



2021 Western Alfalfa & Forage Symposium

November 16-17-18, 2021

Grand Sierra Resort, Reno, NV

Organized by: *University Cooperative Extension Services of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming, in cooperation with grower members of the California Alfalfa & Forage Association.*

Hosted by: *California Alfalfa & Forage Association, representing thousands of California forage growers.*

Symposium Chairs: *Dan Putnam, University of California, Earl Creech, Utah State University, Emily Meccage, Forage Genetics International*

Schedule of Events

Monday, November 15, 2021

6:00 p.m. – 9:00 p.m. Symposium and Exhibitor Registration

Day One - Tuesday, November 16, 2021

6:30 a.m. – 7:00 p.m. Symposium and Exhibitor Registration

7:30 a.m. – 7:55 a.m. Continental Breakfast (Tour Participants Only)

8:00 a.m. – 4:00 p.m. Exhibitor/Poster Set-Up

8:00 a.m. – 5:00 p.m. Agricultural Educational Tour in Northern Nevada

Overview: Tour stops will include a large western dairy production operation, a specialized goat dairy, Frey Ranch Distillery, the Derby Dam and Newslands Water Project, and a hay export operation. Pre-registration is required. Bus departs promptly at 8:00 a.m.

5:00 p.m. – 7:00 p.m. Symposium Welcome Reception

Hors D'oeuvres and No Host Cocktails, Exhibits Open, and Posters on Display

Day Two - Wednesday, November 17, 2021

6:30 a.m. – 7:00 p.m. Symposium Registration

7:00 a.m. – 8:30 a.m. Continental Breakfast

7:00 a.m. – 7:00 p.m. Exhibits Open/Posters on Display

8:00 a.m. – 12:00 p.m. Symposium Main Session

- **8:00 a.m. Welcome**

Maninder K. Walia, University of Nevada, Reno, NV

Session I. 8:00 a.m. – 10:00 a.m. Economics, Dairy, Trade, and Water Trends

Moderator: David Hannaway, Oregon State University, Corvallis, OR

- **8:10 a.m. Status of the Western Forage Industry,**
Josh Callen, The Hoyt Report, Twin Falls, ID

- 8:35 a.m. Current Trends and Challenges for the Western Dairy Industry
Paul Sousa, Western United Dairies, Turlock, CA
- 9:00 a.m. International Trade Dynamics in Hay and Impacts on Markets
William Matthews, University of California, Davis, CA
- 9:25 a.m. Water Situation in West and Impacts on Forages
Jason Kelley, USDA-ARS, Parlier, CA
- 9:50 a.m. Discussion
- **10:00 a.m. Break**

Session II. 10:30 a.m. – 12:00 p.m. Water, Climate Change, and the Environment

Moderator: Juan Solomon, University of Nevada, Reno, NV

- 10:30 a.m. The Important Role of Alfalfa in an Uncertain Water Future
Dan Putnam, University of California, Davis, CA
- 10:55 a.m. Key Role of Forages in Climate-Smart Agriculture
Josh Gamble, USDA-ARS, St. Paul, MN
- 11:20 a.m. Rethinking Methane – Livestock’s Path to Climate Neutrality
Frank Mitloener, University of California, Davis, CA
- 11:45 a.m. Discussion

12:00 p.m. – 1:00 p.m. Symposium Lunch

- Why Forage Statistics?
Gary R. Keough, USDA, National Agricultural Statistics Service
- Presentation of the Jim Kuhn Leadership Award
Brandon Fawaz, California Alfalfa & Forage Association Chairman
- Presentation of Poster Award

1:30 p.m. – 5:00 p.m. Symposium Breakout Sessions – Two Sessions Run Concurrently

Session III. 1:30 p.m. – 3:00 p.m. (concurrent): Pest Management (Weeds and Rodents)

Moderator: Tom Getts, University of California Cooperative Extension, Susanville, CA

- 1:30 p.m. Burn-Down Strategies for Alfalfa Weed Control
Earl Creech, Utah State University, Logan, UT
- 1:50 p.m. Residual and Postemergence Weed Control in Seedling Alfalfa
Albert Adjesiwor, University of Idaho, Kimberly Research & Extension Center, Kimberly, ID
- 2:10 p.m. Toxic Plants that Contaminate Hay and Other Forages in the Western United States
Bryan L Stegelmeier, USDA ARS, Logan Utah
- 2:30 p.m. Managing Pocket Gophers in Alfalfa
Roger Baldwin, University of California, Davis, CA
- 2:50 p.m. Discussion
- **3:00 p.m. Break**

Session IV. 3:30 p.m. – 5:00 p.m. (concurrent): Pest Management (Insects)

(Moderator: Ayman Mostafa, University of Arizona, Phoenix, AZ)

- 3:30 p.m. Grasshoppers: To Treat or Not to Treat?
Greg Abbot, USDA-APHIS, Logan, Utah
- 3:50 p.m. Alfalfa Weevil Management & Resistance Issues
Ian Grettenberger, University of California, Davis, CA and Kevin Wanner, Montana State University, Bozeman, MT
- 4:10 p.m. Blue Alfalfa Aphids in the Western US - Management Challenges and Successes Vary by Location
Michael Rethwisch, University of California Cooperative Extension, Blythe, CA
- 4:30 p.m. Using Drones to Control Pests in Alfalfa
Rachael Long, University of California Cooperative Extension, Woodland, CA and Ken Giles, University of California, Davis, CA
- 4:50 p.m. Discussion

Session V. 1:30 p.m. – 3:00 p.m. (concurrent): Water Management

(Moderator: Leonard Lauriault, New Mexico State University, Tatum, NM)

- 1:30 p.m. Innovative Technologies for Water Conservation in Flood Irrigation Systems
Khaled Bali, University of California, Kearney Research and Extension Center, Parlier, CA
- 1:50 p.m. Optimizing Overhead Irrigation Systems
Matt Yost, Utah State University, Logan, UT
- 2:10 p.m. Alfalfa on Subsurface Drip Irrigation (SDI) – Pros and Cons
Doug Larson, Ag Water Chemical, Fresno, CA
- 2:30 p.m. Alfalfa and Groundwater Management Strategies to Address Drought and Limited Water Supplies
Helen Dahlke, University of California, Davis, CA
- 2:50 p.m. Discussion
- 3:00 p.m. **Break**

Session VI. 3:30 p.m. – 5:00 p.m. (concurrent): Alternative Forages

(Moderator: Anowarul Islam, University of Wyoming, Laramie, WY)

- 3:30 p.m. Sugar Beets and Safflower as Alternative Winter Forages
Steve Kaffka, University of California, Davis, CA
- 3:50 p.m. Double Cropping Both Winter and Spring Canola as Silage and Grain
Steve Franssen, Washington State University, Prosser, WA
- 4:10 p.m. Hemp Production and Animal Feed Potential
Serkan Ates, Oregon State University, Corvallis, OR
- 4:30 p.m. Winter and Summer Annual Small Grain Forage Crops
Guojie Wang, Oregon State University, Corvallis, OR
- 4:50 p.m. Discussion

5:00 p.m. – 7:00 p.m. Exhibit Reception, Poster Presentations, and CAFRF Auction

Hors D'oeuvres and No Host Cocktails, Exhibits Open, and Posters on Display

Day Three – Thursday, November 18, 2021

7:00 a.m. – 12:15 p.m. Symposium Registration

7:00 a.m. – 10:00 a.m. Exhibits Open/Posters on Display

7:00 a.m. – 8:30 a.m. Continental Breakfast

8:00 a.m. – 12:15 p.m. Main Session

Session VII. 8:00 a.m. – 9:55 a.m. Soil Health and Fertility, Forage Systems, and Environment

(Moderator: Rachael Long, University of California Cooperative Extension, Woodland, CA)

- 8:00 a.m. Using Hay Tests Samples to Maximize Economic Returns from P and K Fertilization
Steve Norberg, Washington State University, Pasco, WA
- 8:25 a.m. Recycling and Management of Manure in Forage Crops
Eric Young, USDA-ARS, Marshfield, WI
- 8:50 a.m. Soil Health: Beyond Organic Matter and Carbon
Robert Dungan, USDA-ARS Kimberly, ID
- 9:15 a.m. Regeneration Nation: Alfalfa's Role in Sustainable Agriculture
Emily Meccage, Forage Genetics International, Muncy, PA
- 9:40 a.m. Discussion
- **9:55 a.m. Break**

Session VIII. 10:25 a.m. – 12:15 p.m. Grazing Forages, Nitrates, Future of Forages

(Moderator: Emily Meccage, Forage Genetics International, Muncy, PA)

- 10:25 a.m. Grazing Cover Crops and Opportunity for Forage Producers
Sam Wyffels, Montana State University, Havre, MT
- 10:50 a.m. Management of Forages with High Nitrates
Hayes Goosey, Montana State University, Bozeman, MT
- 11:15 a.m. Historical Perspectives and Future of Forages
Moderator: *Emily Meccage, Forage Genetics International, Muncy, PA*
Panel: *Mysten Bohle, Oregon State University; Steve Fransen, Washington State University; Mike Ottman, University of Arizona; Glenn Shewmaker, University of Idaho; Dan Putnam, University of California, Davis.*
- **12:15 p.m. Adjourn Symposium**

For Symposium information, up-to-date schedule, registration, and sponsorship/exhibitor opportunities, please visit our website <https://calhaysymposium.com/>.