



2022 Tri-State Dairy Nutrition Conference

April 11-13, 2022
Grand Wayne Center
Fort Wayne, Indiana

*The Tri-State Dairy Nutrition Conference is organized by
leadership of Extension and the Department of Animal Sciences*

at:

Michigan State University

Purdue University

The Ohio State University

and

allied industry personnel

Celebrating 30 Years!

Website: <http://tristatedairy.org>

General Information

The Tri-State Dairy Nutrition Conference is a 30-year collaborative effort between The Ohio State University, Michigan State University, and Purdue University and the allied dairy industry.

For more information about the 2022 conference, contact: Dr. Maurice Eastridge at (614) 688-3059, The Ohio State University; Dr. Adam Lock at (517) 802-8124, Michigan State University; or Dr. Jackie Boerman at (765) 496-6290, Purdue University.

Information about the program is also available online at: <http://tristatedairy.org>.

Student Competitions

Students may present at the Conference for a chance to win awards. All graduate and undergraduate students participating that do not place will receive an Amazon gift card of \$100. Graduate students present their research, and the top students may receive awards totaling up to \$2,250. Undergraduates also can present their research; up to \$1,200 may be distributed among the top presenters. Undergraduate and graduate students may attend the Conference for free, and lodging will be made available for students. *Pre-registration is required.*

The guidelines for contestants can be found on the website. Abstracts by graduate students for the contest are due by **Friday, March 18, 2022** and will be printed in the proceedings of the Tri-State Dairy Nutrition Conference. Undergraduates must notify Dr. Adam Lock by **Friday, April 1, 2022** of their intent to present. For more information, contact: Dr. Adam Lock at allock@msu.edu.

Sponsorship Information

There are numerous opportunities for your company or business to gain visibility at the Tri-State Dairy Nutrition Conference. Opportunities include being an exhibitor, general sponsor, hospitality sponsor, supporting the student presentation competition, and more. If you are interested in learning more about these sponsorship opportunities, contact Dr. Herb Bucholtz for more information at (517) 230-0120 or bucholtz@msu.edu. Exhibitor deadline is **March 4, 2022**.

Conference Objectives

To disseminate current information on the feeding of dairy cattle, primarily to individuals who provide nutritional advice to dairy farmers.

Intended Audience

Feed industry personnel, nutrition consultants, Extension personnel, university students, veterinarians, and interested dairy producers.

Registration Fee

\$185 per person, includes refreshments during breaks and hospitality reception, one breakfast, and one copy of the Tri-State Dairy Nutrition Conference Proceedings (online or paper). For details concerning registration discounts for groups of 5 or more (\$170/person), contact Michelle Milligan at (614) 292-7374 or email: milligan.4@osu.edu. Registration deadline is **April 1, 2022**. The cost for late registrations is \$215, so don't delay!

Accommodations

Please make room reservations directly with area hotels. Participants are encouraged to check-in prior to the start of the Conference.

The preferred hotels are:

Hilton Fort Wayne at the Grand Wayne Center

1020 South Calhoun Street
P.O. Box 12049
Fort Wayne, IN 46802
(260) 420-1100

The **Hilton Fort Wayne** has a block of rooms reserved for the Conference. The rooms are \$128 plus tax per night for single or double occupancy. Rooms at the Hilton must be reserved by **March 21, 2022** by 3:00 p.m. EST to receive the discounted rate. Reservations can be made by calling 1-800-HILTONS. To reserve online:

<https://www.hilton.com/en/attend-my-event/fwafhf-tsd-5a8f20f1-cae9-433f-8e17-6cef0a9ace9f/>

Courtyard by Marriott (enclosed walkway to the Grand Wayne)

1150 South Harrison Street
Fort Wayne, IN 46802
1-800-228-9290

There are rooms reserved at the **Courtyard by Marriott** at the rate of \$129 plus tax per night for single or double occupancy. Rooms must be reserved by **April 1, 2022** to receive the discounted rate. Reservations can be made online:

<https://www.marriott.com/event-reservations/reservation-link.mi?id=1645042163376&key=GRP&app=resvlink>

Other hotels in the area include:

Hyatt Place

111 W. Washington Center Rd.
(260) 471-8522

Holiday Inn Express & Suites

5915 Ellison Road
(260) 459-1888

Hampton Inn & Suites Fort Wayne Downtown

223 West Jefferson Boulevard
(260) 427-6915

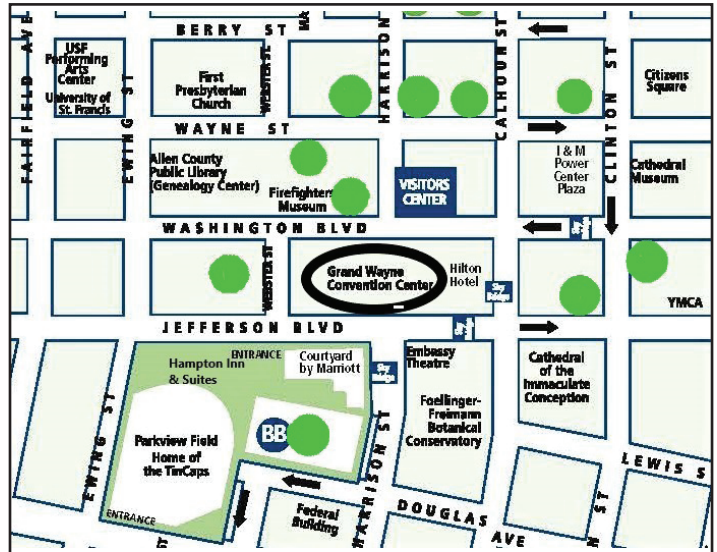
Hampton Inn & Suites

5702 Challenger Parkway
(260) 489-0908



The Grand Wayne Center and Hilton Fort Wayne are conveniently located in downtown Fort Wayne, only 7 miles from the Fort Wayne International Airport.

Parking Map



Grand Wayne Center
120 West Jefferson Boulevard
Fort Wayne, IN 46802
(260) 426-4100
<http://www.grandwayne.com>

DRIVING DIRECTIONS

FROM THE SOUTH

Take I-69 North to Exit 102, Jefferson Blvd; continue on Jefferson Blvd. until you reach downtown Fort Wayne, then move into the far left lane. The Grand Wayne Center is on your left, across from The Embassy Theater. Drive one more block to the Jefferson Blvd. entrance of the Parking Garage. The skywalk bridge is located on the third floor of the garage.

FROM THE NORTHWEST

Take U.S. 30 East until you reach U.S. 27 South (Northrop St./Clinton); turn right and travel directly into downtown Fort Wayne; turn RIGHT onto Washington Blvd. and move into the left lane. Proceed one block and turn LEFT onto Calhoun Street. The Parking Garage entrance is on your left, across from the Hilton Hotel. The skywalk bridge is located on the third floor of the garage.

FROM THE NORTH

Take I-69 South to Exit 112, using the Coldwater Road South ramp. Travel south on Coldwater Road until it merges with Clinton Street. Continue on Clinton Street into downtown Fort Wayne; turn RIGHT onto Washington Blvd. and move into the left lane. Proceed one block and turn LEFT onto Calhoun Street. The Parking Garage entrance is on your left, across from the Hilton Hotel. The skywalk bridge is located on the third floor of the garage.

FROM THE EAST via SR 14 or US 30 (930 East)

Follow highway West through New Haven. Approaching Fort Wayne – route is named Washington Blvd. Follow Washington Blvd. to downtown Fort Wayne. Turn left onto Calhoun Street. Park in Civic Center Parking Garage, turn left into garage mid-block. Grand Wayne Center is attached to Hilton Hotel. Parking Garage level 3 connects by skywalk to Hotel and Grand Wayne Center level 2.

Agenda

Monday, April 11

- 1:00 - 5:30 **Balchem Mini-Symposium** 
(Harrison CD)
- 1:30 - 5:30 **Undergraduate Student Presentations**
(Jefferson C)
Graduate Student Presentations
(Jefferson A and B)
- 6:00 - 7:00 **Dinner for Students, Balchem Mini-Symposium Attendees, and Industry Personnel***
(Anthony Wayne Ballroom)
Pre-registration Required
(Sponsored by Midwest ARPAS and the Tri-State Dairy Nutrition Conference)
- Announcement of Undergraduate Student Presentation Awards**
Dr. Adam Lock, Michigan State University
- *Free to students and their advisors, and attendees to the Balchem Mini-Symposium (\$35/person otherwise).*

- 4:00 - 4:30 **Cautions and Considerations When Bioavailability of RP-AA is Determined In Vivo**
Dr. Chanhee Lee, The Ohio State University
- 4:30 - 5:10 **Increasing Milk Fat Yield: Opportunities Beyond Fat Supplements**
Dr. Kevin Harvatine, Penn State University
- 5:10 - 5:20 **Announcement of Graduate Student Presentation Awards**
Dr. Adam Lock, Michigan State University
- 5:20 - 5:35 **Presentation by First-Place Graduate Student**
- 5:35 - 7:00 **Hospitality**
(Convention Hall)
(Hors d'oeuvres provided, dinner on your own)
- 6:30 **Veterinarian Dinner**
Hosted by Diamond V
(Harrison A)
- Nutrition Consultant Dinner**
Hosted by Feed Components
(Harrison B)
- 7:00 - 9:00 **Extension Educator In-Service**
(Harrison DE)

Tuesday, April 12

PRE-CONFERENCE



- 7:00 - 12:00 **Pre-Conference program hosted by Alltech**
(Anthony Wayne Ballroom; registration required)
- Theme: Enhancing the Dairy Cow Microbiome - What's the Next Step?**

TRI-STATE DAIRY NUTRITION CONFERENCE

- 12:00 - 12:50 **Registration**
(Lunch provided in Convention Hall)
- Midwest ARPAS Luncheon Meeting**
(Harrison DE)
- 12:50 - 1:00 **Welcome to the 30th Tri-State Dairy Nutrition Conference**
Dr. Maurice Eastridge, The Ohio State University
- 1:00 - 1:40 **Emerging Issue: Sustainability: Dairy Scale for Good**
Dr. Juan Tricarico, Dairy Management, Inc.
- 1:40 - 2:20 **Aiming for Net Zero on Dairy Farms: Practical Feeding and Management Practices**
Dr. Joanne Knapp, Fox Hollow Consulting, LLC
- Theme: Feeding Management**
Moderator: Dr. Mark Fox, Thumb Veterinary Services
- 2:20 - 3:00 **Alternative Forages for Dairy Systems**
Dr. Gonzalo Ferreira, Virginia Tech
- 3:00 - 3:30 **Break** (refreshments provided)
- 3:30 - 4:00 **Role of Isoacids to Enhance Rumen Function**
Dr. Jeff Firkins, The Ohio State University
(Sponsored by Zinpro)

Wednesday, April 13

- 7:00 - 7:45 **Industry Sponsored Hot Topic Breakfast**
Hosted by Vetagro
In a Tier Pricing System: Managing for Both Fat and Protein
Dr. Kevin Harvatine, Penn State University
(Anthony Wayne Ballroom A)
(breakfast provided; registration required)
- 7:45 - 8:30 **Visit with Exhibitors in Convention Hall**
(coffee, milk, and snacks provided by Vetagro)
- Theme: 2021 Dairy NRC**
Moderator: Jim Stefanak, Elanco
- 8:30 - 9:05 **What's New in the NRC for How We Formulate for Energy in Diets for Dairy Cattle?**
Dr. Mike VandeHaar, Michigan State University
- 9:05 - 9:45 **What's New in the NRC for How We Formulate for Protein in Diets for Dairy Cattle?**
Dr. Mark Hanigan, Virginia Tech
- 9:45 - 10:15 **Break** (Refreshments Provided)
- 10:15 - 10:50 **What's New in the NRC for How We Formulate for Trace Elements in Diets for Dairy Cattle?**
Dr. William Weiss, Professor Emeritus, The Ohio State University
- 10:50 - 11:10 **NRC Panel Discussion**

(Continued on next page)

Agenda

Theme: Forages

Moderator: Brian Beck, Witmer's Feed and Grain, Inc.

- 11:10 - 11:50 **Enogen Corn Hybrids: Improved Feed Efficiency and Reduced Environmental Impact**
*Dr. Randy Shaver, Professor Emeritus,
University of Wisconsin-Madison
(Sponsored by Syngenta Crop Protection, LLC)*
- 11:50 - 12:30 **Reduced Lignin Alfalfa: Updates on Agronomy and Feeding**
*Drs. Kim Cassida and Barry Bradford,
Michigan State University*
- 12:30 **Adjourn** (*Lunch Provided in Convention Hall*)

Tri-State Dairy Undergraduate Program¹

Monday, April 11

- 1:30 - 5:30 Attend and/or participate in Student Competitions (Jefferson ABC)
Hotel check-in
(Free lodging for students - Required online registration for conference and lodging)
- 6:00 - 7:00 Dinner hosted by ARPAS and the Tri-State Dairy Nutrition Conference
(Anthony Wayne Ballroom)
- 7:30 - 10:00 Undergraduate Social Event

Tuesday, April 12

- 8:30 - 9:00 Breakfast with keynote speaker
- 9:00 - 11:00 Tour of dairy farm
- 12:00 - 12:45 Lunch at Grand Wayne Center (Exhibit Hall)
- 12:50 - 5:35 Attend Conference and visit with Exhibitors

¹Application required. Additional information and form available at:
<https://www.tristatedairy.org/undergraduate-program>

For additional information about the Undergraduate Program, contact Dr. Elizabeth Karcher, Purdue University, ekarcher@purdue.edu.

ARPAS

The American Registry of Professional Animal Scientists

The ARPAS exam will be given at the Tri-State Dairy Nutrition Conference on April 12. If you are interested in taking the exam, please email the requested information listed below.

PAS exam(s) available:

- | | |
|-----------------------|---------------------------|
| 1. Aquaculture | 7. Poultry |
| 2. Beef Cattle | 8. Sheep & Goat |
| 3. Companion | 9. Swine |
| 4. Dairy Cattle | 10. Meat Science |
| 5. Horses | 11. Dairy Product Science |
| 6. Laboratory Animals | 12. Poultry Products |

14 CEU's available to ARPAS members for attending the Conference (2 credits for Balchem Mini-Symposium, 3 credits for Alltech Pre-Conference, and 9 credits for Conference).

The exam may be taken at the time listed below.

Other times available by appointment with Jeremy Holzner at ARPAS, 217/356-5390, email: jeremyh@assoqh.org

Tuesday, April 12 - 11:00 AM

More information about ARPAS exams and sample questions may be found at www.arpas.org. If you would like information on one of the College Board Certification exams, please contact us.

Please email the information below, which exams you desire to take and your preferred time to: jeremyh@assoqh.org

(Name, Address, City, State, Zip, phone, and email address)

2022 Tri-State Dairy Nutrition Conference Registration Form

Please print clearly

Name: _____

Company: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Email: _____

Please check the box corresponding to your job affiliation:

- Feed Industry - sales/nutrition advisor
- Feed Industry - support staff/management/research
- Private Consultant
- Veterinarian
- Dairy Producer
- Campus/University Staff
- County Extension
- Government
- Student

(Undergraduate and graduate - Students registrations are free.)

FREE student lodging. (See registration on reverse side).

\$ _____ Registration (\$185/person)
(Registration includes one proceedings either online or paper.)

(\$30 late fee after April 1, 2022 - \$215)

PROCEEDINGS PREFERENCE:

Indicate: _____ online or _____ paper

(For online proceedings, a password will be provided.)

\$ _____ Extra Paper Proceedings (\$20/copy)

\$ _____ Online proceedings only (\$20/person)

\$ _____ April 11 Dinner (\$35/person for non-students)
Sponsored by: **ARPAS and the Tri-State Dairy Nutrition Conference**

\$ _____ **TOTAL**

A \$30 per registration charge will be added for late registrations and registrations received at the door.

Discounted registration fees are available for organizations with groups of 5 or more (\$170/person), provided they are received from the same company, before the registration deadline, and received at the same time. Contact Michelle Milligan at (614) 292-7374 or milligan.4@osu.edu for details on group discounts or with questions.

COMPLIMENTARY PROGRAMS

(Registration Required)

- Yes Attending Mini-Symposium
No hosted by Balchem
(April 11, 1:00 PM, Harrison CD)
- Yes Attending Pre-Conference
No hosted by Alltech
(April 12, 7:00 AM, Anthony Wayne Ballroom)
- Yes Attending Industry Sponsored Hot Topic Breakfast
No hosted by Vetagro
(April 13, 7:00 AM, Anthony Wayne Ballroom)
- Yes Attending Veterinarian Dinner
No hosted by Diamond V
(April 12, 6:30 PM, Harrison A)
- Yes Attending Nutrition Consultant Dinner
No hosted by Feed Components
(April 12, 6:30 PM, Harrison B)
- Yes Attending Extension Educator In-Service
No (April 12, 7:00 PM, Harrison DE)

One registration per form. Please list each registration on additional copies of this form.

Registration Deadline: April 1, 2022.

Make checks payable to:

Tri-State Dairy Nutrition Conference

Mail registration form and fee to:

Tri-State Dairy Nutrition Conference
c/o Michelle Milligan
221 Animal Science Building, 2029 Fyffe Court
Columbus, OH 43210

OR

Register online: <http://tristatedairy.org>

Student Lodging¹

Undergraduate and graduate students may attend the Conference for free, and lodging will be complimentary for students. Pre-registration is required. The student room reservations deadline is **March 21, 2022**. There will be four students per double bed room.

Student Name: _____

University: _____ Email: _____

Graduate Student: Undergraduate Student:

Presenting: Yes No Dinner on April 11: Yes No

If undergraduate presenting: Literature Review Research

Lodging Needed: April 11: Yes No April 12: Yes No

Attending Undergraduate Program on April 12: Yes No

Student Name: _____

University: _____ Email: _____

Graduate Student: Undergraduate Student:

Presenting: Yes No Dinner on April 11: Yes No

If undergraduate presenting: Literature Review Research

Lodging Needed: April 11: Yes No April 12: Yes No

Attending Undergraduate Program on April 12: Yes No

Student Name: _____

University: _____ Email: _____

Graduate Student: Undergraduate Student:

Presenting: Yes No Dinner on April 11: Yes No

If undergraduate presenting: Literature Review Research

Lodging Needed: April 11: Yes No April 12: Yes No

Attending Undergraduate Program on April 12: Yes No

Student Name: _____

University: _____ Email: _____

Graduate Student: Undergraduate Student:

Presenting: Yes No Dinner on April 11: Yes No

If undergraduate presenting: Literature Review Research

Lodging Needed: April 11: Yes No April 12: Yes No

Attending Undergraduate Program on April 12: Yes No

¹For students participating in the Undergraduate Program, an application is required. Additional information and form available at: <https://www.tristatedairy.org/undergraduate-program>

Celebrating 30 Years!



Website: <http://tristatedairy.org>