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Center for Grassland Studies

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Grazing Livestock Systems | PGA Golf Management | Integrated Beef Systems

Spring 2018: Vol 24 Issue 1

Dr. Jennifer McClure Discusses Beef Genetics



Dr. Jennifer McClure

Dr. Jennifer McClure presented a seminar entitled, "Working for the Irish Cattle Breeding Federation: What I have Learned from the Irish Experience and What You Can Do with Over One Million Genotypes," on January 24. The University of Nebraska-Lincoln (UNL), Department of Animal

Science, and the Center for Grassland Studies co-sponsored the event as part of the Integrated Beef Systems priority.

"In addition to her formal presentation, Dr. McClure met with faculty and staff throughout the day to share ideas on improving animal health through greater understanding of heritability's of food animal disease. In addition, Dr. McClure interacted with two student classes, ASCI Senior Seminar and Beef Cow/Calf Management to talk with students about the importance of sharing their story and advocating for animal agriculture and beef cattle systems in Ireland."

Dr. Clint Krehbiel, Head, Department of Animal Science commented, "Dr. McClure is clearly passionate about food animal health, well-being, and production. She came from a nontraditional background, was interested in science, engaged in the culture, and has become a greater advocate than many of us who grew up in the livestock industry. Her interests and expertise have allowed her to have a major impact on beef cattle production in Ireland. Dr. McClure's background and experiences also make her a tremendous role model for our students."

Dr. McClure has a bachelor's of science in animal science from the University of Missouri, and her doctorate from the University of Missouri. In 2013, McClure took a position with the Irish Cattle Breeding Federation (ICBF) developing their Health and Disease programs. In collaboration with her husband, Dr. Matthew McClure, an ICBF geneticist, they developed a national strategy to collect genetic defect phenotypes and DNA in cattle. Dr. McClure is back in the United States as a business consultant for Weatherby Scientific, where she hopes to bring the low cost genotyping utilized by the Irish market to North America.

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Director's Comments

By Dr. Steven S. Waller, Interim Director
Center for Grassland Studies

The spring issue of the Center for Grassland Studies newsletter is as diverse as our grasslands. I can think of no other organization that spans the breadth of the grassland continuum from beef systems and grazing management to golf; from undergraduate and graduate students to professionals and practitioners. Our mission and programming embodies the land-grant philosophy of serving people through teaching, research and extension. Grass, whether it be native or introduced, natural or planted, cool-season or warm-season, perennial or annual, is the common thread in the fabric of the Center for Grassland Studies.

Ensuring the future of our grasslands for our future generations to use and enjoy will require the efforts of all of us working together. Please enjoy this newsletter and share our pride in the accomplishments of all who support and manage our grasslands.

April 4 Field Day Offered by ENREC

"Capturing Value in Cropping Systems using Cattle: A Beef Systems Initiative" is the topic for the April 4 field day presented by the Eastern Nebraska Research and Extension Center (ENREC) in Ithaca, NE. The event, which will run from 9:00 a.m. to roughly 3:00 p.m., will begin at ENREC before proceeding to various field sites. Participants will learn about the Beef Systems Initiative, nitrate toxicity, USDA ARS triticale grazing, and rye grazing, among other topics.

To pre-register for the event, go to <https://enre.unl.edu/registration>. For more information about the field day, contact Nebraska Extension in Saunders County at (402) 624-8030 or Saunders-County@unl.edu.

If you would prefer to receive an electronic copy of this newsletter instead of a print copy, please let us know by emailing mmckendree14@unl.edu. Thank you.

FY 2018 GLS Club Officers



Katie Cumming

Dr. Jay Parsons

Agronomy and Horticulture Seminar Series

It is not too late to attend one of the Agronomy and Horticulture Seminar Series sessions. The free public talks take place on the University of Nebraska-Lincoln East Campus, 150 Keim Hall, beginning at 3:30 p.m. most Friday's through April.

Future topics include: "Wanted: Systems Professionals to Meet Agriculture's Future Needs" (**Gary Hein**); "Conserving, Managing, and Restoring Grassland Diversity in Lincoln's New Prairie Corridor on Haines Branch" (**Dave Wedin**); and "Leveraging Plant Diversity to Manage Soil Water, Carbon, and Nitrogen in Agricultural Systems" (**Megan Schipanski**).

For more information, and a complete list of upcoming talks, go to https://agronomy.unl.edu/seminars/AH-SeminarSchedule-SPRING18_UPDATE.pdf

GLS Club Offices Selected

The Grazing Livestock Systems (GLS) Club completed its selection of club officers for 2018. Officers include (left to right in photo):

- ❖ **Haley Zabel**, Agricultural Education (Firth, NE), Senior Co-Chair of Event Planning & Recruitment;
- ❖ **Colten Bergt**, Grazing Livestock Systems (Amherst, NE), Treasurer;
- ❖ **Alexa Johnson**, Grazing Livestock Systems (Edgar, NE), President;
- ❖ **Katelin Oborny**, Animal Science (Seward, NE), Vice President / Secretary; and
- ❖ **Emily Gill**, Animal Science/Grazing Livestock Systems (Gurley, NE), Junior Co-Chair of Event Planning and Recruitment.

Co-advisors for the club are **Dr. Jay Parsons**, Associate Professor, Agricultural Economics, and **Katie Cumming**, GLS Graduate Assistant.

The GLS Club invites anyone with an interest in grasslands stewardship and management to consider joining the club. Contact kcumming@huskers.unl.edu for more information.

Range Management and GLS Recognition Banquet Set

The Range Management Club and Grazing Livestock Systems Club will hold their Spring Recognition Banquet on April 18 between 5:30—8:00 p.m. in the Nebraska East Union on UNL's East Campus. **Jessica Warner**, a University of Nebraska-Lincoln (UNL) graduate in Grazing Livestock Systems and Animal Science, will provide a presentation on "Public Land Management from Nebraska to Utah."

Warner is a Rangeland Management Specialist for the Escalante Ranger District of the Dixie National Forest in Utah. Jessica works closely with ranchers discussing range management needs and solutions to issues. In 2017, Jessica received the Outstanding Young Professional Award from the Society for Range Management.

UNL GLS and Range Management alumni are encouraged to attend. RSVP to kcumming@huskers.unl.edu by April 12.

Grazing Cover Crops throughout Nebraska

by Nathan Pflueger, Graduate Assistant, Department of Agronomy and Horticulture, University of Nebraska-Lincoln, and Mitch Stephenson, Assistant Professor, Department of Agronomy and Horticulture, University of Nebraska-Lincoln and Forage and Range Management Specialist, Panhandle Research and Extension Center

The Nebraska Grazing Lands Coalition (NGLC) received a grant through the Nebraska Environmental Trust (NET) to evaluate the efficacy and demonstrate the practical use of grazing cattle on cover crops and annual forages within integrated crop and livestock systems. The NGLC along with the collaborations with producers and the University of Nebraska-Lincoln (UNL) began this 3-year project in 2016. Eight private landowners throughout Nebraska were selected to implement or enhance cover crop use within their own operations with the agreement that data collection would occur throughout the duration of the project.

The NGLC is a nonprofit organization made up of ranchers and private landowners throughout the state who realize the importance of healthy and sustainable grazinglands in Nebraska. This group puts education and learning at the forefront of their agenda and, with the rise in interest among livestock producers on the use of annual forages, the NGLC developed a proposal that would help producers better understand the use of this practice through on-ranch demonstration and research. The overall goal of the project is to document the use of annual forages on different

ranches from the cost of the seed, to the amount and kind of forage produced in different mixes, to the actual number of animal grazing days that the producer was able to use. With this information, producers can make more informed decisions on what annual forages may work best in their operation. In addition to the above ground biomass, soil tests are also being collected to provide the producers with an understanding of their soil organic matter, nitrogen, and other factors of soil health.

Grazing is a potential way to get an economic return from a cover crop while still gaining benefits of ground cover. Some species that the collaborating producers have been using in their mixes include sorghum, grazing corn, purple top turnip, nitro radish, cowpeas, and more. Grasses have provided the bulk of the biomass production in the mixes used by the producers, but brassicas, legumes, and other species may help provide other ecosystem services. The wide variety of cover crops allow producers to choose mixtures that will benefit their operation dependent upon their needs and management objectives. (Continued on Page 7)

Range Management Club Attends Annual SRM Meeting

The University of Nebraska-Lincoln's Range Management Club attended the 2018 Annual Meeting of the Society for Range Management in Reno, NV from January 27 to February 2. Club members participated in a number of events and competitions including the Undergraduate Range Management Exam. The team (**Ethan Freese, Cecile Renfro, Evan Laible, Autumn Dunn, and Asha Scheideler**) finished in sixth place out of 25 teams from universities through central and western North America. Cecile Renfro placed 8th and Ethan Freese placed 12th out of 200 students. The students also participated in the Range Plant Identification and Extemporaneous Speaking competitions. Ethan Freese presented on his grassland ecology research in the Undergraduate Paper Session. The club is advised by **Dr. Walt Schacht**, Professor, Department of Agronomy and Horticulture.



UNL Range Management Club



Owen Schuette



Nathan Kalin

PGAM Alums Garner Awards

Owen Schuette, PGA, Head Golf Professional at Ashland Golf Club, Ashland, NE, earned the 2017 Facility of the Year honors within the Nebraska Section of PGA. This award recognizes a golf facility that has played an important role in Section activities, as well as the promotion of the game of golf for men, ladies and juniors. A great accomplishment for this 2016 PGAM graduate.

In addition, **Nathan Kalin**, PGA, Director of Golf at Fremont Golf Club, Fremont, NE, won 2017 Merchandiser of the Year honors in the Private Club Sector within the Nebraska Section of PGA. The award recognizes a PGA golf professional who demonstrates superior skills as a merchandiser in the promotion of golf. Kalin is a 2007 PGAM graduate.

New Stout Fund Honors Grassland Heritage

Dr. Kenneth C. Stout Grassland Studies Fund was recently established to honor the grassland heritage of Nebraska and Dr. Stout's alma mater. Dr. Stout's deep passion for education and vision for sustaining Nebraska grasslands for future generations will be addressed through programs that support the stewardship, and management and utilization of our grassland and ranching heritage for future generations. Funds will be available beginning FY 18-19.

Goetsch Receives Horton Smith Award

Brad Goetsch, Instruction Coordinator for the PGA Golf Management Program, has won the prestigious Horton Smith Award for the Nebraska Section of the PGA. The Horton Smith Award recognizes outstanding contributions to the education of PGA Professionals. Brad also serves as the chair of the Education Committee for the Nebraska Section of the PGA. This position allows Goetsch to continue to support PGA Professionals, many of whom are graduates of the program at University of Nebraska-Lincoln, in their pursuit of excellence in their profession.



Brad Goetsch

Stephenson Honored with Two Awards

Mitch Stephenson, Assistant Professor, and Forage and Range Management Specialist, Panhandle Research and Extension Center, received the Innovative Extension New Employee Award during Extension's fall conference in Kearney, Nebraska in November 2017. This award recognizes Extension faculty in their first three years of service who have provided an innovative program that reaches new audiences in new ways.

In addition, Stephenson received the 2018 Young Range Professional Award during the 2018 Annual Society of Range Management meeting held in Reno, Nevada in January. This award recognizes superior performance and leadership potential in any range-related area.



Dr. Mitchell Stephenson

CGS Open House Recognized December Graduates

The Center for Grassland Studies hosted an open house on December 15, 2017 to honor fall graduates from its two degree programs: PGA Golf Management and Grazing Livestock Systems. Approximately, 30 faculty, students, and family members attended the event, which took place prior to the College of Agricultural Sciences and Natural Resources' Salute to Graduates. The Center congratulates the following individuals on their accomplishment, and wishes them all the best in their future careers.

PGA Golf Management Graduates:

- ❖ **Vincent Bachteler** (Port Orchard, WA)
- ❖ **Thomas Boulanger** (Dover, NH)
- ❖ **Carter Buckmeier** (Dakota Dunes, SD)
- ❖ **Allan Elliott** (Mullen, NE)
- ❖ **Zachary Gleysteen** (Castlewood, SD)
- ❖ **Matthew Jasper** (Shakopee, MN)
- ❖ **Derek Jensen** (Lincoln, NE)
- ❖ **Jonathan Kurylo** (Omaha, NE)
- ❖ **Jason Lamoreaux** (Rosemount, MN)
- ❖ **Cory Leffler** (Kearney, NE)
- ❖ **John Mensendiek** (Leawood, KS)
- ❖ **Samuel Nodler** (Saint Paul, MN)
- ❖ **Trenton Peterson** (Jackson, NE)

Matthew Grimes, Nicole Finkner,
and Chelsea Nollette



PGAM Graduates and Guests

Grazing Livestock Systems Graduates:

- ❖ **Matthew Grimes** (Minden, NE)
- ❖ **Nicole Finkner** (Waverly, NE)
- ❖ **Chelsea Nollette** (Whitman, NE)
- ❖ **Whitley McBride** (Ainsworth, NE).



PGA Golf Management by the Numbers

Numbers always provide a reference, an origin, or a result. PGA Golf Management numbers from 2017 and January 2018 include:

- 4** ... the number of PGAM students who graduated in May 2017.
- 5** ... the number of internship requests per student received by the PGAM program. Demand outpaces supply.
- 7** ... the number of PGAM students on the CASNR Dean's List for both spring and summer 2017.
- 9** ... the number of PGAM students on the CASNR Dean's List fall 2017.
- 10** ... the number of PGAM students who graduated August 2017.
- 13** ... the number of PGAM students who graduated December 2017.
- 32** ... the number of PGAM students attending the 2018 PGA Merchandise Show in Orlando, FL in January 2018.
- 80** ... the number of PGAM students completing three-month and extended internships across the globe spring, summer, and fall 2017.

Grazing Cover Crops throughout Nebraska (Continued from Page 4)

For example, one producer near Upland, Nebraska utilized the mixture outlined in Table 1 in a rotation between irrigated wheat and soybeans with the objective of feeding cattle in the early fall. The producer also wanted to include other species to increase diversity and potentially provide some nitrogen fixing with 2 legumes. This mix was planted July 20th of 2016 with no additional application of fertilizer following the wheat crop. A mixture of weaned calves and 1st calf heifers totaling 140 animals grazed for 121 days from November 1st to March 1st resulting in 16,940 animal grazing days.

Figure 1 shows the production data by group for the seed mix in Table 1. As we can see the grasses were the main producers of biomass followed by other (e.g., sunflower, buckwheat, etc.) and then the legumes. Data regarding forage quality is being evaluated at each site as well and this data will provide additional information on the value of these different mixes.

The project is also working towards learning from the wealth of knowledge that the collaborating producers have in managing their crop and livestock systems. Understanding the motives of why producers are using these crops and incorporating their combined experiences will provide a much more robust outcome to the project and provide real world examples of the management. Some of the questions we are asking the producers include: why did you decide to use cover crops, what seedbed preparation method was used and why, and how did you choose to graze. The NGLC along with the producers utilize all this information to educate the public and other producers who take part in the field days at each site. In 2017, field days and demonstrations with the cooperating producer ranches were attended by over 250 learners. Moving forward we can use what we have learned from this project to help new producers implement cover crops on their operations and enhance the efficacy of current uses.

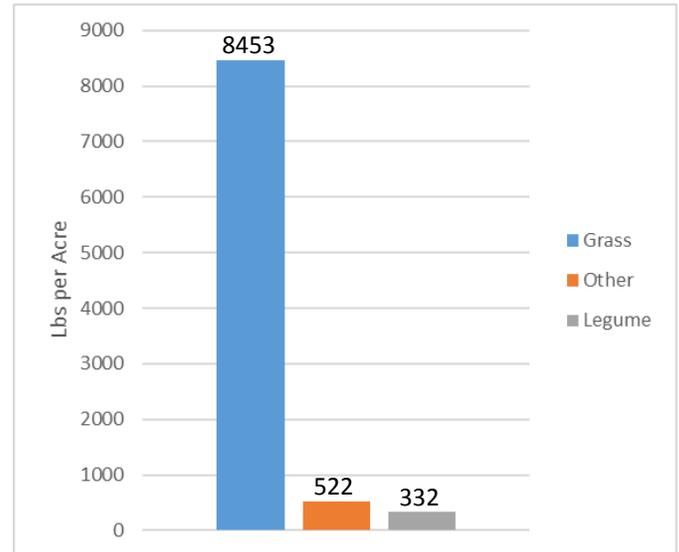


Figure 1: Production data for Upland, Nebraska site.

Forage	Rate (lbs/acre)	Cost (per acre)
<u>Grasses</u>		
Dwarf BMR brachytic sorghum	3	\$3.75
Grazing Corn: BMR84	5	\$2.25
Spring Oat Rockford	20	\$4.60
Sub-total	28	\$10.60
<u>Brassicas</u>		
None		
Sub-total	0	\$0.00
<u>Other</u>		
Sunflower: Black Oil Seed	1	\$0.50
Okra: Emerald	0.5	\$0.75
Squash: Lebanese	0.5	\$1.50
Buckwheat: Mancan	2	\$1.30
Sub-total	4	\$4.05
<u>Legume</u>		
Sunn Hemp: VNS	2	\$3.60
Cowpeas: Iron & Clay	5	\$4.25
Sub-total	7	\$7.85
<u>Mixing, Bagging, Etc</u>		
Micro Noc	2	\$1.60
Sub-total		\$1.60
Total	39.0	\$24.10

Table 1: Seed mixture for Upland, Nebraska site.

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PGAM Annual Spring Scramble Fundraiser Set

The PGA Golf Management students will host their annual Spring Scramble fundraiser golf tournament on Saturday, April 14 at Wilderness Ridge, Lincoln, NE. The event will kick off with 18 holes of scramble golf in a 9:30 a.m. shotgun start, and conclude with lunch, awards, and a silent auction. The event is focused on raising scholarship money for deserving students within the program.

The event is completely student driven with all aspects of the scramble handled by students within the program. Everything from planning the event, staffing, recruiting players and sponsors, scoring, and awards presentations. Selecting scholarship recipients from a pool of applicants is done by the students.

This has grown into a very popular event over the years. Those interested in registering a team or becoming a sponsor are encouraged to call the PGAM office at (402) 472-7467. A student leader will be happy to discuss participation or sponsorship opportunities with you.



PGAM Club Members