

26<sup>th</sup>  
Year



Website: <http://tristatedairy.org>

# 2017 Tri-State Dairy Nutrition Conference

**April 17-19, 2017**  
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*

## General Information

The Tri-State Dairy Nutrition Conference is a 26-year collaborative effort between The Ohio State University, Michigan State University, and Purdue University and the allied dairy industry. In 2016, 550 individuals attended the conference.

For more information about the 2017 conference, contact: Dr. Maurice Eastridge at (614) 688-3059, The Ohio State University; Dr. David Beede at (517) 432-5400, Michigan State University; or Dr. Shawn Donkin at (765) 494-4847, 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 cash awards. All graduate and undergraduate students participating that do not place will receive a monetary award of \$100. Graduate students present their research, and the top students may receive awards totalling up to \$2,250. Undergraduates can present their research or provide a thorough review of a nutritional topic; 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 3, 2017** and will be printed in the proceedings of the Tri-State Dairy Nutrition Conference. For more information, contact: Dr. Adam Lock at [allock@msu.edu](mailto: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](mailto:bucholtz@msu.edu). Exhibitor deadline is **March 3, 2017**.

## 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

\$175 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 (\$160/person), contact Michelle Milligan at (614) 292-7374 or email: [milligan.4@osu.edu](mailto:milligan.4@osu.edu). Registration deadline is **March 31, 2017**. The cost for late registrations is \$205, 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 \$106 plus tax per night for single or double occupancy. Rooms at the Hilton must be reserved by **March 24, 2017** by 3:00 p.m. EST to receive the discounted rate. Rooms can be reserved by calling or visiting [www.ftwayne.hilton.com](http://www.ftwayne.hilton.com) and entering the group code: **TRI**.

### Courtyard by Marriott (enclosed walkway to the Grand Wayne)

1150 South Harrison Street  
Fort Wayne, IN 46802  
866-704-6163

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 **March 27, 2017** to receive the discounted rate.

Other hotels in the area include;

#### Hyatt Place

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

#### Holiday Inn Express

5915 Ellison  
(260) 227-5148

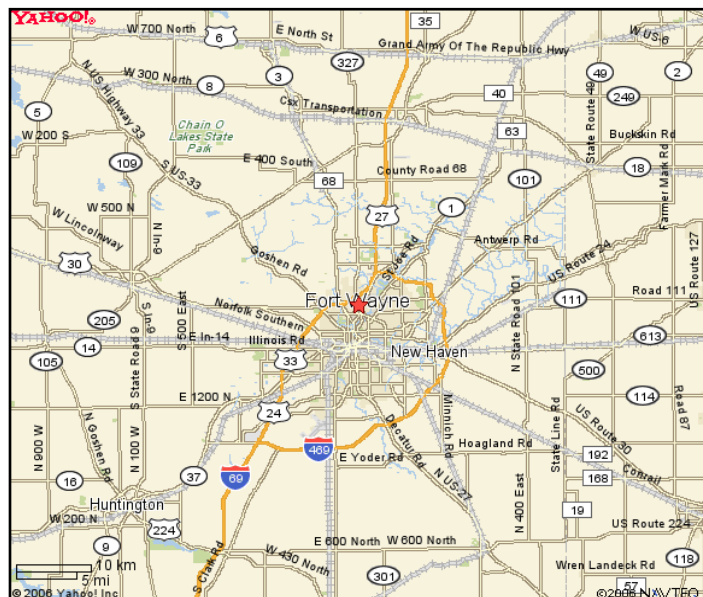
#### Hampton Inn & Suites

5702 Challenger Parkway  
(260) 489-0908

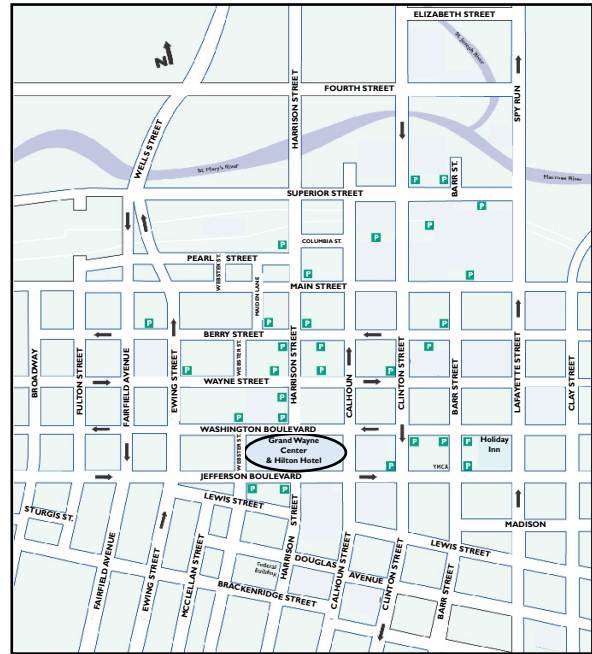
#### Hampton Inn & Suites

8219 West Jefferson Blvd.  
(260) 459-1999

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



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



## ARPAS

*The American Registry of Professional Animal Scientists*

The ARPAS exam will be given at the Tri-State Dairy Nutrition Conference on April 18. 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      |

15 CEU's available to ARPAS members for attending the Conference (4 credits for Diamond V pre-conference, 9 credits for Conference, 2 for Balchem post-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](mailto:jeremyh@assoqh.org)

**Tuesday, April 18 - 11:00 AM**

More information about ARPAS exams and sample questions may be found at [www.arpas.org](http://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](mailto:jeremyh@assoqh.org)

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

# Agenda

## Monday, April 17

- 12:50 - 5:30 **Undergraduate Student Presentations**  
(Harrison A)  
**Graduate Student Presentations**  
(Harrison B,C)
- 2:00 - 5:30 **Feed Analysis Workshop**  
(Harrison D,E)  
**Pre-registration Required (\$25/person)**  
1. Cumberland Valley Analytical Services  
2. Dairy One  
3. Dairyland  
4. Rock River Laboratory  
5. Sure-Tech Labs
- 6:00 **Dinner for Students, Feed Analysis Workshop Attendees, and Industry Personnel\***  
(Anthony Wayne Ballroom)  
**Pre-registration Required**  
(Sponsored by Midwest ARPAS)  
*\*Free to presenting students and their advisors, \$30/person otherwise.*

## Tuesday, April 18

### PRE-CONFERENCE

- 8:00 - 12:00 **Pre-Conference program hosted by Diamond V**  
(Anthony Wayne Ballroom; registration required)
- Theme: Dairy Research and Food Safety: Science to Drive Consumer Confidence**
- 7:00 **Breakfast**
- 8:00 - 8:05 **Setting the Stage - Introductions**  
*Dr. Bill Stone, Diamond V*
- 8:05 - 8:40 **The Changing Food Service Landscape: What it Means to You**  
*Mr. Randy Shields, McDonalds Multi-Store Owner/Operator*
- 8:40 - 9:20 **The Dairymen's Responsibility and the Battle for Safe Food**  
*Dr. Tom Edrington, Diamond V*
- 9:20 - 10:00 **Immunology and the Diamond V Experience**  
*Dr. Stuart Reeves, Diamond V/Embria Health Sciences*
- 10:00 - 10:20 **Break**
- 10:20 - 11:00 **Mitigating the Pathogenic Burden on the Farm Through Nutrition**  
*Dr. Devin Hanson, Diamond V*
- 11:00 - 11:45 **Tools to Raise a Herds Production Thermostat**  
*Dr. Bill Sanchez, Diamond V*

### TRI-STATE DAIRY NUTRITION CONFERENCE

- 12:00 - 12:50 **Registration Opens**  
(Refreshments provided in Convention Hall)
- Midwest ARPAS Luncheon Meeting**  
(Harrison D/E)
- 12:50 - 1:00 **Welcome to the 26<sup>th</sup> Tri-State Dairy Nutrition Conference**  
*Dr. Maurice Eastridge, The Ohio State University*
- 1:00 - 1:40 **Emerging Issue: Looking Ahead - Dairying in the Midwest and the USA in 2067**  
*Dr. Jack Britt, Jack H. Britt Consulting*

#### Theme: Calf Feeding and Management

Moderator: Mr. Glenn Smith, Perdue Agribusiness

- 1:40 - 2:10 **Feeding Calves with Automatic Milk Feeders**  
*Dr. Robert James, Virginia Polytechnic Institute*

#### Concurrent Sessions:

- 2:10 - 2:50 **Improving Nutrient Digestibility in Young Heifer Calves**  
*Dr. Jim Quigley, Provimi North America*

Moderator: Dr. Shawn Donkin, Purdue University  
(Harrison D/E)

- Feeding and Management of Dairy Steers**  
*Dr. Daniel Schaefer, University of Wisconsin-Madison*

- 2:50 - 3:20 **Break** (refreshments provided)

#### Theme: Feeding Management (Session I)

Moderator: Mr. Jim VanderSchoor, Purina Animal Nutrition

- 3:20 - 4:00 **Feeding Cows in a Robotic Milking System**  
*Dr. Marcia Endres, University of Minnesota*

- 4:00 - 4:30 **Variation in Feed Costs Among Dairy Farms**  
*Mrs. Dianne Shoemaker, The Ohio State University*

- 4:30 - 5:00 **Agronomic and Nutritional Attributes of Reduced Lignin Alfalfa**  
*Dr. Mark Sulc, The Ohio State University*

- 5:00 - 5:20 **Presentation by First-Place Graduate Student**

- 5:20 - 5:35 **Announcement of Undergraduate Student Presentation Awards**  
*Dr. Adam Lock, Michigan State University*

- 5:35 - 7:00 **Hospitality**  
(Exhibit Hall, Refreshments Provided)  
(Dinner on Your Own)

- 6:30 **Veterinarian Dinner**  
*Hosted by Elanco (Harrison A)*

**Nutrition Consultant Dinner**  
*Hosted by Feedworks USA (Harrison B)*  
Topic: A Systematic Nutritional Approach to Improve Transition Cow Health  
Speaker: *Dr. Michael Ballou, Department of Animal and Food Sciences, Texas Tech University*

- 7:00 - 9:00 **Extension Educator In-Service**  
(Harrison DE)



# Agenda

## Wednesday, April 19

7:00 - 7:45 **Industry Sponsored Hot Topic**  
*Hosted by ADM Animal Nutrition*  
(Anthony Wayne Ballroom A)  
(breakfast provided; registration required)  
Topic: What is the Latest Research Telling Us and Novel Technology for Heat Stress Relief in Dairy Cattle  
Speaker: *Dr. Lance Baumgard, Iowa State University*

7:45 - 8:30 **Visit with Exhibitors in Convention Hall**  
(coffee, milk, and snacks provided by ADM Animal Nutrition)

### **Theme: Nutrient Availability and Metabolism**

Moderator: *Dr. Ken Zanzalari, Prince Agri Products, Inc.*

8:30 - 9:00 **Update on Fatty Acid Digestion and Metabolism and Impacts on Milk Production**  
*Dr. Adam Lock, Michigan State University*

9:00 - 9:15 *Timely Topic:* **Can We Differentiate Supplemental Magnesium Sources Nutritionally?**  
*Dr. David Beede, Michigan State University*

### **Concurrent Sessions:**

9:15 - 9:55 **Novel Concepts Regarding Calcium Homeostasis During the Transition Period**  
*Dr. Laura Hernandez, University of Wisconsin-Madison*

Moderator: *Dr. Shawn Donkin, Purdue University*  
(Harrison D/E)

**Making Milk Protein: The Single Most Important Ingredient is EVERYTHING**  
*Dr. Lou Armentano, University of Wisconsin-Madison*

9:55 - 10:25 **Break** (Refreshments provided)

### **Theme: Feeding Management (Session II)**

Moderator: *Mr. Matt Kauffman, Papillon Agricultural Company*

10:25 - 11:00 **Sugars in Rations for Dairy Cows**  
*Dr. Mary Beth Hall, USDA Forage Center, Madison, WI*  
(Sponsored by Westway Feed Products)

11:00 - 11:30 **A New Approach for Calculating Metabolizable Protein Requirements by Lactating Dairy Cows**  
*Dr. Luis Moraes, The Ohio State University*

11:30 - 12:00 **“There is Nothing Like First-Hand Evidence” (Sherlock Holmes): The Cows Tell Us What’s Happening**  
*Mr. Jim VanderSchoor, Purina Animal Nutrition*

12:00 - 12:35 **DCAD: It’s Not Just for Dry Cows**  
*Dr. Richard Erdman, University of Maryland*

12:35 **Adjourn** (Refreshments Provided in Convention Hall)

## POST-CONFERENCE

1:00 - 3:00 **Post-Conference hosted by Balchem**  
(Convention Hall: registration required)

### **Theme: Transition Cow Biology**

#### **Golidilocks Meets Choline: Too Hot? Too Cold? Just Right?**

*Dr. Charlie Staples, Department of Animal Sciences, University of Florida*

#### **The Dairy NRC: History, Process, and Progress**

*Dr. Richard Erdman, Department of Animal and Avian Sciences, University of Maryland*

**BALCHEM**  
Real People. Real Science. Real Results.

**NEW!**

## Tri-State Dairy Undergraduate Program

### Monday, April 17

12:30 - 5:30 Students may attend the Student Presentations (Harrison A, B, C)  
Hotel check-in  
(Free lodging for students participating in contests - Required registration for conference and lodging)

6:00 ARPAS dinner

7:30 Evening social at Hilton Fort Wayne Hotel

### Tuesday, April 18

8:00 - 9:00 Breakfast with Guest Speaker

9:00 - 9:30 Travel to Dairy Farm

9:30 - 11:15 Dairy Farm Visit

12:00 - 12:45 Lunch at Grand Wayne Center

12:50 - 6:00 Attend Conference and visit with Exhibitors

# 2017 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 area).

\$ \_\_\_\_\_ Registration (\$175/person)  
(Registration includes one proceedings either online or paper.)  
(\$30 late fee after March 31, 2017 - \$205)

## PROCEEDINGS PREFERENCE:

Indicate: \_\_\_\_\_ online or \_\_\_\_\_ paper  
(For online proceedings, a password will be provided.)

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

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

\$ \_\_\_\_\_ Feed Analysis Workshop  
(\$25/person)

\$ \_\_\_\_\_ April 17 Dinner (\$30/person for non-students)  
Sponsored by: **Midwest ARPAS**

\$ \_\_\_\_\_ **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 (\$160/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 Pre-Conference  
No  hosted by Diamond V

Yes  Attending Industry Sponsored Breakfast Hot Topic  
No  hosted by ADM Animal Nutrition

Yes  Attending Veterinarian Dinner  
No  hosted by Elanco

Yes  Attending Nutrition Consultant Dinner  
No  hosted by Feedworks USA

Yes  Attending Extension Educator In-Service  
No

Yes  Attending Post-Conference  
No  hosted by Balchem

**Student Undergraduate Program and Lodging on the reverse side.**

**Registration Deadline: March 31, 2017.**

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>

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

## Student Lodging

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 18, 2017**. There will be four students per double bed room.

**Student Name:** \_\_\_\_\_

**University:** \_\_\_\_\_ **Email:** \_\_\_\_\_

Graduate Student:  Undergraduate Student:

Presenting: Yes  No  Dinner on April 17: Yes  No

If undergraduate presenting: Literature Review  Research

Lodging Needed: April 17: Yes  No  April 18: Yes  No

Attending Undergraduate Program on April 18 : Yes  No

**Student Name:** \_\_\_\_\_

**University:** \_\_\_\_\_ **Email:** \_\_\_\_\_

Graduate Student:  Undergraduate Student:

Presenting: Yes  No  Dinner on April 17: Yes  No

If undergraduate presenting: Literature Review  Research

Lodging Needed: April 17: Yes  No  April 18: Yes  No

Attending Undergraduate Program on April 18 : Yes  No

**Student Name:** \_\_\_\_\_

**University:** \_\_\_\_\_ **Email:** \_\_\_\_\_

Graduate Student:  Undergraduate Student:

Presenting: Yes  No  Dinner on April 17: Yes  No

If undergraduate presenting: Literature Review  Research

Lodging Needed: April 17: Yes  No  April 18: Yes  No

Attending Undergraduate Program on April 18 : Yes  No

**Student Name:** \_\_\_\_\_

**University:** \_\_\_\_\_ **Email:** \_\_\_\_\_

Graduate Student:  Undergraduate Student:

Presenting: Yes  No  Dinner on April 17: Yes  No

If undergraduate presenting: Literature Review  Research

Lodging Needed: April 17: Yes  No  April 18: Yes  No

Attending Undergraduate Program on April 18 : Yes  No



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