All events will be held in Red Oak Ballroom unless otherwise indicated.

Program

Tuesday June 1, 2021
4:30 PM Program Committee/Moderators meeting to review moderator assignments and any last-minute details
5:00 - 7:00 Registration (Dinner on your own) – Red Oak Foyer

Opening Session
Moderator: TBD
7:00 Welcome & Recognitions. Robin Schoen, NASEM and Larry Miller, DISCOVER Conference Series
7:10 Conference Kickoff/Keynote. Mike Gaylean, Texas Tech University
8:00 Welcome Reception – Prairie River (lower level)

Wednesday June 2, 2021
7:00 - 8:00 AM Continental breakfast – Black Break Area, Red Oak Foyer

Session 1: Chapters 2 to 5 – Feed Intake, Fats, Carbohydrates, and Energy
Moderator: Ermias Kebreab, University of California-Davis
8:00 Welcome and Announcements
8:10 Feed Intake. Mike Allen, Michigan State University
8:40 Fats. Lou Armentano, University of Wisconsin
9:00 Carbohydrates. Mary Beth Hall, U.S. Dairy Forage Research Center, USDA-ARS
9:30 Discussion by all participants
10:00 Break
10:30 Expression of Requirements. Rich Erdman, University of Maryland
10:50 Energy Supply. Bill Weiss, The Ohio State University
11:10 Energy Requirements. Mike VandeHaar, Michigan State University
11:40 Discussion by all participants
12:30 PM Lunch – Burnham’s Restaurant

Session 2: Chapter 6 - Proteins and Amino Acids
Moderator: Mike Allen, Michigan State University
1:30 Protein Supply. Jeff Firkins, The Ohio State University
2:00 Protein Requirements. Hélène Lapierre, Agriculture & Agri-Food Canada
2:30 Amino Acid Requirements. Mark Hanigan, Virginia Tech
3:00 Discussion by all participants
3:45 Break
4:15 Introducing the NASEM Software. Abbas Ahmadi, University of California-Davis
4:45 Software Workgroups (3 simultaneous 45-minute sessions)
Workgroup Leaders: Jim Drackley, University of Illinois; Mary Beth Hall, USDA-ARS; and Paul Kononoff, University of Nebraska
5:20 Adjourn

Thursday, June 3, 2021
7:00 - 8:00 AM Continental breakfast – Black Break Area, Red Oak Foyer

Session 3: Chapters 7 to 9 - Minerals, Vitamins, and Water
Moderator: Mary Beth Hall, U.S. Dairy Forage Research Center, USDA-ARS
8:00 Macro-minerals. Rich Erdman, University of Maryland
8:30 Trace-minerals and Vitamins. Bill Wiess, The Ohio State University
9:00 Discussion by all participants
9:30 Break
10:00 Water. Paul Kononoff, University of Nebraska
10:30 Evaluating Environments Impacts. *Ermias Kebreab, University of California, Davis*
11:00 Discussion by all participants
11:30 Lunch – Burnham’s Restaurant

**Session 4: Chapters 10 to 13 - Dry Cows, Calves and Replacement Heifers**

*Moderator: Hélène Lapierre, Agriculture & Agri-Food Canada*

12:30 Transition Cows. *Bill Weiss, The Ohio State University*
1:00 Calves. *Jim Drackley, University of Illinois*
1:30 Heifers. *Mike VandeHaar, Michigan State University*
2:00 Discussion by all participants
2:45 Break
3:15 Model Input Workgroups (3 simultaneous 45-minute sessions repeated)
   Choose 2:
   - Feed Analytics and Composition. *Workgroup Leaders: Paul Kononoff, University of Nebraska and Mary Beth Hall, USDA-ARS*
   - Application of the Protein/Amino Acid System. *Workgroup Leader: Mark Hanigan, Virginia Tech*
   - Physically Adjusted Fiber. *Workgroup Leader: Jeff Firkins, The Ohio State University*
5:00 Adjourn

**Friday June 4, 2021**

7:00 - 8:00 AM Continental breakfast – Black Break Area, Red Oak Foyer

**Session 5: Application of the New Requirements**

*Moderator: Paul Kononoff, University of Nebraska*

8:00 Teaching Applications. *Lou Armentano, University of Wisconsin*
8:30 Commercial Applications. *Mike Socha, Zinpro Corporation*
9:00 Discussion by all participants
9:45 Break
10:15 Improving the Process for Future NRC’s. *Robin Schoen, Rich Erdman and Bill Weiss Panel Discussion*
10:45 Discussion
11:30 Wrap-up and next steps
11:45 Adjourn