Joint NMC Regional Meeting
and MAC Conference
May 27-28, 2009
Wilkes-Barre, Pennsylvania
Joint NMC Regional Meeting and MAC Conference

May 27-28, 2009
Woodlands Inn and Resort
Wilkes-Barre, Pennsylvania

About the Conference

Each year, the NMC holds a regional meeting to disseminate information on practical, on-farm aspects of udder health, mastitis control, milking management and milk quality.

The Mid-Atlantic Consortium (MAC) has been conducting an in-service training and education program since 1998 for county dairy extension agents and campus dairy extension specialists throughout the Northeast and Mid-Atlantic regions.

This year, NMC and MAC will team up to host a mastitis and milk quality conference that will be targeted to all segments of the dairy industry, including: producers, veterinarians, extension educators and specialists, consultants, equipment and pharmaceutical suppliers, dairy plant field staff, and students. Together NMC and MAC will present a program that delivers current, technically sound information that has a positive impact on mastitis management, milk quality and milk safety. Meeting attendees can put this knowledge to use in their work to boost dairy industry productivity and profitability, and ultimately enhance consumer confidence and satisfaction.

The conference provides an excellent opportunity for everyone interested in quality milk production to keep up-to-date and network with other dairy producers and industry professionals who share a common interest.

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A global organization for mastitis control and milk quality

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Program and Schedule

Wednesday, May 27

9:00 am Registration opens

Pre-Conference Short Courses
Short courses have limited enrollment, require pre-registration, and an additional fee. See course descriptions on page 12. If you are interested in taking a short course, be sure to register early!

10:00 am - 5:00 pm Animal Welfare Evaluation for Mastitis Control and Improved Milk Quality (on-farm workshop)

1:00 pm - 5:00 pm Understanding the Interactions Between the Milking Machine and the Dairy Cow

1:00 pm - 5:00 pm Problem-Solving Case Study: What Did and Didn’t Work to Resolve Mastitis Concerns on a 600 Cow Dairy

1:00 pm - 5:00 pm Tools to Assess and Monitor Subclinical Mastitis Control Practices

1:00 pm - 5:00 pm Integrating Therapy into a Quality Milk Program

Reception
6:00 pm - 7:00 pm

Thursday, May 28

8:00 am Registration opens

Main General Session Program

Morning Session
Moderator: Sheila Andrew, University of Connecticut, Storrs, CT

9:00 am Managing Cows Successfully with Robotic Milking
Doyle Waybright, Mason Dixon Farms, Josiah Garber, Spring Lawn Farm, Mike LaClair, Hinsdale Farm, and Pete Maslyn, Hemdale Farms

10:00 am Break

10:30 am Standard Operating Procedures for Milkers
Rich Stup, AgChoice Farm Credit, Lewisburg, PA

Standard Operating Procedures (SOPs) have become widely used in dairies, but they are only part of a performance management system. Good SOPs must be supported by effective training and feedback to really get top performance in the parlor.

11:15 am Everyday Observations to Improve Milk Quality & Udder Health
David Reid, BouMatic, Madison, WI

This presentation will discuss proper cow handling, milking procedures and routines, and how the milking process can affect the overall production and milk quality level. Discussions will be focused on photographs showing both the good and the bad found in these critical areas on real dairy operations. The goal is for producers and advisors to be able to look objectively at a parlor or barn and make small low cost changes to maximize both milk production and milk quality

Luncheon
12:00 pm - 12:45 pm

Afternoon Session
Moderator: Bob Peters, University of Maryland, College Park, MD

1:00 pm Animal Welfare on Dairies:
Today’s Welfare Challenges and Tomorrow’s Solutions
Jim Reynolds, University of California Veterinary School, Davis, CA

This talk will review on-farm welfare concepts and challenges and will discuss methods used to determine how welfare is assessed, in general and specifically, through on-farm assessments and audits. The National Dairy Animal Well-Being Initiative will be presented as a model for a national dairy welfare program.
How to Assess Milk Quality
Steve Oliver, University of Tennessee, Knoxville, TN

Increased demand for higher quality milk is placing a much greater emphasis on management strategies to minimize contamination of raw milk and for controlling mastitis. Several different methods are used to assess milk quality. Some methods such as SCC and standard plate count are mandated by the Pasteurized Milk Ordinance. Other methods, while not mandated, are useful to monitor milk quality and to help diagnose potential on-farm problems and deficiencies associated with abnormally high counts and poor quality milk.

Taking Mastitis Control to the Next Step
Pamela Ruegg, University of Wisconsin, Madison, WI

Many dairy operations do a good job managing mastitis and producing high quality milk but the targets for determining high quality milk keep advancing. What does “high quality” mean today? What targets should the best managers strive for? What are practices that the top herds routinely do and how can farms stay on top?

Nutrition and Feeding for Enhanced Resistance to Mastitis
Bill Weiss, Ohio State University, Wooster, OH

Nutrition has a strong impact on immune function which can influence the prevalence and severity of mastitis. Trace minerals and vitamins form a well-established and generally accepted link between nutrition and mastitis; however, improper feeding of major minerals such as calcium and macronutrients such as protein and energy also affect the resistance to mastitis.

Location and Accommodations

The Joint NMC Regional Meeting & MAC Conference will be held at the Woodlands Inn and Resort, in Wilkes-Barre, Pennsylvania. Situated along the Laurel Run Stream on 40 wooded acres in the foothills of the Pocono Mountains in Northeast Pennsylvania, the hotel is conveniently located off of the Pennsylvania Turnpike, Interstates 81, 80 and 84.

Conference room rates at the Woodlands Inn and Resort are $92 for a single room and $102 for a double room. To obtain the conference rate for hotel rooms, reservations should be made by April 27. Reservation requests made after the cut-off date will be accepted on a space and rate availability basis. Check in time is 4:00 pm and check out time is 11:00 am.

Hotel guests are provided with a complimentary full hot breakfast and high speed internet access in the guest rooms. In addition, the hotel has an unattended “self-serve” business center, featuring a computer, internet access, a laser printer, fax machine and photocopier.

The hotel provides complimentary shuttle service to and from the Wilkes-Barre/Scranton International airport. To arrange complimentary airport shuttle, call a hotel guest service representative at 570-824-9831.

Make room reservations directly with the hotel. EARLY reservations are recommended. Be sure to mention that you will be attending the NMC/MAC meeting in order to get the conference room rate.

Woodlands Inn & Resort
1073 Highway 315
Wilkes-Barre, PA 18702
Phone: 570-824-9831 or 800-762-2222
www.thewoodlandsresort.com

Note: online reservations for meeting attendees are not available
Online registrations are preferred. Register online at www.nmconline.org and be automatically entered into a drawing for a $100 gift card.

Name: ____________________________________________

Nickname for Badge: ________________________________________

Organization: ____________________________________________

Address: ____________________________________________

City/State/Postal Code: ____________________ Country: _______________

Phone: __________________________ Fax: _______________________

Email (Please provide!): _______________________________________

Please indicate your affiliation:
☐ dairy farm ☐ government ☐ university/extension
☐ media ☐ consultant ☐ equipment, supplies, pharmaceutical
☐ student ☐ milk testing lab ☐ cooperative/processor
☐ veterinary clinic ☐ other __________________________

Are you an NMC member? ____ Yes ____ No

Years you have been an NMC member: ___ 1-2 ___ 3-5 ___ 6-10 ___ >10

How many NMC regional meetings have you attended in the past?

☐ this is my first ☐ 1-2 ☐ 3-5 ☐ 6-10 ☐ >10

How many MAC meetings have you attended in the past?

☐ this is my first ☐ 1-2 ☐ 3-5 ☐ > 5

Gender: ☐ Male ☐ Female

REGISTRATION FEES To pre-register, forms must be RECEIVED by May 20

Wednesday May 27 – Short Courses and Reception
[Pre-register by May 20. Onsite registration only if spots are still available.]

Short Courses: (select only one)
Enrollment is limited and subject to first-come, first-serve basis. See attendance limit and description under appropriate course inside the brochure. Pre-registration closes May 20. If you are interested in taking a short course, you should register early since courses may fill up before the deadline.

☐ Short Course 1: Animal Welfare Evaluation for Mastitis Control and Improved Milk Quality (on-farm workshop, 10 am - 5 pm) $75

☐ Short Course 2: Understanding the Interactions Between the Milking Machine and the Dairy Cow (1 pm - 5 pm) $50

☐ Short Course 3: Problem-Solving Case Study: What Did and Didn’t Work to Resolve Mastitis Concerns on a 600 Cow Dairy (1 pm - 5 pm) $50

☐ Short Course 4: Tools to Assess and Monitor Subclinical Mastitis Control Practices (1 pm - 5 pm) $50

☐ Short Course 5: Integrating Therapy into a Quality Milk Program (1 pm - 5 pm): $50

☐ I am not registering for a short course

Evening Social Activity:
☐ Yes I plan to attend the reception (no fee for registered attendees)
☐ No, I do not plan to attend the reception

Thursday May 28 - General Session Program (main program)
[Pre-register by May 20. After that date, register onsite.]

☐ Registration: $75 in advance; $85 at the door

TOTAL FEES FOR BOTH DAYS

Paid By: ☐ Check (Make check payable to NMC)
☐ Visa ☐ Master Card ☐ American Express

Acct. No.:__________________________________________ Exp.:_____________________

Signature: __________________________________________________________________

Registration Information
• The May 27 short courses have limited enrollment (first-come, first-serve basis) and require pre-registration and an additional fee. The pre-registration deadline is May 20. Limited on-site registration will be accepted ONLY if space is still available. Please check with the NMC office.

• The May 27 reception has no charge, but registration is requested.

• The May 28 general session program does not have limited enrollment. To pre-register, forms must be received at the NMC office May 20. After that date, you may register onsite.

• A $25 administrative fee will be assessed on all cancellations after May 17. No refunds after May 26. Requests must be made online or in writing.

Return this form and payment to:
NMC
421 S. Nine Mound Rd.
Verona, WI 53593 USA

Phone: (608) 848-4615 / Fax: (608) 848-4671 / E-mail: nmc@nmconline.org

Payment MUST accompany form. Fax registration accepted with credit cards only. Phone-in registrations NOT accepted. Register online at www.nmconline.org
How to Get There

Air Travel
The Wilkes-Barre/Scranton International Airport is located less than 15 minutes from the Woodlands Inn and Resort, and is served by the following airlines: Continental, Delta, Northwest, United and US Airways. The hotel provides complimentary shuttle service to and from the airport (for arrangements call the hotel at 570-824-9831).

Directions to the Hotel
From the Wilkes-Barre/Scranton Airport:
Take Interstate 81 South to the Wilkes-Barre Exit #170B, then get off at Exit #1, at light turn left onto Route 315 North. The Woodlands will be 1/2 mile on the right hand side.

From Philadelphia:
Take Northeast extension of PA Turnpike North to Exit 105. Turn left onto Route 115 North. Go 5 miles to Exit 1. Make left at light (Route 315) and The Woodlands is 1/4 mile on the right.

From Pittsburgh and Southwestern Pennsylvania:
Take Route 22 east to Altoona and Route 220. Take Route 220 Millersburg and Interstate 80 east. Take 80 east to Interstate 81 North to Exit 170B then Exit 1, turn left onto Route 315 North. Woodlands is 1/4 mile on right.

From Williamsport and North Central Pennsylvania:
Take Route 118 east to Route 415. At the intersection of 118 and 415 turn right at the light onto Route 415/309 South. Take 309 South to Exit 1, turn left at the light onto Route 315 North. Woodlands is 1/4 mile on right.

From New York City:
Take Interstate 80 West to Exit 284 (Blakeslee), turn right on to Route 115 North, travel 20 miles to Exit #1. Turn left at light on Route 315 North, the Woodlands is 1/4 mile on the right.

From Washington DC, Northern Virginia & Baltimore area:
Take Interstate 95 North to 476 North to PA Turnpike (also 476 North) to Exit 105. Take left at stop sign onto 115 North to Exit #1, turn left at light onto Route 315 North. Woodlands is 1/4 mile on the right.

From Connecticut and New England:
Take Interstate 84 west to Interstate 380 North to Interstate 81 South, get off at Exit 170B, then Exit 1, turn left at the light onto Route 315 North. Woodlands is 1/4 mile on right.

More About the Wilkes-Barre Area

Located in Northeastern Pennsylvania, Wilkes-Barre and surrounding Wyoming Valley are framed by the Pocono Mountains to the east, the Endless Mountains to the west and the Lehigh Valley to the south. The Susquehanna River flows through the center of the valley and defines the northwestern border of the city.

Founded in 1770, Wilkes-Barre helped fuel the Industrial Revolution with its rich veins of coal running beneath the soil. In the late 1800s, the area was among the most affluent in the country.

Today, the area draws visitors for its fun and recreational activities. Various outdoor opportunities are available, including white-water sports, hiking, rock climbing, cycling, fishing and golf. Area entertainment includes a slots casino and harness racing at the Mohegan Sun at Pocono Downs, numerous shops and restaurants. Wilkes-Barre is also home to the Scranton/Wilkes-Barre Yankees minor league baseball team, the Wilkes-Barre/Scranton Penguins (hockey), and the Wilkes-Barre/Scranton Pioneers (arena football). The arts are an important part of Wilkes-Barre, too: the Sordoni Art Gallery stages historical and contemporary exhibitions and lectures, and the Fine Arts Fiesta presents demonstrations and performances every year.

Visit the NMC website for additional information and links to areas of interest in the Wilkes-Barre area.
Short Course Information

Please note: The short courses have limited enrollment and require a registration fee. Registration is based on a first come, first served basis. The deadline for short course registration is May 20. Registrations may be accepted after the deadline (at the meeting) if space is available.

Courses may fill up before the deadline, so early registration is suggested.

Short Course 1: Animal Welfare Evaluation for Mastitis Control and Improved Milk Quality (on-farm workshop)

Instructors: Jim Reynolds and John Champagne, University of California School of Veterinary Medicine, Davis, CA

Date and Time: Wednesday, May 27, 10:00 am – 5:00 pm

Course size limit: 20 people

Course fee: $75

This on-farm course will demonstrate how to evaluate a dairy for overall animal welfare with specific attention to mastitis and milk quality. The class will review the effects of cow housing, freestall design, maintenance and usage, stocking densities and cow handling on factors that affect mastitis and milk quality. The class will focus on cow observations to determine if cow housing and handling is appropriate regarding welfare. The cow observations will include hygiene scoring, locomotion scoring and body condition scoring. Animal handling will be observed for cattle in the housing area and moving into and out of the milking parlor. Parlor management, time spent in the parlor, and cow behavior in the parlor will be assessed, as will milk let-down and detection and management of mastitis cases. There will be discussion of euthanasia programs for cases of severe mastitis.

The goal of this seminar is for participants to leave with a better understanding of how welfare assessments are conducted and how welfare and cow care and comfort is related to mastitis control, milk quality and overall dairy profitability, and to appreciate how to begin to better “see” what’s actually happening on a real dairy.

This course is targeted toward people with no experience in evaluating dairies. If you enjoy seeing things from a different perspective this course will hopefully open your eyes to utilizing basic welfare concepts to satisfy the welfare needs of the cows and improve milk quality and profitability.

Lunch and transportation to and from the dairy will be provided.

Short Course 2: Understanding the Interactions Between the Milking Machine and the Dairy Cow

Instructors: Paul Rapnicki, University of Minnesota, St. Paul, MN and Steve Stewart, Valley Ag Software, Woodbury, MN

Date and Time: Wednesday, May 27, 1:00 pm – 5:00 pm

Course size limit: 30 people

Course fee: $50

The goals of milking are to milk cows rapidly, completely, gently and cleanly. Properly performing personnel and properly functioning equipment are both necessary to achieve these goals consistently. This seminar will provide an overview of the basic equipment concepts that play a role in successful milking management. Understanding these concepts will assist in logically evaluating some of the potential effects of equipment.

The target audience for this course is milkers, parlor managers, and other dairy professionals interested in understanding the role that milking equipment and milking management play in the production of quality milk. No equipment knowledge is required. Participants will be provided with the NMC publication “Procedures for Evaluating Vacuum Levels and Airflow in Milking Systems” along with additional references.

Short Course 3: Problem-Solving Case Study: What Did and Didn’t Work to Resolve Mastitis Concerns on a 600 Cow Dairy

Instructors: Ernest Hovingh, Bhushan Jayarao, and David Wolfgang, Penn State University and John Shapiro, Straley Veterinary Associates

Date and Time: Wednesday, May 27, 1:00 pm - 5:00 pm

Course size limit: 25 people

Course fee: $50

A 200-cow Pennsylvania dairy had very good udder health for many years. Following expansion to approximately 600 lactating animals, the herd experienced a number of mastitis and milk quality challenges. Over time, a holistic farm approach has emerged which has greatly reduced mastitis and improved milk quality. The herd now experiences few clinical cases and SCC is maintained in the 150,000 - 200,000 range. The herd veterinarian, herd owner, and herdsman will be present at the workshop to participate and discuss their impressions on what really made a difference and what was only a minor contributor in resolving their mastitis problems.

(continued on next page)
This course will include hands-on demonstrations of on-farm culturing for common mastitis pathogens and several other interactive mastitis control tools. Lectures will be short and held to a minimum. The course is designed to be interactive between participants, demonstration herd team, and instructors.

Veterinarians, progressive dairy producers, extension personnel and other allied industry professionals should find the program interesting and informative. Participants will receive a CD with all materials and references, plus a hard copy of handouts for notes and exercises.

Short Course 4: **Tools to Assess and Monitor Subclinical Mastitis Control Practices**

**Instructors:** Sandy Costello, Penn State Cooperative Extension Lewisburg, PA and Rob Goodling, Penn State Cooperative Extension, Lebanon, PA

**Date and Time:** Wednesday, May 27, 1:00 pm - 5:00 pm

**Course size limit:** 20 people

**Course fee:** $50

This intermediate-level workshop will focus on use of a risk assessment tool to collect, assess, and report milk quality contacts, milking management, environment, animal health, biosecurity, culling and treatment control practices on-farm. Participants will also learn to download udder health information from PCDART user reports and Herd Summary Report into Excel to monitor and evaluate herd milking cow subclinical infections - new and chronics, dry cow transitions - chronics, new major and minor infections, cleared infections, and ‘clean’ cows, and heifer calving transitions - new major and minor infections.

A basic to intermediate level knowledge of MS Excel and PCDART are needed. A consultants’ version of PCDART will be available if needed. Actual case farms of varying sizes will be used to demonstrate concepts. At the end of this workshop participants will have tools to conduct an on-farm mastitis risk assessment, provide a systematic report back to the farmer, and evaluate impact of dry cow control, milking cow, and/or heifer calving on herd (new and chronics) subclinical mastitis.

This short course is targeted toward consultants, and extension educators that perform mastitis risk assessments on-farm. Producers with advanced level knowledge will also find the short course beneficial for fine-tuning mastitis risk assessment on their own farms.

Participants must provide their own laptop with MS Excel installed to run programs used in this workshop.

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**Short Course 5:** **Integrating Therapy into a Quality Milk Program**

**Instructors:** Gary Neubauer, Pfizer Animal Health, New Ulm, MN and Ron Erskine, Michigan State University, E. Lansing, MI

**Date and Time:** Wednesday, May 27, 1:00 pm - 5:00 pm

**Course size limit:** 35 people

**Course fee:** $50

This intermediate-level course will provide a better understanding of antimicrobial therapy in dairy cattle, emphasizing therapy of mastitis. The foundation of this perspective will be the use of evidence-based therapy and prudent antimicrobial use. The basics of applied pharmacology will be presented in a discussion/seminar format, followed by practical guidelines of the “facts and fictions” of mastitis therapy. Additional tools and resources will be introduced to help with monitoring milk quality programs.

The discussion session will be followed by interactive participation, using ARS (audience response system) Technology, to explore problems that arise when deciding on appropriate therapy. This will allow for an ad hoc agenda that will personalize the topics and issues that are of concern for participants.

A handout of the PowerPoint discussion session, as well as the “facts and fictions” of mastitis therapy will be provided at the meeting. Participants are strongly encouraged to bring questions, experiences, and potential scenarios of antimicrobial use, as this will serve as the material for the interactive session.

Veterinarians, herd managers/producers, extension specialists and others interested in mastitis therapy are the target for this course. Participants should have experience with administration of antimicrobial drugs to dairy cattle, mastitis case recognition and pathogens, and basic concepts of 1) drug dosing (mg/lb); 2) milk and meat withdrawal concerns, and 3) immunity (leukocytes, antibodies).