



2022 AFGC Annual Meeting Agenda January 9-12, 2022—Wichita, KS

January 8, 2022—Saturday

- 12:00pm- 1:30pm International Grassland Congress Chair Meeting (Enterprise Board Room)
1:30pm- 3:00pm International Grassland Congress Committee Meetings—Program (Suite 1701) & Tour (Enterprise Board Room)
3:00pm- 4:30pm International Grassland Congress Committee Meetings—Support (Suite 1701) & Marketing (Enterprise Board Room)
5:00pm- 7:30pm AFGC Board of Directors Meeting (Enterprise Board Room)

January 9, 2022—Sunday

- 12:30pm- 2:30pm AFGC Affiliate Leader Workshop (Walnut Room)
12:00pm- 5:00pm Registration Open
12:00pm- 5:00pm Exhibitor Set Up, Silent Auction Set Up & Monday Poster Set Up
3:00pm- 4:30pm **NIRS Consortium Workshop—Emerging NIR Technologies in Agriculture (Walnut Room)**
Coordinated by: Rebecca Kern, Ward Laboratories
Near infrared spectroscopy (NIRS) technologies are making their way on farm. This workshop will explore the potential handheld units have compared with traditional bench-top technologies, how integrating with drone technology might be a tool for future forage producers and what factors will impact the accuracy of these emerging NIRS applications in the field. This workshop will emphasize the potential as well as current limitations of these emerging technologies.
3:00pm Trade offs between handheld and benchtop NIRS devices for determining forage nutritive value— Miguel Castillo
3:30pm NIR Integration with drone technology presented – Rocky Lemus
4:00pm Factors impacting accuracy of NIR prediction in the field presented – Paola Berzaghi
4:00pm- 7:30pm Forage Bowl Playoff
4:30pm- 5:30pm NIRS Consortium Board Meeting (Chisholm Trail Room)
5:00pm- 6:30pm Forage and Grassland Foundation Board Meeting
5:30pm- 6:30pm NIRS Consortium Membership Meeting (Stimson & Santa Fe Trail Rooms)
6:30pm- 9:30pm AFGC Student Mixer (Graduate and Undergraduate students) (Riverview Ballroom)
6:30pm- 7:30pm AFGC Board Reception (Invitation only) (Cedar Room)
6:30pm- 8:30pm NIRSC Member Appreciation Reception (Invitation only) (Stimson & Santa Fe Trail Rooms)

January 10, 2022—Monday “Producer Day”

(Meals provided based on registration are continental breakfast, lunch, afternoon break, and reception)

- 7:00am- 4:00pm Registration Open
7:00am- 7:45am Poster Presentations (authors present), Exhibits, Silent Auction, Photo Contest, Plant ID Contest, Hay Evaluation Contest, Video Competition
7:00am- 7:45am Continental Breakfast
7:45am- 9:00am **Welcome and Opening Keynote (Eagle Ballroom)**
Welcome—Chris Penrose, AFGC President; Karen Woodrich, State Conservationist
USDA- Natural Resources Conservation Service
9:00am-9:30am Beverage Break in Exhibit Hall



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9:30am-11:00am

Workshop #1--Ecosystem services: New business opportunities for grassland managers (Redbud C)

Sponsored by Corteva Agriscience

Coordinated by Scott Flynn, Corteva Agriscience

Grassland managers have long noted that improvements in soil fertility, grazing management and overall land stewardship have profound effects on forage production, animal production, and soil health. Today, producers can market more than just forage and animal products but also the benefits that they bring to the environment with better management. This symposium will cover some of these new markets and help producers understand how that can benefit from ecosystem service markets in the future.

- What are ecosystem services and how are they shaping agriculture? – Scott Flynn, Corteva Agriscience
- Ecosystem services markets designed for agriculture: rewarding producers and scaling impacts – Amanda Raster, Ecosystem Services Market Consortium
- Capturing ecosystem services under forages and grazing lands – Alan Franzluebbers, USDA-ARS
- How will carbon markets work in forage animal production systems? – Bill Hamer and Jennifer Soong, Granular, A Corteva Agriscience Company

Workshop #2—Forage Production in Water Limited Environments (Trail Rooms)

Coordinated by Keith Harmony

Moderator: Keith Harmony

Water is one of the main factors that determines forage production, but water is usually the most limiting factor in semi-arid to arid regions. Producing high yielding and quality forages in a water limited environment can be a challenge, however, it is possible by utilizing water often allocated for grain crop production. Converting crop irrigation systems to subsurface drip alfalfa production, seeding annual forages or cover crops within dryland grain crop rotations, or formulating specific annual forage rotations within these semi-arid regions are all ways in which to increase forage production from an alternative use of a limited water resource.

- Annual forage rotations with limited water – John Holman, Kansas State University
- Cover crops as forages in the western Great Plains – Augustine Obour, Kansas State University
- Utilizing limited subsurface drip irrigation for alfalfa production – Freddie Lamm
- Alfalfa quality in limited subsurface drip irrigation systems – Keith Harmony, Kansas State University

11:15am-11:45am

AFGC Business Meeting (Walnut Room)

11:45am-12:45pm

Luncheon with Mike Beam, Kansas Secretary of Agriculture

1:00pm-2:30pm

Workshop #3—Winter feeding: Hay and supplementation (Redbud C)

Coordinated by Jaymelynn Farney, Kansas State University

This session is geared for agriculturists that feed hay to their cattle, whether they grow their own forage or purchase the forage. Topics will focus on winter feeding of the cow herd, in particular for spring-calving operations. The session will address types of forages to be fed and it will highlight a few of the main nutrients or nutritional deficits of specific forages.



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- Alfalfa as "supplement" compared to grains or grain by-products – Justin Waggoner, Kansas State University, Beef Specialist
- Toxins for cattle - Which stay and which leave with hay storage – Eric Bailey, University of Missouri
- Forage storage and vitamin A - How this plays a role in issues seen with spring-calving herds – Gregg Hanzlicek, Kansas State University
- Supplementation requirements based on whether primary forage is cool or warm-season hay – Shane Gadberry, University of Arkansas

Volunteer Oral Presentations (Trail Rooms)

1:00 Using Social Media for Forage Education and Promotion Presented – Lisa Baxter and Jennifer Tucker

1:18 Reaching Georgia Forage Producers in a Virtual Environment – Lisa Baxter
1:36

1:54 Dry Fertilizer Impregnation with GrazonNext HL and DuraCor Herbicides: Benefits and Limitations Presented – Sam Ingram

2:12 Effect of an Improved Grazing Management System on Dairy Heifer Performance Presented – Amanda Grev

2:30pm-3:15pm

Break, Poster Presentations (authors present), Exhibits, Silent Auction, Photo Contest, Plant ID Contest, Hay Evaluation Contest, Video Competition

3:30pm-5:30pm

FORAGE SPOKESPERSON COMPETITION (Eagle Ballroom)

Sponsored by Tucker Family Farms

(Presenters are allotted 15 minutes including Q&A. The additional time between presentations is transition time.)

3:35 Devon Churchill, Indiana Forage Council

3:55 Jeffrey & Tara Cramer, Georgia Forage and Grassland Council

4:15 Jeremy Engh, Virginia Forage and Grassland Council

4:35 Dale Helwig, Kansas Forage and Grassland Council

4:55 Cody Rakes, Kentucky Forage and Grassland Council

5:15 Chad Woods, North Carolina Forage and Grassland Council

5:30pm-6:30pm

AFGC Reception

6:00pm-8:00pm

Forage Bowl Playoff

Poster Presentations:

- 1.) Fall Nitrogen Increased First Harvest Tall Fescue Yield – Chris Teutsch
- 2.) Spring Oat and Triticale Forage Production as Affected by Seeding Rate and Nitrogen Fertilizer Application – Augustine Obour
- 3.) Nitrogen Application Effects on Forage Sorghum Production and Nitrate Concentration – Dr. John Holman
- 4.) Impacts of Species and Harvest Timing on Winter Hardy Small Cereal Silage Yield and Feed Value – Abigail Sartin
- 5.) Impacts of Management on Small Grain Cereal Silage, A Survey of Nebraska Producers – Alexa Johnson
- 6.) Motivations and Issues Faced by Livestock Producers Preserving Forages – Luis A. Villalobos V
- 7.) Growth and Ensiling of Reduced Lignin Alfalfa in The Southeastern US – Morgan Boss
- 8.) Forage Productivity, Weed Density, and Soil Properties Affected by Grazing and Tillage of Annual Forages – Payton Mauler
- 9.) Comparison of Patch-Burn and Rotational Grazing with Heifers in The Mid-South – Megan Berry



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- 10.) Effects of Whole-Grain Supplementation on Health, Growth, and Profitability of Pasture-Raised Lamb – Amanda Grev
- 11.) The Total Tract Neutral Detergent Fiber Digestibility (TTNDFD) Model: A New Tool for Estimating Energy from Fiber – Peter J. Ballerstedt
- 12.) Changes Over Time in Botanical Composition, Endophyte and Ergovaline on KY Cattle Farms – Echo Gotsick
- 13.) Warm-Season Annual Grasses as Companion Forage Crop for Establishing in Warm-Season Perennial Grasses – Rocky Lemus
- 14.) Forage Production and Nutritional Quality of Tall Fescue and Alfalfa Under Long Term Warming and Severe Drought – Karen Catunda
- 15.) Electric Fencing for Serious Grazers: A Hands-On Program for Producers and Agricultural Professionals – Carrie Thraikill
- 16.) Stability of dhurrin and hydrogen cyanide release in dried wild-type and dhurrin-free sorghum samples – Shelby Gruss
- 17.) Herbicide Sod-suppression Effect on Yield of Late-summer Planted Forages for Fall Yield – K.H. Rowe, K.J. Simon, J.A. Jennings, and J.D. Rivera
- 18.) Effect of Molybdenum on Forage Nitrate Concentration of Johnsongrass – D. Griffin, B.Haller, K.J. Simon, J.A. Jennings, and D.Hubbell
- 19.) Using Technology to Minimize Labor and Improve Livestock Production Under Grazing – C.P. Bagley, R. Palfreyman and J. Whitson

January 11, 2022—Tuesday “Youth Day”

(Meals provided based on registration are plated breakfast, lunch, and afternoon break)

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| 6:30am-7:00am | Tuesday Poster Set-Up |
| 7:15am-5:00pm | Registration Open |
| 7:15am-8:00am | Break, Poster Presentations (authors present), Exhibits, Silent Auction, Photo Contest, Plant ID Contest, Hay Evaluation Contest, Video Competition |
| 8:00am-9:15am | NATIONAL FORAGE BOWL COMPETITION with Breakfast
<i>Sponsored by USDA-NRCS and the Forage and Grassland Foundation</i> |
| 9:15am-9:45am | Break, Poster Presentations (authors present), Exhibits, Silent Auction, Photo Contest, Plant ID Contest, Hay Evaluation Contest, Video Competition |
| 9:15am-9:45am | <i>Emerging Scientist Poster Competition</i> |
| | 9:15am Rudra Baral, Kansas State University |
| | 9:30am Ethan Henderson, North Carolina State University |
| 9:45am-11:15am | <u>Workshop #4—Regenerative Ranching and Applied Grazing Management (Redbud C)</u> |

Coordinated by Hugh Aljoe, Noble Research Institute

This workshop is designed to introduce the key concepts of regenerative grazing as applied to management that prioritizes soil health, and to provide an insight to the transition of both mindset and management activities as regenerative ranching was implemented on the Noble’s Coffey Ranch. Hugh Aljoe will present the overview, setting the stage to an actual case study on Noble ranches. Clark Roberts will present his experiences over the last two years, from initial implementation to the current date and the lessons learned – the good, the bad, and the ugly. Caitlin Hebbert will wrap up the workshop discussing the outcomes and observations of livestock, both cattle and sheep, being utilized as a tool for landscape stewardship outcomes, while balancing the economic viability of a livestock enterprise. This session is designed to



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help producers and land stewards transition from conventional management to regenerative ranching.

- Integrating regenerative grazing with the principles soil health – Hugh Aljoe, Noble
- Case study: the Noble Coffey Ranch: getting started and lessons learned – Clark Roberts, Coffey Ranch
- Livestock management in transitioning to regenerative ranching – Caitlin Hebbert

Volunteer Oral Presentations (Trail Rooms)

- 9:45 Optimizing Fescue Hayfields Through Nitrogen and Phosphorus Fertilization – Bruno C. Pedreira
- 10:03 Cool Season Annual Mixture Forage Production in Southside Virginia – Kathryn Payne
- 10:21 Chlorophyll fluorescence as an indicator of forage plant stress – Sarah Goslee
- 10:39 Pasture Biomass Estimation Using Crop Surface Modeling and Vegetation Indices – Brendan MacInnis
- 10:57
- 11:15 Post-Wheat Summer Cover Crop Effects on Crop Yields in Soil Properties in a No-Till Dryland Cropping System– Logan Simon

Workshop #5—NIRSC Workshop—Forage Quality (Potential and actual forage quality: Implications for livestock operations) (Walnut Room)

Coordinated by Rocky Lemus, Mississippi State University

- 9:45 NIR data overview – Lisa Baxter
- 10:00 Improving hay quality – Chris Teutsch
- 10:15 Animal performance and economic impacts of hay quality – Paul Beck
- 11:00 Q&A

11:30am-12:30pm

12:45pm-2:15pm

Competition Awards Luncheon

Workshop #6—Soil Health and Carbon Sequestration in Forage and Grazinglands (Redbud C)

Coordinated by Alan Franzluebbbers, USDA-Agricultural Research Service

Forage and grazing lands are relatively undisturbed land uses that provide reliable economic opportunities as well as potential benefits to soil health and soil organic matter accumulation. This workshop will explore management experiences on the farm, biological transformations in the soil under perennial forages, measuring techniques for determining soil health, and the extent of soil organic carbon stored under forages and grazing lands.

- Pasture management to achieve healthy soil on the R and J Ranch – Ron Locke, SW Missouri
- Soil microbial responses under forages and with grazing management – Lisa Fultz, Louisiana State University
- Soil organic carbon sequestration in grazed pastures – Alan Franzluebbbers, USDA-Agricultural Research Service

Volunteer Oral Presentations (Trail Rooms)

- 12:45 Midwest Cover Crops Council, Empowering a Network of Professionals – Anna Morrow
- 1:03 Extreme Summer Drought Impacts on Old-Field Forage Production and Nutritional Quality – Amber C. Churchill



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	1:21 Implementing Resource Conservation Practices on Horse Farms – Krista Lea
	1:39 Effects of Thatch Depth on Native Warm-Season Grass (NWSG) Establishment – Keagan Swilling
	1:57 Northern Bobwhite Cover Type Use in a Mixed NWSG and CSG Grazing Landscape – Doug Mitchell
2:15pm-3:00pm	Break, Poster Presentations (authors present), Exhibits, Silent Auction, Photo Contest, Plant ID Contest, Hay Evaluation Contest, Video Competition
2:15pm-3:00pm	<i>Emerging Scientist Poster Competition</i>
	2:15pm Michael Tristan Peavy, Mississippi State University
	2:30pm Jessica Prigge, University of Tennessee-Knoxville
	2:45pm Kendall Whatley, University of Georgia
2:15pm-3:00pm	<i>Poster Presentations</i> (Author's Present)
3:00pm	Silent Auction Closes
	<i>Collect items at AFGC registration desk by 4pm!</i>
3:00pm-5:00pm	EMERGING SCIENTIST COMPETITION (Redbud C)
	<i>Sponsored by Corteva Agriscience</i>
	(Presenters are allotted 15 minutes including Q&A. The additional time between presentations is transition time.)
	3:05 Charlotte Talbott, North Carolina State University
	3:25 Micayla West, Auburn University
	3:45 Jordyn Bush, University of Kentucky
	4:05 Justin Burt, University of Georgia
	4:25 Kendra Phipps, North Carolina State University
	4:45 Nicholas Shay, University of Georgia
	<u>Workshop #7—Grazing cover crops and crop residues (Trail Rooms)</u>
	Coordinated by Mary Drewnoski, University of Nebraska
	How do you get the most out of your cover crop forages? This workshop will help you take full advantage of the opportunity to use cover crops for forage and will include updates on the latest research in the area of species selection for forage and grazing management.
	○ Using winter annual cover crops as forages for grazing in the Southeast – Jennifer Tucker, University of Georgia
	○ Evaluation of integrated livestock/cropping systems in the North Central U.S. – Kevin Sedivec, North Dakota State University
	○ Using oats and brassicas to grow calves in the fall and winter – Mary Drewnoski, University of Nebraska
5:15pm-6:30pm	“Hot Topics” Session
6:45pm	Banquet Seating Begins
7:00pm-9:00pm	AFGC Awards Banquet

Poster Presentations:

- 1.) Impact of BMR Trait on Decomposition Rates of Sorghum-Sudangrass – Brandon Dooley
- 2.) Extraction of Lignin Monomers for UPLC Analysis – Morgan Boss
- 3.) Are You Part of the 88 or the 12? – Peter J. Ballerstedt, Barenbrug
- 4.) Reaching Georgia Forage Producers in a Virtual Environment – Carole Knight
- 5.) Using GPS to Improve the Accuracy of Frost Seeding – Brittany Hendrix



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- 6.) Measuring Impact of Fertilization on Broomsedge Encroachment in Hayfields using Remote Sensing – Jordyn Bush, University of Kentucky
- 7.) Evaluation of Remote Sensing Techniques to Measure Crabgrass Encroachment in Tall Fescue Stands – Jordyn Bush, University of Kentucky
- 8.) Effect of Planting Date on Forage Yield of Spring Planted Winter Annual Forages – C. Tyler, C.Stroud, K.J. Simon, J.A. Jennings, and D. Kennedy
- 9.) Measuring Proportion of Live and Dead Vegetation in Pastures using Remote Sensing – Jordyn Bush, University of Kentucky
- 10.) Tetry: A Drought Tolerant Forage For The Southern Great Plains? – Travis Witt
- 11.) Invasive Speices on Kansas Grasslands – Walter H. Fick
- 12.) Impact of Management on Bermudagrass Stem Maggot Damage – Lisa Baxter, University of Georgia
- 13.) Effect of Planting Population and Maturity at Harvest on Forage Yield and Nutritional Composition of Conventional and BMR Genotypes of Corn – Manuel Peña
- 14.) Seeding Warm-season Annual Grasses into Perennial Western Wheatgrass Pasture – Keith Harmony, Kansas State University
- 15.) Impacts of grazing cover crops on animal performance, crop production, and soil health in east-central Mississippi – Brett Rushing, Mississippi State
- 16.) 2020 Results of Timed Mechanical Weed Control in Eastern Ohio – Chris Penrose, Ohio State University Extension
- 17.) Forage Soybeans: An Alternative Summer Annual Forage – O.M.Foster, K.J. Simon, and J.A. Jennings
- 18.) Biochars Impacts on Plant Germination and Growth Rates When Land-Applied and Ruminant Fermentation Rates When Added to Diets – C.P. Bagley, K.J. Han, R. Palfreyman and J. Whitson

January 12, 2022—Wednesday

7:30am-9:30am AFGC Board Meeting (Enterprise Board Room)