

56th Annual Pacific Northwest Animal Nutrition Conference

PROCEEDINGS

**PACIFIC NORTHWEST
ANIMAL NUTRITION
CONFERENCE**



and
Zinpro Preconference

January 16-17, 2023
Grove Hotel
Boise, Idaho

– Organized By –

Oregon State University, Eastern Oregon University, University of Alberta,
University of Idaho, Montana State University, and Washington State University

– Committee –

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Zinpro: Challenging Trace Mineral Dogma

—Chris Reinhardt, PhD, Feedlot Research Nutritionist – Zinpro Technical Services

The chemistry of Zinpro. Why it matters

—Peter Stark, PhD, medicinal chemistry – VP of Product Development at Zinpro

Trace mineral needs of modern beef and dairy cattle.

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—Corey Geiger, Hoard's Dairyman

Understanding the host-microbiome interactions in dairy calves: intervention opportunities to improve calf performance

—Leluo Guan, PhD, University of Alberta

Transforming livestock grazing with virtual fencing

—Karen Launchbaugh, PhD, University of Idaho

A look at late-gestation and early-postpartum developmental programming in beef cattle

—Katie Wood, PhD, University of Guelph

Animal agriculture and alternative meats: learning from past science communication failures

—Alison Van Eenennaam, PhD, University of California-Davis

Effects of wildfire smoke exposure in cattle: a review of the current state of knowledge and future directions

—Amy Skibiell, PhD, University of Idaho

What really is the role of nutrition(ists) in lameness?

—Gerard Cramer, DVM, DVSC, University of Minnesota

Forage cover crops and their potential benefits and unknowns to western cattle operations

—Jillian Bainard, PhD, Agriculture and Agri-Food Canada

Ecological costs of the status quo on grazing the intermountain west

—Barry Perryman, PhD, University of Nevada-Reno

Mineral and Vitamin Supplementation to Dairy Cows Under Different Situations

—Bill Weiss, PhD, PAS, Dpl. ACAS, Ohio State University

NASEM 2021 – Carbohydrates

—Mary Beth Hall, PhD, USDA

Mineral toxicoses most commonly encountered in cattle

—Jeffery Hall, PhD, DVM, Huvepharma

GRADUATE STUDENT POSTER ABSTRACTS

Effects of the physical form of starter feed on intake, performance and health of young Holstein calves

Í.R.R. Castro, G.B.C. Leite, J.C.C. Chagas, G. Fields, A. Bartelheimer, A. Harder, D. Landin, and M.I. Marcondes.

Effect of iodine source on dairy cow colostrum production and growth and health of their calves

K.R. Johnston, D.C. Reyes, K.N. Klobucher, T.C. Stahl, P.S. Erickson, and A.F. Brito.

Botanical Composition and Quality of Beef Cattle Diets on a Burned and/or Unburned Rangeland

J.A. Kluth, N.G. Davis, S.A. Wyffels, C.B. Marlow, L.T. Vermeire, M.L. Van Emon, M.F. Nack, T.E. Sitz, T.G. Hamilton, J.J. Peterson, G.J. Collins, A.V. Rutledge, M.A. Whitehurst, and T. DeCurto.

Impact of improving the heat detection method on farm dietary costs, production, and profitability in Washington and Florida dairies

G.B.C. Leite, and M.I. Marcondes.

Effects of wildfire smoke PM_{2.5} exposure on health and performance of dairy heifer calves

A. Pace, P. Rezamand, and A.L. Skibiel.

Performance of grazing beef cattle supplemented with increasing energy levels in a tropical environment

Luiza de Nazaré Carneiro da Silva, Robert Emilio Mora-Luna, Daniel Henrique Sousa Tavares, Mirelle Magalhães Souza, José Neuman Miranda Neiva, Fabrícia Rocha Chaves Miotto, and M.I. Marcondes.

Does transition milk and colostrum feedings provide benefits to dairy calves' gastrointestinal tract after feed restriction and fasting? Fecal immune and microbiota parameters assessment.

M. Tortadès, S. Martí, M. Devant, F. Fàbregas, and M. Terré.

Effects of weaning strategies on health, hematology, and productivity in Holstein dairy calves

A. Wolfe, P. Rezamand, B.C. Agostinho, D.E. Konetchy, and A.H. Laarman.

PNWANC Program Agenda

Monday, January 16, 2023

- 11:30 am ARPAS Chapter Business Meeting and Luncheon – *Graduate Students Invited*
- 1:00 pm – 5:00 pm Preconference, *sponsored by Zinpro*



Preconference Agenda

- 1:00 pm The launch of Zinpro's IsoFerm, an essential nutrient that improves fermentation by feeding the fiber-digesting bacteria in the rumen to naturally allow cows to be better cows
Jeff Weyers, PhD, dairy nutritionist – Zinpro Technical Services
- Zinpro: Challenging trace mineral dogma
Chris Reinhardt, PhD, feedlot research nutritionist – Zinpro Technical Services
- The chemistry of Zinpro: Why it matters
Peter Stark, PhD, medicinal chemistry – VP of Product Development at Zinpro
- 2:45 pm Break
- 3:00 pm Trace mineral needs of modern beef and dairy cattle
Stephanie Hansen, PhD, professor, beef feedlot nutrition, Iowa State University
- Beef on dairy cross calves in the feedlot: What we have learned
Kip Lukasiewicz, DVM, feedlot consulting veterinarian, Production Animal Consultation
- 5:00 pm Reception | Poster viewing and refreshments – Hosted by Zinpro
- 6:00 pm ARPAS Exam Session

Tuesday, January 17, 2023

7:00 am Continental breakfast

Morning General Session

8:15 am Welcome

8:20 am Labor issues in animal agriculture – Corey Geiger, Hoard's Dairyman

9:00 am Understanding the host-microbiome interactions in dairy calves: Intervention opportunities to improve calf performance – Leluo Guan, PhD, University of Alberta

9:40 am Transforming livestock grazing with virtual fencing – Karen Launchbaugh, PhD, University of Idaho

10:20 am Coffee Break I – *Sponsored by Simplot Western Stockmen's*

Morning Breakouts

BEEF

10:45 am A look at late-gestation and early-postpartum developmental programming in beef cattle – Katie Wood, PhD, University of Guelph

11:25 am Animal agriculture and alternative meats: Learning from past science communication failures – Alison Van Eenennaam, PhD, University of California-Davis

DAIRY

10:45 am Tackling a burning question: Does wildfire smoke inhalation impact cow and calf health and performance? – Amy Skibiel, PhD, University of Idaho

11:25 am What really is the role of nutrition in lameness? – Gerard Cramer, DVM, DVSC, University of Minnesota

12:05 pm Lunch

The 2023 Carl Hunt Graduate Student Research Poster Competition Results
Sponsored by Origination and Cumberland Valley Analytical Services

Afternoon Breakouts

BEEF

1:20 pm Forage cover crops and their potential benefits and unknowns to western cattle operations – Jillian Bainard, PhD, Agriculture and Agri-Food Canada

2:00 pm Ecological costs of the status quo on grazing the intermountain west – Barry Perryman, PhD, University of Nevada-Reno

DAIRY

1:20 pm Dietary mineral and vitamin supplementation of dairy cows to meet requirements under different conditions – Bill Weiss, PhD, PAS, Dpl. ACAS, Ohio State University

2:00 pm NASEM 2021 – Carbohydrates – Mary Beth Hall, PhD, USDA

2:40 pm Coffee Break II

Afternoon General Session

3:15 pm Mineral toxicoses most commonly encountered in cattle – Jeffery Hall, PhD, DVM, Huvepharma

4:00 pm Adjourn