



2025 Soil Health Symposium Agenda

February 4-6, 2025
Billings Hotel and Convention Center
1223 Mallowney Lane, Billings, MT 59101

Tuesday, February 4th, 2025

12:00 - 1:00 Registration

1:00 - 5:00 Preconference Workshop

Preconference Workshop: *Ranching For Profit with Jordan Steele*

Jordan Steele of Ranching for Profit will lead this one-day workshop, helping participants to think differently about their ranching operations. This workshop will clarify the distinction between working in the business versus working on the business, guiding participants from managing assets to running a successful enterprise. Jordan will also cover the three secrets to increasing profit and essential financial indicators for effective management. Participants will also learn the difference between economics and finance and how both impact the financial health of their operations. Additionally, the session will explore leveraging good grazing practices to align ranching strategies with the environment, ultimately boosting profitability. Join us to gain practical tools and knowledge to elevate your operation!

Wednesday, February 5, 2025

7:30 - 9:00 Registration and Breakfast

9:00 - 9:15 Welcome Message from NRCS

9:15 - 10:30 Keynote Address

Keynote: *Healthy Plants are Readily Avoided by Plant-Eating Insects by Tom Dykstra*

When Thomas Dykstra graduated with his third degree in entomology in 1997, one educational journey ended, but another began. Putting academia behind and starting a private laboratory placed him on a career path as an independent research consultant that has led to the breaking of the insect olfactory code and in determining which insects are attracted to which plants and why. This Gainesville, FL based entomologist will link relative plant health to specific insect damage, rather than grouping all insects together as mere competitors for our food. From aphids to grasshoppers, insects are deemed important

indicators of plant health and may be used to that end if one knows how to interpret their presence. Relating all of this to Leaf Brix will elevate the farmer's knowledge base thus allowing him to successfully navigate between various types of crop and soil amendments used in a no-till operation.

10:30 - 11:00 BREAK

11:00 - 12:15 Breakout Session 1

Rejuvenating Crested Wheatgrass Stands Using Livestock by Dave Ollila

Dave Ollila will discuss innovative grassland management strategies that mimic the natural diversity of prairie ecosystems. Focusing on the rejuvenation of crested wheatgrass stands using livestock, this session will explore how these practices contribute to financial stability and improved soil health. Participants will learn about the benefits of fostering biodiversity on their ranches and the long-term impacts on both productivity and resilience.

Balancing Organic and Regenerative Practices by Michael Deakin

You just can't make money farming anymore. This is what Michael was told as he started his farming career. In an environment filled with rising interest rates, high input costs, and record land prices, this session details one farmer's journey to sidestep the industrial food complex and increase farm profitability while using zero synthetic inputs. Topics will include designing a diverse crop rotation, weed and pest control without chemicals, reducing soil disturbance, and plant nutrition using cover crops and compost.

Communicating Across Generations by Bryan and Kate Mannix

This session will explore the story of how a multi-generational ranching family made the decision to implement changes to their grazing practices. When Bryan Mannix returned to his family's ranch full time, he came with some new ideas. Learn how Bryan slowly moved his ranching family toward regenerative grazing practices while balancing family dynamics, generational tendencies, and communication strategies. We will also discuss the failures and successes along the way and the long-term impacts to the Mannix Ranch.

Direct Marketing and Regenerative Practices by John Bays and Sadie Collins

Join John Bays and Sadie Collins of Highland Harmony Farm in Willsall, Montana as they discuss their farm's journey toward sustainable practices. This session will highlight the decision-making process behind implementing cover crops, using a stripper header, disk drill, adjusting grazing methods, and exploring direct marketing. The farm has also experimented with high tunnels for cut flowers and entered into grazing partnerships with their neighbors. Learn about the lessons learned, challenges faced, and the positive impacts these changes have had on their farm's resilience and profitability.

12:15 - 1:45 LUNCH

2:00 - 3:15 Keynote Address

Keynote: Soil Health and Human Health: The Microbiome Connection by Sarah Keough

Sara Keough, a board-certified nutritionist and founder of her clinical practice, Eco-Nutrition, will discuss the many fascinating connections between soil health and human health. Keough highlights some of the latest research revealing the intricate links specifically between the soil microbiome and the human gut

microbiome and its fundamental impact on optimal human health. She will also present real-world patient case studies and share insights that can help optimize digestive health and microbiome diversity to nourish your inner ecosystem.

3:15 - 3:45 **BREAK**

3:45 - 5:00 **Breakout Session 2**

You Are What Your Food Ate: Nutritional Differences Between Pasture-Raised and Conventionally Raised Animals by Sara Keough

Sara will discuss the key nutritional differences between pasture-raised and conventionally-raised animals including omega-3 fatty acids, vitamins, minerals, and overall meat quality. We'll examine how livestock raised on diverse pastures often have healthier microbiomes, lower levels of inflammation, and decreased signs of stress which have important health implications for consumers.

Maximizing the Benefits of Cover Crops by Kate Vogel

Kate Vogel has worked with many producers across Montana, giving her the opportunity to learn some of the do's and don'ts of cover crops in the region. In this session, Kate will discuss the diverse benefits of cover crops, including their role in drought protection, soil health, and ecosystem resilience. Participants will learn how to strategically choose and implement various plant species to enhance their farming operations and achieve their soil health goals.

Drone Seeding for Pastures and Cover Crops in Grain Farming by Steve Kenyon

Steve has become a "High Tech Red Neck" and now seeds his land with an Agricultural Drone. He will look into his methods of top dressing pastures and how he has been working with grain farmers to incorporate polycultures and cover crops into their operations.

Managing Healthy Soil and a Healthy Marriage by Roger and Betsy Indreland

Roger and Betsy Indreland operate Indreland Ranch near Big Timber, MT, where they share a vision of holistic management and operations to produce healthy nutrition and environment for people, livestock, and wildlife. In this session they will share their journey working together within both their marriage and ranching partnership and with apprentices from the Quivira Coalition to make decisions about the implementation of regenerative practices, including bale grazing, vermicast, and holistic management. Learn how intentional communication and collaboration can enhance decision-making and drive successful outcomes in both farming and family dynamics.

5:00 - 7:00 **Reception - Drinks and hors d'oeuvres will be served**

Thursday, February 6, 2025

7:30 - 8:30 **Breakfast**

8:30 - 9:45 **Keynote Address**

Keynote: Growing Soil, Grazing, and Carbon by Steve Kenyon

Take a deep dive underground with Steve and discover how to grow soil with a polyculture of roots. He has spent 25 years sequestering carbon and has the proof that we can grow soil a lot faster than we think. Creating a living soil, healing the water cycle and rebuilding ecosystems are all just daily chores at Greener Pastures Ranching.

9:45 - 10:15 **BREAK**

10:15 - 11:30 **Breakout Session 3**

Navigating Carbon Credits Through Regenerative Practices in Eastern Montana by Bryan and Chelsea Phipps

Bryan and Chelsea Phipps will share their journey of implementing regenerative practices at Phipps Livestock, their family ranch in Brusset, Montana. This session will cover their experiences with using stockwater systems to optimize grazing practices, bale grazing, and the importance of monitoring on livestock management. Additionally, the Phipps' will describe the challenges and opportunities that have come with being early adopters of carbon credits through Native as a financial incentive, highlighting both the environmental and economic benefits of adopting these innovative approaches.

Pest Management and Soil Health: Open Discussion with Tom Dykstra by Tom Dykstra

Following his keynote on the intricate relationship between plant health and insect presence, Tom Dykstra will facilitate an open discussion on pest management in the context of soil health. Participants will have the opportunity to ask questions and explore how understanding insect behavior and plant interactions can inform more effective pest management strategies. Join this engaging dialogue to deepen your knowledge and learn how to interpret insect signals for healthier crops within a regenerative operation.

Leveraging Partnerships for Responsible Land Stewardship by Craig and Conni French

Craig and Conni French, recipients of the prestigious Leopold Conservation Award, will share their decision-making journey and a significant shift in practices that began a decade ago. This session will delve into their use of beaver dam analogues, monitoring dung beetles, and cell grazing, as well as their relationships with local partners including the Ranching Stewardship Alliance, Winnett Aces, and Montana Conservation Corps. Participants will learn about the importance of connecting with your local community and strengthening partnerships as well as having honest communication across generations.

Around the Globe to Montana: A Journey in Sustainable Grain Production by Franck Groeneweg

Franck Groeneweg of Living Sky Grains will share lessons from his adventures in agriculture from France to Canada and finally Montana, where he has embraced regenerative practices on his family wheat farm in Three Forks, MT. This session will explore his innovative use of disk drills and stripper headers, as well as his commitment to no-till practices that enhance soil carbon storage and water infiltration. Franck will discuss how he works with nature to foster soil biology, grow a diverse range of crops, and replenish soil health using natural fertilizers like compost. He will also cover the process of producing and selling flour while reducing conventional inputs. Participants will gain valuable insights into the intersection of agriculture, sustainability, and nutrition in grain farming.

11:30 - 12:00 **BREAK**

12:00 - 12:45 **Keynote Address (Video)**

Keynote: A Legacy of Soil Health: Reflections From Gabe Brown

In this short film, Gabe answers questions from Symposium attendees and shares the pivotal moments of his journey in adopting and championing regenerative practices, emphasizing the profound impact of healthy soils on both farming practices and ecosystem resilience. His experiences highlight the essential lessons learned through years of dedication to regenerative methods. This session serves as a testament to Gabe's commitment to nurturing the land and inspiring future generations of farmers to prioritize soil health.

12:45 - 1:45

Lunch and departure