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Information

Daily Information
The Daily Trail Boss will be available each morning from Sunday, February 8, to Thursday, February 12, at multiple locations in the Albuquerque Convention Center. The Daily Trail Boss will have announcements about that day's activities, program changes, revisions and highlights of the previous day's function. If you have information to be included in the next day's Trail Boss please deliver your information to Enchantment I, Lower Level in the Convention Center or e-mail your information to either Joel Brown at joelbrow@nmsu.edu or Valerie LaPlante at vlaplant@nmsu.edu by 1:00 p.m. of the day prior to the announcement.

Messages
Messages may be posted on the Message Board located in the Registration Area. There will be an Internet café in the trade show area.

Agency On-The-Spot Hiring
Sunday, February 8 through Wednesday, February 11; Several federal agencies have successfully coordinated On-the-Spot Hiring programs at the SRM annual meetings in past years. For example, at the SRM 60th 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. At the Joint Annual SRM/AFGC meetings in Louisville, Kentucky in 2008, BLM and USFS successfully filled 17 Rangeland Management Specialist (GS-454) entry level positions.

Continuing Education Credits
Continuing Education Credits (CEUs) for the program (a maximum of 16 CEUs are available for this meeting) are available from SRM and may be used in fulfilling requirements for re-certification in the Certified Professional on Range Management (CPRM) program. Details concerning this program and the credit process can be found at: www.rangelands.org.
Restore New Mexico, launched in 2005 to restore our state’s desert grasslands, woodlands and riparian areas to a healthy and productive state, has become a model for rangeland conservation in the western U.S.

To date more than 850,000 acres of impaired habitat have been treated, starting the transition to healthy ecological states. The BLM, along with its partners, will reach a goal of one million acres restored by the year 2009.

For more information, visit the BLM’s booth or go to www.blm.gov/nm and click on “Restore New Mexico”
Presentation Instructions

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; or PowerPoint 2007 (Vista). Please put the presentation title, author(s) and institution(s) on the first slide.

Please bring your presentations on a USB flash drive (also called a thumb drive or jump drive) forty-five minutes before the start of your session. CD-ROM drives will be available if necessary, but loading presentations onto the computers is slow. File names should include the last name of the presenter and the session day of the week and time. It is the responsibility of the speakers to ensure that their presentations are properly loaded, accessible, and operational prior to the start of their session. 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:
Poster boards will be 4 feet high by 8 feet wide (120 cm by 240 cm). The boards will be covered with cloth, so posters can be mounted with either Velcro or push pins. The posters must be put up and taken down at designated times in Aragon Exhibit Hall. On Monday (February 9), presenters in Poster Session A are expected to be by their posters from 4:00 PM to 6:00 PM; and for Poster Session B on Tuesday (February 10) from 4:00 PM to 6:00 PM. Titles should be clearly readable from 10 feet (3 m) away, so the font size should be 54 pt. (0.75 in or 19 mm) or larger. Text should be readable from 5 feet away and should be 24 pt. or larger.
Welcome to Albuquerque, New Mexico

We and all of the New Mexico Section members are honored to welcome the Society to Albuquerque for the 2009 Annual Meeting. Many of our members have already put in over 20 months of hard, but enthusiastic effort to make this an outstanding meeting. Our theme is *Merging Trails – Culture, Science and Innovation.* We want to share with you the cultural diversity of New Mexico, the scientific knowledge used in managing our rangelands and the innovation that has been demonstrated in resolving issues.

The 2009 Society for Range Management Annual Meeting in Albuquerque will:

- Provide opportunities for professional development and continuing education on the stewardship of rangeland resources.
- Provide participants with opportunities to experience cultures, foods, rangeland products, and other cultural elements of New Mexico rangelands.
- Provide participants with opportunities to discuss rangeland science. Presentations and tours will provide examples of how science is used to manage New Mexico rangelands.

The New Mexico Section is committed to your enjoyment of the 2009 SRM Annual Meeting. We want you to contact us with any particular needs that you might have. Also, visit our meeting web site at http://www.srmmeetings.org/. There you will find information about hotels, schedules, tours and all other aspects about the meeting.

We encourage you to invite others who are interested in rangelands to the meeting. If you wish, let us know of those individuals and we will provide them with a special invitation.

We look forward to seeing you all in February to share the New Mexican rangeland experience.

E. T. ‘Tom’ Bartlett Bob Alexander
Las Cruces, NM Santa Fe, NM
(575) 521-3166 (505)470-5637
et101@zianet.com bob1alexander@msn.com

2009 Meeting Committee Co-Chairs
We Thank Our Sponsors

Diamond
Dow AgroSciences – Conference Tote Bags, Symposia, SRM Student Paper Competition

Platinum
USDA – FS – SW Region – Program Printing, Audio-Visual Equipment
USDA – NRCS – New Mexico – General Conference
USDI – BLM – New Mexico – General Conference

Bronze
Curtis & Curtis Seed Co.– General Conference
DuPont Crop Protection – General Conference
New Mexico Department of Agriculture – New Mexico Country Store

Copper
Ecosystem Management, Inc. – General Conference
Granite Seed Co. – Trade Show Coffee
National Cattlemen’s Foundation & Environmental Stewardship Program – Producer’s Forum
New Mexico Association of Conservation Districts – Trade Show Coffee
New Mexico Cattle Growers Association – Producer’s Forum
Pawnee Buttes Seed Co. – Trade Show Coffee
Pogue Agri Partners, Inc. – General Conference
Rainier Seed Co. – Trade Show Coffee
Sharp Bros. Seed Co. – Trade Show Coffee
Synergy Resource Solutions – Tapping the Top
USDA – ARS, Jornada Experimental Range Research Unit – Trade Show Coffee

Other Sponsorship
Albuquerque Convention & Visitor Bureau – Annual Meeting Space
Meeting Expectations – Internet Café, Planning Committee Radios, Registration Computers and Printers
### Program At-A-Glance

#### Saturday, February 7, Events/Activity

<table>
<thead>
<tr>
<th>Event/Committee</th>
<th>Time</th>
<th>Facility - Room</th>
</tr>
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<tbody>
<tr>
<td>2009 Planning Committee</td>
<td>6:30-7:30am</td>
<td>ACC-Enchantment II</td>
</tr>
<tr>
<td>SRM Board of Directors</td>
<td>8:00-5:00pm</td>
<td>ACC-Acoma</td>
</tr>
<tr>
<td>Technical Tour 1 – Trinity Site</td>
<td>8:00-5:00pm</td>
<td>TBA*</td>
</tr>
<tr>
<td>Daily Trail Boss - Publicity Office</td>
<td>8:00-6:00pm</td>
<td>ACC-Enchantment I</td>
</tr>
<tr>
<td>SRM Headquarters Business Office</td>
<td>8:00-6:00pm</td>
<td>ACC-Estancia</td>
</tr>
<tr>
<td>Rangeland CEAP Literature Synthesis Working Group</td>
<td>1:00-5:00pm</td>
<td>ACC-Isla</td>
</tr>
<tr>
<td>AG*IDEA Grassland Management</td>
<td>1:00-5:00pm</td>
<td>ACC-Navajo</td>
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<tr>
<td>Annual Meeting Planning Committee</td>
<td>3:00-4:30pm</td>
<td>ACC-Enchantment II</td>
</tr>
<tr>
<td>Association of Range Consultants</td>
<td>3:00-5:00pm</td>
<td>ACC-Cochiti</td>
</tr>
<tr>
<td>Membership Task Force</td>
<td>5:00-7:00pm</td>
<td>ACC-Jemez</td>
</tr>
<tr>
<td>Registration and Information</td>
<td>5:00-7:00pm</td>
<td>ACC-Main Entrance Ground Level</td>
</tr>
<tr>
<td>SRM BOD and Committee Chairs</td>
<td>7:00-8:30pm</td>
<td>ACC-Cochiti</td>
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#### Sunday, February 8, Events/Activity

<table>
<thead>
<tr>
<th>Event/Committee</th>
<th>Time</th>
<th>Facility - Room</th>
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<tr>
<td>Student Plant ID Study Room</td>
<td>6:00am-11:00pm</td>
<td>ACC-Centro del Sol</td>
</tr>
<tr>
<td>Speaker Prep Room</td>
<td>6:00am-7:00pm</td>
<td>ACC-Conf Room</td>
</tr>
<tr>
<td>2009 Planning Committee-Daily</td>
<td>6:30-7:30am</td>
<td>ACC-Enchantment II</td>
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<tr>
<td>Registration and Information</td>
<td>7:00am-5:30pm</td>
<td>ACC-Main Entrance Ground Level</td>
</tr>
<tr>
<td>Section Membership Chairs</td>
<td>8:00-11:30am</td>
<td>ACC-Enchantment II</td>
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<tr>
<td>Wildlife Habitat Committee</td>
<td>8:00am-12 noon</td>
<td>ACC-Apache</td>
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<tr>
<td>Watershed-Riparian Committee</td>
<td>8:00am-12 noon</td>
<td>ACC-Isla</td>
</tr>
<tr>
<td>Public Affairs Committee</td>
<td>8:00am-12 noon</td>
<td>ACC-Laguna</td>
</tr>
<tr>
<td>Rangelands Steering Committee</td>
<td>8:00am-12 noon</td>
<td>ACC-Zuni</td>
</tr>
<tr>
<td>NRCS Western Region Grazing Lands Consortium</td>
<td>8:00am-12 noon</td>
<td>Hyatt-Fiesta 3, 4</td>
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<td>Government Policy and Programs Committee</td>
<td>8:00am-5:00pm</td>
<td>ACC-Laguna</td>
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<tr>
<td>Nominations Committee</td>
<td>8:00am-5:00pm</td>
<td>ACC-Navajo</td>
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<td>RAM Committee</td>
<td>8:00am-5:00pm</td>
<td>ACC-Santa Ana</td>
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<td>2009 Rangeland Job Fair</td>
<td>8:00am-6:00pm</td>
<td>ACC-Brazos</td>
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<td>Daily Trail Boss-Publicity Office</td>
<td>8:00am-6:00pm</td>
<td>ACC-Enchantment I</td>
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<tr>
<td>SRM Headquarters Business Office</td>
<td>8:00am-6:00pm</td>
<td>ACC-Estancia</td>
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<tr>
<td>Agency Hiring-On-the-Spot</td>
<td>8:00am-10:00pm</td>
<td>ACC-Suite D</td>
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<tr>
<td>Human Resources Room</td>
<td>8:00am-10:00pm</td>
<td>ACC-Aztec</td>
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<tr>
<td>Career Opportunities Room</td>
<td>8:00am-10:00pm</td>
<td>ACC-Tijeras</td>
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<tr>
<td>Student Activities Committee</td>
<td>9:00am-12 noon</td>
<td>ACC-San Juan</td>
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<tr>
<td>Range Science Education Council</td>
<td>9:00am-12 noon</td>
<td>ACC-Santo Domingo</td>
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<tr>
<td>Finance Committee</td>
<td>9:00am-3:00pm</td>
<td>ACC-Pecos</td>
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<td>Certified Range Management</td>
<td>10:00am-12 noon</td>
<td>ACC-Aztec</td>
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<td>Consultant’s Committee</td>
<td>10:00am-12 noon</td>
<td>ACC-Galisteo</td>
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<td>Endowment Fund Board of Governors</td>
<td>10:00am-2:00pm</td>
<td>ACC-Picuris</td>
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<td>Advisory Council</td>
<td>10:00am-6:00pm</td>
<td>ACC-Picuris</td>
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<tr>
<td>Social Tour 1-Acoma Sky City</td>
<td>11:30am-5:30pm</td>
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<tr>
<td>Information and Education Committee</td>
<td>12 noon-4:00pm</td>
<td>ACC-Jemez</td>
</tr>
<tr>
<td>Trade Show Setup</td>
<td>12 noon-6:00pm</td>
<td>ACC-Aragon</td>
</tr>
<tr>
<td>Rangeland Ecology and Management</td>
<td>1:00-3:00pm</td>
<td>ACC-Isla</td>
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<tr>
<td>Editorial Board</td>
<td>1:00-3:00pm</td>
<td>ACC-San Miguel</td>
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<tr>
<td>Rangeland Invasive Species Committee</td>
<td>1:00-3:00pm</td>
<td>ACC-Santo Domingo</td>
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<tr>
<td>Remote Sensing and GIS Technology</td>
<td>1:00-3:00pm</td>
<td>ACC-Taos</td>
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<td>Leadership Development Committee</td>
<td>1:00-4:00pm</td>
<td>ACC-Taos</td>
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<tr>
<td>Technical Tour 2-Plant Materials Center</td>
<td>1:00-5:00pm</td>
<td>TBA*</td>
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<tr>
<td>Career Development Workshops</td>
<td>1:00-5:00pm</td>
<td>ACC-Cimarron</td>
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<tr>
<td>Public Affairs Committee</td>
<td>1:00-5:00pm</td>
<td>ACC-Cochiti</td>
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<tr>
<td>Career Development Workshops</td>
<td>1:00-5:00pm</td>
<td>ACC-Dona Ana</td>
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<tr>
<td>GLCI Task Force</td>
<td>1:00-5:00pm</td>
<td>ACC-Mesilla</td>
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</table>

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ACC = Albuquerque Convention Center  
*TBA = See Daily Trail Boss  
ACC-Aragon = SW Exhibit Hall
### Program At-A-Glance

<table>
<thead>
<tr>
<th>Sunday, (continued)</th>
<th>Time</th>
<th>Facility - Room</th>
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<tbody>
<tr>
<td>Rangeland Technology and Equipment Council Workshop: GIS/GPS Technology to Improve Rangeland</td>
<td>1:00-5:00pm</td>
<td>ACC-Nambe</td>
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<tr>
<td>Advantages and Challenges of Integrating Adaptive Management in Range Practices</td>
<td>1:00-5:00pm</td>
<td>ACC-Ruidoso</td>
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<tr>
<td>Certified Professional Range Managers Committee</td>
<td>1:00-5:00pm</td>
<td>ACC-San Juan</td>
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<tr>
<td>International Affairs Committee</td>
<td>1:00-5:00pm</td>
<td>ACC-Sandia</td>
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<tr>
<td>Accreditation Panel</td>
<td>1:00-5:00pm</td>
<td>ACC-Tesuque</td>
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<tr>
<td>Rangelands Editorial Board</td>
<td>1:00-5:00pm</td>
<td>ACC-Zuni</td>
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<tr>
<td>Awards Committee</td>
<td>3:00-5:00 pm</td>
<td>ACC-Enchantment II</td>
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<tr>
<td>Range Ecology and Management Steering Committee</td>
<td>3:00-5:00pm</td>
<td>ACC-Islaeta</td>
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<tr>
<td>Coordinated Resource Management Committee</td>
<td>3:00-5:00pm</td>
<td>ACC-La Cienega</td>
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<tr>
<td>History Archives and Library Committee</td>
<td>3:00-5:00pm</td>
<td>ACC-Santa Domingo</td>
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<tr>
<td>High School Youth Orientation/Social</td>
<td>4:00-7:00pm</td>
<td>ACC-Apache</td>
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<td>Contestants Registration</td>
<td>5:00-6:00pm</td>
<td>ACC-San Juan</td>
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<td>Student Conclave Business Meeting</td>
<td>5:00-8:00pm</td>
<td>ACC-Tesuque</td>
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<tr>
<td>Rangeland Extension Faculty Family Meeting</td>
<td>7:00-9:00pm</td>
<td>Hyatt-Enchantment A, B</td>
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<tr>
<td>BLM Family Meeting and Reception</td>
<td>7:00-10:00pm</td>
<td>Hyatt-Enchantment C, D, E, F</td>
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<td>USDA, Agricultural Research Service Social</td>
<td>7:00-10:00pm</td>
<td>Hyatt-Pavilion III</td>
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<td>NRCS Family Meeting</td>
<td>7:00-10:00pm</td>
<td>Hyatt-Pavilion I, II</td>
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<tr>
<td>Forest Service Rangeland Management Awards Ceremony and Agency Family Meeting</td>
<td>7:00-10:00pm</td>
<td>Hyatt-Pavilion IV, V, VI</td>
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<th>Monday, February 9, Events/Activity</th>
<th>Time</th>
<th>Facility - Room</th>
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<tr>
<td>Student Plant ID Study Room</td>
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<td>ACC-Centro del Sol</td>
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<tr>
<td>Speaker Prep Room</td>
<td>6:00am-7:00pm</td>
<td>ACC-Conf Room</td>
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<tr>
<td>2009 Planning Committee-Daily</td>
<td>6:30-7:30am</td>
<td>ACC-Enchantment II</td>
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<tr>
<td>High School Youth Home Room</td>
<td>7:00am-11:00pm</td>
<td>ACC-Apache</td>
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<tr>
<td>SRM Memorial Breakfast</td>
<td>7:00-8:30am</td>
<td>ACC-Ballroom C, B</td>
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<td>Registration and Information</td>
<td>7:00am-5:30pm</td>
<td>ACC-Main Entrance</td>
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<td>High School Youth Forum Tour</td>
<td>7:00am-5:00pm</td>
<td>TBA*</td>
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<td>Undergraduate Range Management Exam (URME)</td>
<td>8:00am-10:00am</td>
<td>ACC-Taos/Cochiti</td>
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<td>Silent Auction Setup</td>
<td>8:00-11:00am</td>
<td>ACC-Aragon</td>
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<td>Trade Show Setup</td>
<td>8:00-11:00am</td>
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<td>Student Exhibits Setup</td>
<td>8:00am-11:00am</td>
<td>ACC-Aragon</td>
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<tr>
<td>Daily Trail Boss-Publicity Office</td>
<td>8:00am-6:00pm</td>
<td>ACC-Enchantment I</td>
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<td>SRM Headquarters Business Office</td>
<td>8:00am-6:00pm</td>
<td>ACC-Estancia</td>
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<tr>
<td>Agency Hiring-On-the-Spot Interview Room (NRCS)</td>
<td>8:00am-8:00pm</td>
<td>ACC-Suite B</td>
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<tr>
<td>Agency Hiring-On-the-Spot Interview Room (BLM)</td>
<td>8:00am-8:00pm</td>
<td>ACC-Suite C</td>
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<td>Agency Hiring-On-the-Spot Human Resources Room</td>
<td>8:00am-8:00pm</td>
<td>ACC-Suite D</td>
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<td>8:00am-8:00pm</td>
<td>ACC-Suite A</td>
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<td>Career Opportunities Room</td>
<td>8:00am-10:00pm</td>
<td>ACC-Tierras</td>
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<td>Plenary Session</td>
<td>9:00am-12 noon</td>
<td>ACC-Kiva</td>
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<tr>
<td>UG Public Speaking Contest Registration Room</td>
<td>9:00am-5:00pm</td>
<td>ACC-San Juan</td>
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ACC = Albuquerque Convention Center  
*TBA = See Daily Trail Boss  
ACC-Aragon = SW Exhibit Hall
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<tr>
<th>Event Description</th>
<th>Time</th>
<th>Facility - Room</th>
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<tr>
<td>Poster Session A Setup</td>
<td>11:00am-noon</td>
<td>ACC-Aragon</td>
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<td>Lunch Counter</td>
<td>11:00am-2:00pm</td>
<td>ACC-Aragon</td>
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<tr>
<td>Internet Café</td>
<td>12 noon-8:00pm</td>
<td>ACC-Aragon</td>
</tr>
<tr>
<td>Past Presidents, Founding and Charter Member Luncheon</td>
<td>12 noon-2:00pm</td>
<td>Hyatt-Enchantm ent A, B</td>
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<tr>
<td>Silent Auction Endowment Fund</td>
<td>12 noon-8:00pm</td>
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<tr>
<td>Trade Show</td>
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<tr>
<td>Poster Session A</td>
<td>1:00-6:00pm</td>
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<tr>
<td>SRM-CPRM Exam</td>
<td>1:00-5:00pm</td>
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<tr>
<td>Military Rangelands Supporting</td>
<td>1:00-5:00pm</td>
<td>ACC-La Cienega</td>
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<td>National Security</td>
<td>1:00-5:00pm</td>
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<tr>
<td>Fire Ecology</td>
<td>1:00-5:00pm</td>
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<td>UG Public Speaking Contest Room B</td>
<td>1:00-5:00pm</td>
<td>ACC-Nambe</td>
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<td>UG Public Speaking Contest Room A</td>
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<td>Wolf-Livestock Interactions</td>
<td>1:00-5:00pm</td>
<td>ACC-Ruidoso</td>
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<td>Western Rangelands Partnership</td>
<td>1:00-5:00pm</td>
<td>ACC-San Miguel</td>
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<tr>
<td>Ecology I</td>
<td>1:00-5:00pm</td>
<td>ACC-Santa Ana</td>
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<tr>
<td>Water and Riparian Systems</td>
<td>1:00-5:00pm</td>
<td>ACC-Santa Domingo</td>
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<tr>
<td>Advisory Council</td>
<td>1:30-6:00pm</td>
<td>ACC-Picuris</td>
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<tr>
<td>Spouse/Guest Social</td>
<td>2:00-4:00pm</td>
<td>Hyatt-Pavilion IV, V, VI</td>
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<tr>
<td>Poster Session A – Authors Present</td>
<td>4:00-6:00pm</td>
<td>ACC-Aragon</td>
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<tr>
<td>Graduate Student Poster Competition</td>
<td>4:00-6:00pm</td>
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<tr>
<td>Rangeland Cup</td>
<td>4:00-6:00pm</td>
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<tr>
<td>Tapping the Top</td>
<td>5:00-7:00pm</td>
<td>ACC-E. Lobby 2nd Floor</td>
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<tr>
<td>Trade Show Mixer</td>
<td>6:00-8:00pm</td>
<td>ACC-Aragon</td>
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<tr>
<td>HSYF Professional Interaction Dinner</td>
<td>6:00-9:00pm</td>
<td>Offsite</td>
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<table>
<thead>
<tr>
<th>Event Description</th>
<th>Time</th>
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<tbody>
<tr>
<td>Student Plant ID Study Room</td>
<td>6:00am-11:00pm</td>
<td>ACC-Centro del Sol</td>
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<td>Speaker Prep Room</td>
<td>6:00am-7:00pm</td>
<td>ACC-Conf Room</td>
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<tr>
<td>Texas Tech Alumni Breakfast</td>
<td>6:00-8:00am</td>
<td>Hyatt-Fiesta 3, 4</td>
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<tr>
<td>2009 Planning Committee-Daily</td>
<td>6:30-7:30am</td>
<td>ACC-Enchantment II</td>
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<tr>
<td>High School Youth Home Room</td>
<td>7:00am-11:00pm</td>
<td>ACC-Apache</td>
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<td>New Members Breakfast</td>
<td>7:00-8:00am</td>
<td>Hyatt-Pavilion I, II, III</td>
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<tr>
<td>Breakfast Counter</td>
<td>7:00-9:00am</td>
<td>ACC-Aragon</td>
</tr>
<tr>
<td>SRM Board of Directors Meeting (Committee/Advisory Council Reports)</td>
<td>7:00-10:00am</td>
<td>ACC-Acoma</td>
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<tr>
<td>High School Youth Forum</td>
<td>7:00am-5:00pm</td>
<td>ACC-Picuris</td>
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<td>Paper Presentations</td>
<td>7:00am-5:00pm</td>
<td>ACC-Picuris</td>
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<tr>
<td>Social Tour 2-Santa Fe Plaza</td>
<td>7:00am-5:30pm</td>
<td>TBA*</td>
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<tr>
<td>Registration and Information</td>
<td>7:00am-5:30pm</td>
<td>ACC-Main Entrance Ground Level</td>
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<tr>
<td>Silent Auction</td>
<td>7:00am-6:00pm</td>
<td>ACC-Aragon</td>
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<tr>
<td>Plant ID Staging/Coaches Workshop</td>
<td>7:00-8:00am</td>
<td>ACC-San Juan</td>
</tr>
<tr>
<td>Student Exhibits</td>
<td>7:00am-6:00pm</td>
<td>ACC-Aragon</td>
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<tr>
<td>Trade Show</td>
<td>7:00am-6:00pm</td>
<td>ACC-Aragon</td>
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<tr>
<td>Internet Café</td>
<td>7:00am-6:00pm</td>
<td>ACC-Aragon</td>
</tr>
<tr>
<td>Poster Session A</td>
<td>8:00-10:00am</td>
<td>ACC-Aragon</td>
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<tr>
<td>Nebraska Section SRM</td>
<td>8:00-10:00am</td>
<td>ACC-Isleta</td>
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<tr>
<td>2010 Meeting Planning Committee</td>
<td>8:00am-12 noon</td>
<td>ACC-Enchantment II</td>
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<tr>
<td>Forest Service Rangeland Management</td>
<td>8:00am-12 noon</td>
<td>ACC-Jemez</td>
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ACC = Albuquerque Convention Center  
TBA = See Daily Trail Boss  
ACC-Aragon = SW Exhibit Hall
<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
<th>Facility - Room</th>
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<tbody>
<tr>
<td>Rangeland Hydrology and Erosion Technology Advancements</td>
<td>8:00am-12 noon</td>
<td>ACC-Laguna</td>
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<tr>
<td>Solutions to Locoweed Poisoning in New Mexico and Western US</td>
<td>8:00am-12 noon</td>
<td>ACC-San Miguel</td>
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<tr>
<td>Grazing Systems and Management I</td>
<td>8:00am-12 noon</td>
<td>ACC-Santo Domingo</td>
</tr>
<tr>
<td>Vegetation Management and Restoration Practices I</td>
<td>8:00am-12 noon</td>
<td>ACC-Tesuque</td>
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<tr>
<td>Plant ID Contest</td>
<td>8:00am-10:00am</td>
<td>ACC-Taos/Cochiti</td>
</tr>
<tr>
<td>US Forest Service Rangeland Information Session</td>
<td>8:00am-4:30pm</td>
<td>ACC-Sandia</td>
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<tr>
<td>Military Rangelands Supporting National Security</td>
<td>8:00am-5:00pm</td>
<td>ACC-La Cienega</td>
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<tr>
<td>Ecology and Management of Invasive Annual Grasses in the West</td>
<td>8:00am-5:00pm</td>
<td>ACC-Mesilla</td>
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<tr>
<td>Rangeland Animal Behavior: Integration of Ethology and GPS/GIS/RS Technologies</td>
<td>8:00am-5:00pm</td>
<td>ACC-Santa Ana</td>
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<tr>
<td>Daily Trail Boss-Publicity Office</td>
<td>8:00am-6:00pm</td>
<td>ACC-Enchantment I</td>
</tr>
<tr>
<td>SRM Headquarters Business Office</td>
<td>8:00am-6:00pm</td>
<td>ACC-Estancia</td>
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<tr>
<td>Agency Hiring-On-the-Spot Interview Room (NRCS)</td>
<td>8:00am-10:00pm</td>
<td>ACC-Suite B</td>
</tr>
<tr>
<td>Agency Hiring-On-the-Spot Interview Room (BLM)</td>
<td>8:00am-10:00pm</td>
<td>ACC-Suite C</td>
</tr>
<tr>
<td>Agency Hiring-On-the-Spot Interview Room (USDA-FS)</td>
<td>8:00am-10:00pm</td>
<td>ACC-Suite D</td>
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<tr>
<td>Career Opportunities Room</td>
<td>8:00am-10:00pm</td>
<td>ACC-Tijeras</td>
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<tr>
<td>Young Professionals Conclave Business Meeting</td>
<td>10:00-11:30am</td>
<td>Hyatt-Enchantment A, B</td>
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<tr>
<td>Plant ID – Public Viewing</td>
<td>11:00am-3:00pm</td>
<td>ACC-Taos/Cochiti</td>
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<tr>
<td>Poster Session B Setup</td>
<td>11:00am-12 noon</td>
<td>ACC-Aragon</td>
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<tr>
<td>Lunch Counter</td>
<td>11:00am-2:00pm</td>
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<tr>
<td>Young Professional Conclave Luncheon</td>
<td>11:30am-1:00pm</td>
<td>Hyatt-Enchantment A, B</td>
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<tr>
<td>Student Conclave Lunch and Meeting</td>
<td>12 noon-2:00pm</td>
<td>Hyatt-Fiesta 1, 2, 3, 4</td>
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<td>Poster Session B</td>
<td>1:00-6:00pm</td>
<td>ACC-Aragon</td>
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<tr>
<td>Association of University Rangeland Resource Programs</td>
<td>1:00-3:00pm</td>
<td>ACC-Nambe</td>
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<td>SRM Board of Directors</td>
<td>1:00-5:00pm</td>
<td>ACC-Acoma</td>
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<td>SRM-CPRM Exam</td>
<td>1:00-5:00pm</td>
<td>Hyatt-Enchantment E</td>
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<td>2011 Meeting Planning Committee</td>
<td>1:00-5:00pm</td>
<td>ACC-Enchantment II</td>
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<tr>
<td>Ecology II</td>
<td>1:00-5:00pm</td>
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<tr>
<td>Producers Forum: Tales of Tradition and Innovation on the NM Range</td>
<td>1:00-5:00pm</td>
<td>ACC-Pecos</td>
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<tr>
<td>Conservation Effects Assessment</td>
<td>1:00-5:00pm</td>
<td>ACC-Ruidoso</td>
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<tr>
<td>Grazing Systems and Management II</td>
<td>1:00-5:00pm</td>
<td>ACC-Santo Domingo</td>
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<tr>
<td>Vegetation Management and Restoration Practices II</td>
<td>1:00-5:00pm</td>
<td>ACC-Tesuque</td>
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<tr>
<td>Student Conclave Tour</td>
<td>2:30-5:00pm</td>
<td>TBA*</td>
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<tr>
<td>Poster Session B – Authors Present</td>
<td>4:00-6:00pm</td>
<td>ACC-Aragon</td>
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<tr>
<td>Graduate Student Poster Contest</td>
<td>4:00-6:00pm</td>
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<td>GLCI 4NCGL Committee Meeting</td>
<td>4:00-5:00pm</td>
<td>ACC-Islaleta</td>
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<tr>
<td>Northern Great Plains Section</td>
<td>4:00-6:00pm</td>
<td>ACC-Zuni</td>
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<td>Plant ID Coaches Critique</td>
<td>5:00-6:00pm</td>
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<tr>
<td>CSREES Project Director Meeting</td>
<td>6:00-8:00pm</td>
<td>Hyatt-Pavilion IV</td>
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ACC = Albuquerque Convention Center  *TBA = See Daily Trail Boss
ACC-Aragon = SW Exhibit Hall

11
## Program At-A-Glance

### Tuesday, (continued)

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
<th>Facility - Room</th>
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<tbody>
<tr>
<td>Montana State University Alumni Social</td>
<td>6:00-8:00pm</td>
<td>Hyatt-Enchantment C, D</td>
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<tr>
<td>Fort Hays Kansas State University Social</td>
<td>6:00-8:00pm</td>
<td>TBA*</td>
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<tr>
<td>University of Idaho Alumni Social</td>
<td>6:00-8:00pm</td>
<td>Hyatt-Pavilion III</td>
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<tr>
<td>Colorado State University Alumni Social</td>
<td>6:00-8:00pm</td>
<td>Hyatt-Sendero I</td>
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<tr>
<td>Texas A&amp;M University Alumni Social</td>
<td>6:00-8:00pm</td>
<td>Hyatt-Sendero III</td>
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<tr>
<td>Arizona State University Social</td>
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<td>Hyatt-Sendero II</td>
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<tr>
<td>New Mexico State University Alumni Social</td>
<td>6:00-8:00pm</td>
<td>Hyatt-Fiesta I, II, III, IV</td>
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<td>Utah State University Alumni Social</td>
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<td>Oregon State University Alumni Social</td>
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<td>Hyatt-Pavilion V</td>
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<tr>
<td>University of Wyoming Social</td>
<td>6:00-8:00pm</td>
<td>Hyatt-Pavilion VI</td>
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<tr>
<td>University of Arizona Alumni and Friends Social</td>
<td>7:00-8:30pm</td>
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<td>Wild Women of Range</td>
<td>7:30-9:30pm</td>
<td>ACC-E, Lobby 2nd Floor</td>
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<tr>
<td>Dance</td>
<td>8:00pm-12:00am</td>
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### Wednesday, February 11, Events/Activity

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<tr>
<td>Speaker Prep Room</td>
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<tr>
<td>2009 Planning Committee-Daily</td>
<td>8:30-7:30am</td>
<td>ACC-Enchantment II</td>
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<tr>
<td>High School Youth Home Room</td>
<td>7:00am-11:00pm</td>
<td>ACC-Apache</td>
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<tr>
<td>Professional Issue Breakfast</td>
<td>7:00-8:30am</td>
<td>Hyatt-Pavilion VI</td>
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<tr>
<td>Breakfast Counter</td>
<td>7:00-9:00am</td>
<td>ACC-Aragon</td>
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<tr>
<td>Silent Auction</td>
<td>7:00am-12 noon</td>
<td>ACC-Aragon</td>
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<tr>
<td>Registration and Information</td>
<td>7:00am-12 noon</td>
<td>ACC-Main Entrance</td>
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<tr>
<td>Ground Level</td>
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<tr>
<td>2009-2010 Planning Committees</td>
<td>7:30-9:00am</td>
<td>ACC-Enchantment II</td>
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<tr>
<td>Poster Session B</td>
<td>8:00-10:00am</td>
<td>ACC-Aragon</td>
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<tr>
<td>Student Exhibits</td>
<td>8:00am-12 noon</td>
<td>ACC-Aragon</td>
</tr>
<tr>
<td>Trade Show</td>
<td>7:00am-12 noon</td>
<td>ACC-Aragon</td>
</tr>
<tr>
<td>Special Session-SRM Undergraduate Student</td>
<td>8:00am-12 noon</td>
<td>ACC-Santa Ana</td>
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<tr>
<td>Contributed (Technical) Papers</td>
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<tr>
<td>Development of Comprehensive Grazing Policy</td>
<td>8:00am-12 noon</td>
<td>ACC-Zuni/Tesque</td>
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<td>Guidelines</td>
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<td>Weed Management with Herbivores</td>
<td>8:00am-12 noon</td>
<td>ACC-Cochiti</td>
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<tr>
<td>Climate and Climate Change</td>
<td>8:00am-12 noon</td>
<td>ACC-Jemez</td>
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<tr>
<td>Linking Restoration of Rangeland Communities</td>
<td>8:00am-12 noon</td>
<td>ACC-Picuris</td>
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<tr>
<td>and Processes to Social Outcomes</td>
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<tr>
<td>Wildlife Habitat Management on Rangelands</td>
<td>8:00am-12 noon</td>
<td>ACC-Ruidoso</td>
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<td>Using USDA NRCS Conservation Innovation Grants</td>
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<tr>
<td>Range and Pasture Plants</td>
<td>8:00am-12 noon</td>
<td>ACC-Sandia</td>
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<tr>
<td>Daily Trail Boss-Publicity Office</td>
<td>8:00am-6:00pm</td>
<td>ACC-Enchantment I</td>
</tr>
<tr>
<td>SRM Headquarters Business Office</td>
<td>8:00am-6:00pm</td>
<td>ACC-Estancia</td>
</tr>
<tr>
<td>Internet Cafe</td>
<td>8:00am-12 noon</td>
<td>ACC-Aragon</td>
</tr>
<tr>
<td>Agency Hiring-On-the-Spot Interview Room</td>
<td>8:00am-8:00pm</td>
<td>ACC-Suite B</td>
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<tr>
<td>(NRCS)</td>
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<tr>
<td>Agency Hiring-On-the-Spot Interview Room (BLM)</td>
<td>8:00am-8:00pm</td>
<td>ACC-Suite C</td>
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<tr>
<td>Agency Hiring-On-the-Spot Interview Room</td>
<td>8:00am-8:00pm</td>
<td>ACC-Suite D</td>
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<tr>
<td>Agency Hiring-On-the-Spot Interview Room</td>
<td>8:00am-8:00pm</td>
<td>ACC-Suite A</td>
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<tr>
<td>Agency Hiring-On-the-Spot Interview Room</td>
<td>8:00am-8:00pm</td>
<td>ACC-Suite A</td>
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<tr>
<td>Career Opportunities Room</td>
<td>8:00am-10:00pm</td>
<td>ACC-Tijeras</td>
</tr>
<tr>
<td>High School Youth Business Meeting and Workshop</td>
<td>8:00am-11:00am</td>
<td>ACC-Apache</td>
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</table>

ACC = Albuquerque Convention Center  
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ACC-Aragon = SW Exhibit Hall

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# Program At-A-Glance

## Wednesday, (continued)

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
<th>Facility - Room</th>
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</thead>
<tbody>
<tr>
<td>NRCS Central Region GLCI/Grazing Specialist Meeting</td>
<td>10:00am-12 noon</td>
<td>ACC-Laguna</td>
</tr>
<tr>
<td>SRM Membership Forum/Business Meeting and Luncheon</td>
<td>12 noon-2:30pm</td>
<td>ACC-Ballroom B, C</td>
</tr>
<tr>
<td>Social Tour 3-Taste Our Local Wines</td>
<td>1:00-5:00pm</td>
<td>TBA*</td>
</tr>
<tr>
<td>Trade Show Take Down</td>
<td>1:00-6:00pm</td>
<td>ACC-Aragon</td>
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<tr>
<td>Silent Auction - Item Pick-Up</td>
<td>2:00-5:00pm</td>
<td>ACC-Aragon</td>
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<tr>
<td>BLM Agency Workshop</td>
<td>2:00-5:00pm</td>
<td>Hyatt-Pavilion VI</td>
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<tr>
<td>SRM Awards Ceremony</td>
<td>2:45-5:00pm</td>
<td>ACC-Kiva</td>
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<tr>
<td>President's Reception and Banquet</td>
<td>6:00-9:30pm</td>
<td>ACC-Ballroom B, C</td>
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## Thursday, February 12, Events/Activity

<table>
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<tr>
<td>Speaker Prop Room</td>
<td>6:00am-5:00pm</td>
<td>ACC-Conf Room</td>
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<tr>
<td>2009 Planning Committee-Daily</td>
<td>6:30-7:30am</td>
<td>ACC-Enchantment II</td>
</tr>
<tr>
<td>Breakfast Counter</td>
<td>7:00-9:00am</td>
<td>ACC-Aragon</td>
</tr>
<tr>
<td>Registration and Information</td>
<td>7:00am-12 noon</td>
<td>ACC-Main Entrance Ground Level</td>
</tr>
<tr>
<td>Internet Café</td>
<td>7:00am-5:00pm</td>
<td>ACC-Aragon</td>
</tr>
<tr>
<td>Daily Trail Boss-Publicity Office</td>
<td>8:00-10:00am</td>
<td>ACC-Enchantment I</td>
</tr>
<tr>
<td>Student Activities Committee Breakfast Meeting</td>
<td>8:00-10:00am</td>
<td>TBA*</td>
</tr>
<tr>
<td>Economics, Sociology and Policy</td>
<td>8:00am-12 noon</td>
<td>ACC-Cochiti</td>
</tr>
<tr>
<td>SRM Headquarters Business Office</td>
<td>8:00am-12 noon</td>
<td>ACC-Estancia</td>
</tr>
<tr>
<td>Grazing Systems Research</td>
<td>8:00am-12 noon</td>
<td>ACC-Mesilla</td>
</tr>
<tr>
<td>Rangeland Ecolodhydrology: Key Concepts and Application to State and Transition Model Development</td>
<td>8:00am-12 noon</td>
<td>ACC-San Miguel</td>
</tr>
<tr>
<td>Invasive Species/Weed Management I</td>
<td>8:00am-12 noon</td>
<td>ACC-Santa Ana</td>
</tr>
<tr>
<td>Wildlife I</td>
<td>8:00am-12 noon</td>
<td>ACC-Taos</td>
</tr>
<tr>
<td>Assessment and Monitoring</td>
<td>8:00am-12 noon</td>
<td>ACC-Zuni/Tesuque</td>
</tr>
<tr>
<td>BLM Agency State Range Land Meetings</td>
<td>8:00am-5:00pm</td>
<td>Hyatt-Pavilion VI</td>
</tr>
<tr>
<td>Riparian Ecological Site</td>
<td>8:00am-5:00pm</td>
<td>ACC-Pecos</td>
</tr>
<tr>
<td>NRCS State and National Technical Specialists</td>
<td>8:00am-5:00pm</td>
<td>ACC-Santa Domingo</td>
</tr>
<tr>
<td>Career Opportunities Room</td>
<td>8:00am-12 noon</td>
<td>ACC-Tijeras</td>
</tr>
<tr>
<td>NRCS Technical Workshop</td>
<td>8:00am-4:30pm</td>
<td>ACC-Picuris</td>
</tr>
<tr>
<td>Lunch Counter</td>
<td>11:00am-2:00pm</td>
<td>ACC-Aragon</td>
</tr>
<tr>
<td>Holistic Management</td>
<td>1:00-5:00pm</td>
<td>ACC-Cochiti</td>
</tr>
<tr>
<td>Wildland Invasive Species Restoration</td>
<td>1:00-5:00pm</td>
<td>ACC-La Cienega</td>
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<tr>
<td>Borderlands Watershed Management</td>
<td>1:00-5:00pm</td>
<td>ACC-Mesilla</td>
</tr>
<tr>
<td>Remote Sensing and Technology</td>
<td>1:00-5:00pm</td>
<td>ACC-Sandia</td>
</tr>
<tr>
<td>Invasive Species/Weed Management II</td>
<td>1:00-5:00pm</td>
<td>ACC-Santa Ana</td>
</tr>
<tr>
<td>Wildlife II</td>
<td>1:00-5:00pm</td>
<td>ACC-Taos</td>
</tr>
<tr>
<td>Education and Extension</td>
<td>1:00-5:00pm</td>
<td>ACC-Zuni/Tesuque</td>
</tr>
<tr>
<td>2009 Planning Committee</td>
<td>3:00-5:00pm</td>
<td>ACC-Enchantment II</td>
</tr>
<tr>
<td>2009 Planning Committee Social</td>
<td>6:00-9:00pm</td>
<td>Offsite</td>
</tr>
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</table>

## Friday, February 13, Events/Activity

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
<th>Facility - Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRM Board of Directors</td>
<td>7:00am-6:00pm</td>
<td>ACC-Acoma</td>
</tr>
<tr>
<td>NRCS State and National Technical Specialists</td>
<td>8:00am-noon</td>
<td>ACC-Santa Domingo</td>
</tr>
<tr>
<td>BLM Agency State Range Land Meetings</td>
<td>8:00am-5:00pm</td>
<td>Hyatt-Pavilion VI</td>
</tr>
<tr>
<td>Technical Tour-Trinity Site</td>
<td>8:00am-7:00pm</td>
<td>TBA*</td>
</tr>
</tbody>
</table>

ACC = Albuquerque Convention Center
ACC-Aragon = SW Exhibit Hall

*TBA = See Daily Trail Boss

13
Meeting Facilities

The Albuquerque Convention Center
Lower Level

LEGEND

- Pedestrian Entrance
- Elevator
- Freight Elevator
- Escalator
- Stairs
- Loading Dock

- Main Passageways
- Rentable Rooms
- Men's Restroom
- Women's Restroom
- Vending
- Courtesy Phones

All areas of the Albuquerque Convention Center are accessible to people with mobility impairments.
The Albuquerque Convention Center
Ground Level
**WEST COMPLEX**
is west of 2nd Street and comprises three levels — upper, ground & lower

**EAST COMPLEX**
is east of 2nd Street and comprises two levels — upper & ground only
# Student Activities At-A-Glance

## Sunday, February 8th, Events

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
<th>Convention Ctrn Rm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant ID Study Room/Exchange</td>
<td>6:00am-11:00pm</td>
<td>Centro del Sol</td>
</tr>
<tr>
<td>Speaker Prep Room</td>
<td>6:00am-7:00pm</td>
<td>Conf. Room</td>
</tr>
<tr>
<td>HSYF Home Room</td>
<td>4:00-11:00pm</td>
<td>Apache</td>
</tr>
<tr>
<td>Career Opportunities Room</td>
<td>8:00-10:00pm</td>
<td>Tijeras</td>
</tr>
<tr>
<td>Rangeland Job Fair Set-Up</td>
<td>8:00-10:00am</td>
<td>Brazos</td>
</tr>
<tr>
<td>Student Activities Committee Meeting</td>
<td>9:00am-12 noon</td>
<td>San Juan</td>
</tr>
<tr>
<td>Agency On-The-Spot Hiring (several agencies)</td>
<td>10:00am-6:00pm</td>
<td>Suites A-C</td>
</tr>
<tr>
<td>Rangeland Job Fair</td>
<td>10:00am-6:00pm</td>
<td>Brazos</td>
</tr>
<tr>
<td>Student Range Club Display Set-Up</td>
<td>12 noon-6:00pm</td>
<td>Aragon-Southwest Exhibit Hall</td>
</tr>
<tr>
<td>Career Development Workshops</td>
<td>1:00pm-5:00pm</td>
<td>Cimarron, Dona Ana</td>
</tr>
<tr>
<td>HSYF Orientation/Social</td>
<td>4:00pm-7:00pm</td>
<td>Apache</td>
</tr>
<tr>
<td>Student Contest Registration</td>
<td>5:00pm-6:00pm</td>
<td>San Juan</td>
</tr>
<tr>
<td>Student Conclave Business Meeting and Mixer</td>
<td>5:00pm-8:00pm</td>
<td>Tesuque</td>
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## Monday, February 9th, Events

<table>
<thead>
<tr>
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<th>Convention Ctrn Rm</th>
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</thead>
<tbody>
<tr>
<td>Plant ID Study Room/Exchange</td>
<td>6:00am-11:00pm</td>
<td>Centro del Sol</td>
</tr>
<tr>
<td>Speaker Prep Room</td>
<td>6:00am-7:00pm</td>
<td>Conf. Room</td>
</tr>
<tr>
<td>HSYF Home Room</td>
<td>7:00am-11:00pm</td>
<td>Apache</td>
</tr>
<tr>
<td>SRM Memorial Breakfast</td>
<td>7:00am-8:30am</td>
<td>ACC Ballroom</td>
</tr>
<tr>
<td>HSYF Technical Tour</td>
<td>7:00am-5:00pm</td>
<td>Load Busses @ TBA</td>
</tr>
<tr>
<td>Career Opportunities Room</td>
<td>8:00am-5:00pm</td>
<td>Tijeras</td>
</tr>
<tr>
<td>Agency On-The-Spot Hiring (several agencies)</td>
<td>8:00am-8:00pm</td>
<td>Suites A-D</td>
</tr>
<tr>
<td>URME (Undergrad Range Management Exam)</td>
<td>8:00am-10:00am</td>
<td>Taos/Cochiti</td>
</tr>
<tr>
<td>Student Display Set-Up</td>
<td>8:00am-11:00am</td>
<td>Aragon-Southwest Exhibit Hall</td>
</tr>
<tr>
<td>UG Speaking Contest Late Registration</td>
<td>9:00am-10:30am</td>
<td>San Juan</td>
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<tr>
<td>UG Public Speaking Contest Topic Selection</td>
<td>10:00am-5:00pm</td>
<td>San Juan</td>
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<tr>
<td>UG Public Speaking Contest</td>
<td>1:00pm-5:00pm</td>
<td>Navajo and Nambe Aragon-Southwest</td>
</tr>
<tr>
<td>Graduate Student Poster Contest</td>
<td>4:00pm-6:00pm</td>
<td>Exhibit Hall</td>
</tr>
<tr>
<td>Rangeland Cup</td>
<td>4:00pm-6:00pm</td>
<td>Aragon-Southwest Exhibit Hall</td>
</tr>
<tr>
<td>Tapping The Top</td>
<td>5:00pm-7:00pm</td>
<td>East Lobby-2nd Floor Foyer</td>
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<tr>
<td>Trade Show Mixer</td>
<td>6:00pm-8:00pm</td>
<td>Aragon-Southwest Exhibit Hall</td>
</tr>
<tr>
<td>HSYF Professional Interaction Dinner</td>
<td>6:00pm-9:00pm</td>
<td>Offsite</td>
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## Tuesday, February 10th, Events

<table>
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<th>Event</th>
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</thead>
<tbody>
<tr>
<td>Plant ID Study Room/Exchange</td>
<td>6:00am-11:00pm</td>
<td>Centro del Sol</td>
</tr>
<tr>
<td>Speaker Prep Room</td>
<td>6:00am-7:00pm</td>
<td>Conf. Room</td>
</tr>
<tr>
<td>HSYF Home Room</td>
<td>7:00am-11:00pm</td>
<td>Apache</td>
</tr>
<tr>
<td>HSYF Paper Presentations</td>
<td>7:00am-5:00pm</td>
<td>Picuris</td>
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<tr>
<td>Plant ID Contest</td>
<td>8:00am-10:00am</td>
<td>Taos/Cochiti</td>
</tr>
<tr>
<td>Career Opportunities Room</td>
<td>8:00am-10:00am</td>
<td>Tijeras</td>
</tr>
<tr>
<td>Student Range Club Exhibits</td>
<td>8:00am-5:00pm</td>
<td>Aragon-Southwest Exhibit Hall</td>
</tr>
<tr>
<td>Agency On-The-Spot Hiring (several agencies)</td>
<td>8:00am-10:00pm</td>
<td>Suites A-C</td>
</tr>
<tr>
<td>Plant ID Contest Public Viewing</td>
<td>11:00am-3:00pm</td>
<td>Taos/Cochiti</td>
</tr>
<tr>
<td>Student Conclave Luncheon</td>
<td>12 noon-2:00pm</td>
<td>Hyatt Fiesta 1-4</td>
</tr>
<tr>
<td>Student Conclave Tour</td>
<td>2:30pm-5:00pm</td>
<td>Load Busses @TBA</td>
</tr>
<tr>
<td>Graduate Student Poster Contest</td>
<td>4:00pm-6:00pm</td>
<td>Aragon-Southwest Exhibit Hall</td>
</tr>
<tr>
<td>Dance</td>
<td>8:00pm-12:00am</td>
<td>Ballroom C</td>
</tr>
</tbody>
</table>
# Student Activities At-A-Glance

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
<th>Convention Ctr Rm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wednesday, February 11th, Events</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speaker Prep Room</td>
<td>6:00am-7:00pm</td>
<td>Conf. Room</td>
</tr>
<tr>
<td>HSYF Home Room</td>
<td>7:00am-11:00pm</td>
<td>Apache</td>
</tr>
<tr>
<td>Career Opportunities Room</td>
<td>8:00am-10:00pm</td>
<td>Tijeras</td>
</tr>
<tr>
<td>Agency On-The-Spot Hiring (several agencies)</td>
<td>8:00am-8:00pm</td>
<td>Suites A-C</td>
</tr>
<tr>
<td>HSYF Business Meeting &amp; Workshop</td>
<td>8:00am-11:00am</td>
<td>Apache</td>
</tr>
<tr>
<td>Undergraduate Technical Paper Session</td>
<td>8:00am-12 noon</td>
<td>Santa Ana</td>
</tr>
<tr>
<td>Student Range Club Exhibits</td>
<td>8:00am-12 noon</td>
<td>Aragon-Southwest</td>
</tr>
<tr>
<td>SRM Business Meeting and Luncheon</td>
<td>12 noon-2:30pm</td>
<td>Exhibit Hall</td>
</tr>
<tr>
<td>SRM Awards Ceremony</td>
<td>2:45pm-5:00pm</td>
<td>Ballroom</td>
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</table>

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
<th>Convention Ctr Rm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Thursday, February 12th, Events</strong></td>
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</tr>
<tr>
<td>Speaker Prep Room</td>
<td>6:00am-5:00pm</td>
<td>Conf. Room</td>
</tr>
<tr>
<td>Career Opportunities Room</td>
<td>8:00am-12 noon</td>
<td>Tijeras</td>
</tr>
<tr>
<td>Student Activities Committee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breakfast Meeting</td>
<td>8:00am-10:00am</td>
<td>TBA</td>
</tr>
</tbody>
</table>

*TBA = See Daily Trail Boss

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**Pawnee Buttes Seed Inc.**

We sell a lot more than a bag of seed.

Pawnee Buttes Seed, Inc. provides native and introduced grass, forb, and shrub seed for reclamation, pasture, turf and wetlands.

Our emphasis is on educating our customers on proper management techniques to ensure grass stand longevity and conservation of our natural resources.

Don Hijar, Manager
PO Box 100 • 605 25th Street • Greeley, CO. 80632
(800) 782-5947 • (970) 356-7002 • Fax (970) 356-7263
email: info@pawneebuttesseed.com
www.PawneeButtesSeed.com
## Trade Show Exhibitors

<table>
<thead>
<tr>
<th>Exhibitors (by booth number)</th>
<th>Booth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holistic Management International</td>
<td>1</td>
</tr>
<tr>
<td>Allen Press</td>
<td>2</td>
</tr>
<tr>
<td>Curtis &amp; Curtis Seed Inc.</td>
<td>3</td>
</tr>
<tr>
<td>Zeba</td>
<td>4</td>
</tr>
<tr>
<td>AgraGate Climate Credits Corp.</td>
<td>5</td>
</tr>
<tr>
<td>Consortium for Science, Policy &amp; Outcomes</td>
<td>6</td>
</tr>
<tr>
<td>The Quivira Coalition</td>
<td>7</td>
</tr>
<tr>
<td>USDA – NRCS, New Mexico</td>
<td>8</td>
</tr>
<tr>
<td>Sustainable Rangelands Roundtable</td>
<td>9</td>
</tr>
<tr>
<td>Bobcat Company</td>
<td>10</td>
</tr>
<tr>
<td>Pawnee Buttes Seed Co.</td>
<td>11</td>
</tr>
<tr>
<td>Grazing Lands Conservation Initiative</td>
<td>12</td>
</tr>
<tr>
<td>Sharp Brothers Seed Co.</td>
<td>13</td>
</tr>
<tr>
<td>Rainier Seeds, Inc.</td>
<td>14</td>
</tr>
<tr>
<td>National Cattlemen’s Foundation</td>
<td>15</td>
</tr>
<tr>
<td>Truax Company, Inc.</td>
<td>16</td>
</tr>
<tr>
<td>Fort Supply Technologies, LLC</td>
<td>17</td>
</tr>
<tr>
<td>Decagon Devices, Inc.</td>
<td>18</td>
</tr>
<tr>
<td>Dow AgroSciences</td>
<td>19-20</td>
</tr>
<tr>
<td>2010 SRM Annual Meeting</td>
<td>21</td>
</tr>
<tr>
<td>Granite Seed Co.</td>
<td>22</td>
</tr>
<tr>
<td>USDI-BLM, New Mexico</td>
<td>23</td>
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<tr>
<td>USDA-FS Rocky Mountain Research Station</td>
<td>24</td>
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<tr>
<td>USDA-BLM Plant Conservation Program</td>
<td>25</td>
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<tr>
<td>Chicago Botanical Garden</td>
<td>26</td>
</tr>
<tr>
<td>USDI-BLM</td>
<td>27</td>
</tr>
<tr>
<td>New Mexico State Land Office</td>
<td>28</td>
</tr>
<tr>
<td>Eastern Oregon University Range Club</td>
<td>29</td>
</tr>
<tr>
<td>Oklahoma State University Range Club</td>
<td>30</td>
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<tr>
<td>South Dakota State University Range Club</td>
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<tr>
<td>Wind River Seed Co., Inc.</td>
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<tr>
<td>University of Idaho Range Club</td>
<td>33</td>
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<tr>
<td>University of Nevada, Reno Range Club</td>
<td>34</td>
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<tr>
<td>New Mexico State University Range Club</td>
<td>35</td>
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<tr>
<td>Lotek Wireless, Inc.</td>
<td>36</td>
</tr>
<tr>
<td>Ridley Block Operations</td>
<td>37</td>
</tr>
<tr>
<td>University of Nebraska Range Management Club</td>
<td>38</td>
</tr>
<tr>
<td>Logsdon Wildlife Art</td>
<td>39</td>
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<tr>
<td>USDA-FS TEAMS Enterprise Unit</td>
<td>40</td>
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<tr>
<td>Utah State University Range Club</td>
<td>41</td>
</tr>
<tr>
<td>University of Wyoming Range Club</td>
<td>42</td>
</tr>
<tr>
<td>North Star VMS/Helicopters</td>
<td>43</td>
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<tr>
<td>Brigham Young University Wildlife &amp; Range Club</td>
<td>44</td>
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<tr>
<td>Oregon State University Range Club</td>
<td>45</td>
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<tr>
<td>Arkansas Valley Seed</td>
<td>46</td>
</tr>
<tr>
<td>SRM International Affairs Committee</td>
<td>47</td>
</tr>
<tr>
<td>DuPont Crop Protection</td>
<td>48</td>
</tr>
<tr>
<td>USDA-FS, Southwest Region</td>
<td>49</td>
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<tr>
<td>Albuquerque Convention &amp; Visitors Bureau</td>
<td>Registration</td>
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<tr>
<td>Soil and Water Conservation Society</td>
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<tr>
<td>2011 SRM Annual Meeting</td>
<td>Registration</td>
</tr>
<tr>
<td>American Forage and Grassland Council</td>
<td>Registration</td>
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</table>
## Trade Show Exhibitors

### Exhibitors (in alphabetical order)

<table>
<thead>
<tr>
<th>Exhibitor</th>
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<tbody>
<tr>
<td>2010 SRM Annual Meeting</td>
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<td>Albuquerque Convention &amp; Visitors Bureau Registration</td>
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<tr>
<td>Allen Press</td>
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<tr>
<td>American Forage and Grassland Council Registration</td>
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<td>Arkansas Valley Seed</td>
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<td>Curtis &amp; Curtis Seed Inc.</td>
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<td>Granite Seed Co.</td>
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<td>Grazing Lands Conservation Initiative</td>
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<td>Lotek Wireless, Inc.</td>
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<td>National Cattlemen's Foundation</td>
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<td>New Mexico State Land Office</td>
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<td>Pawnee Buttes Seed Co.</td>
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<tr>
<td>Ridley Block Operations</td>
<td>37</td>
</tr>
<tr>
<td>Sharp Brothers Seed Co.</td>
<td>13</td>
</tr>
<tr>
<td>Soil and Water Conservation Society Registration</td>
<td></td>
</tr>
<tr>
<td>South Dakota State University Range Club</td>
<td>31</td>
</tr>
<tr>
<td>SRM International Affairs Committee</td>
<td>47</td>
</tr>
<tr>
<td>Sustainable Rangelands Roundtable</td>
<td>9</td>
</tr>
<tr>
<td>The Quivira Coalition</td>
<td>7</td>
</tr>
<tr>
<td>Truax Company, Inc.</td>
<td>16</td>
</tr>
<tr>
<td>University of Idaho Range Club</td>
<td>33</td>
</tr>
<tr>
<td>University of Nebraska Range Management Club</td>
<td>38</td>
</tr>
<tr>
<td>University of Nevada, Reno Range Club</td>
<td>34</td>
</tr>
<tr>
<td>University of Wyoming Range Club</td>
<td>42</td>
</tr>
<tr>
<td>USDA – NRCS, New Mexico</td>
<td>8</td>
</tr>
<tr>
<td>USDA-BLM Plant Conservation Program</td>
<td>25</td>
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<tr>
<td>USDA-FS Rocky Mountain Research Station</td>
<td>24</td>
</tr>
<tr>
<td>USDA-FS TEAMS Enterprise Unit</td>
<td>40</td>
</tr>
<tr>
<td>USDA-FS, Southwest Region</td>
<td>49</td>
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<tr>
<td>USDI-BLM</td>
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<tr>
<td>USDI-BLM, New Mexico</td>
<td>23</td>
</tr>
<tr>
<td>Utah State University Range Club</td>
<td>41</td>
</tr>
<tr>
<td>Wind River Seed Co., Inc.</td>
<td>32</td>
</tr>
<tr>
<td>Zeba</td>
<td>4</td>
</tr>
<tr>
<td>Group</td>
<td>Day and Time</td>
</tr>
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</tr>
<tr>
<td>2009 Annual Meeting Planning Committee</td>
<td>Saturday 3 pm-4:30 pm</td>
</tr>
<tr>
<td>2009 Annual Meeting Planning Committee</td>
<td>Daily 6:30 am-8 am</td>
</tr>
<tr>
<td>2009 Annual Meeting Planning Committee Social</td>
<td>Thursday 3 pm-5 pm</td>
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<tr>
<td>2010 Annual Meeting Planning Committee</td>
<td>Tuesday 8 am-12 noon</td>
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<tr>
<td>2011 Annual Meeting Planning Committee</td>
<td>Tuesday 1 pm-5 pm</td>
</tr>
<tr>
<td>Accreditation Panel</td>
<td>Sunday 1 pm-5 pm</td>
</tr>
<tr>
<td>Advisory Council</td>
<td>Sunday 10 am-6 pm</td>
</tr>
<tr>
<td>Annual Meeting Planning Committees 2009 &amp; 2010</td>
<td>Wednesday 7:30 am-9 am</td>
</tr>
<tr>
<td>Awards Committee</td>
<td>Sunday 3 pm-5 pm</td>
</tr>
<tr>
<td>Certified Range Management Consultant Committee</td>
<td>Sunday 10 am-12 noon</td>
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<tr>
<td>Coordinated Resource Management Committee</td>
<td>Sunday 3 pm-5 pm</td>
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<tr>
<td>CPRM Committee</td>
<td>Sunday 1 pm-5 pm</td>
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<tr>
<td>CPRM Exam</td>
<td>Tuesday 8 am-12 noon</td>
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<tr>
<td>Endowment Board of Governors</td>
<td>Sunday 10 am-2:00 pm</td>
</tr>
<tr>
<td>Finance Committee</td>
<td>Sunday 9 am-3 pm</td>
</tr>
<tr>
<td>GLC Task Group</td>
<td>Sunday 1 pm-5 pm</td>
</tr>
<tr>
<td>Government Policy and Programs Committee</td>
<td>Sunday 8 am-5 pm</td>
</tr>
<tr>
<td>History, Archives &amp; Library Committee</td>
<td>Sunday 3 pm-5 pm</td>
</tr>
<tr>
<td>Information and Education Committee</td>
<td>Sunday 12 pm-4 pm</td>
</tr>
<tr>
<td>International Affairs Committee</td>
<td>Sunday 1 pm-5 pm</td>
</tr>
<tr>
<td>Leadership Development Committee</td>
<td>Sunday 1 pm-4 pm</td>
</tr>
<tr>
<td>Membership Task Force</td>
<td>Saturday 5 pm-7 pm</td>
</tr>
<tr>
<td>Nebraska Section SRM</td>
<td>Tuesday 8 am-10 am</td>
</tr>
<tr>
<td>New Members Breakfast</td>
<td>Thursday 7 am-8 am</td>
</tr>
<tr>
<td>Nominations Committee</td>
<td>Sunday 8 am-5 pm</td>
</tr>
<tr>
<td>Northern Great Plains Section SRM</td>
<td>Tuesday 4 pm-6 pm</td>
</tr>
<tr>
<td>Public Affairs Committee</td>
<td>Sunday 8 am-12 noon</td>
</tr>
<tr>
<td>Public Affairs Committee</td>
<td>Sunday 1 pm-5 pm</td>
</tr>
<tr>
<td>Range Science Education Council</td>
<td>Sunday 9 am-12 noon</td>
</tr>
<tr>
<td>Rangeland Assessment and Monitoring Committee</td>
<td>Sunday 8 am-5 pm</td>
</tr>
<tr>
<td>Rangeland Invasive Species Committee</td>
<td>Sunday 1 pm-3 pm</td>
</tr>
<tr>
<td>Rangelands Editorial Board</td>
<td>Sunday 1 pm-5 pm</td>
</tr>
<tr>
<td>Rangelands Steering Committee</td>
<td>Sunday 8 am-12 noon</td>
</tr>
<tr>
<td>REM Editorial Board</td>
<td>Sunday 1 pm-3 pm</td>
</tr>
<tr>
<td>REM Steering Committee</td>
<td>Sunday 3 pm-5 pm</td>
</tr>
<tr>
<td>Section Membership Chairs</td>
<td>Sunday 8 am-11 am</td>
</tr>
<tr>
<td>SRM Board of Directors</td>
<td>Saturday 8 am-5 pm</td>
</tr>
<tr>
<td>SRM BOD w/ Committee Chairs</td>
<td>Saturday 7 pm-9 pm</td>
</tr>
<tr>
<td>SRM BOD – Committee/Advisory Council Reports</td>
<td>Tuesday 8 am-10 am</td>
</tr>
<tr>
<td>SRM Board of Directors</td>
<td>Tuesday 1 pm-5 pm</td>
</tr>
<tr>
<td>SRM Board of Directors</td>
<td>Friday 7:00 am-6 pm</td>
</tr>
<tr>
<td>Student Activities Committee</td>
<td>Sunday 9 am-12 noon</td>
</tr>
<tr>
<td>Student Activities Committee</td>
<td>Thursday 8 am-10 am</td>
</tr>
<tr>
<td>Watershed/Riparian Committee</td>
<td>Sunday 8 am-12 noon</td>
</tr>
<tr>
<td>Wildlife Habitat Committee</td>
<td>Sunday 8 am-12 noon</td>
</tr>
<tr>
<td>Young Professionals Conclave</td>
<td>Tuesday 10 am-11:30 am</td>
</tr>
<tr>
<td>Business Meeting</td>
<td>Tuesday 10 am-11:30 am</td>
</tr>
</tbody>
</table>

*ACC= Albuquerque Convention Center
## Special Events At-A-Glance

### Saturday, February 7 Events/Activity
<table>
<thead>
<tr>
<th>Event Description</th>
<th>Time</th>
<th>Hyatt Hotel Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Region Grazing Lands</td>
<td>8:00am-5:00pm</td>
<td>Fiesta 3 &amp; 4</td>
</tr>
<tr>
<td>Specialists Consortium</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Sunday, February 8 Events/Activity
<table>
<thead>
<tr>
<th>Event Description</th>
<th>Time</th>
<th>Hyatt Hotel Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Region Grazing Lands</td>
<td>8:00am-5:00pm</td>
<td>Fiesta 3 &amp; 4</td>
</tr>
<tr>
<td>Specialists Consortium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USDA – ARS Agency Social</td>
<td>7:00-10:00pm</td>
<td>Pavilion III</td>
</tr>
<tr>
<td>USDA – USFS Awards and Family Meeting</td>
<td>7:00-10:00pm</td>
<td>Pavilion IV, V, VI</td>
</tr>
<tr>
<td>USDA – NRCS Family Meeting</td>
<td>7:00-10:00pm</td>
<td>Pavilion I, II</td>
</tr>
<tr>
<td>USDI – BLM Family Meeting/Reception</td>
<td>7:00-10:00pm</td>
<td>Enchantment C,D,E,F</td>
</tr>
<tr>
<td>Extension Family Meeting</td>
<td>7:00-10:00pm</td>
<td><strong>TBA</strong></td>
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</table>

### Monday, February 9 Events/Activity
<table>
<thead>
<tr>
<th>Event Description</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRM Memorial Breakfast</td>
<td>7:00am-8:30am</td>
<td>*ACC-Ballroom</td>
</tr>
<tr>
<td>Trade Show Mixer</td>
<td>6:00-8:00pm</td>
<td>*ACC-Aragon</td>
</tr>
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</table>

### Tuesday, February 10 Events/Activity
<table>
<thead>
<tr>
<th>Event Description</th>
<th>Time</th>
<th>Hyatt Hotel Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas Tech. Alumni and Friends Breakfast</td>
<td>6:00-8:00pm</td>
<td>Fiesta 3 &amp; 4</td>
</tr>
<tr>
<td>Texas A&amp;M University Alumni Social</td>
<td>6:00-8:00pm</td>
<td>Sendero III</td>
</tr>
<tr>
<td>University of Arizona Alumni and Friends Social</td>
<td>6:00-8:00pm</td>
<td>Enchantment A&amp;B</td>
</tr>
<tr>
<td>Utah State University Social</td>
<td>6:00-8:00pm</td>
<td>Pavilion I, II</td>
</tr>
<tr>
<td>Oregon State Univ. Alumni Social</td>
<td>6:00-8:00pm</td>
<td>Pavilion V</td>
</tr>
<tr>
<td>Univ. of Idaho SRM Social</td>
<td>6:00-8:00pm</td>
<td>Pavilion III</td>
</tr>
<tr>
<td>Montana State Univ. Social</td>
<td>6:00-8:00pm</td>
<td>Enchantment C&amp;D</td>
</tr>
<tr>
<td>New Mexico State University Social</td>
<td>6:00-8:00pm</td>
<td>Fiesta 1, 2, 3 &amp; 4</td>
</tr>
<tr>
<td>Arizona State University Social</td>
<td>6:00-8:00pm</td>
<td>Sendero II</td>
</tr>
<tr>
<td>University of Wyoming Social</td>
<td>6:00-8:00pm</td>
<td>Pavilion VI</td>
</tr>
<tr>
<td>Colorado State University Social</td>
<td>6:00-8:00pm</td>
<td>Sendero I</td>
</tr>
<tr>
<td>Ft. Hays Kansas State University Social</td>
<td>6:00-8:00pm</td>
<td>Off Site,<strong>TBA</strong></td>
</tr>
<tr>
<td>Wild Women of Range</td>
<td>7:30-9:30pm</td>
<td>E Lobby 2nd Floor</td>
</tr>
<tr>
<td>Dance</td>
<td>8:00pm-12:00 midnight</td>
<td>*ACC-Ballroom C</td>
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</table>

### Wednesday, February 11 Events/Activity
<table>
<thead>
<tr>
<th>Event Description</th>
<th>Time</th>
<th>Hyatt Hotel Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Issues Breakfast</td>
<td>7:00-8:30 am</td>
<td>Pavilion VI</td>
</tr>
<tr>
<td>SRM Luncheon and Business Meeting</td>
<td>12 noon-2:30pm</td>
<td>*ACC-Ballroom</td>
</tr>
<tr>
<td>President’s Reception and Banquet</td>
<td>6:00-9:30pm</td>
<td>*ACC-Ballroom B,C</td>
</tr>
</tbody>
</table>

*ACC = Albuquerque Convention Center  
**TBA = See Daily Trail Boss
Sunday Afternoon Symposium

Advances and Challenges of Integrating Adaptive Management in Range Practices

Moderator: Steve Light
Room: Ruidoso

1:00 Welcome and Introductions Steve Light; BLM

1:15 Adaptive Management Opportunities and Challenges including Climate Change, ESA and Agency Legacy Issues Steve Light

1:30 The Sage Steppe Restoration Plan and Progress Tim Burke; BLM

2:00 Northwest Colorado Case and Progress in Changes Incorporated into the Snake River RMP Rich Whitley; BLM

2:30 Questions and Answers

2:45 Break

3:00 Discussion and Small Group Work

Sunday Afternoon Workshop

Rangeland Technology and Equipment Council Workshop: GIS and GPS Technology to Improve Rangeland Improvement Success

Moderator: Mike Pellant
Room: Nambe

Chicago Botanic Garden’s

Conservation & Land Management Internship Program

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Over 80 internships in the beautiful 13 western states! Apply your education to important conservation questions!

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Monday Morning Breakfast

7:00-8:45 SRM Memorial Breakfast
Room: Ballroom C & D

Monday Morning Plenary Session

Plenary Session
Room: Kiva

9:00 Opening Remarks

9:10 Presentation of the Flag
Introductions/Master of Session
Dr. Allen Rasmussen, SRM President

Cultural Perspectives-

9:20 Our Heritage
Dr. Eric Blinman, Director, New Mexico Office of Archaeological Studies

9:45 Rural Communities
Dr. Larry Torres, Professor, University of New Mexico - Taos

Scientific Perspectives-

10:05 Our Scientific History
Dr. Kelly Allred, Dept. Animal and Range Sciences, New Mexico State University

10:30 Applications of Science
Dr. William deBuys, Professor of Documentary Studies, College of Sante Fe

Innovations-

10:55 A Future of Possibilities
Dr. Lowell Catlett, Dean, College of Agriculture and Home Economics, New Mexico State University

Closing-

11:25 Albuquerque Sights and Sounds
Steve Stucker, Co-anchor, Eyewitness News

11:45 Concluding Remarks
Dr. Allen Rasmussen, SRM President
### Monday Afternoon Technical Session

**Fire Ecology**

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speakers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:00</td>
<td>Treated vs. Untreated Understory Forest Response Following Wildland Fire in the Southwest: Implications for Range Managers</td>
<td>Douglas S. Cram, Terrell T. Baker, and Carl Edminster; (1) New Mexico State University, (2) Rocky Mountain Research Station</td>
</tr>
<tr>
<td>1:40</td>
<td>Blue Grama (<em>Bouteloua gracilis</em>) Response to Season of Burn and Simulated Fire Temperatures in the Chihuahuan Desert</td>
<td>Miguel Luna-Luna, Carlton M. Britton, Carlos Villalobos, David B. Wester, Sandra Rideout-Hanzak, and Francisco Villanueva; (1) INIFAP - Vaquerias, Jalisco, MX, (2) Texas Tech University, (3) Santiago Ixcuintla, Nayarit, MX</td>
</tr>
<tr>
<td>2:00</td>
<td>Innovative Use of Seed Coating Technologies for the Restoration of Soil Wettability and Perennial Grasses on Burned Arid and Semi-Arid Rangelands</td>
<td>Matthew D. Madsen, Steven L. Peterson, Bruce A. Roundy, Bryan G. Hopkins, Alan G. Taylor, and Stu Barclay; (1) Brigham Young University, (2) Cornell University, (3) Summit Seed Coatings</td>
</tr>
<tr>
<td>2:20</td>
<td>Effects of the East Amarillo Complex Wildfires in the Texas Panhandle</td>
<td>Grant Sorensen, Sandra Rideout-Hanzak, David B. Wester, and Heather Whitlaw; (1) Texas Tech University, (2) Texas Parks and Wildlife Dept.</td>
</tr>
<tr>
<td>2:40</td>
<td>Multiple Regression Models to Predict Biomass of Purple Threeawn and Blue Grama: A Non-Destructive Method to Measure Plant Response to Fire</td>
<td>Grant E. Sorensen, Sandra Rideout-Hanzak, and David B. Wester; Texas Tech University</td>
</tr>
<tr>
<td>3:00</td>
<td>Break</td>
<td></td>
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<tr>
<td>3:20</td>
<td>Response of Six Tropical Grasses to Prescribed Burning in the West Coast of Mexico</td>
<td>Jose Francisco Villanueva, Luis F. Negrete, Carlos Villalobos, and Carlton M. Britton; (1) INIFAP - Santiago Ixcuintla, Nayarit, MX, (2) Union Ganadera Regional de Jalisco, Tlaquepaque, Jalisco, MX, (3) Texas Tech University</td>
</tr>
</tbody>
</table>
3:40 Aboriginal Use of Fire and Implications for Active Management of Sagebrush - Grass Communities J. Kent McAdoo, Brad W. Schultz and Sherman R. Swanson; University of Nevada

4:00 Evaluation of Patch-Burn Grazing Production and Impact to Vegetative Height-Density and Composition Malissa L. Underwood and Brent Jamison; Missouri Department of Conservation

Monday Afternoon Technical Session

Water and Riparian Systems

Chair: Greg Fenchel
Room: Santa Domingo

1:40 Hydrologic Functions of a Valley-Scale Rangeland Riparian Area Carlos G. Ochoa1, Alexander Fernald1, Steven Guldan1, Vincent Tidwell2, Phillip King1, Yeliz Cevik1 and Ciara Cusack1; (1) New Mexico State University, (2) Sandia National Laboratories

2:00 Improving Water Quality Using Range Management in the Belle Fourche River Watershed Matthew B. Stoltenberg; RESPEC Consulting

2:20 Adobe Meadows NRCS Wetland Reserve Project: Phase II, Implementation Robert A. Pearce and Jessica Groves; NRCS

3:00 Break

3:20 Three Tiered Wetland Condition Assessment Using a Probabilistic Design Christina L.M. Hargiss, Edward S. DeKeyser, Don R. Kirby and Michael J. Ell; North Dakota State University

3:40 Indicator Bacteria: Sentinels of Safe Water, Or Maybe Not?? Holly George, K.W. Tate, D.F. Lile, B.R. Hoar, E.R. Atwill and C.D. Childers; University of California-Davis

4:00 Longstem Transplants for Riparian Plantings in the Southwest Gregory A. Fenchel and David R. Dreesen; USDA NRCS

Monday Afternoon Technical Session

Ecology I

Chair: Kirk Davies
Room: Santa Ana

1:00 The Importance of a Historical Perspective for Western Rangeland Restoration and Management Lesley R. Morris and Tom Monaco; USDA ARS
1:20 Are Historic Disturbance Regimes Appropriate in Sagebrush Plant Communities Under Modern Conditions? Kirk W. Davies, Tony J. Svejcar and Jon D. Bates; USDA-ARS

1:40 Identifying Relationships Between Livestock Grazing, Plant Community Characteristics and Soil Attributes in Central Sierra Nevada Meadows
Leslie M. Roche, K.W. Tate, A.T. O’Gee and D.J. Eastburn; University of California-Davis

2:00 Patchiness of Mixed-Grass Prairie at Different Grazing Intensities
Jack E. Norland, Ryan F. Limb, Jay M. Volk and Don R. Kirby; (1) North Dakota State University, (2) Oklahoma State University, (3) BNI Coal

2:20 Effect of Annual, Growing Season, and Spring Precipitation on Peak Standing Crop at Three Locations
Gale H. Dunn, Lori Wiles, Jeff Printz, Bob Patton and Anne Nyren; (1) USDA ARS, (2) NRCS, (3) North Dakota State University

2:40 Developing New Tools to Understand Vegetation Change in the Sagebrush Steppe and Pinyon-Juniper Woodlands of the Great Basin Desert Region
Lesley R. Morris, Neil E. West and Ronald J. Ryel; (1) USDA ARS, (2) Utah State University

3:00 Break

3:20 Survivors of Invasion: Seed Bank Response to Juniper Expansion in the Sagebrush Steppe
Corinne M. Duncan, Richard F. Miller, David A. Pyke, Jane M. Mangold and Jaime S. Ratchford; (1) Oregon State University, (2) U.S. Geological Survey, (3) Montana State University

3:40 Phenotypic Variation of Achnatherum hymenoides in Relation to Environmental Factors
Michael Cashman, Richard Johnson and Linda Hardesty; (1) USDA ARS, (2) Washington State University

4:00 Insect Abundance and Plant Community Structure: Implications for Sage-Grouse Brood Rearing Habitat
Erica A. Ersch, Tamzen K. Stringham and Jeffrey Miller; (1) Oregon State University, (2) University of Nevada-Reno

4:20 Range Scientists Should Calculate Effect Sizes, Not P-Values
Matthew J. Rinella and Jeremy J. James; USDA ARS
Monday Afternoon Symposium

Western Rangelands Partnership: Using the Internet for Information Transfer

Moderator: John Tanaka
Room: San Miguel

1:00 Introduction to Rangelandswest.org and the Western Rangelands Partnership Carla Long Casler; University of Arizona

1:20 A Collaborative Model for Creating a Web Portal on Rangeland Management Barbara Hutchinson; University of Arizona

1:30 Development of Content Areas and Groups, Versions One Through Three: What’s Working or Not George Ruyle; University of Arizona

1:40 Implementing a Database- and User-Driven Portal: Metadata and Technical Issues, and Results of User Survey Jeanne Pfander; University of Arizona Libraries

1:50 Content Development Process for Rangelandswest.org Mark S. Thorne; University of Hawaii at Manoa

2:00 Touring Rangelandswest.org: Special Features and Hot Topics Julie Conley; Consultant To Western Rangelands Partnership

2:10 Connecting to State Rangelands Websites Norman R. Harris; University of Alaska Fairbanks

2:30 Break

2:50 Tools for the Future Barron Orr\(^1\), Carla Long Casler\(^1\) and John A. Tanaka\(^2\); (1) University of Arizona, (2) Oregon State University

3:50 Feedback and Discussion

4:30 Conclusions and Where To In the Future Karen L. Launchbaugh and Merrita Fraker-Marble; University of Idaho
Monday Afternoon Symposium

Wolf-Livestock Interactions: Using Science to Develop Innovative Management to Protect Natural and Cultural Resources

Moderator: Sam Smallidge
Room: Ruidoso

1:00 Opening Remarks – Sam Smallidge; New Mexico State University

1:15 Overview of Indirect Impacts of Predators on Livestock Foraging Behavior
Larry D. Howery¹, Bryan M. Kluever¹ and Stewart W. Breck²; (1) University of Arizona, (2) USDA-Wildlife Service

1:50 Wolf-Livestock Interactions in the Northern Rocky Mountains
Patrick E. Clark¹, Douglas E. Johnson², Larry Wilson³, Larry Larson⁴, Michael Johnson⁵ and Fredrick Pierson⁶; (1) USDA-ARS, (2) Oregon State University, (3) Eastern Oregon University, (4) University of California, Santa Barbara

2:25 The Role of Science for Optimizing Wolf-Livestock Coexistence: Where We’ve Been and Where We Should Go
Stewart Breck; USDA-APHIS

3:00 Break

3:15 Scientific and Social Challenges of Re-establishing a Free-ranging Population of Mexican Gray Wolves in the Southwest
Benjamin Tuggle; US Fish and Wildlife Service

3:50 Wolf-livestock Interactions: A Rancher’s Perspective
Laura Schneberger; Rafter Spear Ranch, NM

4:25 Discussion and Feedback

Monday Afternoon and Tuesday Symposium

Military Rangelands Supporting National Security

Moderator: Thomas Smith
Room: La Cienega

1:00 Opening Remarks Thomas Smith; US Army Corps of Engineers

1:10 Natural Resources Management on Military Lands – Past to Future
Eric N. Anderson; HQ Army National Guard

1:30 Livestock Grazing at Avon Park Air Force Range, Florida: A Synopsis of Rangeland Management from 1859 to Present-Day
Clarence V. Morgan; US Air Force
1:50 Striving to Achieve “No Net Loss” Terry L. Bashore; US Air Force HQ Air Combat Command

2:10 Army Land Management Planning John R. Phillips; HQ US Army

2:30 Heritage Livestock Grazing as a Tool for Managing Southeastern Longleaf Pine Savanna Carl P. Qualls; University of Southern Mississippi

2:50 Break

3:10 Conservation of Fish And Wildlife Resources – Cooperative Efforts of the Fish and Wildlife Service and the Departments of the Army, Navy, and Air Force Steve Helfert; US Fish and Wildlife Service

3:30 Collaboration in the Desert: An Interagency Effort to Protect and Restore the California Deserts Clarence A. Everly; DoD Desert Managers Group

3:50 Merging Mission: Soldiers, Neighbors and Species Nancy S. Natoli; HQ US Army Environmental Center

4:10 Targeting Cooperative Conservation Initiatives to Support Conservation and Military Training Gary L. Belew; US Army Environmental Center

4:30 The Front Range Eco-Regional Partnership Stanley Rogers; US HQ Air Force Space Command

Tuesday continue

8:00 Opening Remarks Thomas Smith; US Army Corps of Engineers

8:05 Sylvatic Plague, an Ancient, Notorious and Resilient Invasive Species Now Inhabiting the Semi-Arid Western US Remains Steeped in Mystery Jeffrey Wimsatt; University of Virginia

8:25 Feral Swine on the Great Plains: A Rapidly Expanding Exotic Species Philip S. Gipson; Texas Tech University

8:45 Wind Power Energy Development and Potential Impacts on Wildlife Warren Ballard; Texas Tech University

9:05 The San Pedro Basin and Fort Huachuca: Balancing Human and Ecosystem Water Needs Thomas Runyon; US Army, Ft. Huachuca, AZ

9:25 Resiliency of Improved Germplasms to Military Training at the Yakima Training Center Washington Timothy J. Cary1, Antonio J. Palazzo1, Kay H. Asay2, Kevin B. Jensen2 and Blair Waldron2; (1) US Army ERDC, (2) USDA-ARS
Nitrogen-Fixing Trees and Shrubs: Functions and Roles in Rangeland Ecosystems Jeffrey O. Dawson; University of Illinois

Field Research on the Assessment of Community Impacts from Weapons Noise Edward T. Nykaza; US Army ERDC

Phytoremediation as a Tool for Military Land Management Elly P.H. Best¹, T. Smith¹, Frank L. Hagen¹ and Jeffrey O. Dawson²; (1) US Army ERDC, (2) University of Illinois

Elk Habitat Use in Northeastern Kansas: The Role of Military Training Areas as Refugia Jonathan M. Conard; Sterling College

Heterogeneous Disturbance Enhances Biodiversity Steven D. Warren; Colorado State University

A Test of Symbiotic Rangeland/Native Pollinator in West Texas Donald Pitts; US Army ERDC

Large-Scale Implementation and Expansion of Noxious Weed Biological Control: Examples from the Colorado-Wyoming Front Range G.J. Michels, Jr., V.A. Carney, H.L. Lindon; Texas A&M University

Vegetation and Invasive Species Impacts on Military Lands Robert M. Lacey; US Army ERDC

Cooperative Efforts to Manage the Invasive Species Saltcedar on Fort Peck Lake in Northeastern Montana Patricia Gilbert; US Army Corps of Engineers NWD

A Simple GIS Model to Prioritize the Use of Prescribed Burning Resources Carla Picinich; The Nature Conservancy, Ft. Hood, TX

Vegetation Guide for Restoration of Military Lands Antonio J. Palazzo¹, Kevin B. Jensen², Kay H. Asay² and Timothy J. Cary¹; (1) US Army ERDC, (2) USDA-ARS

Fire Management on Military and Other Federally Managed Lands John C. Ward; Applied Services and Information Systems

Grassland Recovery After Mechanical Mastication of Ashe Juniper Carla Picinich; The Nature Conservancy, Ft. Hood, TX
3:40 Army and DOD Invasive Species Management
Harold E. Balbach¹, Lisa Rew² and Joseph Fleming³;
(1) US Army ERDC, (2) Montana State University,
(3) US Forest Service

4:00 International, State and Air Force Cooperative
Efforts to Restore Endangered Pronghorns
Jonathan Stevens; Wyoming Game and Fish Dept.

4:20 Scientific and Other Challenges in Working on
Military Lands Ann Hild; University of Wyoming

4:40 Closing Remarks Thomas Smith; US Army Corps of
Engineers

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**Poster Session A**

**Monday Afternoon (1:00 pm - 6:00 pm) and Tuesday Morning (8:00 am – 10:00 am)**

**Room:** Aragon

### Ecology Posters

**Describing Ecosystem Shifts in Rangelands Using Data-Driven State and Transition Models**
Emily Kachergis, Maria Fernandez-Gimenez and Monique Rocca; Colorado State University [1]

**Prediction, Detection, and Monitoring of Invasive Species in Forest, Rangeland, and Aquatic Ecosystems: A Synthesis of USDA Forest Service’s Rocky Mountain Research Station Research Program**
Mee-Sook Kim and Jack L. Butler; US Forest Service [2]

**Native Grass Characteristics within Xeroriparian Communities of the Barry M. Goldwater Range-East, Arizona**
Eva Osmer and Jeffery S. Fehmi; University of Arizona [3]

**Rangeland Assessment and Update of Soil - Ecological Site Correlation for Dinosaur National Monument**
Mathew K. Barnes, Herman B. Garcia and Steve Park; USDA NRCS [4]

**The Interacting Effects of Grazing and Productivity on Carabid Beetle and Spider Communities in Semi-Arid Grasslands**
Eleanor R. Bassett, Lauchlan H. Fraser and Karl Larsen; University of Glamorgan [5]

**Characterization of the Population Structures in the Wildland Collections of Dalea ornata and D. searlsiae from the Western US**
Kishor Bhattarai¹, B. Shaun Bushman², Douglas A. Johnson² and John G. Carman¹; (1) Utah State University, (2) USDA ARS [6]

**Mongolian Rangelands and Resilience (MOR2): Transcending Boundaries in Collaborative Research Planning**
Maria E. Fernandez-Gimenez¹, Batkhishig Baival¹, Steven Fassnacht¹, Corrie Knapp², Melinda Laituri¹, Robin Reid¹ and Jessica Thompson¹; (1) Colorado State University, (2) University of Colorado [7]

**Development of a Simulation Modeling Tool to Evaluate Ecological Impacts of Livestock Grazing in the Eastern Sierra of California**
David W. Martin¹, Terry McLendon², Cade Coldren¹, Mike Childress¹ and Joe Trlica²; (1) Los Angeles Department of Water and Power, (2) KS2 Ecological Consulting, (3) Raven Consulting [8]
Successional Changes of Native and Modified Plant Communities of the Rough Fescue Ecological Site in Alberta Michael G. Willoughby and Michael J. Alexander; Alberta Sustainable Resource Development [9]

Plant and Soil Transitions Due to Conifer Encroachment in Aspen Stands of Lassen Volcanic Park, California Sarah A. McCullough, Kenneth W. Tate, Michael L. Whiting and Anthony T. O’Geen; University California-Davis [10]

Effects of Black-tailed Prairie Dog (Cynomys ludovicianus) on Short Grass Vegetation of the Chalk Flats Region of Western Kansas Dustin H. Tacha, Charles D. Lee, Robert A. Nicholson and Rob Channell; (1) Fort Hays State University, (2) Kansas State University [11]

Age and Cultivar Effects on Heavy Metal and Metalloid Concentration in Alfalfa Elisabeth Poscher, Michael P. Schellenberg, John M. Clarke, Myriam R. Fernandez and Tom N. McCaig; Agriculture And Agri-Food Canada [12]

Denitrification as a Function of Moisture Gradients and Annual Livestock Utilization in Upper Montane Meadows of the Central Sierra Nevada Leslie M. Roche, K.W. Tate, A.T. O’Geen and D.J. Eastburn; University California – Davis [13]

Ecological Site Descriptions as a Management Tool: Results of an SRM Workshop Joel Brown1, Wendell Gilger2, Terry Messmer3, Mark Brunson2 and Jeremy Maestas1; (1) USDA NRCS, (2) Utah State University [14]

Effects of Prairie Dogs (Cynomys ludovicianus) and Cattle on Vegetation Composition and Disappearance in the Mixed-Grass Prairie Melissa L. Staples, Patricia S. Johnson, Lan Xu and Alexander J. Smart; South Dakota State University [15]

Setting the Stage to Enhance Ecological Site Description Applications to Wildlife Management in Sagebrush Ecosystems: A 2007 Society for Range Management Workshop Wendell Gilgert and Joel Brown; USDA NRCS [16]

Litter Decomposition in a Sierra Nevada Riparian Meadow as a Function of Plant Species, Distance from Stream Edge, and Grazing Edward A. Vasquez1, Gregg M. Riegel1 and Tony J. Svejcar1; (1) USDA ARS, (2) US Forest Service [17]

Adapting Ecological Sites Descriptions to Enhance Wildlife Management: Lessons Learned from the 2007 Society for Range Management Workshop Jeremy Maestas1, Terry A. Messmer2 and Joel Brown1; (1) USDA NRCS, (2) Utah State University [18]

The Effect of Brush Mowing on Invertebrate Populations in Sagebrush Ecosystems Lars Santana1, Tom Eager2, Kevin Alexander1, Evan Bulla1 and Angel Watkins3; (1) USDA NRCS, (2) US Forest Service, (3) Western State College [19]
Enhancing Knowledge of Rangeland Ecological Processes with Benchmark Ecological Sites - William G. Ypsilantis¹, Michael “Sherm” Karl¹, Tim Bottomley¹, Pete Biggam², Anthony O’Geen³, Curtis Talbot⁴, Lyn Townsend⁵, Brandon Bestelmeyer⁶ and Randy Davis⁷; (1) USDI-BLM, (2) USDI National Park Service, (3) University California – Davis, (4) USDA NRCS, (5) USDA ARS, (6) US Forest Service [20]

Distribution of Switchgrass in Mexico - Juan M. Martinez Reyna; Universidad Autonoma Agraria Antonio Narro [21]

Management Effects on Dynamic Soil Properties in the Northern Great Plains - Stanley C. Boltz and Rick Bednarek; USDA NRCS [22]

Grazing and Grazing Exclusion Effects on Chihuahuan Desert Vegetation Trends - Francisco Molinar¹, Joseph Navarro², Jerry Holechek³, Dee Gault⁴, and Milt Thomas⁵; (1) USDA-NRCS, (2) USDA-BLM, (3) New Mexico State University, (4) Private consultant [180]

Plant Posters

Seed Coat Dormancy on Native Plant Species from Chihuahua, Mexico - Alicia Melgoza¹, Abigail Vazquez¹, Pedro Juardo², Carlos Morales², Carlos Ortega³, Gerardo Bezanilla¹, Mario H. Royo⁷ and Carmelo Pinedo⁷; (1) UACH, (2) INIFAP [23]

Using a Hot Plate to Estimate Seed Viability - Clare L. Poulsen¹, Chad Boyd¹ and Jane M. Mangold²; (1) USDA ARS, (2) Montana State University [24]

Hybrid Buffelgrass: An Option for Higher Forage or Biomass Production in Mexico - Jorge R. Gonzalez-Dominguez¹, and Susana Gomez-Martinez²; (1) Saltillo, Coahuila, Mexico, (2) Universidad Autonoma Agraria Antonio Narro [25]

Morphological Traits in Some Commercial and Experimental Buffelgrass Varieties - Susana Gomez-Martinez¹ and Jorge R. Gonzalez-Dominguez²; (1) Universidad Autonoma Agraria Antonio Narro, (2) Fraccionamiento Insurgentes [26]

Seed Polymorphism in Two Western Nevada Indian Ricegrass Communities - Rachel Ezzell, Charlie D. Clements, Dan N. Harmon and Mark Weltz; USDA ARS [27]

Long Term Storage of Mojave Seed Species - Michele Clark, Dan N. Harmon, James A. Young and Charlie D. Clements; USDA ARS [28]

Germination Comparisons of Crested Wheatgrass Cultivars Hycrest and Hycrest II - Dan N. Harmon and Charlie D. Clements; USDA ARS [29]
Seasonal Growth and Nutritive Quality Distribution for 7 Warm Season Perennial Grasses in the Texas Rolling Red Plains Rob Ziehr, Rudy Esquivel, Ken Spaeth, George Peacock, Arnold Norman and Joel Douglas; USDA-NRCS [179]

Invasive Species/Weed Management Posters

Exotic Weeds and Plant Species Diversity as Affected by Groundwater Depth in the Great Basin Ricardo Mata-Gonzalez¹, Terry McLendon², David W. Martin³, M.J. Trlica³ and Robert A. Pearce⁴; (1) Oregon State University, (2) Colorado State University, (3) Los Angeles Department of Water and Power, (4) USDA NRCS [30]

Pastoral Livestock Facilitate Dispersal of Prosopis juliflora in an Ethiopian Wildlife Reserve Almaz Kebede¹ and D. Layne Coppock²; (1) Ethiopian Wildlife Conservation Authority, (2) Utah State University [31]

Targeted Grazing - Using Aversion Trained Sheep for Vineyard Floor Vegetation Control Morgan Doran¹, John Harper¹, Roger Ingram¹, Stephanie Larson¹, Mel George² and Emilio Laca²; (1) University of California Cooperative Extension, (2) University California – Davis [32]

Forage Species With Nitrate Toxic Principle Accumulation Capabilities for Cattle in Rangelands of Sonora, Mexico Francisco G. Denogean¹, Martha H. Martin¹, Fernando A. Ibarra² and Salomon Moreno¹; (1) Universidad De Sonora, (2) INIFAP [33]

Using Hoof Action to Control Clubmoss Robert Kilian¹, Katrina Johnson¹ and Renee Nelson²; (1) USDA NRCS, (2) Wibaux County Conservation District [34]

Arizona Invasive Species Strategic Management Plan John H. Brock¹, Thomas McMahon² and Brian McGrew³; (1) Arizona State University Polytechnic, (2) Arizona Department of Game and Fish, (3) Arizona Department of Agriculture [35]

Invasions of Kentucky Bluegrass in the Northern Great Plains: Does Precipitation or Defoliation Drive It? John R. Hendrickson¹ and Jinxiang Liu²; (1) USDA ARS, (2) Zhanjiang Normal University [36]

Landscape Scale Constraints on Conversion of a Sagebrush Steppe Ecosystem to an Annual Grass Dominated Stable State Marques Munis, Cynthia Brown, Roy Roath and Mike Coughenour; Colorado State University [37]

Long-Term Response of African Rue and Associated Vegetation to Herbicides Laurie B. Abbott, Kevin S. Branum, Nina Klypina and Tracy M. Sterling; New Mexico State University [38]
Shrub Restoration and the Use of Plateau Herbicide on Grazing Lands Affected by Cheatgrass Invasion Suzanne M. Neal1, Carolyn H. Sieg2 and Catherine Gehring1; (1) Northern Arizona University, (2) US Forest Service [39]

Patterns of Bluegrass Invasion into Fescue Monocultures Under Field Conditions Edward W. Bork and Walter D. Willms; University of Alberta [40]


Status Report on the “Wildfires and Invasive Plants in American Deserts” Symposium and Workshop Mike Pellant1, Matt Brooks2, Linda Coates-Markle1, Bud Cribley1, Nora Devoe1, Kurt Pregitzer3, Sherm Swanson3, John Tanaka4 and Mark Weltz5; (1) BLM, (2) USGS, (3) University of Nevada Reno, (4) Society for Range Management [43]

Short-Term Effect of Six Herbicides on Sandberg Bluegrass (Poa secunda) Following Wildfire Brad W. Schultz and Earl Creech; University of Nevada [44]

Herbicide Effectiveness on Adjacent Populations of Young (Seedling) and Mature Perennial Pepperweed (Lepidium latifolium) Brad W. Schultz; University of Nevada [45]

The Response of Crested Wheatgrass (Agropyron spp) Seedlings to Six Herbicides Brad W. Schultz and E. Creech; University of Nevada [46]

Assessing Invasion Strategies by Old World Bluestem, an Invasive C4 Grass Karen R. Hickman, Gail W.T. Wilson and Melinda M. Williamson; Oklahoma State University [47]

Vegetation Management and Restoration Practices Posters

Rates of Legume Decline Vary Among Forage Mixes in Central Alberta Erin M. McLeod, Edward W. Bork, Jane R. King and Linda M. Hall; University of Alberta [48]
Genetic and Phenotypic Analysis of Blue Grama (Bouteloua gracilis (Willd. Ex-Kunth) Lag. Ex-Steud.) Populations in Chihuahua Mexico Luís Madrid-Pérez¹, Quintón Rascón-Cruz¹, Carlos Morales Nieto², Víctor Aguirre Arzola³, Benito Pereyra-Alférez³, Guadalupe Nevárez-Moorillón¹, Armando Aguado-Santacruz¹ and Sigifredo Arévalo-Gallegos¹; (1) Universidad Autonoma de Chihuahua, (2) INIFAP-La Campana, (3) INIFAP-Bajío [49]

The Influence of Plant Functional Group Removal on Succession in Wyoming Big Sagebrush Communities Chad S. Boyd and Tony J. Svejcar; USDA ARS [50]

Establishing Fourwing Saltbush (Atriplex canescens) by Transplanting in Arid Zones in Northern Mexico Jesus Enrique Cantu Brito; UAAAAN UI, Mexico [51]

The Effect of Discing to Reduce Cheatgrass Densities Following Wildfires Charlie D. Clements, Dan N. Harmon and James A. Young; USDA ARS [52]

Hydrologic Response of Mechanical Mastication in Juniper Woodland in Utah Nathan L. Cline¹, Bruce A. Roundy¹, Fredrick B. Pierson², Patrick Kormos² and C. Jason Williams²; (1) Brigham Young University, (2) USDA ARS [53]

Glacier Creek Wetland Restoration in Rocky Mountain National Park Scott M. Esser, Jeff Maugans, Lonnie Pilkington, Lindsay Springer, Laura Wheatley and Ben Bobowski; National Park Service [54]

Native Prairie Restoration in the Lower Rio Grande Valley of Texas Anthony D. Falk¹, Timothy Fulbright¹, Paula Maywald², Forrest Smith², Stephen Benn¹ and Alfonso Ortega-Santos¹; (1) Texas A&M, (2) South Texas Natives, (3) Texas Parks and Wildlife [55]

Effects of 10 Years of Fire and Climate Variability on Perennial Grass Cover in Shortgrass Steppe of the Southern Great Plains Paulette L. Ford; US Forest Service [56]

Fire and Strategic Grazing Tools to Restore Rough Fescue Native Range in Alberta, Canada Kevin A. France and Callum Sears; Sustainable Resource Development [57]

Fire Fuel Load Effects on Heat Dosage and Perennial Plant Response Kimberly F. Haile and Lance T. Vermeire; USDA ARS [58]

Effects of Biosolids Application on Establishment of Native, Warm-Season Grasses in Abandoned Fields of Chihuahua, Mexico Pedro Jurado¹, Mario Royo¹, Carlos Morales¹, Ruben Saucedo¹ and Alicia Melgoza²; (1) Campo Experimental La Campana-Madera-INIFAP, (2) Universidad Autonoma de Chihuahua [59]
Establishment of Fourwing Saltbush Ecotypes in Northern Mexico’s Oak-Bunchgrass Rangelands Ruben Saucedo-Teran1, Jose Badillo-Almaraz2, Hector Rubio-Arias2 and Pedro Jurado-Guerra1; (1) Campo Experimental Campana-Madera-INIFAP, (2) Universidad Autonoma de Chihuahua [60]

Promoting the Re-Establishment of Herbaceous Native Plants on Mixed Brush Plant Communities With Roller Chopping Felix A. Ayala, J. Alfonso Ortega-S., Timothy E. Fulbright and G. Allen Rasmussen; Texas A&M University [61]

Analysis of the Morphological Variability in Populations of Green Sprangletop [(Leptochloa dubia (Kunth) Nees)] to Use in Rangeland Restoration Carlos R. Morales-Nieto1, Alicia Melgoza2, Pedro Jurado1, Martin Martinez1 and Otilia Rivero2; (1) Camp Exp. Campana-Madera INIFAP, (2) University Autonoma de Chihuahua [62]

Effects of Different Management Practices on Soil Seed Bank Composition in a Mixed-Grass Prairie of the Northern Great Plains Lan Xu, Brent E. Turnipseed, Roger N. Gates, Patricia S. Johnson and Nels H. Troelstrup, Jr.; South Dakota State University [63]

Grass, Forb and Shrub Response on Four Prescribed Burns in N.E. California Joseph A. Wagner; BLM [64]

Patch-Burn Grazing in the Bluestem Flint Hills and the Central States Cheryl K. Simmons, Reggie L. Blackwell, Marva L. Weigelt and Jane B. Koger; NRCS [65]

Forage Importance of Trees and Shrubs in Goat Production Systems in Northeast Durango, Mexico Celso M. Valencia-Castro, Jesús J. Quiñones-Vera, Edmundo Castellanos-Pérez and Gerardo Jiménez-González; Universidad Juárez del Estado de Durango [66]

Predicting Herbage Mass in Irrigated Orchardgrass (Dactylis glomerata L.) Pastures Glenn E. Shewmaker1, Laura K. Hooper1 and Thomas Griggs2; (1) University of Idaho, (2) West Virginia University [67]

The Murphy Complex Wildfire Report on Livestock Grazing, Vegetation Type, and Fire Behavior Mike Pellant1, Karen Launchbaugh2, Matt Brooks3, Jay Davison4 and Steve Bunting5; (1) BLM, (2) University of Idaho, (3) USGS, (4) University of Nevada [68]

Kochia and Non-Natives for Restoration, Good or Bad? Kim Anderson and Richard D. Madril; BLM [69]

Cost Effectiveness of Fuel Break Treatments in Cheatgrass-Dominated Landscapes Christopher A. Call1, Joel M. Diamond1, Nicole McCoy2 and Nora Devoe3; (1) Utah State University, (2) BLM [70]
Response of Soil Microbial Communities to Prescribed Fire in a Semi-Arid Grassland
Carlton S. White¹, Martina Stursova¹, Rosemary L. Pendleton² and Robert L. Sinsabaugh³; (1) University of New Mexico, (2) US Forest Service [71]

Effect of Fire Season and Spring Grazing on Soil Seedbank in the Northern Great Plains
Jennifer M. Muscha and Lance T. Vermeire; USDA ARS [72]

Effect of Prescribed Fire on Standing Crop Production in Halophilous Grassland of Durango, Mexico
Jesús J. Quiñones-Vera, Celso M. Valencia-Castro, Edmund Castellanos-Perez, Olvera Sanchez-Olvera, Juan J. Martinez-Rios and Gerardo Jimenez-Gonzalez; Universidad Juarez del Estado de Durango [73]

Effects of Seeding Rate and Season of Seeding on Establishment of Ten Native Grasses in the Rio Grande Plains of Texas
Forrest S. Smith¹, William R. Ocumpaugh², Paula D. Maywald¹ and Jim Mutz³; (1) Texas A&M University, (2) Texas Agrilife Research [74]

Effects of Prescribed Burning on Grazed Shortgrass Steppe
David J. Augustine¹, D.G. Milchunas² and J.D. Derner³; (1) USDA ARS, Rangeland Resources Research Unit, (2) Colorado State University, (3) USDA ARS, High Plains Grasslands Research Station [178]

Rangeland Cup Posters
Tuesday Morning Technical Session

Vegetation Management and Restoration I

Chair: John Brock
Room: Tesuque

8:20 An Integrative Approach for Ecological Restoration in Rangelands of the Burgos Basin, Northeast Mexico Mario G. Manzano; Tecnológico de Monterrey-ITESM

8:40 Tree Shearing to Control Douglas-Fir Encroachment on Foothill Grassland Cindy M. Selensky¹, Jeffrey C. Mosley¹, Brent L. Roeder¹, Tracy K. Brewer² and Rachel A. Frost¹; (1) Montana State University, (2) Park County Extension, Montana State University

9:00 After Invasion: Genetic and Phenotypic Variation of Remnant Natives in Greenhouse Production Karin E. Bergum¹, Ann L. Hild¹ and Brian A. Mealor²; (1) University of Wyoming, (2) The Nature Conservancy

9:20 Retaining Evolutionary Potential in Restored Plant Populations Erin K. Espeland; USDA ARS

9:40 Vegetation Following Chemical Control of Canada Thistle: Native Recovery or Secondary Invasion? Amy J. Symstad; USGS

10:00 Break

10:20 Methods of Restoration and Improvement of Rangelands in Uzbekistan T. Mukimov¹, S. Yusupov¹ and D. Johnson²; (1) Uzbek Research Institute of Karakul Sheep Breeding and Desert Ecology, (2) USDA ARS

10:40 Vegetation Management in Greasewood Bottomlands Matthew M. Church, Mary I. Williams, Ann L. Hild and Ginger B. Paige; University of Wyoming

11:00 Plant Community Response Following Dry Forest Ecosystem Restoration Timothy J. Ross¹ and Reg F. Newman; (1) Range and Reclamation Services, (2) BC Ministry of Forests Research Branch
Tuesday Morning Technical Session

Grazing I

Chair: Mark Peterson
Room: Santo Domingo

8:20 Effects of Irrigation and Grazing Systems on Steer Performance and Plant Response in an Old World Bluestem Pasture Gerardo Bezanilla1 and Carlos Villalobos2; (1) Universidad Autonoma de Chihuahua, (2) Texas Tech University

8:40 Optimal Protein Feeding of Karakul Sheep in Premountain Wildlands of Uzbekistan Erach Mamedov, Uzbek Research Institute of Karakul, Uzbekistan

9:00 Perennial Forage Kochia for Improved Winter Grazing Linden K. Greenhalgh1, Kenneth C. Olson2, Dale R. ZoBell1, Blair L. Waldron1, Alicia R. Moulton1 and Burke W. Davenport2; (1) Utah State University, (2) South Dakota State University, (3) USDA-ARS, (4) USDA-NRCS

9:20 Repeatable Environments: Understanding the Role of Traditional Public Lands Grazing Practice in Relation to Wolf-Livestock Conflicts in the Rocky Mountains Timmothy J. Kaminski1, Charles Mamo2 and Sarah Dewey3; (1) Mountain Livestock Cooperative, Montana, (2) Longview Conservation-Canada, (3) Northern Rockies Conservation Cooperative, Wyoming

9:40 Cattle Habitat Selection and Associated Effects on Deciduous Tree Regeneration in Alberta Jillian Kaufmann1, Edward Bork1 and Mike Alexander2; (1) University of Alberta, Canada, (2) Alberta Sustainable Resource Development, Canada

10:00 Break

10:20 Grazing Management Effects on Soil Aggregate Size Distribution and Stability in the Missouri Coteau Region Guojie Wang, Kevin Sedivec, Paul Nyren and Anne Nyren; North Dakota State University

10:40 Cows, Bikes, Hikes and Kites: Minimizing Conflict Between Public Recreation and Grazing Livestock Sheila J. Barry1 and David Amme2; (1) University of California-Davis, (2) East Bay Regional Park District
Tuesday Morning Symposium

Solutions to Locoweed Poisoning in New Mexico and the Western US: Collaborative Research of New Mexico State University and USDA/ARS Poisonous Plant Lab

Moderator: Michael Ralphs
Room: San Miguel

8:00 The Magnitude of Locoweed Poisoning in New Mexico and the Collaborative Research Between New Mexico State University and the USDA/ARS Poisonous Plant Lab David Graham; New Mexico State University

8:15 Genetics of the Fungal Endophytes of Locoweed Rebecca Creamer, Deana Baucom, Marie Romero and Robert Belfon; New Mexico State University

8:30 Swainsonine Distribution in Locoweed Species, Plant Parts and the Endophyte Transmission to Progeny Daniel Cook, Dale Gardner, James Pfister, Michael Ralphs, Benedict T. Green, T. Zane Davis and Kevin D. Welch; USDA-ARS

8:45 Animal Susceptibility, Toxicity and Comparative Pathology of Locoweed Poisoning in Livestock and Wildlife Bryan L. Stegelmeier, T. Zane Davis, Kevin Welch, Benedict T. Green, Dale R. Gardner and Stephen T. Lee; USDA-ARS

9:00 Development of a Biomarker for Locoweed Poisoning Kevin Welch, Bryan Stegelmeier, Kip Panter, Michael Ralphs, Dale Gardner and Daniel Cook; USDA-ARS

9:15 Effect of Locoweed (Oxytropis sericea) on Reproduction and Maternal and Neonate Behavior in Sheep James A. Pfister, Kip Panter, Ben Green, T. Zane Davis, S. T. Lee, Daniel Cook and Kevin D. Welch; USDA-ARS

9:30 Do Animal-to-Animal Variations in Locoweed Ingestion Patterns Offer Opportunities to Reduce Intoxication Rates of Naive Yearling Cattle? Andres F. Cibils¹, Kyle T. Jackson¹, Jacob A. Martin¹, J. David Graham¹, Dale R. Gardner² and Robert L. Wesley¹; (1) New Mexico State University, (2) USDA-ARS

9:45 Grazing Management Recommendations to Reduce Risk of Locoweed Poisoning Michael H. Ralphs¹, David Graham², James A. Pfister¹ and Dale R. Gardner¹; (1) USDA-ARS, (2) New Mexico State University

10:00 Break
10:15 Managing Woolly Locoweed (*Astragalus mollissimus*) Toxicity of Grazing Beef Cattle in Northeastern New Mexico E. Manuel Encinas1, D. Calderon-Mendoza1, F. Loya1, C. Murdock1, D. Graham2 and M.H. Ralphs3; (1) NMSU Clayton Livestock Research Center, (2) New Mexico State University, (3) USDA-ARS

10:30 Herbicide Control of Locoweeds Kirk McDaniel; New Mexico State University

10:45 Role of Native Insects in the Biological Control of Locoweed David C. Thompson and Kevin T. Gardner; New Mexico State University

11:00 Discussion and Future Research Needs

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**Tuesday Morning Symposium**

**Rangeland Hydrology and Erosion Technology Advancements**

Moderator: Kenneth E. Spaeth Jr.

Room: Laguna

8:00 Overview of Current and Future Technologies in Rangeland Hydrology Mark A. Weltz, USDA ARS

8:15 Hydrologic Effects of Fire in Sagebrush Plant Communities: Implications for Rangeland Hydrology and Erosion Modeling Frederick B. Pierson1, Peter R. Robichaud2, Corey A. Moffett1, Kenneth E. Spaeth3 and C. Jason Williams1; (1) USDA ARS, (2) US Forest Service, (3) USDA NRCS

8:30 Rangeland Hydrology and Erosion Model Mark A. Nearing1, Fred B. Pierson1, Mark A. Weltz1, Kenneth E. Spaeth2 and H. Wei3; (1) USDA ARS, (2) USDA NRCS, (3) University of Arizona

8:45 New Technologies for Modeling Fire and Disturbed Conditions in Forest and Rangeland William J. Elliot1, Peter R. Robichaud1, Fred B. Pierson2 and Corey A. Moffett2; (1) US Forest Service, (2) USDA ARS

9:00 Rangeland Hydrology and Erosion Modeling: Status and Challenges in Tropical Rangelands James P. Dobrowolski1 and Thomas L. Thurow2; (1) USDA-CREES, (2) University of Wyoming

9:30 Dominant Erosion Processes Associated with a Grassland State and Transition Model in Southeastern Arizona Jeffry J. Stone¹, Jared Buono² and Gingber Paige³; (1) USDA ARS, (2) University of Arizona, (3) University of Wyoming

9:45 Concentrated Flow Experiments on Burned and Unburned Sagebrush Communities: Applications for the Rangeland Hydrology and Erosion Model Corey A. Moffet¹, Fredrick B. Pierson¹ and Peter R. Robichaud²; (1) USDA ARS, (2) US Forest Service

10:00 Break

10:15 Effect of Plant Species Composition on Rangeland Hydrology and Erosion Kenneth E. Spaeth¹, F.B. Pierson² and P.R. Robichaud³; (1) USDA NRCS, (2) USDA ARS, (3) US Forest Service

10:30 Improving Rangeland Hydrology and Erosion Simulation Models: Coarse Particle Movement in Channels and Sediment Yield in Small Watersheds Mary H. Nichols; USDA ARS

10:45 Multiscale Variability of Soil Aggregate Stability: Implications for Rangeland Hydrology and Erosion Michael C. Duniway¹, Jeffrey E. Herrick¹, Kenneth E. Spaeth¹, Nichole Barger¹, Justin VanZee¹ and Jayne Belnap¹; (1) USDA ARS, (2) USDA NRCS, (3) University of Colorado-Boulder, (4) USGS

11:00 Rangeland Hydrology and Erosion Modeling in CEAP and NRI Activities Leonard W. Jolley¹, Mark Weltz², J. Jeff Goebel¹ and Mariano Hernandez³; (1) USDA NRCS, (2) USDA ARS

Tuesday Morning Symposium

Rangeland Animal Behavior: Integration of Ethology and GPS/GIS/RS Technologies

Moderator: Pat Clark a.m.
Ken Crane p.m.

Room: Santa Ana

8:00 Opening Remarks Morning Session Patrick Clark; USDA ARS

8:15 Beyond Collarin’ and Follerin’: Studying Ungulate/Carnivore Interactions Craig G. White, George Pauley, Nathan Borg, Mark Hurley and Pete Zagar; Idaho Department of Game and Fish

8:50 Cutting-Edge Technologies: GPS/Satellite Communications-Based Tracking System Patrick E. Clark¹, David F. Spencer², Douglas E. Johnson³ and Fredrick B. Pierson¹; (1) USDA ARS, (2) M2E, Inc., (3) Oregon State University
9:25 A Time-Step Nonlinear Model of Cattle Site Preference in Northeastern Oregon and Western Idaho M.D. Johnson¹, K. D. Wilson², P.E. Clark³, L.L. Larson⁴, A.L. Woerz⁵, M. Louhaichi⁶ and D.E. Johnson⁷; (1) University of California-Santa Barbara, (2) Eastern Oregon University, (3) USDA ARS, (4) Global Geomatic Solutions, Mülheim am der Ruhr, Germany, (5) International Center for Agricultural Research in the Dry Areas (ICARDA), Aleppo Syria, (6) Oregon State University

10:15 Effect of Lunar Phase on Summer Activity Budgets of Rocky Mountain Elk (Cervus elaphus nelsonii) Gail J. Woodside¹, Douglas E. Johnson¹, Patrick E. Clark², David C. Ganskopp³, Martin Vavra³, Brian L. Dick³ and Mitchel G. Wilkinson¹; (1) Oregon State University-Corvallis, (2) USDA ARS, (3) US Forest Service

10:50 Utilizing Resource Selection Modeling in Rangeland Ecology Kenric J. Walburger¹, Martin Vavra² and Timothy DelCurto¹; (1) University of Saskatchewan, (2) US Forest Service, (3) Oregon State University

11:25 Use of GPS and GIS Technologies to Develop and Evaluate New Approaches to Manipulate Cattle Distribution Derek W. Bailey; New Mexico State University

1:00 Opening Remarks Afternoon Session Douglas E. Johnson; Oregon State University

1:15 The Starkey Project: Long-Term Studies of Elk, Deer, and Cattle Martin Vavra, Michael J. Wisdom and Mary M. Rowland; US Forest Service

1:50 Intrinsic Movement Patterns of Grazing Rocky Mountain Elk (Cervus elaphus nelsonii) and Beef Cattle (Bos taurus) M. D. Johnson¹, P. E. Clark², D.G. Ganskopp³, G. J. Woodside³, M. Vavra, M. Louhaichi⁴ and D. E. Johnson⁵; (1) University of California-Santa Barbara, (2) USDA ARS, (3) US Forest Service, (4) International Center for Agricultural Research in the Dry Areas (ICARDA), (5) Oregon State University

2:25 Distribution and Interaction of White-Tailed Deer and Cattle in South Texas Rangeland Susan M. Cooper¹, Humberto L. Perotto-Baldivieso² and M. Keith Owens²; (1) Texas AgriLife Research, (2) Oklahoma State University

3:00 Break
3:15 Spatial Spread of a Cattle Herd as a Function of Period of Day, Season and Activity in a Semi-Arid Rangeland in South Texas, USA
Christopher E. Cheleuitte-Nieves, Humberto Perotto-Baldivieso, X. Ben Wu and Susan Cooper; Texas A&M University

3:50 Pre and Post-Burn Cattle Distribution Patterns: Sagebrush Steppe
David C. Ganskopp¹ and Dave Bohnert²; (1) USDA ARS, (2) Oregon State University

4:25 Influence of Weather and Animal Related Factors on Grazing Distribution of Livestock
Andres F. Cibils¹, Christina M. Rubio¹, Robert L. Wesley¹, Mark K. Petersen¹, Ed L. Fredrickson², Miguel A. Brizuela³ and M. Silvia Cid³; (1) New Mexico State University, (2) USDA ARS, (3) Universidad Nacional del Mar del Plata, Argentina

5:00 Foraging Activity and Movements of GPS-Collared Cattle, Elk, Bison and Deer in the Aspen Parkland of Alberta, Canada
Patrick O. Jones, Philip DeWitt and Evelyn Merrill; University of Arizona

Tuesday Morning Symposium
Ecology and Management of Invasive Annual Grasses in the West: Current State of Knowledge and Future Directions
Moderator: Jeremy James
Room: Mesilla

8:00 Opening Remarks
Jeremy J. James; USDA-ARS

8:10 Invasion! Immigration and Spread of Bromus tectorum Genotypes Across North America: Allozyme and Historical Evidence
Richard N. Mack; Washington State University

8:35 Effects of Rainfall, Soil and Livestock Grazing on Dominance of California Rangeland by an Exotic Annual Bromus Species
Carla M. D’Antonio and Claudia M. Tyler; University of California-Santa Barbara

9:00 Ranchers’ Perspectives on Invasive Annual Grass Management in Sagebrush Steppe Rangelands
Duston D. Johnson¹, Kirk W. Davies², Peter Schreder¹ and Anna-Marie Chamberlain¹; (1) Oregon State University, (2) USDA ARS

9:25 Social, Political and Practical Challenges of Managing Annual Grass-Dominated Landscapes
Tyler J. Staggs; BLM

9:50 Break
10:00 Linking Traits of Invasive Annual Grasses to Degradation of Ecological Processes Thomas A. Monaco; USDA ARS

10:25 Are We Overlooking the Value of Remnant Native Plants in Highly Invaded Communities? Elizabeth A. Leger; University of Nevada

10:50 Soil Nitrogen and Annual Grass Invasion: Meta-Analysis, Mechanisms and Management Options Jeremy J. James; USDA ARS

11:15 Soil Water Availability and Invisibility of Great Basin Big Sagebrush Communities to Cheatgrass Bruce A. Roundy¹, Alison Whittaker² and Jeanne C. Chambers¹; (1) Brigham Young University, (2) Utah Division of Wildlife Resources, (3) US Forest Service

11:40 Impacts of Cheatgrass in the Snake River Birds of Prey National Conservation Area John C. Sullivan; BLM

1:00 Ecological and Economical Impacts of Management Options for Medusahead Control Theresa A. Becchetti, Stephanie Larson-Praplan, Dr. Jimin Zhang, Christine Dillard, Craig Schriefer, Corey Cherr and Dr. Emilio Laca; University of California-Davis

1:25 Soil Nitrogen Management and Invasion Resistance Edward A. Vasquez, Roger L. Sheley, Tony J. Svejcar and Brenda S. Smith; USDA ARS

1:50 Growth Regulator Herbicides Reduce Invasive Annual Grass Seed Production Matthew J. Rinella¹ and Robert A. Masters²; (1) USDA ARS, (2) Dow AgroSciences

2:15 Spatial Distribution and Scaling of Impacts of Invasive Grasses Corey M. Cherr and Emilio A. Laca; University of California-Davis

2:40 Break

2:50 Toward Ecologically-Based Integrated Weed Management Roger L. Sheley, Ed Vasquez, Brenda Smith and Tony Svejcar; USDA ARS

3:15 Management of Invasive Annual Grasses in the West: A Synthesis of Current State of Knowledge and Future Directions Thomas A. Monaco; USDA ARS

3:40 Closing Remarks Jeremy James; USDA ARS

3:50 Panel Discussion
Tuesday Afternoon Technical Session

Ecology II

Chair: Sam Fuhlendorf  
Room: Laguna

1:00 Plant Community Response to the Interaction of Small-Scale and Large-Scale Disturbance in Mesic Mixed Prairie
Ryan F. Limb¹, David M. Engle¹, Terrance G. Bidwell¹, Donald P. Althof² and Philip S. Gipson³; (1) Oklahoma State University, (2) University of Rio Grande, (3) Texas Tech University

1:20 Grazing and Burning Effects on Plant Community Diversity and Heterogeneity in Fescue Prairie
Nadia Mori, Ken J. Walburger and Jim T. Romo; University of Saskatchewan

1:40 Ecological Responses Following Harvest of Mesquite for Bioenergy Uses
James R. Ansley, Mustafa Mirik and Roy Stanford; Texas AgriLife Research

2:00 Shrub Expansion in Northern Chihuahuan Desert Grasslands: Spatial Patterns of Transition and Biophysical Constraints
Darroc P. Goolsby¹, Brandon Bestelmeyer² and Steve Archer³; (1) New Mexico State University, (2) USDA ARS, (3) University of Arizona

2:20 Landscape Function Changes Along Lajane Piosphere
Eahsan Shahriary¹, Michael W. Palmer¹, David Tongway¹, Hossein Azarnivand¹, Mohammad Jafari³ and Vahid Habibi³; (1) Oklahoma State University, (2) CSIRO, (3) University of Tehran

2:40 Initial Analysis of Native Bee Communities Present on Two Sagebrush Steppe Sites in Southern Idaho
Stephen P. Cook, Sara Birch and Carrie Caselton Lowe; University of Idaho

3:00 Break

3:20 Genetic Diversity Patterns and Adaptation of Allium acuminatum in the Great Basin
Richard C. Johnson and Babara Hellier; USDA ARS

3:40 Pyric-Herbivory and Patch Burning: What About Number and Size?
Brady W. Allred¹, Ryan Limb¹, Sam Fuhlendorf¹ and Bob Hamilton²; (1) Oklahoma State University, (2) The Nature Conservancy

4:00 Survival of Eleven Alfalfa Populations in Semiarid Rangeland
Chris G. Misar, Lan Xu, Roger Gates, Arvid Boe and Patricia Johnson; South Dakota State University
Tuesday Afternoon Technical Session

Vegetation Management and Restoration II

Chair: Chad Cummings
Room: Tesuque

1:00 Use of TebuThiuron to Restore Remnant Warm-Season Prairie Grasses in Degraded Grasslands
Robert A. Masters¹, Byron B. Sleugh¹ and Walter H. Schacht²; (1) Dow AgroSciences, LLC, (2) University of Nebraska

1:20 Use of Aminopyralid in Habitat Restoration Projects
Vanelle Peterson¹, Byron Sleugh¹, Dean Gaiser², Jerry Benson³ and Mike Finch⁴; (1) Dow AgroSciences, (2) Eco-Logical Management, (3) BFI Native Seeds, (4) Washington Dept of Fish and Wildlife

1:40 Wet Thermal Accumulation Modeling of Field Germination of Several Rangeland Species
Jennifer K. Coleman¹, Bruce A. Roundy¹, Brad Jessop² and April Hulet¹; (1) Brigham Young University, (2) BLM

2:00 Caucasian Bluestem Control Using Glyphosate and Imazapyr
Walter H. Fick; Kansas State University

2:20 Soil CO₂ Emissions in Masticated Woodlands of Juniperus osteosperma
Kert Young, Bruce Roundy and Richard Terry; Brigham Young University

Tuesday Afternoon Technical Session

Grazing II

Chair: Justin Derner
Room: Santo Domingo

1:00 Comparison of Active and Historic Livestock Grazed Sites on the Colorado Plateau
Shannon M. Moore¹, Steven Bekedam² and Ben Baldwin³; (1) Utah State University, (2) National Park Service

1:20 Relationship Between Forage Allowance and Grazing Efficiency in the Great Plains: Implications for Managing Rangelands for Both Livestock Production and Desired Ecosystem Goods and Services
Alexander Smart¹, Justin Derner², Barry Dunn³, Eric Mousel¹, Kevin Sedivec⁴, Keith Harmoney⁵, Jerry Volesky⁶, Robert Gillen⁷ and John Hendrickson²; (1) South Dakota State University, (2) USDA ARS, (3) Texas A&M University, (4) North Dakota State University, (5) Kansas State University, (6) University of Nebraska
1:40 Potential for Amendments to Improve In-Vitro Fermentation of Diets Containing Honey Mesquite
Barbara K. Witmore, Derek W. Bailey and Mark K. Petersen; New Mexico State University

2:00 Comparison of Stocker Calf Placement on Native Rangeland vs. Direct Feedlot Finishing
Keith R. Harmoney and John R. Jaeger; Kansas State University

2:20 Diet Quality and Composition of Cattle (Bos spp) and Elk (Cervus elaphus) Grazing Pinyon-Juniper Rangeland in Central Arizona
Douglas R. Tolleson¹, Larry D. Howery¹, Lacy E. Halstead¹, George B. Ruyle¹, David W. Schafer¹, John A. Kava¹, Kris K. Williams² and Stephen D. Prince³; (1) University of Arizona, (2) Texas A&M University

2:40 Nutritional Quality and Yield of Aspen Suckers Under Simulated Browsing
Koketso Tshireletso¹, John C. Malechek² and Dale L. Bartos²; (1) Botswana College of Agriculture, (2) Utah State University

3:00 Break

3:20 Does Repeated Intensive Defoliation Influence Cool- and Warm-Season Plant Cover in Shortgrass Steppe and Northern Mixed-Grass Prairie?
Jordana J. LaFantasie¹, Justin D. Derner² and Stephen F. Enloe³; (1) Fort Hays State University, (2) USDA ARS, (3) Auburn University

3:40 Influence of Supplemental Legumes that Contain Tannins and Saponins on Intake and Diet Digestibility in Sheep Fed Grasses that Contain Alkaloids
Jacob M. Owens, Frederick D. Provenza, Juan J. Villalba and Randy W. Wiedmeier; Utah State University

4:00 There’s More to Diet Selection than Protein and Energy: The Role of Secondary Compounds in Animal Grazing Behavior
Tiffanny D. Lyman, Fedrick D. Provenza, Juan J. Villalba and Randall D. Weidmeier; Utah State University

4:20 Searching for the Holy Grail - Questions, Myths, Realities
Kevin Guinn; USDA NRCS
Tuesday Afternoon Symposium

Conservation Effects Assessment Project Rangeland Literature Synthesis: An Initial Report

Moderator: Leonard Jolley
Room: Ruidoso

1:00 Rangeland CEAP Literature Synthesis: Objectives and Goals Leonardo W. Jolley; USDA NRCS

1:10 Assessment of Prescribed Grazing as a Conservation Practice David D. Briske¹, Justin D. Derner², Daniel G. Milchunas³ and Ken W. Tate⁴; (1) Texas A&M University, (2) USDA ARS, (3) Colorado State University, (4) University of California-Davis

1:30 Brush Management and Conservation: New Perspectives on an Old Problem Steven R. Archer¹, Kirk W. Davies², Timothy E. Fulbright³, Kirk McDaniel⁴ and Bradford P. Wilcox⁵; (1) University of Arizona, (2) USDA ARS, (3) Texas A&M University, (4) New Mexico State University

1:50 Assessment of Prescribed Fire as a Conservation Practice Samuel D. Fuhlendorf⁶, David M. Engle¹, Ryan Limb¹ and Rick Miller²; (1) Oklahoma State University, (2) Oregon State University

2:10 Assessment of Range Planting as a Conservation Practice Stuart P. Hardegree¹, Bruce A. Roundy², Nancy L. Shaw³, Corey A. Moffet¹, Thomas A. Monaco¹, Thomas A. Jones¹ and Edward F. Redente⁴; (1) USDA ARS, (2) Brigham Young University, (3) US Forest Service, (4) Colorado State University

2:30 Assessment of Rangeland Practices to Enhance Wildlife Paul R. Krausman¹, Vernon C. Bleich², Bill Block¹, David Naugle¹ and Mark C. Wallace³; (1) University of Montana, (2) California Department of Fish and Wildlife, (3) US Forest Service, (4) Texas Tech University

2:50 Break

3:10 Invasive Plant Management Roger L. Sheley¹, Dana Blumenthal¹, Joe Di’Tomaso² and Matthew Rinellaj; (1) USDA ARS, (2) University of California-Davis

3:30 Evaluating the Influence of Riparian Management Practices on Ecosystem Services Melvin R. George¹, Chad Boyd², Randall Jackson³ and Ken Tate¹; (1) University of California-Davis, (2) USDA ARS, (3) University of Wisconsin

3:50 Assessment of the Landscape Aspects of Conservation Practices Ben X. Wu¹, Brandon Bestelmeyer², Joel Brown¹ and Sam Fuhlendorf⁶; (1) Texas A&M University, (2) USDA ARS, (3) USDA NRCS, (4) Oklahoma State University
### Tuesday Afternoon Forum

**Producers’ Forum: Tales of Tradition and Innovation on the New Mexico Range**

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<td>1:30</td>
<td>Generations of Genizaro</td>
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<td>135 Years of Ranching in Colfax County NM - Things We’ve Learned So Far!</td>
<td>Bruce Davis; CS Ranch, Cimmaron, NM</td>
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<td>3:00</td>
<td>The Good, the Blond, and the Ugly</td>
<td>Alisa Ogden; Ogden Farms and Cattle Co., Loving, NM</td>
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<td>Panel Discussion: Ranching Challenges and Opportunites in the Land of Enchantment</td>
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Systematically Improving Ecological Site Description Delivery in New Mexico
John E. Tunberg and Michael Carpinelli; USDA NRCS [75]

Ecological and Social Dimensions of Using Extreme Prescribed Fire to Restore Rangeland Ecosystems in Texas
David Toledo, Urs P. Kreuter, William E. Grant and Dirac Twidwell; Texas A&M University [76]

Communication, Conflict and Science in Natural Resource Collaboration: A Case Study of an Inactive Collaborative Group
Aleta K. Rudeen, Maria Fernandez-Gimenez, Jessica Thompson and Paul Meiman; Colorado State University [77]

Understanding the Impacts of the Memorial Middle School Ag Science Center on Youth Development
Peter Skelton and Tom Dormody; New Mexico State University [78]

Managing Your Piece of Texas
Mark E. Moseley; USDA NRCS [79]

Public Use Hiking Trail at Smoky Valley Ranch
Robert A. Nicholson and Mike Goodwin; Kansas Trails Council [80]

Meat Goats in South Dakota
Irene Graves; South Dakota State University [81]

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Melvin R. George, Cody M. Sheehy, Stephanie Larson, John Harper, Neil McDougald and Roger Ingram; University of California [82]

Economic Impact of Toxic Plants on Livestock Production in Sonora, Mexico
Fernando A. Ibarra, Moreno Salomon, Francisco G. Denogean Ballesteros, Martha H. Martin and Arturo Baldenegro; Universidad De Sonora [83]

Creep Feeding and Early Weaning to Increase Calf Production and Ranch Profitability in Sonora, Mexico
Fernando A. Ibarra, Cyrene Y. Moreno, Jesus J. Fimbres, Salamon Moreno, Fransico G. Denogean Ballesteros and Fernanda L. Leon; Universidad De Sonora, Santa Ana [84]

Is Early Weaning an Option to Increase Calf Production in Sonora, Mexico? - Ranchers Perceptions
Fernando A. Ibarra, Fernanda L. Leon, Martha H. Martin, Francisco G. Denogean, Salomon Moreno and Cyrene Y. Moreno; Universidad de Sonora. [85]
Satellite Technology Provides Livestock Producers with New Tools in Tracking Livestock Water Supplies

Timothy L. Deboodt; Oregon State University [86]

Perceptions of Oklahoma Residents to Prescribed Fire

Robert D. Elmore, Brett Cooper, Terrence G. Bidwell and John R. Weir; Oklahoma State University [87]

Rangelands: Changes to Improve the Quality and Performance of an Important SRM Journal

Joel R. Brown¹ and Ed Fredrickson²; (1) USDA NRCS, (2) USDA ARS [88]

Exploring the Relationship Between Community-Based Rangeland Management and Social-Ecological Resilience of Rural Mongolian Communities

Batkhishig Baival and Maria Fernandez-Gimenez; Colorado State University [89]

Transforming Conflict into Collaboration for Improved Stewardship of Public Rangelands

Jennifer S. Arnold¹, George Ruyle², Ginger Cheney³, Wink Crigler¹, Doug Dressler and Wilma Jenkins⁴, Jim and Clarice Holder⁴, Barbara Marks⁵, Macky Trickey⁵ and Sam Udall⁶; (1) University of Florida, (2) University of Arizona, (3) Marks Ranch, (4) X Diamond Ranch, (5) Double Circle Ranch, (6) Holder Ranch, (7) H-V Ranch and (8) X Cross Ranch [90]

University Science and a Third Party Role in Participatory Adaptive Management

Adriana Sulak, Lynn Huntsinger; University of California-Berkeley [91]

Wildlife Posters

Birds at Home on the Range: South Dakota Grassland Coalition Bird Watching Tour

Kyle Schell and Alexander Smart; South Dakota State University [92]

Evaluating the Extent of Coyote Depredation on Illinois Cattle and Sheep Operations

Justin W. Rickard¹, B.R. Wiegand¹ and K.R. Brooks²; (1) University of Missouri, (2) Oklahoma State University [93]

The Dark Kangaroo Mouse: Microdipodops megacephalus, an Endemic Species to North America

Ruth Walker, Ashley Haug, Loreen Woolstenhulme, Hal Black, Janene Auger and Steven Petersen; Brigham Young University [94]

Predicting Sage-Grouse Nesting Habitat at Multiple Spatial Scales in Southeastern Oregon

Steven L. Petersen¹, Andrew Yost², Michael Gregg³ and Richard F. Miller⁴; (1) Brigham Young University, (2) Ecological Consultant, (3) Mid-Columbia River National Wildlife Refuge Complex, (4) Oregon State University [95]
Evaluation of Diet Quality Predictions for Pronghorn Antelope (*Antilocapra americana*) Using Fecal NIRS Calibrations from Surrogate Species John A. Kava¹, Douglas R. Tolleson¹, Stephen D. Prince², Kris K. Banik² and Larry R. Bright³; (1) The University of Arizona, (2) Texas A&M University, (3) US Forest Service [96]

Velocity of Rocky Mountain Elk (*Cervus elaphus nelsonii*) Grazing a Northeast Oregon Pasture Gail J. Woodside¹, Douglass E. Johnson¹, Patrick E. Clark², David C. Ganskopp³, Martin Vavra³, Brian L. Dick³ and Mitchel G. Wilkinson¹; (1) Oregon State University, (2) USDA ARS, (3) US Forest Service [97]

Grazing Posters

Changes in Digestibility of Mature Forage with Addition of *Juniperus monosperma* or alpha-Pinene Christine Roof, Laura Dawdy, Shanna L. Lodge-Ivey and Mark K. Petersen; New Mexico State University [98]

Effect of *Juniperus monosperma* on Rumen Bacterial Diversity Laura Dawdy, Shanna L. Lodge-Ivey, Johnette Browne-Silva, Christine Roof and Mark K. Petersen; New Mexico State University [99]

How Holistic Planned Grazing Differs from Rotational Grazing Richard J. King; USDA-NRCS [100]

Gathering Cows Using Virtual Fencing Methodologies Dean M. Anderson¹ and Daniela Rus²; (1) USDA-ARS, (2) MIT Computer Science and Artificial Intelligence Laboratory [101]

Are “As Excreted Values” Valid in Phosphorus Budgets for Grazing Beef Cattle? Peter B. Deal¹, John J. White¹ and C. Randy Bateman²; (1) USDA-NRCS, (2) Osceola County Soil and Water Conservation District, (3) Osceola County Cooperative Extension Service [102]

Management Approaches to Accomplish Contemporary Livestock Production-Conservation Objectives in the Shortgrass Steppe Justin D. Derner¹, David J. Augustine¹, Paul Stapp² and William K. Lauenroth³; (1) USDA-ARS, (2) California State University-Fullerton, (3) University of Wyoming [103]

Long-Term Grazing Management Impacts on Plant Community Diversity in the Missouri Coteau Region Guojie Wang, Kevin Sedivec, Paul Nyren and Anne Nyren, North Dakota State University [104]

Sheep Grazing Effects on Tall Forb Vegetation Keith D. Klement¹ and Corey A. Moffet²; (1) The Noble Foundation, (2) USDA-ARS [105]
Monitoring Spring Use of Pinyon Juniper Woodlands by Cattle in Relation to Tree Canopy Cover Jairo R. Mora Delgado, Andres F. Cibils, Christy M. Rubio, Raul H Peinetti, Brad F. Cooper, Mark K. Petersen and Shad H. Cox; (1) Universidad Nacional del Tolima, (2) New Mexico State University, (3) USDA-ARS [106]

Comparing Beef Cow Behavioral Syndromes to Measures of Productivity and Spatial Use of Rangelands Robert L. Wesley, Andres F. Cibils, Emily R. Pollak, Shad H. Cox, J. Travis Mulliniks, Mark K. Petersen and Ed L. Fredrickson; (1) New Mexico State University, (2) USDA-ARS [107]

Livestock GPS Collar Technology Shows Seasonality of Livestock Grazing Behaviour on Complex Landscapes in the Montane Region of Southwestern Alberta Michael J. Alexander, Joann Skilnick and Craig DeMaere; (1) Alberta Sustainable Resource Development, (2) University of Calgary, Calgary [108]

Integrating Livestock Grazing and Timber Production within Forested Lands of Alberta Jillian Kaufmann, Edward Bork and Mike Alexander; (1) University of Alberta, (2) Alberta Sustainable Resource Development [109]

Protein Supplement Placement Affects Utilization of Weeping Lovegrass by Cattle in Central Arizona Christine A. Thiel, John A. Kava, Doug Tolleson, Jim Sprinkle, Vanessa J. Prileson and William Barcus; (1) US Forest Service, (2) The University of Arizona [110]

Botanical Composition of the Diet of Goats and Sheep in Native Caatinga, Ceará, Brazil Antonia Edna Do Nascimento and J. Maurice Shelton; Universidade Estadual do Ceará [111]

Seasonal Forage Production, Quality, and Livestock Utilization Dynamics in Meadows and Adjacent Aspen Stands Bobette E. Jones, Kenneth W. Tate and David F. Lile; (1) US Forest Service, (2) University of California-Davis, (3) University of California [112]

DNA Fecal Analysis as a Tool for Cattle Diet Determination in Rangelands Jose Alberto Perez-Amaro, Ricardo Mata-Gonzalez and Oscar Riera-Lizarazu; Oregon State University [113]

Developing Pasture Growth Curves Using Hay Yield Trials and Climatic Data Edward A. Petersen; USDA-NRCS [114]

Clinoptilolite as a Supplement to Reduce the Toxic Effects of High-Sulfate Water Heather A. Richter, Kenneth Olson, Patricia Johnson and Cody Wright; South Dakota State University [115]
Patch-Grazing to Promote Structural Heterogeneity
Alexander Smart1 and Kyle Kelsey2; (1) South Dakota State University, (2) US Fish & Wildlife Service [116]

Riparian Systems, Water, Climate Posters
Infiltration and Runoff Influenced by Grassland in the Median and Low Chihuahua Conchos River Watersheds

Under-Canopy and Interspace Soil Moisture and Temperature of One-Seed Juniper Stands
Hector Ramirez, Sam Fernald and Andres Cibils; New Mexico State University [118]

Evapotranspiration in Western Juniper of Central Oregon
Candy Mollnau1, Mike Newton1 and Tamzen Stringham2; (1) Oregon State University; (2) University of Nevada [119]

Scaling Snow Accumulation Patterns about Big Mountain Sagebrush
Molly E. Tedesche, Steven R. Fassnacht and Paul Meiman; Colorado State University [120]

Hydrologic Responses to Western Juniper Removal: The Camp Creek Paired Watershed Study
Timothy L. Deboodt1, Michael P. Fisher2, John C. Buckhouse1 and John Swanson3; (1) Oregon State University, (2) Central Oregon Community College, (3) BLM [121]

Interpretation of Hummocks Relative to the Condition of Wetlands in Colorado
Andrew W. Don Carlos, Alan D. Bright, Paul J. Meiman, Joe E. Brummer and David J. Cooper; Colorado State University [122]

Wild Ungulate Herbivory of Willow Outside of National Parks is a Significant Management Consideration
Paul J. Meiman1, Mark S. Thorne2, Quentin D. Skinner3, Michael A. Smith1 and Jerrold L. Dodd4; (1) Colorado State University, (2) University of Hawaii at Manoa, (3) University of Wyoming, (4) Cameron University [123]

Twenty Years of Channel Cross-Section Monitoring on Cedar Creek: Implications for Restoration and Monitoring
David F. Lile, Kenneth W. Tate, Missy Merrill-Davies and Donald L. Lancaster; University of California [124]

Impact of Urbanization on Decomposition and Climate of Ephemeral Riparian Areas in South Central Arizona
Amy Hutmacher-Glancy1 Douglas Green1, Jonthan Martin2, Michael Crimmins2 and George Zaimes2; (1) Arizona State University, (2) University of Arizona [125]
Adaptive Phenotypic Plasticity of *Pseudoroegneria spicata*: Response of Stomatal Density, Leaf Area and Biomass to Changes in Water Supply and Increased Temperature Amber L. Greenall¹, Lauchlan H. Fraser¹, Cameron Carlyle², Roy Turkington² and Cynthia Ross Friedman³; (1) Thompson Rivers University, (2) University of British Columbia [126]

Impact of Oil and Gas Infrastructure Development in La Manga Canyon, NM Shawn W. Salley¹ and Joel R. Brown²; (1) New Mexico State University, (2) USDA NRCS [127]

Walter Diagrams of Oregon Corinne M. Duncan¹, Adele L. Woerz² and Douglas E. Johnson³; (1) Oregon State University, (2) Global Geomatic Solutions [128]

Effects of Acequias and Groundwater Levels on Riparian Vegetation, Evapotranspiration, and Restoration Ciara J. Cusack, Alexander Fernald and Steve Guldan; New Mexico State University [129]

A Decision Support System for Assisting with Stocking Rate Decisions During and Following Drought Lori Wiles¹, Gale Dunn¹, Arnold Norman² and Jeff Printz²; (1) USDA ARS, (2) USDA NRCS [130]

Adapting Private Forest and Ranch Management to Mitigate Climate Change: Policies and Practices Hannah Gosnell¹ and Susan Charnley²; (1) Oregon State University, (2) US Forest Service [131]

Assessment and Monitoring Posters

The Role of GIS in Natural Resource Management on Military Training Installations Across North Dakota Carl E.A. Piper¹, Kevin K. Sedivec², Dennis Whitted² and Jim Bennington³; (1) Piper Land Resource Services, L.L.C., (2) North Dakota State University, (3) Camp Gilbert C. Grafton, North Dakota National Guard [132]

Floristic Quality of Native Northern Tallgrass Prairie Pastures in Eastern South Dakota Matthew Nelson and Alexander Smart; South Dakota State University [133]


Landscape-Scale GIS Modeling of Utah Native Forb Populations D. Bracken Davis and Steven L. Petersen; Brigham Young University [135]

A GIS Model for Mechanized Maneuver Training Capability on US Army Installations in Alaska Erik C. Jackson; Colorado State University [136]
Comparison of Pinyon and Juniper Cover and Density Measurements Obtained Through Remotely Sensed Imagery and Field Based Rangeland Studies Matthew D. Madsen¹, Bracken D. Davis², Steven L. Petersen¹ and Daniel L. Zvirzdin¹; (1) Brigham Young University, (2) Utah Division of Wildlife Resources [137]

Rangeland Analysis by LANDSAT TM and IRS-1C Image Fusion in Chihuahua, Mexico Carmelo Pinedo-Alvarez, Nathalie Hernandez-Quiroz, Oscar Viramontes-Olivas, Alfonso Sánchez-Muñoz and Rey Quintana-Martínez; Universidad de Chihuahua, Mexico [138]

Reflectance Measurements of Vegetation Communities in Arid Rangelands of New Mexico Jerry C. Ritchie¹, Al Rango¹ and Thomas J. Schmugge²; (1) USDA ARS, (2) New Mexico State University [139]

Drivers of Dissolved Oxygen in Rangeland Streams within the Upper Feather River Watershed Holly A. George, K.W. Tate and K.N. Schmidt; University of California-Davis [140]

Climate Information for ESDs when Climate Stations Do Not Fit Robert L. Gillaspy and Ian Reid; USDA NRCS [141]

Almanac Proves an Accurate Tool for Simulating Plant Productivity in Sagebrush Steppe Sites in the Western United States Mari-Vaughn V. Johnson¹, James R. Kiniry¹, Mark Weltz¹, Lucrecia Rodriguez² and Kimberly Rollins²; (1) USDA ARS, (2) University of Nevada [142]

Ecological Site Descriptions from Paper Copy (Hidden on a Shelf in the Office) to Web-Based Technology (Available Anytime)! Justin D. Clary; USDA NRCS [143]

Correlating Hyperthermic Soils and Ecological Sites in the Chihuahuan Desert of West Texas Michael R. Margo and Nelson A. Rolong; USDA NRCS [144]

Post Fire Monitoring Using Remote Sensing for the Southern Nevada Complex Randy A. McKinley¹, Karen Prentice², Neil Frakes³, Matt Brooks¹ and John R. Matchett⁴; (1) ASRC Research and Technology Solutions, (2) BLM, (3) Eastern Nevada Landscape Coalition, 4) USGS [145]

Comparing Herbaceous Vegetation Sampling Methods on the Coconino National Forest, Arizona, USA Edward C. Rhodes, Doug Tolleson, William Shaw, Eric Twombly, John Kava and Tim Brown; Texas A&M University [146]

Changes in Methodology for Monitoring Long-Term Vegetation Quadrats on the Jornada Experimental Range Amalia L. Slaughter¹, Connie J. Maxwell¹, Valerie K. LaPlante¹ and Caiti M. Steele²; (1) USDA ARS, (2) New Mexico State University [147]
Comparing Sagebrush Ecosystem Health Across Gradients of Habitat Fragmentation Mae L. Smith, Holly Copeland, Ivan Dario Valencia, Amy Pocewicz, Brian Mealer and Joseph Kiesecker; The Nature Conservancy [148]

How to Document Soil Change Without Monitoring: A Multi-Scale Inventory Procedure for Dynamic Soil Properties, Soil Change, and Plant Community Dynamics Arlene J. Tugel¹, Skye A. Wills², Jeffrey E. Herrick² and Pete Biggam³; (1) USDA NRCS, (2) USDA ARS, (3) National Park Service [149]

Challenges in the Setup and Analysis of a Paired Watershed Study in Oregon’s High Desert Michael P. Fisher¹, Tim Debooðt², John C. Buckhouse² and John Swanson³; (1) Central Oregon Community College, (2) Oregon State University, (3) BLM [150]

BLM Vale District Ecological Site Inventory (ESI): Correlating Percent Foliar Cover with Digital Imagery Charles D. Tackman and Michael B. Hale; BLM [151]

Cumulative Landscape Assessment and Restoration Planning Using the Landscape Toolbox Don J. Major, BLM; The Nature Conservancy [152]

Rangeland Health and Monitoring, Basis for a Rangeland Management and Rehabilitation Plan: A Case Study, “El Uno” Ranch, Janos, Chihuahua Mario H. Royo¹, P. Jurado¹, J. S. Sierra¹, A. Melgozá² and M. Martinez; (1) INIFAP, (2) Universidad Autonoma de Chihuahua [153]

Effect of Season on Spatial Utilization by Cattle (Bos spp) on Rangeland in South Florida Brandee N. Williams and Mimi Williams; USDA NRCS [154]

Ecological Status of Protected and Unprotected Rangelands in Syria: Monitoring the Impact of Grazing on Rangeland Vegetation Dynamics in Three Climatological Zones Adrienne Tastad, Mounir Louhaichi, Nabil Battikha, Amin Khatib and Rajender Parsad; University of Saskatchewan [155]

A Spatial Modeling Approach to Map Greater Sage-Grouse Habitat Jerry Barker¹, Jim Robb¹, Ryan Stage¹ and Noreen Roster¹; (1) Walsh Environmental Scientists and Engineers LLC and the University of Colorado, (2) Ecology and Environment, Inc [156]

Techniques for Developing Plant Parameters for Simulating Native Plants with the Almanac Model James R. Kiniry, Mari-Vaughn V. Johnson and Mark Weltz; USDA ARS [157]
Geospatial Analysis of Aerial Photography to Identify Patterns of Grazing on Northern Great Plains Rangelands Joshua M. Peterson¹, Mindy Hubert¹, Amanda Gearhart¹, Kenneth C. Olson¹, Christopher Schauer¹, Patricia S. Johnson¹ and D. Terrance Booth²; (1) South Dakota State University, (2) USDA ARS [158]

Excellence in Range Management Posters
Haleakala Ranch: Managing for Resource Stability, Economic Productivity, and Community Well Being in Hawaii Greg Friel¹, Mark S. Thorne², and Matt Stevenson²; (1) Haleakala Ranch, (2) University of Hawaii at Manoa [159]
Cooperative Sagebrush Steppe Restoration Initiative/Implementation in California Thomas Esgate; Pit River Resource Conservation District, California [160]
Willis Ranch, Hendry Co. Florida George Poole; NRCS [161]
Lykes Ranch, Glades & Highland Co, Florida Chad R. Ellis; NRCS [162]
Walpole Ranch, Okeechobee Co., Florida Chad George; NRCS [163]
Range Manager of the Year Poster Lee E Hughes; BLM [164]
Roaring Springs Ranch: Excellence in Range Management and Education Stacy Davies¹ and Tamzen Stringham²; (1) Roaring Springs Ranch, (2) University of Nevada, Reno [165]
Canadian Cattlemen’s Association National Environmental Stewardship Award Peggy Strankman, Canadian Cattlemen’s Association [166]
The Clarence Burch Award: Building Bridges from the Radical Center Craig Conley and Michael Bain; The Quivira Coalition, NM [167]
Arizona’s Ranch Manager of the Year, Les Shannon of the Sands Ranch - Arizona Section SRM; Range Manager of the Year Recipient Dean Fish¹, Emilio E Carrillo², and Katie E Cline²; (1) University of Arizona, (2) USDA-NRCS [168]
A Range of Opportunity Cheryl Nielsen¹, Roger Gates², Matthew Odden¹, Tate Lantz², Jeff Smeenk³, and Yvette King³; (1) NRCS, (2) South Dakota State University West River Ag Center, (3) Rapid City Field Support Office, (4) Center of the Nation Cattle Company, (5) Butte County Conservation District, SD [169]
JX Cattle Company: Excellence in New Mexico Range Management Mimi Sidwell and Tom Sidwell; JX Cattle Co., NM [170]
Philmont Scout Ranch: Managing Rangelands, Livestock, and Boy Scouts Since 1938 Terrell Baker; New Mexico State University [171]
Oswald Ranch Excellence in Grazing Management Dan Nosal [172]

New Mexico State Lands Stewardship Ann Demint, Shawn Knox, and Thaddeus Kostrubala; New Mexico State Land Office [173]

Rangeland Management in Southern Brazil: A Case from Santa Catarina Pasture Outreach Program Abdon Schmitt¹, Bill Murphy², and Juan Pablo²; (1) University of Santa Cararina, Brazil, (2) The University of Vermont [174]

Restoration on the Landscape Scale: Breaking Through Roadblocks to Implementation Don Ellsworth; BLM [175]

Johnson Ranch Company: Snapshot of Wyoming’s Excellence in Rangeland Stewardship John Johnson¹, Reese Johnson¹ and Marji Patz²; (1) Johnson Ranch Company, (2) NRCS [176]

Integrated Approach to Improve the Health, Vigor, and Production of Their Rangeland Resource Base While Marketing A Natural Beef Product to the Public Kimberly Diller, Ben Berlinger and Harvey Sprock; USDA-NRCS [177]

"Caring for the Land and Serving People"

The objectives for rangeland management within national forests and national grasslands are to:

- Protect basic soil and water resources, provide for ecological diversity, maintain environmental quality, and meet public needs for interrelated resource uses.
- Integrate management of range vegetation with other resource programs to achieve multiple use objectives.
- Provide forage for livestock, wildlife food and habitat, outdoor recreation, and other resource values dependent on range vegetation.
- Contribute to the economic and social well-being of people by providing opportunities for economic diversity and by promoting stability for communities that depend on range resources for their livelihood.
Wednesday Morning Technical Session

Undergraduate Papers

Chair: Loreen Woolstenhulme
Room: Santa Ana

8:00 Prescribed Fire Impacts on Red Imported Fire Ant (Solenopsis Invicta) Densities Across Three Ecoregions in Texas Charles J. Turney, Dirac Twidwell, William E. Rogers; Texas A&M University

8:20 Why is There a Burn Ban? An Evaluation of Indices Used for Their Establishment Jordan Herrin, Dirac Twidwell, Charles Taylor; Texas A&M University

8:40 A Methodology for Developing Ecological Site Descriptions Jamin K. Johanson¹ and Shane A. Green²; (1) Utah State University, (2) USDA-NRCS

9:00 Dual-Purpose Utilization of SAT System: Range Reclamation During Drought and Waste Treatment Parvaneh Peykanpour, Hadi Radnezhad, Maryam Foroughi Abari, Mohammad Nejati; Islamic Azad University of Science and Research, Iran

9:20 Effects of Stratification, Warm Treatment, Scarification on the Emergence of Yellow-Flowered Alfalfa (Medicago Sativa Subsp. Falcata) Seeds Diane M. Narem, Lan Xu, Roger N. Gates, Arvid Boe, Patricia S. Johnson; South Dakota State University

9:40 Common Goals, Different Backgrounds: A Students Perspective on Working Together Hailey Crozier; Utah State University

10:00 Break

10:20 Seedling Recruitment of Wyoming Big Sagebrush after Harrowing Cortnie Prestwich, Jim Davis, Loreen Woolstenhulme; Brigham Young University

10:40 The Effect of Environmental Factors Versus Life History Strategy on Reproductive Success of Lupinus Spp Across the Western United States Kassie L. Puckett, Loreen Woolstenhulme, Delbert Wiens; Brigham Young University

11:00 Effect of Topographical Position on Botanical Composition in the Nebraska Sandhills Jessica L. Milby, Mitchell B. Stephenson, Walter H. Schacht, Jerry D. Volesky, Eric M. Mousel; University of Nebraska-Lincoln, Lincoln
Wednesday Morning Technical Session

Range Plants

Chair: Carlos Villalobos
Room: Sandia

8:40 Western and Searls Prairie Clover: North American Legumes for Rangeland Restoration in the Western US
Douglas A. Johnson, Kishor Bhattarai, B. Shaun Bushman and Kevin J. Connors; (1) USDA ARS, (2) Utah State University

9:00 Environmental Effects on Concentrations of Plant Secondary Compounds: Finding a Healthy Balance
Andrea K. Clemensen and Fred Provenza; Utah State University

9:20 Germination Rates of Hulled and Dehulled Ww-B.Dahl [Bothriochloa bladhii (Retz) S.T. Blake] Seed Exposed at Different Storage Times
Jose Francisco Villanueva, Carlos Villalobos, Carlton M. Britton and Miguel Luna-Luna; (1) INIFAP, Mexico, (2) Texas Tech University

Jose Francisco Villanueva, Carlos Villalobos, Carlton M. Britton and Miguel Luna-Luna; (1) INIFAP, Mexico, (2) Texas Tech University

10:00 Break

10:20 Defoliation Patterns and Developmental Morphology on Regrowth Rates, Forage Yield, and Quality in Ww-B.Dahl [Bothriochloa bladhii (Retz) S.T. Blake] at Three Growth Stages
Jose Francisco Villanueva, Carlos Villalobos and Carlton M. Britton; (1) INIFAP, Mexico, (2) Texas Tech University

10:40 Monitoring Update of the Five Listed Plants and a Candidate Plant on the Arizona Strip 1986-2008
Lee E. Hughes; BLM

11:00 Developing a Bio-herbicide to Control Annual Brome Grasses
Thomas Stewart, Susan E. Meyer, Phil S. Allen; Brigham Young University
Wednesday Morning Technical Session

Weed Management with Herbivory

Chair: Ed Fredrickson  
Room: Cochiti

8:40 Consumption of Salt Cedar and Willow Baccharis by Boer-Cross Goats  
Alfredo Munoz, Cody B. Scott, Corey J. Owens and Chad H. George; Angelo State University

9:00 Establishment of Broom Snakeweed Following Grazing for Biocontrol  
Michael H. Ralphs; USDA ARS

9:20 Recovery of Sulfur Cinquefoil Seed Ingested by Sheep and Goats  
Rachel A. Frost, Jeffrey C. Mosley and Brent L. Roeder; Montana State University

9:40 Effects of Goat Grazing on Yellow Starthistle  
Brianna J. Goehring and Karen L. Launchbaugh; University of Idaho

10:00 Break

10:20 Effect of Juniper Consumption on Meat Quality in Meat Goats  
Matthew W. Menchaca, Cody B. Scott, Kirk Braden, Loree Branham and Corey J. Owens; Angelo State University

10:40 Reducing Fuel Load of Key Cheatgrass (Bromus tectorum L) Dominated Range Sites by the Use of Livestock Grazing  
L. Schmelzer1, B.L. Perryman1, K. Conley1, B. Bruce1, T. Wuliji1, K.L. Piper1, S.R. Swanson1, B.W Schultz2 and R.C. Torell2; (1) University of Nevada Reno, (2) University of Nevada

11:00 Weed Management Using Goats: Effects on Water Infiltration Rate  
Sandy Tartowski and Darren James; USDA ARS

Wednesday Morning Technical Session

Climate and Climate Change

Chair: Sam Fernald  
Room: Jemez

8:40 Climatic Regulation of Seasonal and Inter-Annual Variability in Net Ecosystem Exchange of CO2 on Rangelands  
H. Wayne Polley, W. Emmerich, James A. Bradford, Douglas A. Johnson, Tony Svejcar, Raymond Angell, Rebecca Phillips, Keirith Snyder and Jack A. Morgan; USDA ARS

9:00 Climate Change, Spring Snow, and the Future of Bluebunch Wheatgrass Populations  
Harmony J. Dalgleish and Peter B. Adler; Utah State University
9:20 Chihuahua Cattle Industry and a Decade of Drought: Economical and Ecological Implications
Carlos Ortega-Ochoa1, Carlos Villalobos2 and Javier Martinez-Nevarez3; (1) Universidad Autonoma de Chihuahua, Mexico, (2) Texas Tech University

9:40 Pasture Type and Site Effects on Annual Nitrous Oxide Emission Rate
Vern S. Baron, Reynald L. Lemke, David G. Young, J.A. Basarab, M. Anne Naeth and Alan D. Iwaasa; Agriculture and Agri-Food Canada

10:00 Break

10:20 Simulation of Drought and Grazing Effects on Forage Growth in the Northern Mixed Grass Zone of the USA Using the GPFarm-Range Model
Samuel Adiku1, Gale Dunn2, Lajpat Ahuja2, Jennifer Muscha2, Allan Andales1, Luis Garcia1, Lance Vermeire2 and Melissa Reyes-Fox2; (1) Colorado State University, (2) USDA ARS

10:40 Responding to Climate Change, Range Management that Promotes Resilient Habitat
James C. Catlin; Wild Utah Project

11:00 Testing the Effects of Climate Change on the Competitive Ability of Two Invasive Grassland Species: Spotted Knapweed and Yellow Toadflax
Amber L. Greenall and Lauchlan H. Fraser; Thompson Rivers University

Wednesday Morning Symposium

Development of Comprehensive Grazing Policy Guidelines: A Case for Adaptive Collaboration within the Rangeland Profession

Moderator: David Briske
Room: Zuni/Tesuque

8:30 Development of Comprehensive Grazing Policy Guidelines: Context and Objectives
David D. Briske; Texas A&M University

8:50 The Respective Roles of Science and Management Within the Rangeland Profession
Nathan F. Sayre; University of California-Berkeley

9:10 Experimental Evidence for Grazing System Research: What Does it Tell Us?
Justin D. Derner1, David D. Briske2, Daniel G. Milchunas1 and Ken W. Tate3; (1) USDA ARS, (2) Texas A&M University, (3) Colorado State University, (4) University of California-Davis
9:30 Experimental Evidence from Grazing System Research: What Are Its Limits? Frederick D. Provenza; Utah State University

9:50 Break

10:10 A Management Perspective of Prescribed Grazing Bob Budd; Wyoming Wildlife and Natural Resource Trust

10:30 Grazing Management in the Context of Social and Ecological Systems Lynn Huntsinger; University of California-Berkeley

10:50 Strengthening Science-Management Linkages Through Collaborative Adaptive Management Maria E. Fernandez-Gimenez; Colorado State University

11:10 Discussion David Briske (Moderator)

Wednesday Morning Symposium

Wildlife Habitat Management on Rangelands Using USDA NRCS Conservation Innovation Grants

Moderator: Wendell Gilgert
Room: Ruidoso

8:00 Opening Remarks Wendell Gilgert, USDA-NRCS

8:10 A Community-based Approach to Applying Innovative Technologies for Monitoring and Restoring Sagebrush Habitats in Wyoming Phil Gonzales and Kikki Lohse; NRCS

8:30 Ecological, Economic, and Social Dimensions of Using Summer Fire to Restore Ecosystems in the Southern Plains of the US Urs Kreuter¹, W. Richard Teague¹, William E. Rogers¹, C. A. Taylor¹ and D. Lynn Drawe²; (1)Texas A&M University, (2) Welder Wildlife Foundation

8:50 Community-supported Conservation of Grizzly Bears on Private Agricultural Lands, Montana Seth Wilson; The Blackfoot Challenge, Montana

9:10 Adoption of Oak Savannah Management on Private Lands in the Willamette Valley, Oregon Drue De Berry; American Forest Foundation

9:30 Panel Discussion
Wednesday Morning Forum

Linking Restoration of Rangeland Communities and Processes to Societal Outcomes: The Whys and the Hows

Moderator: Lori Hidinger
Room: Picuris

8:00 Opening Remarks Mark Neff; Arizona State University

8:10 Changing the Model of Science and Society: The Need to Design Restoration to Address Societal Needs Clark Miller, Dan Sarewitz and Lori Hidinger; Arizona State University

8:40 Prioritizing Rangeland Research and Restoration Based on Societal Outcomes Jeffrey E. Herrick¹, Dennis Thompson², Brandon T. Bestelmeyer³, Joel R. Brown² and Kris M. Havstad¹; (1) USDA ARS, (2) USDA NRCS

9:10 Fire, Sagebrush, and People David A. Pyke; USGS

9:40 Post-Fire Restoration of Grazing Lands Invaded by Cheatgrass: Integrating Multiple Values Ronald T. Sieg¹, Carolyn Hull Sieg² and Andi S. Rogers¹; (1) Arizona Game and Fish, (2) US Forest Service

10:10 Break

10:20 Restoring Rangelands, Restoring Trust: Factors Influencing Citizen Acceptance of Managed Change Mark W. Brunson; Utah State University

10:50 Panel and Audience Discussion

11:20 Summary Lori Hidinger; Arizona State University

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Thursday Morning Technical Session

Invasive Species/Weed Management

Chair: James Ansley
Room: Santa Ana

8:00 Assessing Competitiveness of Alkali Sacaton Genotypes Exposed to Invasive Weeds Franklin P. Bartlett¹, Ann L. Hild¹, Karin E. Bergum¹, Brian A. Mealer² and Thomas Smith³; (1) University of Wyoming, (2) The Nature Conservancy, (3) U.S. Army Corps of Engineers

8:20 Use of Imazapic to Control Cheatgrass and Improve Rangeland Seedings Christo Morris, Thomas A. Monaco and Craig W. Rigby; USDA ARS

8:40 Will Supplementation with Onions Reduce the Likelihood of Bitterweed Toxicity in Sheep? Cody J. Bundick¹, Cody B. Scott¹, Corey J. Owens¹, Erika S. Campbell¹ and Richard Brantely³; (1) Angelo State University, (2) Texas Agrilife Research Center, (3) University of Texas

9:00 Investigating Possible Mechanisms Regulating Bluegrass Abundance in Rough Fescue Grasslands Steven C. Tannas¹, Edward W. Bork¹ and Walter D. Willms²; (1) University of Alberta, (2) Agriculture and Agri-Food Canada

9:20 Effect of Aminopyralid on Non-Target Vegetation After Aerial Application Celestine Duncan², Andy Kulla², Mary Halstvedt³ and Robert A. Masters³; (1) Weed Management Services, (2) US Forest Service, (3) Dow AgroSciences

9:40 Competitive and Complementary Forage Dynamics of Weed Control in Established Pastures Containing Mixed Swards Erin M. McLeod, Edward W. Bork, Jane R. King and Linda M. Hall; University of Alberta

10:00 Break

10:20 Control of Invasive Malta and Yellow Starthistles in Central Arizona John H. Brock; Arizona State University

10:40 Forage Quality and Production of Lehmann Lovegrass (Eragrostis lehmanniana) in Invaded Rangelands of Central Chihuahua, Mexico Alfonso Sánchez-Muñoz¹, Karen R. Hickman² and Daren Redfearn²; (1) Universidad Autónoma de Chihuahua, (2) Oklahoma State University
11:00 **Growth in Mixtures of Bluebunch Wheatgrass, Cheatgrass, and Squarrose Knapweed Under Factorial Nitrogen and Phosphorus Additions to a Low-Nutrient Soil** Jeffrey Burnham¹, Eugene Schupp¹ and Thomas Monaco²; (1) Utah State University, (2) USDA ARS

11:20 **Mapping Medusahead Coverage Across the California Central Valley Using LANDSAT 7 Imagery** Corey M. Cherr and Emilio A. Laca; University of California-Davis

11:40 **Patterns of Guineagrass Invasion** Dean W. Wiemers¹, Timothy E. Fulbright¹, Alfonso Ortega-Santos¹, William P. Kuvlesky¹, George A. Rasmussen¹ and Richard R. Riddle²; (1) Texas A&M University-Kingsville, (2) United States Navy

### Thursday Morning Technical Session

**Wildlife I**

**Chair:** Jeff Beck  
**Room:** Taos

**8:00 Spatial and Temporal Habitat Characteristics Driving Greater Sage-Grouse (*Centrocercus urophasianus*) Habitat Use in Central Oregon** Mark T. Freese¹, Richard F. Miller¹, Steven L. Petersen² and Andrew C. Yost¹; (1) Oregon State University, (2) Brigham Young University

**8:20 Trajectory of Avian Habitat Structure in a Grassland With Recent Reductions in Fire Return Interval and Stocking Rate** Sherry A. Leis¹, David G. Peitz² and Kevin M. James²; (1) Missouri State University, (2) National Park Service

**8:40 Effects of Supplemental Feeding and Density of White-Tailed Deer on the Spatial Distribution of Small Mammals** William A. Moseley¹, Susan M. Cooper², David G. Hewitt¹, Timothy E. Fulbright¹ and Charles A. DeYoung¹; (1) Texas A&M University, (2) Texas AgriLife

**9:00 Ring-Necked Pheasant (*Phasianus colchicus*) Production and Nest Site Selection on Post-Contract Conservation Reserve Program Lands** Benjamin A. Geaumont, K.K. Sedivec and C.S. Schauer; North Dakota State University

Thursday Morning Technical Session

Economics, Sociology and Policy

Chair: Rhonda Skaggs  
Room: Cochita

8:00 Leopold, Stegner, and the Foundation of a New Agrarianism  
Courtney White; The Quivira Coalition

8:20 Exploring the Linkages Between Socio-Economic and Ecological Processes in Rangeland Landscapes  
Rhonda K. Skaggs1 and Brandon Bestelmeyer2; (1) New Mexico State University, (2) USDA ARS

8:40 Rangelands of Band-I-Amir and Ajar Valley, Bamian Province, Afghanistan  
Donald J. Bedunah; University of Montana

9:00 An Integrated Social, Economic and Ecologic Conceptual (ISEEC) Framework for Considering Rangeland Sustainability  
William E. Fox1, Urs P. Kreuter1, Dan W. McCollum2, John E. Mitchell2 and Louis E. Swanson3; (1) Texas A&M University, (2) Rocky Mountain Research Station, (3) Colorado State University

9:20 Development of a Grazing Fee Formula for Utah Trust Lands: Analysis and Recommendations  
Neil R. Rimbey1, Ron Torgerson2, Scott Chamberlain2, Kim Christy2 and E. Bruce Godfrey3; (1) University of Idaho, (2) Utah Trust Lands, (3) Utah State University

9:40 Measuring Total Sustainable Income from California Ranches: An Economic Analysis of Natural and Human Resources Management  
Larry C. Forero1, Jose L. Oviedo2, John M. Harper1, William E. Frost1 and Lynn Huntsinger2; (1) University of California Cooperative Extension, (2) University of California-Berkeley

10:00 Break

10:20 Historic Forage Productivity and Cost of Capital for Cow-Calf Ranches in California  
Philip Brownsey, Barbara Allen-Diaz, Jose Luis Oviedo, Lynn Huntsinger and Amy Romanek; University of California-Berkeley
10:40 Farmer’s Perception about the Effect of Rangeland Management on Dairy Herd Health
Abdon L. Schmitt¹, Alan Rizzoli², Giliane Basco³, Rafael Knabem¹ and Juan Pablo³; (1) University of Santa Catarina, Brazil, (2) Companhia Integrada de Desenvolvimento Agropecuário de Santa Catarina, (3) Gund Institute, University of Vermont

11:00 Landowner Perceptions of Fire, Grazing, and Invasive Species in a Prairie Landscape
Fragmented by Cropland and Trees
Elise Regen¹, Lois Wright Morton¹, Dave Engle² and James Miller³; (1) Iowa State University, (2) University of Oklahoma, (3) University of Illinois

11:20 Out of the Past: A Journey Through the Landscapes of Livestock Production
Cody M. Sheehy and Melvin R. George; University of California-Davis

Thursday Morning Technical Session

Assessment and Monitoring
Chair: Ken Boykin
Room: Zuni/Tesuque

8:20 Lessons From a Decade of Rangeland Monitoring in Washington State
L.H. Hardesty¹, S. Canwell¹ and W. Keller²; (1) Washington State University, (2) USDA NRCS

8:40 Wetland Condition Assessment Using the North Dakota Rapid Assessment Model and the Index of Plant Community Integrity
Edward S. DeKeyser¹, Christina L.M. Hargiss¹, Donald R. Kirby¹ and Michael J. Ell²; (1) North Dakota State University, (2) North Dakota Department of Health

9:00 Relationship of Ecological Site Plant Community Structure to Shrubsteppe Songbirds
Mary I. Williams¹, Ginger B. Paige¹, Ann L. Hild¹, Thomas L. Thurow¹ and Rachel Lauhban²; (1) University of Wyoming, (2) US Fish and Wildlife Service

9:20 Developing a Framework and the Training Required to Expand Cooperative Permittee Monitoring in Nevada
Gary L. McCuin¹, Brad Schultz², J. Kent McAdoo³, Bill Dragt³, Ben Bruce⁴, Barry Perryman⁴ and Sherm Swanson⁵; (1) University of Nevada Cooperative Extension, Eureka County, (2) University of Nevada Cooperative Extension, Humboldt County, (3) BLM, (4) University of Nevada
9:40 Comparison of Ground and Aerial Survey Methods on the Grand River National Grasslands
Amanda L. Gearhart\textsuperscript{1}, D. Terrence Booth\textsuperscript{2}, Kevin K. Sedivec\textsuperscript{1}, Samuel E. Cox\textsuperscript{2} and Christopher S. Schauer\textsuperscript{3}; (1) North Dakota State University, (2) USDA ARS

10:00 Break

10:20 New and Improved: Montana's Ecological Site Classification System
Barbara Landgraf Gibbons; USDA NRCS

10:40 Inference Space vs. Sampling Requirements: A Simulation Study of Soil Properties on Rangeland Ecosites
Skye A. Wills\textsuperscript{1}, Jeffery E. Herrick\textsuperscript{1} and Arlene Tugel\textsuperscript{2}; (1) USDA ARS, (2) USDA NRCS

11:00 The Ecosite Picker: A Tool to Field Select Appropriate Ecological Sites During Range Inventory
Cici B. Brooks\textsuperscript{1} and Kate Peterson\textsuperscript{2}; (1) USDA NRCS, (2) Utah State University

Thursday Morning Symposium

Rangeland Ecohydrology: Key Concepts and Application to State and Transition Model Development
Moderators: Jeff Herrick, Sam Fernald, and Brad Wilcox
Room: San Miguel

8:00 Describing Indicators of Rangeland Health: An International Approach to Characterizing Rangeland Ecohydrology
Jeffrey E. Herrick\textsuperscript{1}, B.T. Bestelmeyer\textsuperscript{1}, Fee Busby\textsuperscript{2}, Bolormaa Damdinsuren\textsuperscript{3}, Francisco Echavarría Chaírez\textsuperscript{4}, Guodong Han\textsuperscript{5}, Mark Miller\textsuperscript{6}, Mike Pellant\textsuperscript{7}, David Pyke and Pat Shaver\textsuperscript{8}; (1) USDA ARS, (2), Utah State University, (3) Mongolian Research Institute, (4) INIFAP, Mexico, (5) Inner Mongolia University, (6) USGS, (7) BLM, (8) USGS and NRCS

8:20 Ecohydrology of Vegetation Conversion and Ecosystem Consequence
Travis E. Huxman and Sujith Ravi; University of Arizona

8:40 Soil Moisture Response to Tree Thinning in Central New Mexico
Alexander Fernald\textsuperscript{1}, Ferhat Gokbulak\textsuperscript{2}, Hector Ramirez\textsuperscript{1} and Dawn VanLeeuwen\textsuperscript{1}; (1) New Mexico State University, (2) Istanbul University

9:00 Woody Plant Encroachment: Rainfall, Soil Moisture and Patterns of Plant Water Use
Keirith A. Snyder and Michael C. Duniway; USDA ARS
9:20 Grassland to Woodland Transitions: Linking Hydrology and Vegetation Dynamics Samuel D. Fuhlendorf\(^1\), David M. Engle\(^1\), Brad Wilcox\(^2\), Rodney E. Will\(^1\) and Chris Zou\(^1\); (1) Oklahoma State University, (2) Texas A&M University

9:40 Isotopic Records of Plant Water Use – Insights from Archaeological Maize and Columnar Cactus Spines David G. Williams; University of Wyoming

10:00 Break

10:20 Potential Impacts of a Changing Climate on Plant Community Distribution in the Intermountain Western USA Mark S. Seyfried\(^1\), Danny Marks\(^1\), Dave Chandler\(^2\) and Anurag Nayak\(^1\); (1) USDA ARS, (2) Kansas State University, (3) Boise State University

10:40 Multiple Ecosystem State Changes Since AD 1700 on a Semiarid Hillslope in New Mexico: Cascading Ecohydrological Transitions Craig D. Allen; USGS

11:00 On the Dynamics of Rangeland Management: Fixed Versus Adaptive Stocking Susan Schwinning; Texas State University

11:20 Changing Streamflow in the Edwards Plateau Region of Central Texas: The Role of Woody Plants and a Legacy of Overgrazing Bradford P. Wilcox\(^1\) and Yun Huang\(^2\); (1) Texas A&M University, (2) LBG Guyton

11:40 The Spatial Pattern of Transition (Spot): Linking Pattern, Process, and Scale to State-And-Transition Models Brandon T. Bestelmeyer\(^1\), Darroc Goolsby\(^2\) and Steven R. Archer\(^3\); (1) USDA ARS, (2) New Mexico State University, (3) Arizona State University

Thursday Morning Symposium

Grazing Systems Research: Focusing on the Managers
Moderator: Joel Brown
Room: Mesilla

8:00 Grazing Systems Research: Focusing on the Managers-Introduction Joel R. Brown\(^1\) and Kris M. Havstad\(^2\); (1) USDA NRCS, (2) USDA ARS

8:10 The Importance of Rotational Grazing Systems in the Implementation of NRCS Conservation Policies and Programs William Puckett and Dennis W. Thompson; USDA NRCS

8:20 Relevant Hypotheses and Statistical Approaches for Investigating Rotational Grazing in a Rangeland Context Brien E. Norton; Utah State University
8:40 Land Managers’ Decisions about Grazing Systems: Understanding the Contexts of Change
Mark W. Brunson; Utah State University

9:00 How Can We Test Management at the Ranch Scale? John A. Tanaka; Oregon State University

9:20 Management Effectiveness and the Measurement of Multiple Ecological Attributes at Broader Spatial Scales Mark E. Miller; USGS

9:40 Resources for Conducting Grazing Management Research James P. Dobrowolski; USDA-CSREES

10:00 Break

10:20 Discussion and Feedback

Thursday Morning Forum

Riparian Ecological Site Descriptions and State-and-Transition Models/Grazing Management Processes and Strategies for Riparian-Wetland Areas

Moderator: Patty Novak AM, Ken Crane PM
Room: Pecos

Part I: Riparian Ecological Site Descriptions and State-and-Transition Models Patti Novak, Moderator

8:30 Ecological Site Descriptions: An Overview Homer Sanchez and Jeff Repp; USDA NRCS

9:00 Physical Components of Riparian Ecosystems: Valley Types and Associated Stream Types Janice W. Staats; US Forest Service

9:30 Vegetation Associated With Functional Stream Types: Riparian Complex Concepts Sarah E. Quistberg¹ and Tamzen K. Stringham²; (1) Oregon State University, (2) University of Nevada-Reno

10:00 Break

10:30 Vegetation Succession and Geomorphic Thresholds Tamzen K. Stringham; University of Nevada

11:00 State-and-Transition Model Components for Riparian Ecosystems Tamzen K. Stringham; University of Nevada

11:30 Challenges in Developing Ecological Site Descriptions for Riparian Areas Kendra Moseley¹ and Jack D. Alexander²; (1) USDA NRCS, (2) Synergy Resource Solutions, Inc.

Part II: Grazing Management Processes and Strategies for Riparian-Wetland Areas Ken Crane, Moderator

1:30 Introduction Sandra K. Wyman; National Riparian Service Team
2:00 Developing Riparian Management Objectives
Sherman R. Swanson; University of Nevada

2:30 Strategies to Manage Livestock Grazing to Meet Riparian Objectives
Sandra K. Wyman; National Riparian Service Team

3:00 Break

3:30 Livestock Grazing Management Systems for Riparian-Wetland Areas
Jimmy Eisner; National Riparian Service Team

4:00 Monitor and Evaluate Progress - Adaptive Management
Eric M. Peterson; University of Wyoming

4:30 Summary and Feedback
Ken Crane

Thursday Afternoon Technical Session

Wildlife II

Chair: Laurie Abbott
Room: Taos

1:20 Predicting Elk Feeding Site Selection in Foothill and Mountain Rangeland Habitat
Rachel A. Frost¹, Kelley K. Crane², Tracy K. Brewer¹ and Jeffrey C. Mosley¹; (1) Montana State University, (2) University of Idaho

1:40 The Impacts of Deer Density and Supplemental Feeding on Vegetation
Eric D. Grahmann¹, Reagan T. Gage¹, Ryan L. Darr¹, Timothy E. Fulbright¹, David G. Hewitt¹, Charles A. DeYoung¹ and Don A. Draeger²; (1) Texas A&M University-Kingsville, (2) Comanche Ranch, Texas

2:00 Physiological Effects of the North Kaibab Winter Habitat on Mule Deer
Matthew W. Acton, William H. Miller and Ann Steffler; Arizona State University

2:20 Active Vegetation Management for Sagebrush-Grass Community Resilience and Wildlife Diversity
J. Kent McAdoo, Brad W. Schultz and Sherman R. Swanson; University of Nevada

2:40 Songbird Response to Habitat Heterogeneity and Grazing at Grasslands National Park of Canada
Barbara I. Bleho and Nicola Koper; University of Manitoba

3:00 Break

3:20 Cattle Drive the Development of Wildlife Hotspots in an East African Rangeland
Kari E. Vebelen; University of California-Davis

4:00 Development of a Regional Scale Wind Power Site Blueprinting Tool
Julie L. Conley, Betsy Bloomfield and Brian Martin; The Nature Conservancy
4:20  Bighorn Sheep Diet Reconstruction and Comparison Using Stable Isotopes Joshua M. Whitaker¹, Todd F. Robinson¹ and Jericho C. Whiting²; (1) Brigham Young University, (2) Idaho State University

Thursday Afternoon Technical Session

Remote Sensing and Technology

Chair:     D. Terrence Booth
Room:     Sandia

1:20  Monitoring Rangeland Health Indicators by Remote Sensing Raymond E. Hunt and D. Terrance Booth; USDA ARS

1:40  Landscape Scale Change Detection of Aspen Woodlands in Central Idaho Eva K. Strand¹, Stephen C. Bunting¹ and Mary Tess O’Sullivan²; (1) University of Idaho, (2) Lava Lake Institute for Science and Conservation

2:00  Making Better Use of Remote Sensing for Designing Rangeland Field Studies: An Application of Object-Based Image Analysis Jason W. Karl and Brian A. Maurer; Michigan State University

2:20  Dual-Resolution Aerial Assessments of Pipeline Revegetation D. Tarrence Booth and Samuel E. Cox; USDA ARS

2:40  Modeling Potential Species Distributions in Rich County, Utah Kathryn Peterson and R. Douglas Ramsey; Utah State University

3:00  Break


Research Unit at the Jornada Experimental Range

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Thursday Afternoon Technical Session

Education

Chair: Shannon Williams
Room: Zuni/Tesuque

1:20 Merging Experience and Science for Innovation and Educational Outcomes John Taylor; University of Queensland

1:40 Youth Experience Science at Science Days Shannon K. Williams1, Jeanne Withers2 and Arlene Wolfe3; (1) University of Idaho Extension, (2) Cummings Center Education Committee, (3) Salmon High School

2:00 The Development of Participative Methodology Responsible for 632 Grass Based Agroecologic Dairy Projects Planned and Implemented by Undergraduate Students on Rangelands of Santa Catarina, Brazil Abdon Schmitt1, Fabiam Busnardo2, Alden Nascimento2, Joao Da Ros2, Fernando Back2, Giselle Alves2, Felipe Franscisco2 and Juan Pablo3; (1) University of Santa Catarina, (2) GPVoisin Group, (3) Gund Institute, University of Vermont

Thursday Afternoon Symposium

Holistic Management: A Perspective on Merging Culture, Science and Innovation

Moderator: Peter Holter
Room: Cochiti

1:00 Introduction Peter Holter; HMI

1:10 25 Years of History with Holistic Management Kirk Gadzia; Resource Management Services, LLC

1:55 Effect of Grazing Treatment on Soil Moisture in Semi-Arid Rangelands Keith T. Weber and Bhushan S. Gokhale; ISU GIS Training and Research Center

2:40 Holistic Management and The New Ranch Courtney White; The Quivira Coalition

3:25 Break

3:45 The Adaptation of Holistic Management on Carrizo Valley Ranch Sid A. Goodloe; Rancher, Capitan, NM

4:30 Holistic Management Research Frank Aragona; Agricultural Innovations
Thursday Afternoon Symposium


Moderator: Herman Garcia  
Room: Mesilla

1:00 Opening Remarks Herman Garcia; USDA NRCS

1:15 Bi-National Borderlands Ecological Restoration Initiative Rosendo Treviño III and Ing. Jose Manuel Perez Cantu; (1) USDA NRCS, (2) Pronatura N.E., Mexico

1:45 Renovation of Degraded Ecosystems in Northern Mexico Jose Manuel Perez Cantu; Pronatura Noreste, A.C. Mexico

2:15 Partners in Plant Solutions: A Case Study in Collaborative Approaches to Resource Management Forrest S. Smith, John Lloyd-Reilley and Paula D. Maywald; (1) Texas A&M University-Kingsville, (2) USDA NRCS, (3) Texas A&M University-Kingsville

2:45 Break

3:00 Advances in Evaluation of Rangeland Health in Northern Mexico Alicia Melgoza, Mario H. Royo, Pedro Jurado, Carlos Ortega, Gerardo Bezanilla and Jose Quiñones; (1) Fac. de Zootecnia, UACH, (2) Campo Exp. Camapan-Madera, INIFAP

3:45 Potential for Extending Major Land Resource Areas into Northern Mexico Roy S. Mann, Philip Heilmann and Jeffry Stone; (1) USDA NRCS, (2) USDA ARS

Thursday Afternoon Symposium

Wildland Invasive Species Restoration

Moderator: Heidi Olbert  
Room: LaCienega

1:00 Is Crested Wheatgrass Here to Stay? A Diversification Study of Crested Wheatgrass Stands in Utah April Hulet, Bruce A. Roundy and Brad Jessop; (1) Brigham Young University, (2) BLM Salt Lake Field Office

1:25 Restoring Land Health on a Landscape Level Lu Burger, Don Ellsworth and Eddie Williams; BLM

1:50 An Internet-Available System for Estimating Site-Specific Invasive Weed Impacts Mathew J. Rinella; USDA ARS

2:15 Working with Conservation Districts on Fire Rehabilitation Efforts Ray Beck; Montana DNRC

2:40 Escalante River Watershed Restoration Amber L. Hughes; BLM
NRCS New Mexico is proud to announce the release of "Seeding Native Grasses of the Arid Southwest" - its new publication for ranchers and professionals alike. Grass seeding is an uncertain endeavor even in the best of circumstances, but in the arid Southwest it is an extremely risky venture. This publication is intended to present the important factors that influence the success of seeding native grasses in the arid and semi-arid Southwest.

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