming Series. These books are international best sellers and have been translated into numerous languages ranging from Italian, French, Spanish and Dutch to Korean, Romanian and Turkish. Jeff uses his sense of humor and speaking ability to teach the science behind organic growing. He is known for his highly entertaining lectures which have converted tens of thousands of gardeners at venues throughout North and South America. Lowenfels also pens the longest running garden column in North America, having never missed a week in over 48 years. The combination of garden writing and law earned him the moniker of "America's Dirtiest Lawyer." The trilogy, now a tetralogy, made him "Lord of The Roots," the moniker he keeps now that he has retired from law. "Teaming With Microbes: The Organic Gardener's Guide To The Soil Food Web," "Teaming With Nutrients, The Organic Gardener's Guide to Optimizing Plant Nutrition," "Teaming With Fungi, The Organic Growers Guide to Mycorrhizae," " "Teaming With Bacteria, The Organic Gardener's Guide to Endophytic Bacteria and the Rhizophagy Cycle." "DIY Autoflowering Cannabis" Jeff uses his sense of humor and speaking ability to teach the science behind organic growing. He is known for his highly entertaining lectures which have converted tens of thousands of gardeners at venues throughout North and South America. . He is also a highly respected and popular, national, garden writer, former President of the Garden Writers of America (now GardenComm), a GWA Fellow and was inducted into the GWA Hall of Fame, the highest honor a garden writer can achieve. Most important, Jeff is the founder of a now national program that started as "Plant a Row for Bean's," the soup kitchen in Anchorage, and is now "Plant A Row for The Hungry." The program is active all 50 states and Canada and has resulted in millions pounds of garden produce being donated to feed the hungry every year. Jeff is as passionate about "Plant a Row" as he is about organics. He encourages gardeners every where he goes to participate in the program and constantly reminds his fellow garden communicators of the pressing need to solve the hunger problem.

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## **Session 12**

**Speaker:** Kevin Sedivc

**Title:** Flower Power

**Summary:** Diversity is key to the system, especially grazing animals. Kevin will share how plants and animals obtain necessary nutrients and minerals from the diversity of plants within the system. Learn how this diversity drives the overall health of the system.

**Speaker Background(s):** Professor Range Science Program Kevin Sedivec, Ph.D., will share research on the benefits of Diverse Rangelands, wildflower forage value, and the effects they have on livestock and pollinators.

## **Session 13**

**Speaker:** Austin Schweizer

**Title:** Grazing in Sandy Soils

**Summary:** Grazing considerations in a dryland farm operation on sandy soils. Using grazing animals and crop diversity to increase health on low organic matter, traditionally sandy soils.

**Speaker Background(s):** Producer, Sterling Kansas Austin Schweizer is a 5th generation farmer from Sterling, KS. After graduating from Fort Hays State University (FHSU) in 2016 with a degree in agronomy he returned home to his family farm. Austin started farming with no-til

and regenerative practices on the rented acres he farmed. Working with his family's farm they have continued to incorporate and adopt regenerative practices in their operation. While the last years have been challenging with the drought, Austin has seen how the regenerative practices have helped hold the soil stable, utilize water better, grow the biology in the soil, provide feed for livestock with cover crops, and continue to help reduce fertilizer cost. Austin enjoys spending time with his family and working on equipment.

#### **Session 14**

**Speaker:** Kevin Elmy

**Title:** Water Conservation

**Summary:** "I can't cover crop because it is too dry". Seems logical. BUT, nature has systems in place to have plants growing in order to protect the soil. Using the power of plant diversity with diverse growth periods and root types, managing plant densities, and building soil biology we can utilize cover crops to keep the soil covered and build soil biology.

**Speaker Background(s):** Producer, Western Canada After getting his degree in Agriculture from the University of Saskatchewan and various jobs around western Canada, he and his wife Christina bought land and moved back to the family farm. Quickly realizing they bought dirt not soil. The previous owners would bale the straw then burn the stubble, then every three years they would summer fallow. By using regenerative agriculture principles before they were being talked about and including using cover crops in 2008. He travels Western Canada educating producers regenerative agriculture principles.

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#### **Session 15**

**Speaker:** Kevin Elmy

**Title:** Weeds and What they tell us

**Summary:** Why do weeds never stop wanting to take over my land? Weeds, which are early successional plants, are there to fix the soil. They tell us a story of what, or what is not, happening in our soils. We need to learn to read the weeds, understand what they are telling us, and find a way to change the soil conditions to take away their ecological advantage.

**Speaker Background(s):** Producer, Western Canada After getting his degree in Agriculture from the University of Saskatchewan and various jobs around western Canada, he and his wife Christina bought land and moved back to the family farm. Quickly realizing they bought dirt not soil. The previous owners would bale the straw then burn the stubble, then every three years they would summer fallow. By using regenerative agriculture principles before they were being talked about and including using cover crops in 2008. He travels Western Canada educating producers regenerative agriculture principles.

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#### **Session 16**

**Speaker:** Kevin Elmy

**Title:** System Approach to Soil Systems

**Summary:** Silver bullets. Rarely is there one that works. For true lasting solutions to many issues, we need to take a look at our systems, understanding the differences of symptoms and causal agents. In agriculture, they usually go back to executing soil health principles. Or maybe a good banker?

**Speaker Background(s):** Producer, Western Canada After getting his degree in Agriculture from the University of Saskatchewan and various jobs around western Canada, he and his wife Christina bought land and moved back to the family farm. Quickly realizing they bought dirt not soil. The previous owners would bale the straw then burn the stubble, then every three years they would summer fallow. By using regenerative agriculture principles before they were being talked about and including using cover crops in 2008. He travels Western Canada educating producers regenerative agriculture principles.

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## **Session 17**

**Speakers:** Shelby Beyer, Carmen McKee, Rachel Summers.

**Title:** Gardening/Small Acres Agriculture Panel

**Summary:** Rachel is a first generation farmer and has a master's degree in Industrial Environmental Management. Rachel and her husband, Brent, spent a few years learning to be minimalists through van life while managing an aquaponics farm in TN and then a regenerative farm in NJ. The now family of three owns Resilient Growers Farm which was started in 2020 in a backyard one acre lot. Since 2021, the farm has found its permanent home in Skiatook on 20 acres utilizing USDA loans and grants. Rachel focuses on a diversity of vegetable crops as the main source of income but has a goal to increase meat duck and sheep production to obtain a fully integrated diversified farm. Resilient Growers farm utilizes many regenerative practices like no-till, deep composting, rotational grazing, and silvopasture. The vision for the farm is to have the ability to adapt quickly to a changing environment, economy, and culture through diversity in every aspect. Shelby Beyer is a producer in Cheney, KS. Together with her husband Brad and their two children, they own and operate Anchor Farm. Anchor Farm Produces a wide variety of seasonal vegetables in outdoor gardens and high tunnels. Brad and Shelby also shepherd a flock of hair sheep. Their goal is to provide healthy meat and produce for their family and their local community. Shelby has broad work experience across the agricultural setting. Shelby worked in the conventional beef cattle, research, soil amendment, organic produce and regenerative dairy industries before starting Anchor Farm in 2019. Prior to her passion for agriculture, Shelby worked in health care for 20 years. This journey created an intense passion for understanding the connections between healthy soil and ecosystems, food and human health. More recently Shelby has worked with multiple companies to conduct soil health research. She provides consulting services for growers of all sizes, helping them to support and grow the diversity in their ecosystems and the health of their soils. Shelby's intent is to nourish her community and support farmers in their quest to grow diversity. She has an intense drive for sharing the magic of food and the natural world with those around her, especially younger generations.

**Speaker Background(s):** Rachel is a first generation farmer and has a master's degree in Industrial Environmental Management. Rachel and her husband, Brent, spent a few years learning to be minimalists through van life while managing an aquaponics farm in TN and then a regenerative farm in NJ. The now family of three owns Resilient Growers Farm which was started in 2020 in a backyard one acre lot. Since 2021, the farm has found its permanent home in Skiatook on 20 acres utilizing USDA loans and grants. Rachel focuses on a diversity of vegetable crops as the main source of income but has a goal to increase meat duck and sheep production to obtain a fully integrated diversified farm. Resilient Growers farm utilizes many regenerative practices like no-till, deep composting, rotational grazing, and silvopasture. The



vision for the farm is to have the ability to adapt quickly to a changing environment, economy, and culture through diversity in every aspect.

Shelby Beyer is a producer in Cheney, KS. Together with her husband Brad and their two children, they own and operate Anchor Farm. Anchor Farm Produces a wide variety of seasonal vegetables in outdoor gardens and high tunnels. Brad and Shelby also shepherd a flock of hair sheep. Their goal is to provide healthy meat and produce for their family and their local community. Shelby has broad work experience across the agricultural setting. Shelby worked in the conventional beef cattle, research, soil amendment, organic produce and regenerative dairy industries before starting Anchor Farm in 2019. Prior to her passion for agriculture, Shelby worked in health care for 20 years. This journey created an intense passion for understanding the connections between healthy soil and ecosystems, food and human health. More recently Shelby has worked with multiple companies to conduct soil health research. She provides consulting services for growers of all sizes, helping them to support and grow the diversity in their ecosystems and the health of their soils. Shelby's intent is to nourish her community and support farmers in their quest to grow diversity. She has an intense drive for sharing the magic of food and the natural world with those around her, especially younger generations.

**Date #2:** 2025-01-22

Time: 03:00 PM to 04:00 PM

**Location:** The Marriott

**Speaker(s):** Shelby Beyer, Rachel Summer, and Carmen McKee

**Speaker Background(s):** Rachel is a first generation farmer and has a master's degree in Industrial Environmental Management. Rachel and her husband, Brent, spent a few years learning to be minimalists through van life while managing an aquaponics farm in TN and then a regenerative farm in NJ. The now family of three owns Resilient Growers Farm which was started in 2020 in a backyard one acre lot. Since 2021, the farm has found its permanent home in Skiatook on 20 acres utilizing USDA loans and grants. Rachel focuses on a diversity of vegetable crops as the main source of income but has a goal to increase meat duck and sheep production to obtain a fully integrated diversified farm. Resilient Growers farm utilizes many regenerative practices like no-till, deep composting, rotational grazing, and silvopasture. The vision for the farm is to have the ability to adapt quickly to a changing environment, economy, and culture through diversity in every aspect. Shelby Beyer is a producer in Cheney, KS. Together with her husband Brad and their two children, they own and operate Anchor Farm. Anchor Farm Produces a wide variety of seasonal vegetables in outdoor gardens and high tunnels. Brad and Shelby also shepherd a flock of hair sheep. Their goal is to provide healthy meat and produce for their family and their local community. Shelby has broad work experience across the agricultural setting. Shelby worked in the conventional beef cattle, research, soil amendment, organic produce and regenerative dairy industries before starting Anchor Farm in 2019. Prior to her passion for agriculture, Shelby worked in health care for 20 years. This journey created an intense passion for understanding the connections between healthy soil and ecosystems, food and human health. More recently Shelby has worked with multiple companies to conduct soil health research. She provides consulting services for growers of all sizes, helping them to support and grow the diversity in their ecosystems and the health of their soils. Shelby's intent is to nourish her community and support farmers in their quest to grow diversity. She has an intense drive for sharing the magic of food and the natural world with those around her, especially younger generations.

Carmen McKee,

wife, mother of three adult sons, and grandmother to three healthy, happy and adorable grandchildren is a commercial gourmet garlic and honey FarmHer of three years; a hospital Chaplain of 20 years; an Educator of 25 years; and Author of several booklets. She currently resides and grows in the beautiful city of Gary, Indiana.

Carmen is the manager and curator behind Oases Botanic Gardens, a themed agritourism healing space that features edible flowers, herbs, gourmet garlic, and agriculture related educational opportunities.

Carmen's conservation practices include native and pollinator plantings, an apiary, cover crops, crop rotation and on-site composting. The highlight of her third year of farming, June 2024, was the installation of a high tunnel to begin specialty crop growing for a FarmHer-to-Mama Initiative.

Carmen's advice for doing life well: Build community -not just farmers -beyond coworkers. Be intentional to not just join a group, but to do the work to nurture and to sustain humanity. "For we are God's fellow workers. You are God's field (farming), God's building." - 1 Cor. 3:9

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## **Session 18**

**Speakers:** Jimmy and Spencer Smith

**Title:** Continuous Cotton in a Soil Health System

**Summary:** People didn't use the term "cover crop" 50 years ago, but the Smiths were growing one. Like his father and grandfather before him, Jimmy Smith grows rye as a companion to cotton. What some would call an innovation has long been considered a necessity in western Oklahoma. The year-round presence of a living root retains precious moisture in a drought-prone region and prevents wind erosion of sandy soils. Jimmy and Cathy Smith farm with their children Spencer and Calli. They credit conservation practices and technological advances with saving time and money, and benefitting the landscape. Growing rye as a cover crop has improved the Smith's soil, which average 2 to 4 percent organic matter compared to the statewide .5 percent average. They began interseeding rye on their fields prior to harvesting cotton in 1998. There was a time when they used a moldboard plow to integrate rye back into the soil each spring. They now terminate the cover crop with herbicides rather than tilling it. Jimmy had completed a transition from conventional tillage to strip tillage to no-till practices across his 2,200 acres of cotton by 2010. Smith Family Farms also grows 200 acres of rye, some of which is used to graze their herd of 40 beef cattle. The rest produces the seed used to plant that year's cover crop. Rye grows on the farm's sandiest soils that cannot produce cotton. To improve water quality in the Elk City Lake watershed, the Smiths utilize nutrient management plans and have fenced off riparian areas from cattle with assistance from the USDA Natural Resources Conservation Services. They also retrofitted watering facilities for wildlife, resulting in an uptick of local turkey and deer populations. Much of Smith Family Farms borders residential areas of Elk City. The Smiths maintain neighborly relations using precision application technology that reduces drift of fertilizers and pesticides. They make positive impacts off the farm in other ways as well. Smith Family Farm became a cooperator with the North Fork of the Red River Conservation District in 1988, and Jimmy has served on its board since 2001. Spencer serves on the USDA's Farm Service Agency Committee for Beckham County. Smith Family Farms hosts field days for fellow farmers, researchers, and agribusiness professionals to learn more about their conservation practices. Jimmy and Spencer's ingenuity led to the creation of an agriculture manufacturing business. When the Smiths switched to no-till practices, they noticed their planter gauge wheels quickly wore out. After working with a machinist to build stronger tires, other farmers took notice. The Smiths partnered with machinist Jake Hunter to launch 4 AG MFG, which now produces and sells wheels for no-till

planters and air seeders internationally. It's the latest reinvention in a story that began when Jimmy's great grandparents Edmond and Martha purchased the farm's original 300 acres in 1913 to grow cotton and raise cattle. Smith Family Farms survived the Great Depression and the Dust Bowl and witnessed nearby Elk City's run as a booming cotton town from the 1930s to the 1970s, with nine cotton gins in operation. When Jimmy returned home from college to farm with his father and grandfather, soil health wasn't a commonly used term. Yet his efforts to improve the soil, water, and wildlife in his care ever since earned him an induction into the Oklahoma Conservation Hall of Fame in 2021.

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## **Session 19**

**Speaker:** Cory Miller

**Title:** Corey Miller Adding Biology to Your Operation

**Summary:** Cory grew up in the city of Missoula with a small garden where he helped his mother grow flowers. Cory's interest in gardening waned, as he discovered sports. In high school, he volunteered to build a garden for a group home that housed disabled adults. One of the greatest moments in his life was being invited back that fall for a dinner prepared from everything they planted. Cory went to college to study business and simultaneously started a commercial cleaning company. He spent a lot of his time making natural cleaning products he could use in the business and developed an interest in chemistry and biology. Later on, he focused his efforts on Pure Air Solutions, a mold remediation company that focused on removing mold and other microbials. As he studied molds and their effect on indoor air quality, he started to see that there were far more beneficial fungi than bad fungi and that fungi held a lot of the keys to soil health and improvement. Cory studied with Dr. Elaine Inham and read Dr. David Johnson. He immersed himself in learning everything that he could about soil health and how to implement these theories. He quickly learned that there was not a lot of information or tools available to someone wanting to scale 1,000 acres quickly to regenerative agriculture. He made soil health his focus, developing tools to help effectively add biology to his soil, as often as possible. Every decision made on the farm has to answer the question, "Does this improve the overall quality of our soil?" If it does they keep it, if it doesn't then they are removed. In the summer of 2021 the Miller Family purchased and began operating the historic Deschamps Ranch. The ranch currently encompasses 1000 acres of fertile soil just south of the Missoula International Airport. The ranch currently produces sod, hay, beef, pork and honey. All of which are grown regeneratively. The ranch also boasts a microbiological soil lab on site. The health of our soil is our number one concern. We have a composting barn on the ranch that we use to produce BioComplete, Fungal and Predator dominant compost extracts and teas.

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## **Session 20**

**Speaker:** Clint Bauer

**Title:** Greenfield Robotics

**Summary:** Greenfield Robotics revolutionizes weed control with affordable, robotic services that greatly reduce the need for herbicides. By deploying robots that can operate day and night, farmers reduce herbicide use and maintenance costs, effectively managing resistant weeds. This innovative approach and use of state-of-the-art robots ensures healthier crops and fields, delivering clean, chemical-free food to consumers.

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