

## **Table of Contents**

<b>Important Information.....</b>	<b>2</b>
<b>Welcome to AFGC/SRM .....</b>	<b>4</b>
<b>Program at a Glance.....</b>	<b>5</b>
<b>Sponsors .....</b>	<b>8</b>
<b>Meeting Facilities .....</b>	<b>9</b>
<b>Trade Show .....</b>	<b>14</b>
<b>Board/Council/Group Meetings.....</b>	<b>16</b>
<b>Special Events at a Glance.....</b>	<b>18</b>
<b>Student Activities at a Glance.....</b>	<b>20</b>
<b>Technical Program at a Glance .....</b>	<b>23</b>
<b>Technical Program</b>	
<b>Sunday, January 27.....</b>	<b>26</b>
<b>Monday, January 28 .....</b>	<b>28</b>
<b>Tuesday, January 29 .....</b>	<b>45</b>
<b>Wednesday, January 30 .....</b>	<b>67</b>
<b>Thursday, January 31.....</b>	<b>82</b>
<b>Author Index.....</b>	<b>93</b>
<b>2008 Planning Committee .....</b>	<b>105</b>

Cover Photo Credit: "First Turn" by  
Reed Palmer, 2006 Kentucky Derby at  
Churchill Downs, Louisville, KY

## **Important Information**

### **Daily Bridge Report**

The Daily Bridge Report will be available each morning from Sunday to Thursday at strategic locations throughout the Galt House. The Daily Bridge Report will have important information and announcements about that day's activities. If you want information to be included in the next day's report, you need to bring it to the Stanley room on the Third Floor, East Tower by no later than 12:30 PM.

### **Messages and Internet**

Messages may be posted on the Message Board located in the Registration area. There will be an Internet Café in the registration area.

### **Specific instructions for an oral presentation**

Twenty minutes are allotted for each oral presentation in a technical session. The length of time for a symposium presentation is determined by the symposium organizer. Presentations must be in either Microsoft Office PowerPoint 2003 (XP) or Adobe PDF. Please bring your presentations on a USB Flash Drive (also called a thumb drive or jump drive) one hour before the start of your session. CD-ROM drives will be available if necessary. The session Moderator (or another volunteer) will load the file onto the computer, and afterwards, will delete your presentation from the computer.

### **Specific instructions for a poster presentation**

Posters can be mounted with either Velcro or push pins. The posters must be put up before 8 AM in Ballroom C (East Tower- Second Floor) and taken down after 5 PM. On Monday (Jan 28), presenters are expected to be by their posters from 3 PM to 5 PM; whereas on Tuesday (Jan 29) and Wednesday (Jan 30), presenters are expected to be by their posters from 8 AM to 10 AM. Rangeland Cup and Excellence in Grazing Management presenters will be by their posters from 1:00 to 3:00 PM on Tuesday.

### **SRM search committee seeks your input in EVP search**

SRM members are invited to provide input for the Executive Vice President search through 'listening' sessions that will be held at the joint SRM/AFGC meeting in Louisville and/or by submitting written comments to the SRM office. Listening sessions are being planned for Sunday January 27 from 11-12 with the Range Science Education Council and from 1-2 pm with the Advisory Council. A third listening session is scheduled for all members on Tuesday January 29, 10-12 noon in the Wilson Room. These sessions will be designed to

allow members to discuss future priorities for SRM, as well as expectations of the EVP and SRM leadership in order to facilitate these priorities.

### **AFGC 2008 Forage Spokesperson Competition**

The Forage Spokesperson Contest is typically one of the most popular and informative sessions at the annual AFGC conference. Individual farmers are nominated by state affiliate councils to present at the national conference. Each producer is asked to develop a 15 minute presentation which gives an overview of his farming operation. An additional five minutes are then reserved for questions from judges and the audience. A diverse panel of judges comprised of producers, industry representatives and government agency employees score the producers on criteria including innovativeness, practical application of sound principles, communication skill and enthusiasm. The contest takes place on Tuesday, January 29 from 1:30 to 3:30 PM in the Stopher Room.

### **Professional Issues Luncheon**

Mr. Mike Hubbs, Kentucky State Conservationist, will be presenting an informative program on Pastureland Soil Quality for the Professional Issues noon luncheon on Tuesday, January 29, in the Laffoon Room. The program will be approximately 30 minutes in length.

### **Agency On-The-Spot Hiring**

Sunday January 27 through Wednesday January 30, 2008. Several federal agencies have successfully coordinated On-the-Spot Hiring programs at the SRM annual meetings in past years. For example, at the SRM 60<sup>th</sup> Annual Meeting in Reno, Nevada, the USFS and BLM successfully filled 18 Rangeland Management Specialist (GS-454) entry level vacancies. Several more positions were filled subsequent to the meetings using the same applicant pool. Agencies are very interested in pursuing this opportunity again in Louisville. Stay tuned for more details!!!

### **Continuing Education Credits**

Continuing Education Credits (CEUs) for this program are available from both AFGC and SRM and may be used in fulfilling requirements for re-certification in the Certified Grassland Professional (CGP) program and in the Certified Professional in Range Management (CPRM) program. Those interesting in applying for CEUs should contact their respective societies. For AFGC: (<http://www.afgc.org> under the Program and Services/ Certification tab). for SRM: ([http://www.rangelands.org/education\\_cprm.shtml](http://www.rangelands.org/education_cprm.shtml))

## **Welcome to Louisville**

Welcome to the 2008 Annual Meeting of the American Forage and Grassland Council and the Society for Range Management – “Building Bridges – Grasslands to Rangelands”

This Annual Meeting is the result of a strong partnership between AFGC and SRM. Many folks from both organizations volunteered substantial time to make it a rewarding experience for all who attend. The stage has been set for capitalizing in the future on our strengthened working relationship not only with each other, but with other organizations as well.

You will see the results of our partnership in the program emphasis on Plenary Day, the broad mix of technical programs, the wide scope of program participants, a strengthened Trade Show, joint award and social activities, and in an atmosphere conducive to working together.

Please take advantage of the many opportunities to advance your knowledge in technical areas, become acquainted with a broad cross section of professionals, renew old friendships, and enjoy the Southern hospitality of Louisville. We hope that you will use this occasion to form new friendships, expand your network, and provide the basis for new and productive partnerships.

Ray Smith  
2008 General Co-Chair  
American Forage & Grassland Council

Deen Boe  
2008 General Co-Chair  
Society for Range Management

Gary Pederson  
President  
American Forage and Grassland Council

Dennis Phillippi  
President  
Society of Range Management

### Program at a Glance

Event/Activity	Time	Room
<b>Saturday, January 26</b>		
Registration/Information	5:00PM -7:00PM	
SRM Board of Directors' Meeting w/Committee Chairs	7:00PM -8:30PM	Nunn
<b>Sunday, January 27</b>		
Registration/Information	7:00AM-5:30PM	
HSYF Home Room	6:00AM-11:00PM	Willow
AFGC Board of Directors Meeting	8:00AM-12:00PM	Laffoon
SRM Advisory Council	8:00AM-5:00PM	Sampson
Committee Meetings	8:00AM-5:00PM	
Technical Field Tour 1: Forage-Animal Research & Production	8:00AM-5:00PM	
Technical Field Tour 2: Roundstone Seed and Mammoth Cave	12:00PM-5:00PM	
Workshop – Grazing and Grassland Management for Bobwhite Conservation	9:00AM-12:00PM	Combs Chandler
Technical Field Tour 3: KY Bison and Horse Farm	8:00AM-5:00PM	
Trade Show Set Up	12:00PM-6:00PM	Exhibits
Silent Auction Set Up	1:00PM-5:00PM	Exhibits
RTEC Workshop and Business meeting	1:00PM-5:00PM	Combs Chandler
HSYF Orientation/Social	4:00PM-7:00PM	Willow
Young Professionals Conclave	5:00PM-7:00PM	Laffoon
Student Contest Registration	5:00PM-6:00PM	Archibald
Student Conclave Business Meeting	5:00PM-8:00PM	Archibald
Agency Socials	7:00PM-10:00 PM	
<b>Monday, January 28</b>		
Registration/Information	7:00AM-5:30PM	
HSYF Home Room	6:00AM-11:00PM	Willow
Poster Sessions	8:00AM-5:00PM	Ballroom C
URME Exam	8:00AM-12:00PM	Daisy/Sunflower
HSYF Tour	8:00AM-4:30PM	
Plant ID Study Room	24-hours	Brown
Employment Room	8:00AM-10:00PM	Fields
Silent Auction	8:00AM-8:00PM	Exhibits
Plenary Session	8:45AM-12:00PM	Ballroom A

Past Presidents, Founding & Charter Member Luncheon	12:00PM-2:00PM	Combs Chandler
Trade Show Opening	12:00PM-6:00PM	Exhibits
SRM Advisory Council	1:00AM-5:00PM	Sampson
Local Interest Tour 1: Kentucky Derby Museum	12:30PM-5:00PM	
Undergraduate Student Public Speaking Contest	1:00PM-5:00PM	Beckham/ Taylor
Spouse/Guest Event	1:30PM-3:30PM	Breathitt
Symposia and Technical Sessions	1:30PM-5:00PM	
AFGC Forage Bowl	4:00PM-5:30PM	Nunn
Tapping the Top Mixer	5:00PM-7:00PM	Wilkinson
Taste of Kentucky Trade show/Mixer	6:00PM-8:00PM	Exhibits
HSYF Professional Interaction Dinner	7:00PM-9:00PM	Off site
<b>Tuesday, January 29</b>		
Registration/Information	7:00AM-5:30PM	
HSYF Home Room	6:00AM-11:00AM	Willow
SRM Board of Directors and Advisory Council	7:00AM-10:00AM	Wilson
Plant ID Contest	8:00AM-12:00PM	Daisy/Sun flower
Plant ID Coaches' Critique, Grading & Viewing	6:00AM-7:00PM	Rose/Tulip
Employment Room	8:00AM-10:00PM	Fields
Silent Auction	8:00AM-6:00PM	Exhibits
Trade Show	8:00AM-6:00PM	Exhibits
Plant ID Study Room	24 hours	Brown
Poster Sessions	8:00AM-5:00AM	Ballroom C
Symposia and Technical Sessions	8:30AM-12:00PM 1:30PM-5:00PM	
AFGC Emerging Scientist Competition	8:30AM-12:00PM	Stopher
Local Interest Tour 2: Louisville Sluggers, Heroes and Glassworks	8:45AM-5:00PM	
SRM EVP Search Committee Open Meeting	10:00AM-12:00PM	Wilson
Student Conclave Luncheon & Meeting	12:00PM-2:30PM	Archibald
Professional Issues Luncheon	12:00PM-2:00PM	Laffoon
HSYF Paper Presentations	7:00AM-5:00PM	Beckham/ Taylor
Excellence in Range Management	1:00PM-5:00PM	Ballroom C
Rangeland Cup	1:00PM-5:00PM	Ballroom C
University Alumni Socials	6:00PM-8:00PM	

Dance	8:00PM-12:00AM	Ballroom A
<b>Wednesday, January 30</b>		
Registration/Information	7:00AM -12:00PM	
AFGC Industry/Affiliate Council Breakfast	7:30AM-9:00AM	Coe
Trade Show	8:00AM-12:00PM	Exhibits
Silent Auction	8:00AM-12:00PM	Exhibits
Poster Sessions	8:00AM-5:00PM	Ballroom C
Technical Sessions	8:00AM -10:00AM	
SRM Undergraduate Paper Contest	8:00AM-10:30AM	Carroll Ford
Local Interest Tour 3: Unbridled Spirits	8:00AM-5:00PM	
HYSF Business Meeting & Workshop	8:00AM -11:30AM	Willow
Employment Room	8:00AM-10:00PM	Fields
AFGC/SRM Awards Luncheon	12:00AM-1:30PM	Cochran
SRM Membership Business Meeting	2:00PM-3:30PM	Archibald
AFGC Affiliate Council Business Meeting	2:00PM-2:45PM	Sampson
AFGC Business Meeting	2:45PM-3:45PM	Sampson
SRM Student Awards Ceremony	3:45PM-5:00PM	Archibald
Wild Women of Range	4:30PM-7:00PM	Wilkinson
President's Reception	6:00PM-7:00PM	Ballroom A
Banquet & Entertainment	7:00PM-9:30PM	Ballroom A
<b>Thursday, January 31</b>		
Registration/Information	7:00AM-12:00PM	
Technical Field Tour 4: Forage-Animal Research & Production	8:00AM-5:00PM	
Symposia and Technical Sessions	8:00AM-12:00PM	
Employment Room	8:00AM-12:00PM	Fields
AFGC Board of Directors Meeting	1:00PM-5:00PM	Laffoon
SRM Board of Directors Meeting	12:30PM-7:00PM	Sampson

## **We Thank Our Sponsors**

### **Diamond**

Dow Agrosiences – Conference Tote Bags, Symposium & SRM Student Paper Competition

### **Platinum**

USDA-ARS – General Conference

Southern Nevada Water Authority – General Conference

### **Gold**

Barenbrug USA – General Conference

Great Plains Cooperative Ecosystem Studies Unit, National Park Service – General Conference

Kentucky Department of Agriculture – Food & Beverage

Kentucky Farm Bureau – General Conference

Pennington Seed – Conference Breaks

### **Silver**

Forage Genetics International – General Conference

### **Bronze**

Allen Press – Refreshments for Editorial Board Meetings, REM & Rangelands

Kentucky Forage & Grassland Council – Kentucky Night/Trade Show Mixer

W-L Research – General Conference

### **Copper**

NK Brand Seeds – General Conference

Pogue Agri Partners, Inc. – General Conference

### **Other Sponsorship**

The Galt House – Dance Floor

Meeting Expectations – Internet Café & planning committee radios

## **AFGC Competition Sponsors**

The Samuel Roberts Noble Foundation – Forage Bowl

America's Alfalfa and Forage Genetics - Forage Spokesperson

R.L. Dalrymple and Elstel Farm and Seed – Youth in Grazing Management Essays

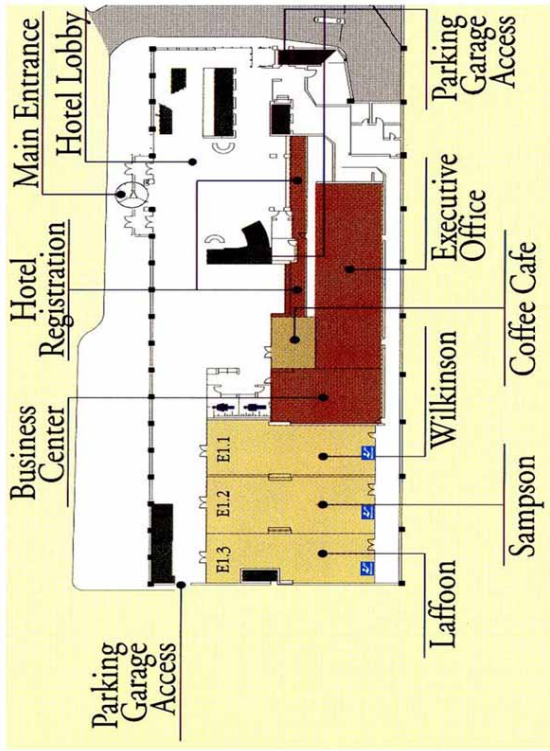
USDA-CSREES – Emerging Scientist Competition



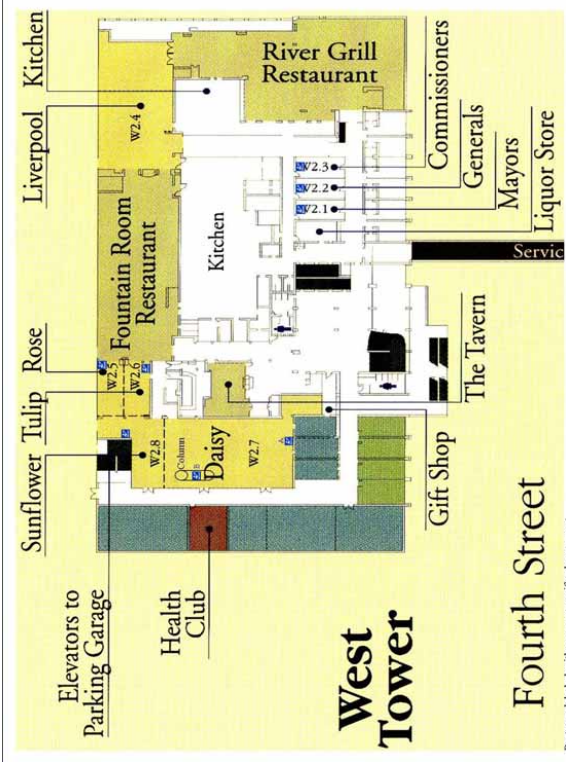
The Agricultural Research Service (ARS) conducts research to develop and transfer solutions to agricultural problems of high national priority and provides information access and dissemination to ensure high-quality, safe food and other agricultural products, assess the nutritional needs of Americans, sustain a competitive agricultural economy, enhance the natural resource base and the environment, and provide economic opportunities for rural citizens, communities, and society as a whole. Visit [www.ars.usda.gov](http://www.ars.usda.gov).

# Meeting Facilities

## First Floor East

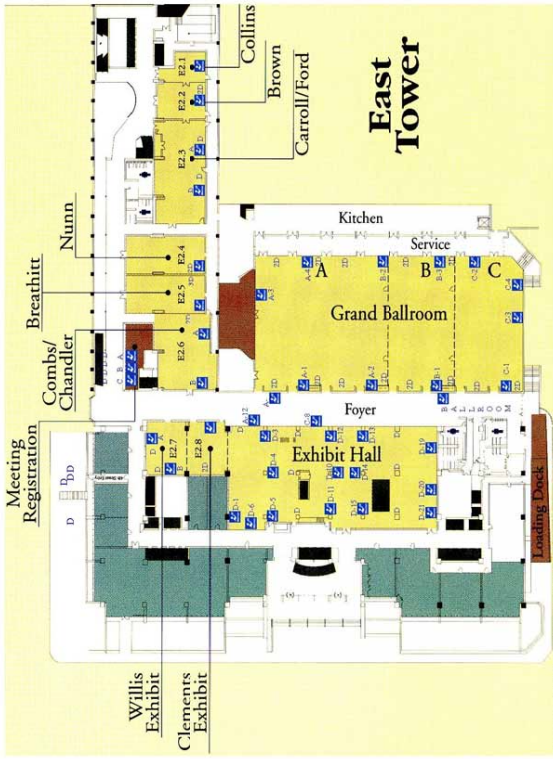


## Second Floor West



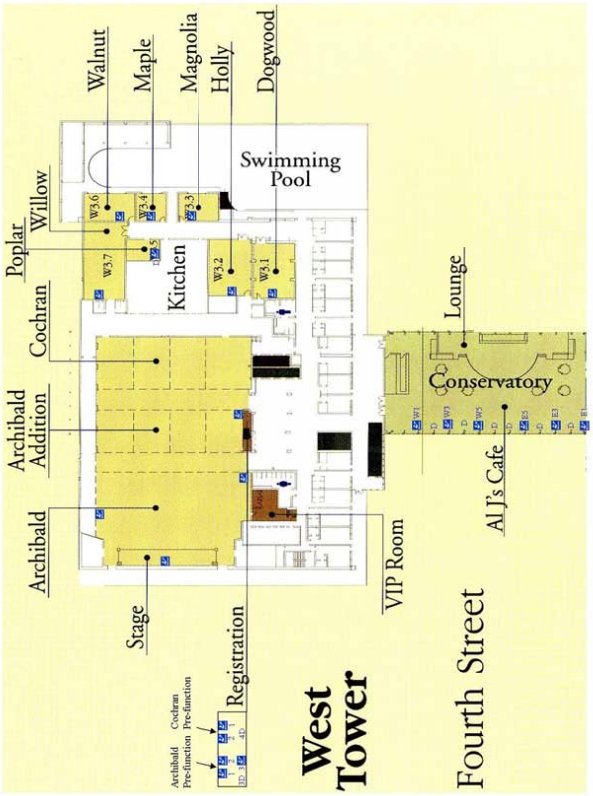
Ports are labeled with room name if only one port  
 If additional ports are in the room the label is room name followed by a unique identifier

## Second Floor East

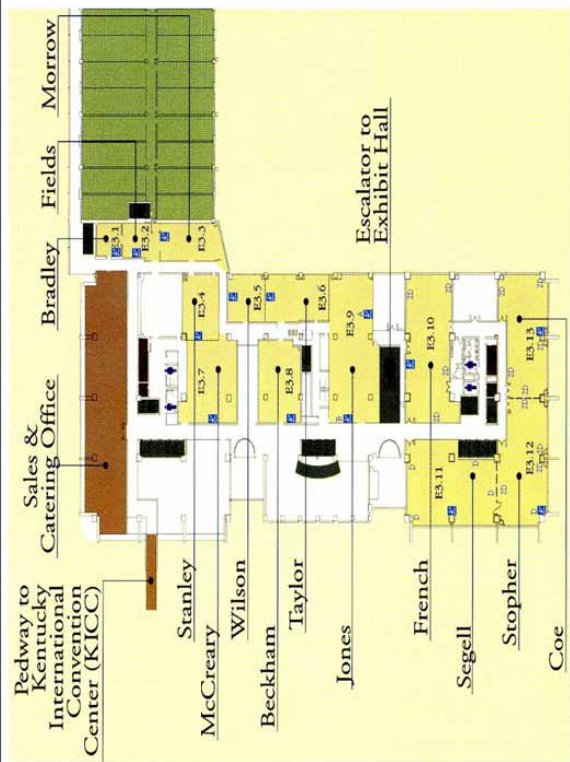


Ports are labeled with room name if only one port  
 If additional ports are in the room the label is room name followed by a unique identifier

### Third Floor West



### Third Floor East



Ports are labeled with room name if only one port  
If additional ports are in the room the label is room name followed by a unique identifier

**\$999**



**KEDZIG**  
Kedziora Innovation Group

- Temp, Angle, Mort sensors
- Field replaceable battery
- VHF beacon and Remote download
- Internal antennas
- Field programmable
- No special software needed

**Lowest cost GPS data-logger available.**  
**Cattle** [WWW.KEDZIG.COM](http://WWW.KEDZIG.COM) **Sheep**

## Trade Show

<b>Exhibitors (in Alphabetical Order)</b>	<b>Booth</b>
2009 SRM Annual Meeting	209
AgraGate Climate Control Credit Corp.	213
AG-Renewal, Inc.	201
Allen Press	228
AMPAC	242
American Forage and Grassland Council	222
Analab	210
Arkansas Valley Seed	208
Bamert Seed Co.	216
Barenbrug USA	229
Bobcat Company	241
Cal/West Seeds	233
Curtis & Curtis	121
Dow Agrosiences	219/220
DuPont	204
Ecosystems Management Research Institute (EMRI)	236
Forage Genetics International	227
Grassworks	217/218
Grazing Lands Conservation Initiative (GLCI)	244
International Grassland/Rangeland Congress	234
Kedziora Innovation Group	101
K-Line Irrigation North America	109
Louisville Convention & Visitors Bureau	Registration
Marden Industries, Inc.	203
May Eastern Gamgrass, Co.	123
National Center for Cooperative Education (NCCE)	235
NK Brand Seeds	230
Northern Bobwhite Conservation Initiative	117
NuFarm	205
Oklahoma State University Range Club	11
Pawnee Buttes Seed, Inc.	221
Pennington Seed	225/226
Rainier Seeds Inc.	206
Ridley Block Operations	231/232
Sharp Brothers Seed	200
South Dakota State University Range Club	3
Southern Nevada Water Authority	212
SRM Endowment	13
Star Quality Samplers	215
Summit Seed Coatings	224
The Noble Foundation	243
Tru-Test, Inc.	119
Truax Co. Inc.	237
UAP Distribution, Inc.	107
University of Nebraska – Lincoln	4
University of Wyoming Range Club	10
USDA-FS Rocky Mountain Research Station	238
USDA-NASS	240
USDA-NRCS Plant Materials Program	214
USDA-NRCS National Technology Support Centers	223
USDA-NRCS	239
USDI-BLM Plant Conservation Program	207
USDI-BLM	202

<b>Exhibitors (by Booth Number)</b>	<b>Booth</b>
South Dakota State University Range Club	3
University of Nebraska – Lincoln	4
University of Wyoming Range Club	10
Oklahoma State University Range Club	11
SRM Endowment	13
Kedziora Innovation Group	101
UAP Distribution, Inc.	107
K-Line Irrigation North America	109
Northern Bobwhite Conservation Initiative	117
Tru-Test, Inc.	119
Curtis & Curtis	121
May Eastern Gamagrass Co.	123
Sharp Brothers Seed	200
AG-Renewal, Inc.	201
USDI-BLM	202
Marden Industries, Inc.	203
DuPont	204
NuFarm	205
Rainier Seeds Inc.	206
USDI-BLM Plant Conservation Program	207
Arkansas Valley Seed	208
2009 SRM Annual Meeting	209
Analab	210
University of Kentucky Seed Testing Laboratory	211
Southern Nevada Water Authority	212
AgraGate Climate Control Credit Corp.	213
USDA-NRCS Plant Materials Program	214
Start Quality Samplers	215
Bamert Seed Co.	216
Grassworks	217/218
Dow AgroSciences	219/220
Pawnee Buttes Seed, Inc.	221
American Forage and Grassland Council	222
USDA-NRCS National Technology Support Centers	223
Summit Seed Coatings	224
Pennington Seed	225/226
Forage Genetics International	227
Allen Press	228
Barenbrug USA	229
NK Brand Seeds	230
Ridley Block Operations	231/232
Cal/West Seeds	233
International Grassland/Rangeland Congress	234
National Center for Cooperative Education (NCCE)	235
Ecosystems Management Research Institute (EMRI)	236
Truax Co. Inc.	237
USDA-FS Rocky Mountain Research Station	238
USDA-NRCS	239
USDA-NASS	240
Bobcat Company	241
AMPAC	242
The Noble Foundation	243
Grazing Lands Conservation Initiative (GLCI)	244
Louisville Convention & Visitors Bureau	Registration

## Board/Council/Committee Meetings

Group	Time	Room
<b>Saturday-Thursday, January 26-31</b>		
2008 Annual Meeting Planning Committee	6:30AM-7:30AM	Morrow
<b>Saturday, January 26</b>		
National Hay Association Board of Directors	9:00AM-12:00PM	Wilkinson
Rangeland CEAP Synthesis Working Group	1:00PM-5:00PM	Taylor
Pastureland CEAP Synthesis Working Group	1:00PM-5:00PM	Wilson
Forage and Grassland Foundation	3:00PM-7:00PM	Breathitt
SRM BOD Meeting w/Committee Chairs	7:00PM-8:30PM	Nunn
<b>Sunday, January 27</b>		
Advisory Council	8:00AM-5:00PM	Sampson
Awards Committee	8:00AM-11:00AM	Poplar
AFGC Board of Directors	8:00AM-12:00PM	Laffoon
Public Affairs Committee (joint)	8:00AM-5:00PM	Maple
Government Policy & Programs Committee (joint)	8:00AM-5:00PM	Maple
GLCI Strategic Planning Group	8:00AM-12:00PM	Breathitt
Information & Education Committee	8:00AM-12:00PM	Holly
Nominations Committee	8:00AM-5:00PM	Walnut
Rangeland Assessment & Monitoring Committee	8:00AM-5:00PM	Stopher
<i>Rangelands</i> Steering Committee	8:00AM-12:00PM	Wilson
<i>REM</i> Editorial Board	8:00AM-12:00PM	Beckham
Section Membership Chairs	8:00AM-11:00AM	Taylor
Watershed/Riparian Committee	8:00AM-12:00PM	Dogwood
Student Activities Committee	9:00AM-2:00PM	McCreary
Finance Committee	9:00AM-3:00PM	French
Accreditation Panel	1:00PM-5:00PM	Carroll Ford
CPRM Committee	1:00PM-5:00PM	Breathitt
Endowment Fund BOG	1:00PM-5:00PM	Wilkinson
International Affairs Committee	1:00PM-4:00PM	Taylor
Leadership Development Committee	1:00PM-4:00PM	Laffoon
Membership Task Force	1:00PM-4:00PM	Poplar
Publications Committee	1:00PM-3:00PM	Nunn

Rangelands Editorial Board	1:00PM-5:00PM	Wilson
REM Steering Committee	1:00PM-5:00PM	Beckham
Rangelands Invasive Species Committee	1:00PM-3:00PM	Morrow
Rangeland Technology & Equipment Council: Workshop and Business meeting	1:00PM-5:00PM	Combs Chandler
Grazing Lands Conservation Task Force	1:00PM-4:00PM	Jones
Remote Sensing & GIS Committee	1:00PM-5:00PM	Dogwood
Wildlife Habitat Committee	1:00PM-5:00PM	Segell
Coordinated Resource Management Committee	3:00PM-5:00PM	Nunn
History, Archives & Library Committee	3:00PM-5:00PM	Morrow
Cool Season Grass Working Group	6:00PM-8:00PM	Poplar
Rangeland and Grasslands Extension Professional Meeting	7:00PM-9:00PM	McCreary
<b>Monday, January 28</b>		
Public Affairs Committee	8:00AM-12:00PM	Laffoon
Government Policy & Programs Committee	8:30AM-12:00PM	Wilkinson
Advisory Council	1:00PM-5:00PM	Sampson
<b>Tuesday, January 29</b>		
New Member Orientation Breakfast	7:00AM-8:00AM	Coe
SRM Board of Directors and Advisory Council	7:00AM-10:00AM	Wilson
SRM EVP Search Committee (open)	10:00AM-12:00PM	Wilson
Young Professional Conclave Luncheon	11:30AM-1:30PM	Cochran
Mexico Section	5:00PM-7:00PM	Morrow
<b>Wednesday, January 30</b>		
Annual Meeting Planning Committees	7:30AM-9:00AM	Morrow
2009 Planning Committee	9:00AM-12:00PM	Morrow
Association of University Rangeland Resource Programs Committee	10:00AM-12:00PM	Beckham
<b>Thursday, January 31</b>		
AFGC Board of Directors	1:00PM-5:00PM	Laffoon
SRM Board of Directors	12:30PM-7:00PM	Sampson
<b>Friday, February 1</b>		
SRM Board of Directors	7:30AM-1:30PM	Sampson

## Special Events at a Glance

Event/Activity	Time	Room
<b>Sunday, January 25</b>		
USDA-USFS Awards and Family Meeting	7:00PM-10:00PM	Combs Chandler
Rangelands & Grasslands Professional Extension Meeting	7:00PM-9:00PM	McCreary
USDI-BLM Reception	7:00PM-10:00PM	Breathitt
USDA-NRCS Family Meeting	7:00PM-9:00 PM	Carroll Ford
USDA-ARS Meeting	8:00PM-10:00PM	Nunn
<b>Monday, January 26</b>		
AFGC Hay Show and Photo Contest	12:00PM-8:00PM	Willis
CSREES Funded Projects	6:00PM-8:00PM	Dogwood
Charter Members'/Past President's Luncheon	12:00PM-2:00PM	Coombs Chandler
Spouse Event	1:30PM-3:30PM	Breathitt
"Tapping the Top" Mixer	5:00PM-7:00PM	Wilkinson
Taste of Kentucky Trade Show/Mixer	6:00PM-8:00PM	Exhibit Hall
HSYF Professional Interaction dinner	7:00PM-9:00PM	Off-site
<b>Tuesday, January 27</b>		
Texas Tech Alumni Breakfast	6:30AM-8:30AM	Laffoon
New Members Breakfast	7:00AM -8:00AM	Coe
CPRM Exam	8:00AM-5:00PM	Wilkinson
AFGC Emerging Scientist Competition	8:30AM-12:00PM	Stopher
AFGC Hay Show & Photo Contest	8:00AM-6:00PM	Willis
Professional Issues Luncheon	12:00PM-2:00PM	Laffoon
Student Conclave Luncheon and Meeting	12:00PM-2:30PM	Archibald
Colo. State Univ. Mixer	7:00PM-9:00PM	Taylor
Mont. State Univ. Mixer	6:00PM-8:00 PM	Sampson
Ore. State Univ. Mixer	6:00PM-8:00 PM	McCreary
Utah State Univ. Mixer	6:00PM-8:00 PM	Laffoon
Univ. Wyoming Mixer	6:00PM-9:00 PM	Daisy
Texas A&M Mixer	6:00PM-8:00 PM	Wilkinson
Idaho Reception	6:00PM-8:00 PM	Beckham
Fort Hays Kansas State Univ. Social	7:30PM-8:00 PM	Off-Site
Dance	8:00PM-12:00AM	Ballroom A

<b>Wednesday, January 30</b>		
AFGC Industry/Affiliate Council Breakfast	7:30AM-9:00AM	Coe
AFGC/SRM Awards Luncheon	12:00PM-1:30PM	Cochran
AFGC Hay Show & Photo Contest	8:00AM-12:00PM	Willis
SRM Membership Forum/Business Meeting	2:00PM-3:30PM	Archibald & Arch Addition
AFGC Industry/Affiliate Council Business Meeting	2:00PM-2:45PM	Sampson
AFGC Business Meeting	2:45PM-3:45PM	Sampson
SRM Student Awards Ceremony	3:45PM-5:00PM	Archibald & Arch Addition
Wild Women of Range	4:30PM-7:30PM	Wilkinson
President's Reception and Banquet	6:00PM-9:30PM	Ballroom A&B
<b>Thursday, January 31</b>		
2008 Annual Meeting Planning Committee Celebration	5:00PM-12:00AM	Off-site

<b>PREPARING FOR A</b>	<b>SUSTAINABLE NEVADA</b>
	<p><b>FOR MORE INFORMATION</b></p> <p><b>702-258-3930</b></p> <p><b>Toll Free 1-866-300-5600</b></p> <p><b>www.snwa.com</b></p>
<b>Southern Nevada Water Authority</b>	

### Student Activities at a Glance

<b>Event/Activity</b>	<b>Time</b>	<b>Room</b>
<b>Sunday, January 27</b>		
HSYF Home Room	6:00 AM-11:00PM	Willow
Student Plant ID Study Room	7:00AM-12:00AM	Brown
Employment Room	8:00 AM-10:00PM	Fields
2008 Rangeland Job Fair	10:00AM-6:00PM	Cochran
Student Activities Committee Meeting	9:00 AM-2:00PM	McCreary
Career Development Workshop	12:00PM-4:00PM	Archibald
HSYF Orientation/Social	4:00PM-7:00PM	Willow
Contestant Registration	5:00PM-6:00PM	Archibald
Student Conclave Business Meeting	5:00PM-8:00PM	Archibald
Young Professionals Conclave	5:00PM-7:00PM	Laffoon
<b>Monday, January 28</b>		
Student Plant ID Study Room	12:00 AM-11:59PM	Brown
HSYF Home Room	6:00AM-11:00PM	Willow
HSYF Professional Interaction Dinner	7:00PM-9:00PM	Off Site
UG Public Speaking Contest Registration Room	8:00AM-5:00PM	Wilson
Speaker Prep Room	8:00AM-5:00PM	Collins
HSYF Technical Tour	8:00AM-4:30PM	Off-site
Employment Room	8:00AM-10:00PM	Fields
Forest Service On-the-Spot Hiring and Interview Room	7:00AM-8:00PM	Maple
NRCS On-the-Spot Hiring and Interview Room	8:00AM-10:00PM	Poplar
BLM On-the-Spot Hiring and Interview Room	8:00AM-10:00PM	Walnut
Student Exhibits Set-Up	8:00AM-6:00PM	Exhibit Hall
Tradeshow	12:00PM-8:00PM	Exhibit Hall
URME Exam	8:00AM-12:00PM	Daisy-Sunflower
Undergraduate Public Speaking Contest	1:00PM-5:00 PM	Room A = Beckham Room B = Taylor

Grassland Evaluation Workshop	1:00PM-4:00PM	Carroll Ford
AFGC Forage Bowl	4:00PM-5:30PM	Nunn
"Tapping the Top" Mixer	5:00PM-7:00PM	Wilkinson
HSYF Professional Interaction Dinner	7:00PM-9:00PM	Offsite
Taste of Kentucky Tradeshow/Mixer	6:00PM-9:00PM	Exhibit hall
<b>Tuesday, January 29</b>		
HSYF Home Room	6:00AM-11:00PM	Willow
Speaker Prep Room	8:00AM-5:00PM	Collins
Employment Room	8:00AM-10:00PM	Fields
NRCS On-the-Spot Hiring and Interview Room	8:00AM-10:00PM	Poplar
BLM On-the-Spot Hiring and Interview Room	8:00 AM-10:00PM	Walnut
Forest Service On-the-Spot Hiring and Interview Room	7:00 AM-8:00PM	Maple
Student Exhibits	8:00 AM- 6:00PM	Exhibit Hall
Student Plant ID Study Room	12:00 AM- 11:59 PM	Brown
High School Youth Forum Presentations	7:00 AM- 5:00PM	Taylor
Plant ID Staging & Coaches Workshop	6:00 AM- 1:00PM	Rose Tulip
Plant ID Contest/Viewing	8:00AM- 3:00PM	Daisy-Sunflower
Plant ID Coaches Critiques	6:00 PM-7:00PM	Rose Tulip
Student Conclave Lunch & Meeting	12:00 PM-2:30PM	Archibald
Young Professional Conclave Lunch & Meeting	11:30 AM-1:30PM	Cochran
Rangeland Cup	1:00PM-5:00PM	Ballroom C
Student Conclave Tour	3:00PM-5:00PM	Kentucky Derby Museum
<b>Wednesday, January 30</b>		
Student Plant ID Study Room	12:00AM-10:00PM	Brown
Speaker Prep Room	8:00AM-6:00PM	Collins
HYSF Business Meeting & Workshop	8:00AM-11:00PM	Willow
Employment Room	8:00AM-10:00PM	Fields
Forest Service On-the-Spot Hiring and Interview Room	7:00AM-12:00PM	Maple
NRCS On-the-Spot	8:00AM-10:00PM	Poplar

Hiring and Interview Room		
BLM On-the-Spot Hiring and Interview Room	8:00AM-10:00PM	Walnut
Student Exhibits	8:00AM-12:00PM	Exhibit Hall
Undergraduate Student Contributed (Technical) Papers	8:00AM-10:30PM	Carroll Ford
SRM Student Awards Ceremony	3:45PM- 5:00PM	Archibald
<b>Thursday, January 31</b>		
Employment Room	8:00AM-12:00PM	Fields
Student Activities Breakfast Meeting	8:00AM - 10:00AM	Liverpool A



**MaxQ**  
*A Non-Toxic Endophyte to Enhance Tall Fescues*

# Performs

**Experience what thousands of professional cattlemen have already realized!**

- University tested. Cattlemen & pasture proven
- High quality, reliable perennial forage grass
- Nearly twice the weight gain compared to KY 31
- Proven persistence
- Good first year production
- Guaranteed live friendly endophyte
- Safe for all classes of livestock, including broodmares

1-800-285-SEED

[www.penningtonseed.com](http://www.penningtonseed.com)



### Technical Program at a Glance

<b>Sunday, January 27</b>		
<b>Session</b>	<b>Time</b>	<b>Room</b>
Grazing Management Issues Relative to Bobwhite Conservation	9:00AM-12:00PM	Combs Chandler
RTEC: Equipment for Upland Habitat Restoration	1:30PM-5:00PM	Combs Chandler
<b>Monday, January 28</b>		
Plenary Session	8:45AM-12:00PM	Ballroom A&B
<b>Poster Sessions</b>	8:00AM-5:00PM	Ballroom C
Range & Pasture Management		
Energy & Biomass		
Range & Pasture Plants		
<b>Symposium:</b> Building Bridges: National Leaders' Perspectives on Natural Resource Issues	1:30PM-5:30PM	Archibald
<b>Symposium:</b> Remote Sensing and GIS Applications – What Can They Do For You?	1:30PM-5:00PM	Cochran
<b>PM Technical Sessions</b>	1:30PM-5:00PM	
Ecology		French
Grazing Systems & Management		McCreary
Reclamation & Restoration		Segell
Weed & Brush Management		Jones
Wildlife-Livestock Interactions		Stopher
<b>Tuesday, January 29</b>		
<b>Poster Sessions</b>	8:00AM-5:00PM	Ballroom C
Ecology		
Excellence in Range Management		
Rangeland Cup		
AFGC Emerging Scientist Competition	8:30AM-12:00PM	Stopher
GLCI Grazing Symposium	8:30AM-12:00PM	Sampson
<b>Symposium:</b> Energy from Biomass – Agronomic and Economic Considerations	8:30AM-5:00PM	Jones
<b>Symposium:</b> State-and-Transition Models: Triggers, Feedbacks and	8:30AM-5:00PM	French

Thresholds		
<b>Symposium:</b> Novel Market-based Approaches to Enhance Sustainability of Grazinglands	8:30AM-5:00PM	Nunn
<b>Symposium:</b> Fescue Toxicosis	8:30AM-12:00PM	Carroll Ford
<b>Symposium:</b> Use of Heterogeneity-Based Grassland Management Techniques for Improved Wildlife Habitat	8:30AM-12:00PM	Segell
<b>AM Technical Sessions</b>	8:30AM-12:00PM	
Invasive Species I		Combs Chandler
Riparian Ecology & Management		Breathitt
<b>Forum:</b> Forage Spokesperson	1:30PM-3:00PM	Stopher
<b>Symposium:</b> Current ecological issues in grassland science	1:30PM-5:00PM	Nunn
<b>Symposium:</b> Forage Priorities	1:30PM-5:00PM	Carroll Ford
<b>Symposium:</b> Pasture Management Tools: Current and Future Technology	1:30PM-5:00PM	Beckham
<b>PM Technical Sessions</b>	1:30PM-5:00PM	
Domestic Animals		Breathitt
Education & Extension		Segell
Remote Sensing, GIS and Modeling		Combs Chandler
<b>Wednesday, January 30</b>		
<b>Poster Sessions</b>	8:00AM-5:00PM	Ballroom C
Conservation Effects Assessment Program		
Domestic Animals		
Socio-Economics & Education		
Technology & Monitoring		
Watershed Management & Hydrology		
Wildlife		
SRM Undergraduate Student Papers	8:00AM-10:30PM	Carroll Ford
<b>AM Technical Sessions</b>	8:30AM-10:00PM	
Alfalfa & Other Legumes		Breathitt
Assessment & Monitoring		Jones
Biomass & Energy		Sampson
Carbon Sequestration & Global Change		Segell
Economics		Combs

		Chandler
Invasive Species II		Nunn
Landscape Ecology		French
Public Policy		Wilkinson
Silvopasture & Herbivory		Stopher
<b>Thursday, January 31</b>		
<b>Symposium:</b> Effects of Diurnal Variation in Water-Soluble Carbohydrates on Grazing and Animal Production	8:30AM-12:00PM	Segell
<b>Symposium:</b> It's All About the Land...Success in BLM Partnerships	8:30AM-12:00PM	Stopher
<b>Symposium:</b> Livestock Management in shrub-dominated semi-arid Rangelands: A comparison of landscape histories and pattern use in The Mediterranean and Southwestern North America	8:30AM-12:00PM	French
<b>Symposium:</b> Restoration and Rehabilitation of Grazing Lands	8:30AM-12:00PM	Jones
<b>Symposium:</b> The Multi-Agency Oregon Pilot Project: A Roadmap for Indicator-Based Rangeland Management	8:30AM-12:00PM	McCreary
<b>AM Technical Sessions</b>	8:30AM-12:00PM	
Fire Ecology		Carroll Ford
Livestock Behavior		Combs Chandler
Range and Pasture Plants		Nunn
Water Quality and Hydrology		Breathitt

**Sunday, January 27, 2008**

**9:00 AM – 12:00 PM**

**Workshop: Grazing Management Issues  
Relative to Bobwhite Conservation**

**Room: Combs Chandler – East 2**

Moderator and Organizer: Dale Rollins

- 9:00      Opening Comments** – Pat Keyser and Steve Collins
- 9:20      Status of Bobwhite Conservation in the Southeastern US** – Don McKenzie
- 9:40      What are the issues on Grazing Lands by Region?** – Dale Rollins
- 10:30     Break**
- 10:50     What is Our Roadmap for Implementing Bobwhite Recovery on Grazing Lands?**
- 11:30     What Skill Sets Do Biologists Need for Addressing These Issues?**
- 11:45     Closing Remarks**

**1:30 PM-5:00 PM**

**Rangeland Technology & Equipment Council  
Workshop: Equipment for Upland Habitat  
Restoration**

**Room: Combs Chandler – East 2**

Moderators: Steve Clubine and Stevie Collins

Organizer: Steve Clubine

- 1:30      Roadsides for Wildlife and Stormwater Retention: Equipment Requirements to Deliver Both Programs that Avoid Detours** - Dwayne Stenlund, Minnesota Department of Transportation, Roseville, MN
- 1:55      Hydro-axe and Chemicals Prior to Planting Natives** - Zach Lowe, Purdue University, West Lafayette, IN
- 2:20      Ropewick versus Canopy Spraying for Controlling Sumac on Grasslands** - Steve Clubine, Missouri Department of Conservation, Clinton, MO, Sherry Leis, National Park Service, Springfield, MO and

Len E Gilmore, Missouri Department of Conservation, Osceola, MO

- 2:45 Hack & Squirt, and Basal Bark Treatments for Controlling Trees Invading Quail Habitat and Grasslands -**  
Steve Clubine, Missouri Department of Conservation, Clinton, MO
- 3:10 Break**
- 3:30 RTEC Annual Business Meeting**



**Our Herbicide Portfolio**

Tordon® 22K

Spike® 20P

Grazon® P+D

Remedy®

Redeem® R&P

Spike 80DF

PastureGard®

Surmount™

Milestone™

ForeFront™ R&P

**Our commitment to the cattle industry is growing.**

With a broad portfolio of herbicides available to them, our Range & Pasture Specialists can help you find products to help increase forage production, control brush or create wildlife habitat. These consultants can make recommendations based on your land and your needs.

 **Dow AgroSciences**

[www.RangeAndPasture.com](http://www.RangeAndPasture.com) 1-800-263-1196

®/™Trademark of Dow AgroSciences LLC  
Grazon P+D, Tordon 22K and Surmount are federally Restricted Use Pesticides.  
Spike 80DF is registered for range and pasture use only in AL, KS, LA, MO, MS, NM, OK and TX.  
Always read and follow label directions.

**Monday, January 28, 2008**

**8:45 AM – 12:00 PM**

**Plenary Session**

**Room: Grand Ballroom A & B – East 2**

- 8:45 Welcome to Kentucky – Photo Highlights**
- 9:00 Opening Remarks**  
Ray Smith, Meeting Co-chair, AFGC  
Scott Smith, Dean, University of Kentucky,  
College of Agriculture  
Dennis Phillippi, SRM President  
Gary Pederson, AFGC President  
Phil Howell, President, Kentucky Forage and  
Grassland Council
- 9:20 Patriotic Tribute**
- 9:25 Remembrance**  
Deen Boe, Meeting Co-chair, SRM
- 9:30 Kentucky: More Than Bluegrass**  
Garry Lacefield, University of Kentucky
- 10:00 Building Bridges: Grasslands to  
Rangelands**  
Dr. Vivien Allen, Texas Tech University  
Dr. Jim O'Rourke, Continuing Committee of  
the International Rangeland Congress
- 10:30 Building Bridges: Rural to Urban**  
Bill Tucker, AFGC Director of Legislative  
Affairs
- 11:00 Building Bridges: Farmers/Ranchers to  
Consumers**  
Nelson Curry, Cattle Procurement Director,  
Laura's Lean Beef, Lexington, KY
- 11:30 Discussion and Closing Remarks**

**8:00 AM-5:00 PM**  
**Range & Pasture Management Posters**  
**Room: Ballroom C – East 2**

**(Authors present 3:00 PM - 5:00 PM)**

- 01      Economic Benefits and Environmental Precautions when Fertilizing With Broiler Litter** - Dana C Shuff, NRCS, Alexandria, LA
- 02**      Withdrawn
- 03      Disappearance of Residual Dry Matter on Coastal and Sierran Annual Rangeland of California** - William Frost, University of California, Davis, Placerville, CA, Neil McDougald, University of California Cooperative Extension, Madera, CA, Royce Larsen, University of California, Davis, Templeton, CA, Ken Churches, University of California, Davis, San Andreas, CA and James Bartolome, University of California, Berkeley, Berkeley, CA
- 04      Big Sagebrush Seed Bank Densities Following Wildfires** - Charlie D Clements, Dan N Harmon and James A Young, USDA-ARS, Reno, NV
- 05      Persistence of Cool- and Warm-Season Forages in Competition with Bahiagrass in East Texas** - David Brauer, ARS, Booneville, AR
- 06      Application of Alternative Management Strategies for Prickly Pear (*Opuntia* spp) Control in Texas** - Douglas J Goodwin, USDA-NRCS, Eastland, TX, Kent Ferguson, USDA-NRCS, Temple, TX and Lem Creswell, USDA-NRCS, Weatherford, TX
- 07      Species Composition of Northern Mixed Grass Prairie After 23 Years of Non-Use** - Edward S DeKeyser and Kelly Krabbenhoft, North Dakota State University, Fargo, ND
- 08      Effects of Grazing and Fire on Seed Dynamics and Species Composition of Cheatgrass Dominated Rangeland** - Christopher A Call<sup>1</sup>, Joel M Diamond<sup>1</sup> and Nora Devoe<sup>2</sup>, (1)Utah State University, Logan, UT, (2)Bureau of Land Management, Reno, NV
- 09      Survival and Vigor of 11 Alfalfa Populations in Semiarid Rangeland** - Lan Xu<sup>1</sup>, Arvid Boe<sup>1</sup>, Roger N Gates<sup>2</sup> and Patricia

S Johnson<sup>2</sup>, (1)South Dakota State University, Brookings, SD, (2)South Dakota State University, Rapid City, SD

- 10 Impact of Fertilization on Smooth Brome Production and Crude Protein Concentration** - Leanne Stevenson, Graduate Student Kansas State University, Cheyenne, WY, Walter H Fick, Kansas State University, Manhattan, KS and Gary Kilgore, Kansas State University, Chanutte, KS
- 11 Poster Withdrawn**
- 12 Quantifying Parkland Forage Yield Responses to Simultaneous Legume and Weed Removal** - Erin M McLeod, Edward W Bork, Jane R King and Linda M Hall, Edmonton, AB, Canada
- 13 Recovery and Structural Characteristics of Mechanically Treated Wyoming Big Sagebrush** - Kirk W Davies, USDA - Agricultural Research Service, Burns, OR
- 14 Rough Fescue Restoration in Central Alberta Rangelands** - Peggy A Desserud and Dr M Anne Naeth, Edmonton, AB, Canada
- 15 Growth, Flowering, and Productivity of Crimson Clover Varieties in Spring and Autumn Planting** - Joung Kyong Lee<sup>1</sup>, Hee Chung Ji<sup>1</sup>, Ki Yong Kim<sup>1</sup>, Gi Jun Choi<sup>1</sup>, Won Ho Kim<sup>1</sup>, Keun Bal Lim<sup>1</sup>, Hyung Soo Park<sup>2</sup> and Sung Seo<sup>1</sup>, (1)Cheonan, South Korea, (2)Jeju, South Korea
- 16 Controlling Medusahead – Identifying the Period of Susceptibility** - Theresa Becchetti<sup>1</sup>, Craig Schriefer<sup>2</sup>, Jimin Zhang<sup>2</sup>, Corey Cherr<sup>2</sup>, John Harper<sup>2</sup>, Morgan Doran<sup>2</sup>, Stephanie Larson<sup>3</sup>, Sheila Barry<sup>4</sup>, Josh Davy<sup>2</sup>, Royce Larsen<sup>5</sup>, Lary Forero<sup>6</sup> and Emilio Laca<sup>2</sup>, (1)University of California, Davis, Modesto, CA, (2)University of California, Davis, CA, (3)University of California, Davis, Santa Rosa, CA, (4)University of California, Davis,

San Jose, CA, (5)University of California, Paso Robles, CA, (6)University of California Cooperative Extension, Redding, CA

- 17 Reduced Feed Cost and Improve Feed Quality by Stockpiling Tall Fescue** - Roger L Staff, USDA-NRCS, Greenville, IL and Dean R Oswald, University of Illinois, Macomb, IL
- 18 Control of Medusahead with Imazapic and Prescribed Burning in the Northern Great Basin** - Kirk W Davies and Roger L Sheley, USDA - Agricultural Research Service, Burns, OR
- 19 Reductions in Livestock Gain with Rotational Grazing and Heavy Stocking Rates in Northern Mixed-Grass Prairie** - Justin D Derner and Richard H Hart, USDA-Agricultural Research Service, Cheyenne, WY
- 20 Three Years of Vegetation Succession on the Ruby Gulch Waste Rock Repository, Northern Black Hills, South Dakota** - Andrew C Korth and Gary E Larson, South Dakota State University, Brookings, SD
- 21 Germplasm Evaluation of Rhizoma Peanut for Growth and Forage Potential** - M Anowarul Islam<sup>1</sup>, Twain J Butler<sup>1</sup> and Andrea L Maas<sup>2</sup>, (1)The Noble Foundation, Ardmore, OK, (2)USDA-ARS, Tifton, GA
- 22 Impacts of Removal and Seeding Treatments on Vegetative Structure in Greasewood (*Sarcobatus vermiculatus*) and Smooth Brome (*Bromus inermis*) Dominated Bottomlands** - Matt Church, Mary I Williams, Ann L Hild and Ginger B Paige, University of Wyoming, Laramie, WY
- 23 Remediation of Former Sugarcane Lands for Sustainable Forage Production** - Mark S Thorne<sup>1</sup>, Jonathan L Deenik<sup>2</sup>, Harold H Keyser<sup>3</sup>, Linda J Cox Jr<sup>2</sup> and Matthew H Stevenson<sup>1</sup>, (1)University of Hawaii at Manoa, Kamuela, HI, (2)University of Hawaii at Manoa, Honolulu, HI, (3)University of Hawaii at Manoa, Kahului, HI
- 24 Medusahead Dispersal and Establishment in Sagebrush Plant Communities** - Kirk W Davies, USDA - Agricultural Research Service, Burns, OR

- 25 **Getting Off of the 'Louisiana HayRide'** - James D Vinson, USDA-NRCS, Monroe, LA and Paul Wells Sr, Wells Farms, Dunn, LA
- 26 **An Integrated Approach to Grassland Restoration in a Chihuahuan Desert Mesquite-Dominated Community** - Laurie B Abbott, Kendal E Young, Robert P McNeely and Lenora B Hawkins, New Mexico State University, Las Cruces, NM
- 27 **Huisache Control Using Broadleaf Herbicides** - Edward K Twidwell<sup>1</sup>, Ronald E Strahan<sup>1</sup> and John G Wicke<sup>2</sup>, (1)Louisiana State University Agricultural Center, Baton Rouge, LA, (2)Louisiana State University Agricultural Center, Cameron, LA
- 28 **Diversification of Crested Wheatgrass Stands in Utah** - April Hulet, Bruce A Roundy, Brad Jessop and Jennifer K Coleman, Brigham Young University, Provo, UT
- 29 **Effect of Pre and Post Grazing Herbage Mass on Seasonal Pasture Growth and Nutritive Value** - Cristian Ortiz Sr, Oscar Balocchi Sr and Ignacio Lopez Sr, Valdivia, Chile
- 30 **Phytotoxic Effects of Western Juniper (*Juniperus occidentalis* Hook): Implications for a Natural Weed Control Agent on Western Rangelands** - Patricia L Dysart, William C Krueger, Carol A Mallory-Smith and Jan F Stevens, Oregon State University, Corvallis, OR
- 31 **Restoration Status of 50 Oil and Gas Disturbances at Rumsey Block in Central Alberta** - Mae E Elsinger and M Anne Naeth, Edmonton, AB, Canada
- 32 **Herbage Production and Animal Performance Response to Grazing System in the Nebraska Sandhills** - Walter H Schacht<sup>1</sup>, Jerry D Volesky<sup>2</sup> and Paul R Schroeder<sup>1</sup>, (1)University of Nebraska-Lincoln, Lincoln, NE, (2)University of Nebraska-Lincoln, North Platte, NE
- 33 **Effect of Different Herbicides on Switchgrass Establishment** - M Anowarul Islam, Twain J Butler and Chengjun Huo, The Noble Foundation, Ardmore, OK
- 34 **Effect of Plateau® Treatment on Vegetation and Fire Modeling for**

**Cheatgrass-Dominated Rangelands -**

Juliane Kluck<sup>1</sup>, Jack Alexander III<sup>1</sup>, Nicole K Hansen<sup>1</sup>, Angelia Binder<sup>2</sup>, Carl Rudeen<sup>2</sup> and Mark Breidenbaugh<sup>3</sup>, (1)Synergy Resource Solutions, Inc, Belgrade, MT, (2)Mountain Home Air Force Base, Mountain Home, ID, (3)Vienna, OH

- 35 Utilization of Two *Aphthona* Flea Beetle Species and *Oberea erythrocephala* within A Twice Over, Multi-Species Rotational Grazing System for the Control of Leafy Spurge (*Euphorbia esula*)** - Anthony T Perlinski, William T Barker and Dennis L Whitted, North Dakota State University, Fargo, ND
- 36 Mycorrhizal Associations of *Fremontodendron Californicum* from California and Arizona** - Theresa L Price and Jean Stutz, Arizona State University Polytechnic, Mesa, AZ
- 37 Biomass yield differences for introduced versus native grasses in mono- or polycultures in Southwestern Saskatchewan** - Michael P Schellenberg, Swift Current, SK, Canada
- 38 Fireweed (*Senecio madagascariensis* Poiret) Control: An Adaptive Management Approach** - Mark S Thorne<sup>1</sup>, Dale R Gardner<sup>2</sup>, John S Powley<sup>3</sup>, Glen K Fukumoto<sup>4</sup> and Matthew H Stevenson<sup>1</sup>, (1)University of Hawaii at Manoa, Kamuela, HI, (2)USDA-ARS Poisonous Plant Research Laboratory, Logan, UT, (3)University of Hawaii at Manoa, Kahului, HI, (4)Univeristy of Hawaii at Manoa, Kealahou, HI
- 39 Grazing Strategies to Control Medusahead on California Rangelands** - Stephanie Larson<sup>1</sup>, John Harper<sup>2</sup>, Theresa Becchetti<sup>2</sup>, Morgan Doran<sup>2</sup>, Sheila Barry<sup>2</sup>, Josh Davy<sup>2</sup>, Corey Cherr<sup>2</sup>, Craig Schriefer<sup>2</sup>, Jimin Zhang<sup>2</sup> and Emilio Laca<sup>2</sup>, (1)University of California, Davis, Santa Rosa, CA, (2)University of California, Davis, CA

**Range & Pasture Plants Posters  
(Authors present 3:00 PM - 5:00 PM)**

- 41 Genome Size Variation in the USDA PI Collection of Tall Fescue** - Tim D Phillips, University of Kentucky, Lexington, KY

- 42 Relationships between Long Husk Leaves and Tiller Trait in Set M Recombinant Inbred Line (RIL) Population** - Hee Chung Ji, Joung Kyong Lee, Ki Yong Kim, Gi Jun Choi, Keun Bal Lim and Sung Seo, Cheonan, South Korea
- 43 Lespedeza Seeding Rate and Nitrogen Fertilization Effects on the Yield and Botanical Composition of Crabgrass-Lespedeza Mixtures** - Emily B Aleshire, Commonwealth of Virginia, Richmond, VA and Chris D Teutsch, Virginia Tech, Blackstone, VA
- 44 Comparative Physiology of the Invasive Forb *Lespedeza cuneata*** - Brady Allred<sup>1</sup>, Sam Fuhlendorf<sup>1</sup>, Tom Monaco<sup>2</sup> and Rod Will<sup>1</sup>, (1)Oklahoma State University, Stillwater, OK, (2)USDA-ARS Forage and Range Research Laboratory, Logan, UT
- 45 Profiles of Nonstructural Carbohydrates, as a Function of Species and Extraction Method, in Four Cool-Season Forage Grasses** - Isabelle A Kagan, Brett H Kirch and James R Strickland, USDA-ARS-FAPRU, Lexington, KY
- 46 Estimation of Genetic Parameters for Corn Leaf Aphid (CLA) in Maize** - Hee Chung Ji, Joung Kyong Lee, Gi Jun Choi, Ki Yong Kim, Sung Seo and Won Ho Kim, Cheonan, South Korea
- 47 Seed Longevity of Two Subspecies of Big Sagebrush (*Artemisia tridentata*)** - Upekala C Wijayratne and David A Pyke, USGS Forest and Rangeland Ecosystem Science Center, Corvallis, OR
- 48 Developing Hairawn Muhly for Urban Conservation in Florida** - MJ Williams<sup>1</sup>, JM Grabowski<sup>2</sup>, JG Norcini<sup>3</sup>, GW Knox<sup>3</sup> and JH Aldrich<sup>3</sup>, (1)NRCS, Gainesville, FL, (2)Brooksville Plant Materials Center, Brooksville, FL, (3)NFREC, Quincy, FL
- 49 Generation Mean Analysis (GMA) for Stay Green Leaf in Forage Maize** - Hee Chung Ji<sup>1</sup>, Joung Kyong Lee<sup>1</sup>, Gi Jun Choi<sup>1</sup>, Sung Seo<sup>1</sup> and Hee Bong Lee<sup>2</sup>, (1)Cheonan, South Korea, (2)Chungnam National University, Daejeon

- 50**      **Triploid Buffalograss Occurring Naturally in México** - Juan M Martínez Reyna, Saltillo, Coahuila, Mexico
- 51**      **Developing Buffelgrass Populations with wide Genetic Diversity** - Susana Gomez-Martinez and Jorge R Gonzalez-Dominguez, Saltillo, Coahuila, Mexico
- 52**      ***Bouteloua curtipendula* (Michx) Torr Genetic Resources Embryo Sac Analysis toward Genetic Improvement** - Carlos R Morales, Chihuahua, Mexico, Adrian R Quero-Carrillo, Salinas, SLP, Mexico and Anne Bruneau, Montreal, Canada

### **Stored Forage & Biomass Posters**

**(Authors present 3:00 PM – 5:00 PM)**

- 53**      **Effect of Mucuna Biomass Quantity Used on Potential of Legume in Improvement of Maize Growth and Yield in Kenya** - Samson N Maobe, Kisii, Kenya
- 54**      **Competitiveness of Glyphosate-Resistant Alfalfa During Establishment** - Marvin H Hall<sup>1</sup>, Nick S Hebrock<sup>1</sup>, Keith A Diedrick<sup>2</sup> and Justin M Dillon<sup>1</sup>, (1)Penn State Univ, University Park, PA, (2)The Ohio State University, Wooster, OH
- 55**      **Lawn Clippings as a Biofuel Source** - Tim L Springer, USDA, Woodward, OK
- 56**      **An Analysis of the Nutritional Quality of Forage Components Within Rough Fescue Grasslands** - Steven C Tannas<sup>1</sup>, Edward W Bork<sup>1</sup> and Mike Alexander<sup>2</sup>, (1)Edmonton, AB, Canada, (2)Pincher Creek, AB, Canada
- 57**      **Nutritional Properties of Stockpiled and Standing Basin Wildrye Over Time** - Barry Perryman, Ben Bruce, Ken Conley, Lee Schmelzer and Tumen Wuliji, University of Nevada Reno, Reno, NV

**1:30 PM – 5:30 PM**

**Symposium  
Building Bridges: National Leaders'  
Perspectives on Natural Resource Issues  
Room: Archibald – West 3**

Moderator: Bob Budd

Organizer: Gary Pederson, USDA-ARS, Griffin, GA

- 1:30 U.S. Forest Service** - Gail Kimbell
- 1:45 British Columbia Ag and Lands** - Greg Tegart
- 2:00 Bureau of Land Management** - Ed Cribley
- 2:15 Agricultural Research Service** - Caird Rexroad
- 2:30 Questions and Answers**
- 2:45 Break**
- 3:15 Cooperative State Research, Education and Extension Service** - Dan Kugler
- 3:30 National Association of Conservation Districts** - Pat Henderson
- 3:45 U.S. Fish and Wildlife Service** - Kenneth Stansell
- 4:00 National Association of State Departments of Agriculture** - Leonard Blackham
- 4:15 Natural Resource Conservation Service** - Arlen Lancaster
- 4:30 Questions and Answers**
- 5:00 AFGC/SRM Response**  
AFGC President Gary Pederson and SRM President Dennis Phillippi

**1:30 PM-5:00 PM**  
**Symposium**  
**Remote Sensing and GIS –**  
**What can they do for you?**  
**Room: Cochran – West 3**

Moderator: Amanda Gearhart

Organizers: Carol Boyd and Amanda Gearhart

- 1:30 Welcoming Remarks**
- 1:40 Detecting Aspen Woodlands Remotely – A Comparison of SPOT 5 and Landsat 7 ETM+ -** Eva K Strand and Stephen C Bunting, University of Idaho, Moscow, ID
- 2:00 VLSA: A Brief Overview with Application Examples From Shortgrass and Sagebrush Rangelands -** D Terrance Booth<sup>1</sup>, Samuel E Cox<sup>1</sup>, Eric Sant<sup>2</sup> and Gregg Simonds<sup>2</sup>, (1)USDA-ARS, Cheyenne, WY, (2)Open Range Consulting, Park City, UT
- 2:20 Rangeland Nutritional Patterns and Cattle Distribution -** David Ganskopp, USDA-ARS, Burns, OR and David Bohnert, Eastern Oregon Agricultural Research Center, Burns, OR
- 2:40 A New Remote Sensing System for Assessing Seeded Pasture Condition in Western Canada -** Duane McCartney, Lacombe, AB, Canada and John Polson, Saskatoon, SK, Canada
- 3:00 Break**
- 3:20 Long-Term Recovery of Sagebrush Communities after Fire: Assessment Using SPOT5 and Very Large-Scale Aerial Imagery -** Temuulen Tsagaan Sankey<sup>1</sup>, Keith Weber<sup>1</sup> and Corey A Moffet<sup>2</sup>, (1)Idaho State University, Pocatello, ID, (2)USDA, ARS, Dubois, ID
- 3:40 Demo: An Application of GIS to Improve Water Distribution and Carrying Capacity -** Ernest B Fish<sup>1</sup>, Erin A Atkinson<sup>2</sup>, Edward J Allen<sup>1</sup> and Matthew A Crawford<sup>1</sup>, (1)Texas Tech University, Lubbock, TX, (2)Halff and Associates, Fort Worth, TX
- 3:50 Demo: A Method for Georeferencing Very-Large-Scale-Aerial (VLSA) Images in Sagebrush Steppe Communities -** Corey A Moffet, USDA, ARS, Dubois, ID

**4:00 Demo: Using GPS-Based, Animal Tracking Systems to Evaluate Effects of Landscape-Scale Disturbance on Livestock Distribution and Activity Patterns** - Patrick E Clark, USDA Agricultural Research Service, Boise, ID

**4:10 Computer Demonstrations**

**1:30 PM-5:00 PM**

**Ecology**

**Room: French – East 3**

Moderator: Geoffrey E Brink

**1:30 Welcoming Remarks**

**1:40 Effects of Plant Community Structure and Composition on Insect Abundance and Diversity: Implications for Sage-Grouse Brood Rearing** - Erica A Ersch<sup>1</sup>, Tamzen K Stringham<sup>1</sup>, Jeffrey C Miller<sup>1</sup>, Richard F Miller<sup>2</sup> and Michael Gregg<sup>3</sup>, (1)Oregon State University, Corvallis, OR, (2)Eastern Oregon Agricultural Research Center, Burns Experiment Station, Corvallis, OR, (3)US Fish and Wildlife Service, Richland, WA

**2:00 Value of Rangeland Ecosystem Services at Various Grazing Intensities** - Mengli Zhao and Guodong Han, Hohhot, Inner Mongolia, China

**2:20 Plant Community Ordination Analysis of the Arid Zone of Uzbekistan** - Wolfgang Pittroff, Idar-Oberstein, Germany, José Ramón Arévalo, La Laguna, Spain, Bakhtiyor Mardonov, Samarkand, Uzbekistan and Gustave Gintzburger, Montpellier, France

**2:40 Impacts of Bivouacking on Plant Community Dynamics in the Transitional Grasslands of the Northern Plains** - Joshua M Peterson, Kevin K Sedivec, Dennis L Whitted and William T Barker, North Dakota State University, Fargo, ND

**3:00 Break**

**3:20 Comparisons of Bee Diversity between Contiguous Stands of Pinyon/Juniper, Sagebrush, Crested Wheatgrass, and Cheatgrass in the Eastern Great Basin** - Robert L Johnson, Val Jo Anderson and

Shawn M Clark, Brigham Young University,  
Provo, UT

- 3:40 Impacts of Sustainable Livestock Production Systems on Soil Carbon Levels and Plant Community Composition of Post-contract Conservation Reserve Program Lands** - Miranda A Vlaminc<sup>1</sup>, CS Schauer<sup>2</sup> and Kevin K Sedivec<sup>1</sup>, (1)North Dakota State University, Fargo, ND, (2)North Dakota State University, Hettinger, ND
- 4:00 Combined Effects of Litter and Defoliation on Soil Moisture and Associated Forage Production in Aspen Parkland Grasslands** - Eliza S Deutsch and Edward W Bork, Edmonton, AB, Canada
- 4:20 Renovation and Management Effects on Pasture Productivity Under Rotational Grazing** - Geoffrey E Brink, US Dairy Forage Research Center, Madison, WI and Randall D Jackson, University of Wisconsin, Madison, WI
- 4:40 Landscape Scale Assessment of Aspen Decline in the Owyhee Mountains, Idaho** - Eva K Strand, Stephen C Bunting and Lee A Vierling, University of Idaho, Moscow, ID

**1:30 PM – 5:00 PM**

**Grazing Systems & Management  
Room: McCreary – East 3**

Moderator: Gerald W Evers

- 1:30 Welcoming Remarks**
- 1:40 Grazing Systems on the Arizona Strip** - Lee E Hughes, Arizona Strip District, St George, UT
- 2:00 Investigation on Animal Grazing Behavior and Indigenous Grazing Systems in Arid Rangelands of Iran** - Abbasali Sanadgol, Tehran, Iran and Leili Abolhassani, Freiburg, Germany
- 2:20 Managing Grazing by Alternating Water Points across Northern Australian Rangelands** - Nigel W Tomkins, Rockhampton, Australia, Suzanne Kearins, Mt Isa, Australia and Harmony James, Tennant Creek, Australia

- 2:40 Economic Benefits of Overseeding Warm-Season Perennial Grasses with Annual Clovers** - Gerald W Evers, Texas Agriculture Experiment Station, Overton, TX
- 3:00 Litter Rate Affects Soil Moisture In Southwest Manitoba Pastures** - Simon J Neufeld<sup>1</sup>, Martin Entz<sup>1</sup> and Yu Ying Shen<sup>2</sup>, (1)Winnipeg, MB, Canada, (2)Lanzhou, China
- 3:20 Break**
- 3:40 Modified Intensive-Early Stocking on Shortgrass Rangeland** - Keith Harmony and John Jaeger, Kansas State University, Hays, KS
- 4:00 Value of Conservation Farming Practices in the Winter Forage Grazing Enterprise** - Chuck Coffey, Billy Cook, Devlon Ford and Jon T Biermacher, Samuel Roberts Noble Foundation, Ardmore, OK
- 4:20 Financial Analysis of Tall Fescue Technologies on Grazing Farms** - David J Barker<sup>1</sup>, Greg S Halich<sup>2</sup>, R Mark Sulc<sup>1</sup> and Kristin Mack<sup>3</sup>, (1)The Ohio State University, Columbus, OH, (2)University of Kentucky, Lexington, KY, (3)Hali`imaile Community Garden, Makawao, HI
- 4:40 Forage Chicory (*Cichorium intybus*) as an Alternative Grazing Crop for Stocker Cattle Operations** - Jimmy R Parish<sup>1</sup>, Jane A Parish<sup>2</sup>, Richard H Watson<sup>3</sup>, Tim F Best<sup>4</sup>, Rocky Lemus<sup>1</sup> and Allen S Hubbard<sup>1</sup>, (1)Mississippi State University, Mississippi State, MS, (2)Mississippi State, MS, (3)Christchurch, New Zealand, (4)Prairie, MS

**1:30 PM – 5:00 PM  
Reclamation & Restoration  
Room: Segell – East 3**

Moderator: Robert D Cox

- 1:30 Welcoming Remarks**
- 1:40 Identifying Mechanisms Regulating Competition between Re-established Foothills Rough Fescue and Kentucky Bluegrass** – Steven C Tannas<sup>1</sup>, Edward W Bork<sup>1</sup> and Walter D Willms<sup>2</sup>, (1)Edmonton, AB, Canada, (2)Lethbridge, AB, Canada

- 2:00 Use of Winterfat in Restoration of High Desert Ecosystems: Factors affecting Seed Viability** – Ryan Leary and Tamzen Stringham, Oregon State University, Corvallis, OR
- 2:20 The Response of Native Shrubs to a Soil and Spoil Double Wedge on a Reclaimed Mine in New Mexico** – Joshua Voss and Bruce A Buchanan, Buchanan Consultants, Ltd, Farmington, NM
- 2:40 Livestock Impact for Revegetation of A Floodplain Range Site in Central Arizona** – Gary A Vinson and John H Brock, Arizona State University Polytechnic, Mesa, AZ
- 3:00 Break**
- 3:20 Renovation of Range Sites in the South Park Colorado Area Impacted by Increases in Fringed Sage** – Joe E Brummer, Colorado State University, Fort Collins, CO and Mark Lamb, Colorado Division of Wildlife, Fariplay, CO
- 3:40 Land Application of Bio-Solids to Restore Disturbed Western Rangelands** – Linden Kay Greenhalgh<sup>1</sup>, Michael J McFarland<sup>2</sup>, MaiAnh Vutran<sup>2</sup>, Issaak R Vasquez<sup>2</sup>, Mark Schmitz<sup>3</sup> and Robert B Brobst<sup>4</sup>, (1)Utah State University, Tooele, UT, (2)Utah State University, Logan, UT, (3)Utah Department of Environmental Quality, Salt Lake City, UT, (4)US EPA Region 8, Denver, CO
- 4:00 Reestablishing Diverse Native Wyoming Big Sagebrush Communities: a Comparison of Seeding Equipment** – Robert D Cox, USDA Forest Service, Boise, ID, Nancy L Shaw, US Forest Service, Boise, ID and Mike Pellant, USDI Bureau of Land Management, Boise, ID
- 4:20 Combating Erosion on Military Lands: Restoration of Drastically Disturbed Rangelands** – William E Fox III<sup>1</sup>, Dennis W Hoffman<sup>2</sup>, M Scott Keating<sup>1</sup> and Joaquin Sanabria<sup>2</sup>, (1)Texas A&M University, College Station, TX, (2)Texas A&M University, Temple, TX
- 4:40 Advancement of Select Native Perennial Grasses for Portions of the Colorado Plateau** – Stephen B Monsen, USDA Forest Service (retired), Mapleton, UT, Allan R Stevens, Snow College, Ephraim, UT and

Ronald L Rodriguez, USDA Forest Service,  
Cedar City, UT

**1:30 PM – 5:00 PM**

**Weed & Brush Management  
Room: Jones – East 3**

Moderator: Byron B Sleugh

- 1:30 Welcoming Remarks**
- 1:40 To Spray or NOT to Spray: Grass-Legume Responses to Weed Control in Mixed Forage Stands** - Erin M McLeod, Edward W Bork, Jane R King and Linda M Hall, Edmonton, AB, Canada
- 2:00 Forage Response to Simulated Sheep Grazing of Leafy Spurge** - Ben Hileman<sup>1</sup>, Matthew J Rinella<sup>2</sup> and Bret Olson<sup>1</sup>, (1)Montana State University, Bozeman, MT, (2)Fort Keogh Livestock and Range Research Laboratory, Miles City, MT
- 2:20 Integrated Pest Management 8 Year Journey** - Phil Gonzales, USDS/NRCS, Buffalo, WY and Nikki Lohse, Lake DeSmet Conservation District, Buffao, WY
- 2:40 Chemical Control of Rough-Leaved Dogwood** - Glenn Brunkow and Walter H Fick, Kansas State University, Manhattan, KS
- 3:00 Break**
- 3:20 Managing Noxious and Invasive Weeds in Pastures and Rangeland** - Byron B Sleugh<sup>1</sup>, P Burch, M Halstvedt, W Kline, V Langston, R Masters<sup>2</sup>, M Melichar and V Peterson<sup>2</sup>, (1)Dow AgroSciences, West Des Moines, IA, (2)Dow AgroSciences,
- 3:40 Brush Encroachment on Pasturelands in Western Canada** - Marianne L Schutz and David J Walker, Winnipeg, MB, Canada
- 4:00 Fall Applications of Rimsulfuron in Rangelands for the Control of Downy Brome and Medusahead** - Craig M Alford, Ronnie G Turner, Jerry R Pitts, Michael T Edwards, Norman D McKinley, C William Kral, John D Canton and Roxanne K Gutschenritter, DuPont Crop Protection, Lakewood, CO
- 4:20 Effects of Sequential Cattle and Sheep Grazing for Spotted Knapweed Control -**

Stacey L Henderson, Tracy K Brewer, Rodney W Kott and Jeffrey C Mosley, Montana State University, Bozeman, MT

- 4:40**     **Effects of Timing and Intensity of Defoliation on Yield and Seed Production of Sulfur Cinquefoil** - Rachel A Frost and Jeffrey C Mosley, Montana State University, Bozeman, MT

**1:30 PM – 5:00 PM**

**Wildlife & Livestock Interactions  
Room: Stopher – East 3**

Moderator: Justin D Derner

- 1:30**     **Welcoming Remarks**
- 1:40**     **Building Bridges Using Livestock as Ecosystem Engineers in Semi-Arid Rangelands: Addressing Conservation and Livestock Production Goals** - Justin D Derner, USDA-Agricultural Research Service, Cheyenne, WY, William K Lauenroth, Colorado State University, Fort Collins, CO, Paul Stapp, California State University, Fullerton, CA and David J Augustine, USDA-Agricultural Research Service, Fort Collins, CO
- 2:00**     **Monitoring of a Tebuthiuron Treatment to Enhance Wildlife Habitat and Increase Livestock Production in Southeastern Roosevelt County, New Mexico** - Charles Dixon, Wildlife Plus Consulting, ALTO, NM
- 2:20**     **Grazing Systems and Grassland Birds: Does the System Really Matter?** - Tom Harrison, Stephen K Davis, David C Duncan and Brenda C Dale, Regina, SK, Canada
- 2:40**     **Predicting Feeding Site Selection of Mule Deer in Foothill and Mountain Rangeland Habitats** - Josh A Bilbao, Tracy K Brewer and Jeffrey C Mosley, Montana State University, Bozeman, MT
- 3:00**     **Break**
- 3:20**     **Impacts of Sustainable Livestock Production Systems on Ring-Necked Pheasant Nest Success and Density on Post-contract Conservation Reserve Program Lands** - BA Geaumont<sup>1</sup>, Kk Sedivec<sup>1</sup> and CS Schauer<sup>2</sup>, (1)North Dakota

State University, Fargo, ND, (2)North Dakota State University, Hettinger, ND

- 3:40 Use of Ecological Site Indicators to Describe Upland Passerine Habitat** - Mary I Williams, Ginger B Paige, Ann L Hild and Thomas L Thurow, University of Wyoming, Laramie, WY
- 4:00 Sub-Lethal Influences of Wolf Presence on Cattle** - Carolyn M Nistler, Elai Keren, James E Knight and Bret Olson, Montana State University, Bozeman, MT

**Tuesday, January 29, 2008**

**8:00 AM-5:00 PM**

**Ecology Posters**

**Room: Ballroom C – East 2**

**(Authors present 8:00 AM – 10:00 AM)**

- 01      Methods to Select Promising Native Grass Genotypes as Competitors with Introduced Invasive Weed Species** - Franklin P Bartlett<sup>1</sup>, Ann L Hild<sup>1</sup>, Karin E Bergum<sup>1</sup>, Brian A Meador<sup>2</sup> and Thomas Smith<sup>3</sup>, (1)University of Wyoming, Laramie, WY, (2)The Nature Conservancy in Wyoming, Lander, WY, (3)ERDC-CERL, Champaign, IL
- 02      Genetic variation within genotypes of two native grass species after two generations of greenhouse seed source improvement** - Karin E Bergum<sup>1</sup>, Ann L Hild<sup>1</sup>, Brian A Meador<sup>2</sup> and Thomas Smith<sup>3</sup>, (1)University of Wyoming, Laramie, WY, (2)The Nature Conservancy in Wyoming, Lander, WY, (3)ERDC-CERL, Champaign, IL
- 03      Survival and Forage Production of Five Native Grasses from Aridlands in Mexico** - Carlos R Morales, Chihuahua, Mexico and Alicia Melgoza, Chihuahua, Chih, Mexico
- 04      Ecology of Kearney's Buckwheat for Restoration Efforts** - Dan N Harmon, James A Young and Charlie D Clements, USDA-ARS, Reno, NV
- 05      Effect of Four Cool-Season Grass Species on Bite Mass by Cattle Foraging An Artificial Sward** - P Gregorini, USDA-ARS, University Park, PA
- 06      Landscape influences on soil moisture within a rough fescue grassland of the Alberta Parkland** - Eliza S Deutsch and Edward W Bork, Edmonton, AB, Canada
- 07      Soil Organic Carbon and Nitrogen Pools Changes under Long-term Bioenergy Crops** - Rocky Lemus, Mississippi State University, Mississippi State, MS, Lawrence C Garcia, USDA-NRCS, Big Spring, TX and David Colbert, Texas A&M University-Commerce, Commerce, TX

- 08 Sideoats grama and Plains lovegrass Response to Summer Prescribed Fire** - Kimberly Haile, Texas A&M, Bryan, TX and Keith Blair, Red Buffalo LLC, Medina, TX
- 09 Dynamic Soil Properties in Relation to Potential State Transitions in the Northern Great Plains** - Stan Boltz, USDA Natural Resources Conservation Service, Huron, SD and Jeffrey L Printz, USDA Natural Resources Conservation Service, Bismarck, ND
- 10 Nutritional Properties of California Chaparral Species Tannins Chemistry and Bioreactivity** - Nelmy Narvaez<sup>1</sup>, Arieh Brosh<sup>2</sup>, Miguel Mellado<sup>3</sup> and Wolfgang Pittroff<sup>1</sup>, (1)University of California, Davis, Davis, CA, (2)Ramat Yishal, Israel, (3)Saltillo, Mexico
- 11 Biochemical and Morphological Changes in African Rue (*Peganum harmala*) Under Water Deficit** - Gregory T Bettmann<sup>1</sup>, Laurie B Abbott<sup>1</sup>, H Harish Ratnayaka<sup>2</sup> and Tracy M Sterling<sup>1</sup>, (1)New Mexico State University, Las Cruces, NM, (2)Xavier University, New Orleans, LA
- 12 Cooperative Sagebrush Steppe Restoration Project** - Ceci Dale-Cesmat, NRCS, Susanville, CA, Tom Esgate, Penn Valley, CA and Tim Keeseey, Susanville, CA
- 13 Endophyte Effects on Soil Nutrient Pools, Microbial Communities, and Litter Decomposition Rates in Tall Fescue Pasture** - JA Siegrist and RL McCulley, University of Kentucky, Lexington, KY
- 14 Incorporating Invasive Species and Degraded Landscapes into Ecological Site Descriptions** - Nicole K Hansen<sup>1</sup>, Jack Alexander III<sup>1</sup>, Brandon T Bestelmeyer<sup>2</sup>, Joel Brown<sup>3</sup>, Juliane Kluck<sup>1</sup> and Arlene Tugel<sup>3</sup>, (1)Synergy Resource Solutions, Inc, Belgrade, MT, (2)USDA-ARS Jornada Experimental Range, Las Cruces, NM, (3)USDA-NRCS, Las Cruces, NM
- 15 Simulation of Extreme Fire as a Brush Management Tool in Texas** - Emily Dacy and Urs Kreuter, Texas A&M University, College Station, TX
- 16 Beyond the Surface: Diversity of Arbuscular Mycorrhizal Fungi (AMF) in**

- Prairie Grasses** - Michael P Schellenberg<sup>1</sup>, Juan Carlos Perez<sup>2</sup>, Chantal Hamel<sup>1</sup> and Jim Germida<sup>3</sup>, (1)Swift Current, SK, Canada, (2)Medellin, Colombia, (3)Saskatoon, SK, Canada
- 17 Use of N-Alkanes to Estimate Seasonal Diet Composition, Intake, and Digestibility of Sheep and Goats Grazing In California Chaparral** - Nelmy Narvaez<sup>1</sup>, Arie Brosh<sup>2</sup>, Miguel Mellado<sup>3</sup> and Wolfgang Pittroff<sup>1</sup>, (1)University of California, Davis, Davis, CA, (2)Ramat Yishal, Israel, (3)Saltillo, Mexico
- 18 Cheatgrass Response to Simulated Grazing** - Charlie D Clements, James A Young and Dan N Harmon, USDA-ARS, Reno, NV
- 19 Soil Carbon Levels in Pastures in the Humid US Under Different Fertility Levels** - Lloyd B Owens, USDA-ARS, Coshocton, OH
- 20 Herbaceous Biomass Dynamics in the Arid Zone of Uzbekistan** - Wolfgang Pitroff, Idar-Oberstein, Germany, José Ramón Arévalo, La Laguna, Spain, Bakhtiyor Mardonov, Samarkand, Uzbekistan and Gustave Gintzburger, Montpellier, France
- 21 Community Wildfire Protection Planning and Rangelands** - Jerry R Barker, Walsh Environmental Scientists and Engineers LLC and University of Denver, Boulder, CO
- 22 Seeding Great Basin Forbs: Assessing the Effects of Grass Competition** - Hilary A Parkinson<sup>1</sup>, Nancy L Shaw<sup>2</sup> and Cathy A Zabinski<sup>1</sup>, (1)Montana State University, Bozeman, MT, (2)US Forest Service, Boise, ID
- 23 Evaluating Post-Fire Cattle Grazing Strategies for Sagebrush Steppe Rangelands** - Patrick E Clark, Stuart P Hardegree and Fredrick B Pierson, USDA Agricultural Research Service, Boise, ID
- 24 Heavy Grazing Impacts on Carbon Flux in a Southern Plains Mixed-Grass Prairie** - Phillip L Sims and James A Bradford, USDA, Woodward, OK
- 25 Shrub and Herbaceous Cover Dynamics in the Arid Zone of Uzbekistan** - Wolfgang

- Pittroff, Idar-Oberstein, Germany, José Ramón Arévalo, La Laguna, Spain, Bakhtiyor Mardonov, Samarkand, Uzbekistan and Gustave Gintzburger, Montpellier, France
- 26 Soil Nitrogen Enhances the Competitive Ability of *Bromus tectorum* Relative to Native Grasses** - Edward A Vasquez, Roger L Sheley and Tony J Svejcar, USDA-ARS, Burns, OR
- 27 Fire, Great Basin Sagebrush Rangelands and Vegetation Management** - Brad Schultz, University of Nevada Cooperative Extension, Winnemucca, NV and JK McAdoo, University of Nevada Cooperative Extension, Elko, NV
- 28 Plant Root Biomass and Respiration on Rangelands of South-Central North Dakota: Impact from 18 Years of Cattle Grazing** - Xuejun Dong<sup>1</sup>, Jinzhi Wang<sup>2</sup>, Guojie Wang<sup>3</sup>, Danjun Wang<sup>2</sup>, Jinhui Wang<sup>4</sup>, Xueyan Zhao<sup>2</sup>, Bob Patton<sup>1</sup>, Shiping Wang<sup>4</sup> and Paul Nyren<sup>1</sup>, (1)North Dakota State University, Streeter, ND, (2)Beijing, China, (3)North Dakota State University, Fargo, ND, (4)Xining, China
- 29 Dynamics of Perennial Shrub Density in the Arid Zone of Uzbekistan** - Wolfgang Pittroff, Idar-Oberstein, Germany, José Ramón Arévalo, La Laguna, Spain, Bakhtiyor Mardonov, Samarkand, Uzbekistan and Gustave Gintzburger, Montpellier, France
- 30 Effects of Clear and Select Cutting, and Prescribed Burning on Bur Oak Regeneration in North Dakota** - Brittany R Hasbargen<sup>1</sup>, Kevin K Sedivec<sup>1</sup>, Dennis L Whitted<sup>1</sup>, William T Barker<sup>1</sup>, James Bennington<sup>2</sup> and Joseph D Zeleznik<sup>1</sup>, (1)North Dakota State University, Fargo, ND, (2)North Dakota Army National Guard, Devils Lake, ND
- 31 One-Seed Juniper Use By Goats: Influence Of Stocking Density And Mixed Grazing In Summer And Spring** - Santiago A Utsumi<sup>1</sup>, Andres F Cibils<sup>1</sup>, Richard E Estell<sup>2</sup> and John Walker<sup>3</sup>, (1)New Mexico State University, Las Cruces, NM, (2)USDA-ARS, Las Cruces, NM, (3)Texas A & M University, San Angelo, TX

- 32 The Timing of Harvest Relative to Pollen Shed on Seed Production and Viability of Creeping Bentgrass** - Douglas J Cattani, Carman, MB, Canada and SR Smith, University of Kentucky, Lexington, KY
- 33 *Chondrilla juncea* L Demography following Wildfire on the Snake River Plain** - Ann L Hild, University of Wyoming, Laramie, WY and Nancy L Shaw, US Forest Service, Boise, ID
- 34 Invasive Weed Seed Response to Fire and Fuel Load** - Lance T Vermeire and Matthew J Rinella, Fort Keogh Livestock and Range Research Laboratory, Miles City, MT
- 35 Effects of Season of Fire and Grazing on Japanese Brome** - Jennifer M Muscha and Lance T Vermeire, Fort Keogh Livestock and Range Research Laboratory, Miles City, MT
- 36 Rehabilitation of Native Prairie Remnants in the Northern Great Plains Utilizing Fire and Herbicide** - Matt A Bahm, South Dakota State University, Brookings, SD and Thomas G Barnes, University of Kentucky, Lexington, KY
- 37 A Comparison of Cumulative-Germination Response of Cheatgrass (*Bromus tectorum*) and Six Perennial Bunchgrass Species to Simulated Field-Temperature Regimes** - Stuart P Hardegree<sup>1</sup>, Bruce A Roundy<sup>2</sup>, Thomas A Jones<sup>3</sup>, Fredrick B Pierson<sup>1</sup> and Patrick E Clark<sup>1</sup>, (1)USDA Agricultural Research Service, Boise, ID, (2)Brigham Young University, Provo, UT, (3)USDA-ARS Forage & Range Research Laboratory and Dept of Wildland Resources, Logan, UT
- 38 The State of the SRM: Are We Relevant to Science?** - Ryan Limb<sup>1</sup>, D Chad Cummings<sup>1</sup>, Samuel D Fuhlendorf<sup>1</sup> and David M Engle<sup>2</sup>, (1)Oklahoma State University, Stillwater, OK, (2)Iowa State University, Ames, IA
- 39 Evaluating Critical Variables in Summer Fire Behavior** - D Twidwell<sup>1</sup>, Sam Fuhlendorf<sup>2</sup>, David M Engle<sup>3</sup>, CA Taylor Jr<sup>4</sup> and Urs Kreuter<sup>1</sup>, (1)Texas A&M University, College Station, TX, (2)Oklahoma State University, Stillwater, OK, (3)Iowa State

University, Ames, IA, (4)Texas A & M University, San Angelo, TX

- 40 Heterogeneity in Sand Sage Prairie: The Influence of Fire and Grazing in an Already Heterogeneous Landscape** - S L Winter, Sam Fuhlendorf, C A Davis and David Leslie, Oklahoma State University, Stillwater, OK
- 41 Influence of Postfire Soil Water Repellency and Subsequent Revegetation Success: An Ecological Site Assessment of the Milford Flat Fire** - Matthew D Madsen and Steven L Petersen, Brigham Young University, Provo, UT
- 42 Conversion of Smooth Brome (*Bromus inermis*) Oldfields to Native Plant Communities in the Northern Great Plains** - Matt A Bahm<sup>1</sup>, Thomas G Barnes<sup>2</sup> and Kent C Jensen<sup>1</sup>, (1)South Dakota State University, Brookings, SD, (2)University of Kentucky, Lexington, KY

### **Grazing Excellence Posters**

**(Authors present 1:00 PM – 3:00 PM)**

- 43 Foy Ranch: History, Improvements and Change**  
Rocky Foy, Foy Ranch, Glendo, WY
- 44 White Thunder Organics –Principles of Diversity**  
Dominic and Trista Harmon, White Thunder Organics, Wood, SD

### **Range Cup Posters**

**(Authors present 1:00 PM – 3:00 PM)**

**8:30 AM-12:00 PM**

**AFGC Emerging Scientist Competition  
Room: Stopher – East 3**

Moderator: MJ Williams

- 8:30 Welcoming Remarks**
- 8:40 Management Practices for Reducing Nitrate Content in Bermudagrass Forage**  
- Tara L Woods, Benjamin D Neale and

Richard E Joost, University of Tennessee at Martin, Martin, TN

- 9:00 Building Soil Organic Matter While Extending the Grazing Season With Cover Crops** - Giovani Fae, The Ohio State University, Columbus, OH
- 9:20 Can Grazing Reduce Greenhouse Gas Emissions from Dairy Farms?** - Dawn M Sedorovich<sup>1</sup>, C Alan Rotz<sup>2</sup> and Tom L Richard<sup>1</sup>, (1)The Pennsylvania State University, University Park, PA, (2)USDA/ARS, University Park, PA
- 9:40 Plant Constituents Affecting Preferences of Horses for Cool Season Grasses** - KC Watson, SR Smith and LM Lawrence, University of Kentucky, Lexington, KY
- 10:00 Break**
- 10:20 Identification of P and K Fertility Regimes That Enhance Long-Term Productivity of Alfalfa Using Cluster Analysis** - Sofia Lissbrant, Sylvie Brouder, Brad Joern, Suzanne Cunningham and Jeff Volenec, Dept of Agronomy, West Lafayette, IN
- 10:40 Harvest Frequency Effects on Yield, Quality, and Regrowth Rate Among New Alfalfa Cultivars** - Thomas A Probst and S Ray Smith, University of Kentucky, Lexington, KY
- 11:00 Using Microhistological Techniques to Predict Botanical Composition of Horse Diets on Cool-Season Grass Pasture** - Jesse I Morrison<sup>1</sup>, S Ray Smith<sup>1</sup> and Glen E Aiken<sup>2</sup>, (1)University of Kentucky, Lexington, KY, (2)USDA-ARS, Lexington, KY
- 11:20 Pasture Growth and Decomposition under Continuous and Rotational Grazing** - Amanda L Hensler<sup>1</sup>, David J Barker<sup>1</sup>, R Mark Sulc<sup>1</sup>, Steven C Loerch<sup>2</sup> and Lloyd B Owens<sup>3</sup>, (1)The Ohio State University, Columbus, OH, (2)OARDC - The Ohio State University, Wooster, OH, (3)USDA-ARS, Coshocton, OH
- 11:40 Pre-Graze Mowing: A Cost-Benefit Analysis** - Thomas M Smith<sup>1</sup>, David J Barker<sup>1</sup> and Monte R Anderson<sup>2</sup>, (1)The Ohio State University, Columbus, OH, (2)Wilmington College, Wilmington, OH

**8:30 AM-5:00 PM**

**Symposium**

**Energy from Biomass - Agronomic and Economic Considerations**

**Room: Jones – East 3**

Moderators: Brad Venuto and James Dobrowolski

Organizer: Brad Venuto and James Dobrowolski

- 8:30 Welcoming Remarks**
- 8:40 Biofuels and Bioenergy Production from Rangelands and Grasslands** - P Daniel Cassidy<sup>1</sup>, James Dobrowolski<sup>1</sup> and Brad Venuto, (1)USDA Cooperative State Research, Education, and Extension Service, Washington, DC
- 9:10 Cellulosic Biofuels: Current Status and Future Prospects** - David Bransby, Auburn University, Auburn University, AL
- 9:40 Economic Issues in Utilizing Grasslands and Rangelands for Bioenergy and/or Biofuels** - Richard Conner, Texas A&M University, College Station, TX
- 10:10 Break**
- 10:30 Contrasting Low and High Input Strategies for Harvesting Mesquite for Bioenergy Feed Stocks** – R. James Ansley and Roy L. Stanford, Texas Agricultural Experiment Station, Vernon, TX
- 11:00 Cellulosic Feedstock for Renewable Fuels – Prospective on Breeding** – William F. Anderson, USDA-ARS, Tifton, GA
- 11:30 Discussion**
- 12:00 Lunch**
- 1:30 Introductory Remarks**
- 1:40 Energy from Biomass - Food or Fuel - A Global Perspective** - Henry A Fribourg, retired from University of Tennessee, Knoxville, TN
- 2:30 Implications of Perennial Biomass Energy Cropping for Pasture and Forage Lands** - Matt A Sanderson, USDA-ARS, University Park, PA

- 3:00 Break**
- 3:30 Where Does the Producer Fit in the Bioenergy Equation?** - John Sellers, Iowa Grassland Agriculture Program, Corydon, IA
- 4:00 Discussion**

**8:30 AM-5:00 PM**

**Symposium**

**State-and-Transition Models: Triggers, Feedbacks and Thresholds**  
**Room: French – East 3**

Moderators: James Dobrowolski and Barry Perryman

Organizer: Tamzen Stringham

- 8:30 Welcoming Remarks**
- 8:40 Rangeland Health Indicators: Can they provide early warning signals?** - David A Pyke, USGS, Corvallis, OR
- 9:10 Current Status of the State-and-Transition Framework** - Tamzen Stringham, Oregon State University, Corvallis, OR, David D Briske, College Station, TX, Brandon T Bestelmeyer, USDA-ARS Jornada Experimental Range, Las Cruces, NM and Pat L Shaver, Portland, OR
- 9:40 Variation in Ecological Resilience: A Fundamental Concept for Rangeland Ecology** - Brandon T Bestelmeyer<sup>1</sup>, David D Briske<sup>2</sup>, Joel Brown<sup>3</sup>, Kris M Havstad<sup>1</sup> and Rhonda K Skaggs<sup>4</sup>, (1)USDA-ARS Jornada Experimental Range, Las Cruces, NM, (2)Texas A&M University, College Station, TX, (3)USDA NRCS, Las Cruces, NM, (4)New Mexico State University, Las Cruces, NM
- 10:10 Break**
- 10:40 Resilience-Based Application of State-and-Transition Models** - David D Briske, Texas A&M University, College Station, TX, Brandon T Bestelmeyer, USDA-ARS Jornada Experimental Range, Las Cruces, NM, Tamzen K Stringham, Oregon State University, Corvallis, OR and Pat L Shaver, Portland, OR

- 11:10 Soils, Resilience, and State and Transition Models** - Jeffrey E Herrick<sup>1</sup>, Skye Wills<sup>1</sup>, Debra Peters<sup>1</sup>, Arlene Tugel<sup>2</sup> and Brandon Bestelmeyer<sup>1</sup>, (1)USDA-ARS Jornada Experimental Range, Las Cruces, NM, (2)USDA-NRCS, Las Cruces, NM
- 11:40 Resilience, Triggers, Feedbacks and Thresholds: A Western Juniper Model** - Steven L Petersen, Brigham Young University, Provo, UT and Tamzen K Stringham, Oregon State University, Corvallis, OR
- 12:10 Lunch**
- 1:40 Winterfat in the Catlow Valley: Ecological Resilience and State-and-Transition Modeling** - Casey A Matney, Oregon State University, Corvallis, OR
- 2:10 Vulnerability and Triggers in Threshold Development: Models from the Chihuahuan Desert** - Brandon T Bestelmeyer, Jeffrey E Herrick and Caiti M Steele, USDA-ARS Jornada Experimental Range, Las Cruces, NM
- 2:40 Plant Community Dynamics in the Northern Great Plains - Recognizing the Impacts of Invasive Species** - Jeffrey L Printz, USDA Natural Resources Conservation Service, Bismarck, ND and Stan Boltz, USDA Natural Resources Conservation Service, Huron, SD
- 3:10 Resilience and Feedbacks within A Deep Sand Savannah Ecological Site** - Pat L Shaver, USDA-NRCS, Portland, OR

**8:30 AM-12:00 PM**

**Symposium  
Novel Market-based Approaches to Enhance  
Sustainability of Grazinglands  
Room: Nunn – East 2**

Moderator: Greg Hendricks

Organizer: Mimi Williams

- 8:30 Welcoming Remarks**
- 8:40 Ecosystem Services from Grazing Lands: Building Bridges between Sustainability and Profitability** - Patrick J Bohlen, Archbold Biological Station, Lake Placid, FL
- 9:20 A Field Experiment Comparing Mechanisms for the Provision of Nesting Bird Habitat on Active Farm Hayfields** - Christopher M Anderson, Stephen K Swallow and Emi Uchida, University of Rhode Island, Kingston, RI
- 10:00 Break**
- 10:20 Carbon Sequestration in Rangeland Soils** - Sian Mooney, Boise State University, Boise, ID

**8:30 AM-12:00 PM**

**Symposium  
GLCI Grazing Symposium  
Room: Sampson – East 1**

Moderator: Bob Drake

- 8:30 Grazing horses on small acreages** – Rod Baumberger, Sturgis, SD
- 9:00 Grazing – What can we do between the fences – Integrated bird management** – Pat Pfeil, Tallahassee, FL
- 9:35 Graze 365 days a year while maintaining quality and quantity** – Cliff Schuette, Breese, IL
- 10:10 Break**
- 10:25 The bottom line in dairy grazing** – Howard Straub, St. Johns, MI

- 11:15 Targeted grazing: A natural approach to vegetative management** – Linda Wilson, University of Idaho, Moscow, ID

**8:30 AM-12:00 PM**

**Symposium  
Fescue Toxicosis  
Room: Carroll Ford – East 2**

Moderator and Organizer: Glen E Aiken

- 8:30 Welcoming Remarks**
- 8:40 Overview of Tall Fescue and Impact on Livestock Production** - Garry Lacefield, University of Kentucky, Princeton, KY, Don Ball, Auburn University, Auburn University, AL and Carl S Hoveland, University of Georgia, Athens, GA
- 9:00 Ergot Alkaloid Effects on Animal Physiology** - James R Strickland, Brett H Kirch, James L Klotz, Lori L Smith, Glen E Aiken and Michael D Flythe, USDA-ARS, Lexington, KY
- 9:25 Novel Endophyte Tall Fescues** - Tim D Phillips, University of Kentucky, Lexington, KY
- 9:50 Break**
- 10:10 Tall Fescue Alkaloids and Their Effects on Insect Populations** - Lowell P Bush and Neal Fannin, University of Kentucky, Lexington, KY
- 10:40 Fescue Toxicity for Horses: Historical Overview and Kentucky's Successful Pasture Evaluation Program** - S Ray Smith and Thomas C Keene, University of Kentucky, Lexington, KY
- 11:00 Novel Approaches to Alleviate Stress Associated with Fescue Toxicosis in Cattle** - Michael L Looper, USDA-ARS, Booneville, AR
- 11:30 Endophyte Infected Tall Fescue and Meat Goat Production: Do We Have a Problem?** - David C Ditsch, University of Kentucky, Jackson, KY

**8:30 AM-12:00 PM**

**Symposium  
Use of Heterogeneity-Based Grassland  
Management Techniques for Improved  
Wildlife Habitat: What Does It Look Like?  
Room: Segell – East 3**

Moderator and Organizer: Sherry Leis

- 8:30 Welcoming Remarks**
- 8:40 Forage, Fire, and Fescue: The Considerations and Challenges of Applying A Patch-Burn Grazing Model on Tall Fescue-Dominated Tallgrass Prairie -**  
Devan Allen McGranahan and David M Engle,  
Iowa State University, Ames, IA
- 9:00 Diverse Plant Communities, Heterogeneous Landscapes, and Behavior-Based Grazing Management for Herbivores and Ecosystems - FD**  
Provenza, Utah State University, Logan, UT
- 9:20 Savanna Fire Ignition Research Experiment (SAVFIRE) – Promoting Grassland and Savanna Heterogeneity for African Wildlife through Greater Pyrodiversity -** Winston Trollope<sup>1</sup>, Navashni Govender<sup>2</sup>, Chris de B Austin<sup>1</sup>, Lynne A Trollope<sup>1</sup> and Alex Held<sup>1</sup>, (1)Nelspruit, South Africa, (2)Skukuza, South Africa
- 9:40 Restoring Heterogeneity in a Privately Owned Landscape: Implementation Challenges -** Brian Obermeyer, The Nature Conservancy, Cottonwood Falls, KS and Robert Hamilton, The Nature Conservancy, Pawhuska, OK
- 10:00 Break**
- 10:20 Redefining the Bottom Line: Ranching for Diversity in the Kansas Flint Hills -**  
Jane B Koger and Marva L Weigelt,  
Homestead Ranch, Matfield Green, KS
- 10:40 Evaluation of A Grazing System for Maintaining Grassland Integrity and Improving Upland Bird Habitat in Missouri -** Brent E Jamison and Norman L Murray, Missouri Department of Conservation, Clinton, MO
- 11:00 Sheep, Sagebrush, and Sage-grouse: Managing Habitats Through Strategic**

**Intensive Grazing** - Michael R Guttery,  
Utah State University, Logan, UT

- 11:20 Is Patch Burning A Silver Bullet for Conservation of Rangelands? Challenges, Opportunities and Future Directions** - Samuel D Fuhlendorf<sup>1</sup>, Raymond Moranz<sup>1</sup> and Sherry Leis<sup>2</sup>, (1)Oklahoma State University, Stillwater, OK, (2)National Park Service, Springfield, MO

### **8:30 AM-12:00 PM**

#### **Invasive Species I**

#### **Room: Combs Chandler – East 2**

Moderator: Matthew J Rinella

- 8:30 Welcoming Remarks**
- 8:40 Effects of Timing of Defoliation on Spotted Knapweed Seed Production and Viability** - Katie R Benzel, Tracy K Brewer and Jeffrey C Mosley, Montana State University, Bozeman, MT
- 9:00 Lehmann Lovegrass Population Changes Following a 20 Year Period on Central Rangelands in Chihuahua, Mexico** - Alfonso Sanchez-Munoz<sup>1</sup>, Mario H Royo<sup>2</sup>, Alicia Melgoza<sup>3</sup>, Socorro Gonzalez<sup>4</sup> and Karen R Hickman<sup>1</sup>, (1)Oklahoma State University, Stillwater, OK, (2)Chihuahua, Mexico, (3)Chihuahua, Chih, Mexico, (4)Durango, Dgo, Mexico
- 9:20 Is Federally Threatened Water Howellia (*Howellia aquatilis* Gray) an Indicator of an Unfavorable Environment for Reed Canarygrass (*Phalaris arundinacea* L)?** - Laura A Robison and Linda H Hardesty, Washington State University, Pullman, WA
- 9:40 Detecting Invasive *Sericea Lespedeza* (*Lespedeza cuneata*) in Missouri Pasturelands with Hyper- and Multi-Spectral Aerial Photos** - Cuizhen Wang and Harlan L Palm, University of Missouri, Columbia, MO
- 10:00 Break**
- 10:20** Presentation moved to poster session
- 10:40 Response of South Texas Coastal Prairie Rangeland to Management of Non-Native, Invasive Bluestems** - Marvin E

Ruffner and Thomas G Barnes, University of Kentucky, Lexington, KY

- 11:00 Soil Alterations and Black Henbane Growth Following Disturbance** - Jordana J LaFantasie<sup>1</sup>, Stephen Enloe<sup>1</sup> and Justin D Derner<sup>2</sup>, (1)University of Wyoming, Laramie, WY, (2)USDA-Agricultural Research Service, Cheyenne, WY
- 11:20 Herbicide Use Causes Long-Term Negative Impacts on Native Species** - Matthew J Rinella, Fort Keogh Livestock and Range Research Laboratory, Miles City, MT, Bruce D Maxwell, Montana State University, Bozeman, MT and Roger L Sheley, USDA-ARS, Burns, OR
- 11:40 Control methods for converting Old World Bluestem monocultures to native mixed-grass prairie plant communities** - Scott Robertson, Karen R Hickman, Curtis Bensch, Tim O'Connell and David Leslie, Oklahoma State University, Stillwater, OK

**8:30 AM-12:00 PM**

**Riparian Ecology & Management  
Room: Breathitt – East 2**

Moderator: Etienne MJ Soulodre

- 8:30 Welcoming Remarks**
- 8:40 The Effects of Grazing Management Strategies on Burned and Unburned Riparian Areas in Central and Northern Nevada Great Basin** - Kristen N Schmidt, Dr Sherman Swanson, Kurtiss Schmidt, Don Kozlowski and Ryan Shane, University of Nevada, Reno, Reno, NV
- 9:00 Long-Term Effects of Cattle Grazing on Nitrogen Dynamics in A Montane Riparian Ecosystem** - Agnes Przeszlowska<sup>1</sup>, Joe Trlica<sup>1</sup> and Jean Reeder<sup>2</sup>, (1)Colorado State University, Fort Collins, CO, (2)USDA-ARS, Fort Collins, CO
- 9:20 Riparian Area Management: Changing 100 Years of Grazing Effects Across A Landscape** - A Scott Feldhausen, Bureau of Land Management, Salmon, ID

- 9:40 Riparian Management Photos: A 6 Year Journey** - Phil Gonzales, USDS/NRCS, Buffalo, WY
- 10:00 Break**
- 10:20 Sedges Have Edges, but Which Stream Edges for Sedges: Revegetation Following Channel Reconstruction** - Sarah Quistberg and Tamzen Stringham, Oregon State University, Corvallis, OR
- 10:40 Woody Riparian Species Patterns along NE Oregon Mountainous Streams** - Jennifer M Wiseman and Tamzen K Stringham, Oregon State University, Corvallis, OR
- 11:00 Cattle Grazing of Lentic Riparian Areas in An Aspen Forest** - Etienne MJ Soulodre, Regina, SK, Canada

**1:30 PM – 3:00 PM**

**AFGC Forage/Producer Spokesperson**

**Room: Stopher – East 3**

- 1:30 Dustin Johnson**, Indiana Forage Council
- 1:50 David Fink**, Pennsylvania Forage and Grassland Council
- 2:10 Gene DeBruin**, Ohio Forage and Grassland Council
- 2:30 Doug Johnson**, Ontario Soil and Crop Improvement Association
- 2:50 Cooper Hurst**, Louisiana-Mississippi Forage and Grassland Councils
- 3:10 Barry Drury**, Kentucky Forage and Grassland Council

**1:30 PM-5:00 PM**

**Symposium**

**Current Ecological Issues in Grassland Science**

**Room: Nunn – East 2**

Moderator and Organizer: Rebecca McCulley

- 1:30 Welcoming Remarks**
- 1:40 Biodiversity and Invasive Species: Challenges and Opportunities for Rangeland Research** - Samuel D































































































