

PROFESSIONAL BRIEF

Aerica Bjurstrom
Agriculture Agent
UW-Extension Kewaunee County

RELEVANT EMPLOYMENT

<u>Position</u>	<u>Employer</u>	<u>Years</u>
Agriculture Agent Dairy & Livestock (Exhibit 1)	UW-Extension (100% Appointment) Associate Professor with Tenure Assistant Professor Instructor	July 2012-Present February 2010-June 2012 January 2007-January 2010

FORMAL EDUCATION

University of Wisconsin – LaCrosse, LaCrosse, Wisconsin, Master of Education, May 2006
 University of Wisconsin – Madison, Madison, Wisconsin, Bachelor of Science (Animal Science), May 2000

PROFESSIONAL ROLES AND UNIVERSITY CONTRIBUTIONS

The University

<u>Committee</u>	<u>Role</u>	<u>Years(s)</u>
Search and Screen Committee - Program Area Liaison	Member	2016
Search and Screen Committee - Door County Agriculture Agent	Member	2015
UW-Extension Kewaunee County Office Leadership	Co-Dept Head	2015-2018
Wisconsin Farm Technology Days Executive Committee - 2017 Kewaunee County	Secretary	2014-Present
Epsilon Sigma Phi (ESP)	Member	2010-Present
Epsilon Sigma Phi (ESP)	Secretary	2013-2015
Department of Agriculture and Life Sciences (formerly Ag/Ag Business) Mentoring Teams (Pfeiffer, Seefeldt, and Deutsch)	Member	2007-Present
UW-Extension Dairy Team	Mentor	2012-2017
Wisconsin Dairy & Beef Well-Being Conference Workgroup	Member	2007-Present
Wisconsin Dairy & Beef Well-Being Conference Workgroup	Co-Chair	2017-Present
UW-Extension Beef Team	Member	2009-Present
UW-Extension Livestock Team	Member	2013-Present
UW-Extension Livestock Team	Member	2007-Present
UW-Extension Livestock Team	Co-Leader	2011-2014

The Profession

<u>Organization/Committee</u>	<u>Role</u>	<u>Year(s)</u>
Wisconsin Joint Council of Extension Professionals (WIJCEP)	Member	2007-Present
National Mastitis Council (NMC)	Member	2007-Present
Professional Dairy Producers of Wisconsin (PDPW)	Member	2007-Present
National and Wisconsin Association of County Agricultural Agents (N- & WACAA)	Member	2007-Present
Scholarship Committee (WI)	Chair	2011-2014

The Community

<u>Organization/Committee</u>	<u>Role</u>	<u>Year(s)</u>
Save the Bay Water Quality Committee	Member	2016-Present
Kewaunee County Technical Advisory Group	Member	2016-Present
Wisconsin State Fair Junior Dairy Show	Volunteer	2016-Present
Kewaunee County Dairy Futurity	Member	2008-Present
Kewaunee County Dairy Promotion Association	Member	2007-Present
Kewaunee County 4-H Dairy Project	Advisor	2007-Present
Kewaunee County Holstein Breeders Association	Advisor	2007-Present
Kewaunee County Livestock Auction Committee	Advisor	2007-Present
Kewaunee County Garden Club	Advisor	2007-Present
Kewaunee County Economic Development Corp Agriculture Committee	Member	2007-Present
Kewaunee County Groundwater Task Force	Advisor	2015-2017

AWARDS

- Next Generation Award – Wisconsin Woodlands Owners Association – 2017
- ESP Diversity Multicultural Award – Team Award – 2016
- ESP Distinguished Team Award – 2016
- ESP Early Career Achievement Award – 2015
- Team Workgroup & Leadership Responsiveness Award – Animal Husbandry Conference 2014
- Achievement Award – WACAA & NACAA – 2013

MAJOR PROGRAM: Dairy Production Management and Modernization

Situation Statement: Dairy programming efforts have focused on profitability through adopting strategies maintaining or improving reproduction/production, milk quality, calf management, hoof health, and modernization. Management decisions on production livestock impact the producer's bottom line, it also impacts the well-being of the animal. Helping producers to provide an environment and management that gives the animal the best opportunity to be productive and efficient is a driving force for production management and modernization programming.

Dairy profitability is greatly affected by herd health and animal well-being. Providing proper care and housing throughout the dairy animal's life reduces metabolic and reproductive disorders, and increases milk production. Management practices that impact animal well-being, as well as judicious use of medications in the treatment of mastitis are becoming increasingly important for producers who are looking for safe and wholesome food products.

Objectives:

1. Individuals will learn and adopt practices to improve production, profitability, and efficiency.
2. Individuals will learn how to improve animal well-being and production through facility design.

Response:

For the past five years, this educator has addressed dairy production management and modernization by developing meetings including state specialists as speakers, presenting original material via PowerPoint, and conducting hands-on training. One-on-one work, farm management teams, and state specialist farm visits have also been methods to problem solve production management issues.

Teaching Methods Used: This educator has used a variety of methods and tools to disseminate unbiased, university-based research to help producers make sound farm management decisions to improve profitability and efficiency of their operations.

1. Meetings Developed:

- a. Wisconsin Dairy and Beef Well-Being Conference (2009-present)
- b. Walking Strong – A Hoof Health Management Meeting (2017)
- c. Don't Pour Your Profits Down the Drain - Milk Quality Meeting (2014)
- d. Artificial Insemination Training (English and Spanish) (2013)
- e. Start Them Right...Raise Them Right - Bilingual Dairy Workers Training on Cold Weather Calf Management (2013)

2. Individual Teaching and Presentations:

*Sole author unless otherwise noted.

- a. "The Prevalence of Digital Dermatitis in Eastern Wisconsin Dairy Herds", *Co-wrote with T. Kohlman (**Exhibit 2**)
 - i. Walking Strong Hoof Health Meeting, Luxemburg, WI, 2017.
 - ii. Walking Strong Hoof Health Meeting, Fond du Lac, WI (presented by T. Kohlman), 2017.
 - iii. Walking Strong Hoof Health Meeting, Jackson County, WI (webinar), 2017.
 - iv. Cow College, Clintonville, WI, 2017.
 - v. Farm Management Update, Kimberly, WI, 2017.
 - vi. Four-State Dairy Management Conference Planning Meeting, Dubuque, IA, 2017
 - vii. Four-State Dairy Management Conference, Dubuque, IA, 2017.
- b. "The Unbreakable Chain of Transition", Japanese Dairy Producer Meeting, Green Bay, WI, 2016.

MAJOR PROGRAM: Dairy Production Management and Modernization, continued

- c. "No Residue Left Behind...Utilizing Treatment Records", Milk Quality Meeting - Don't Pour Your Profits Down the Drain, Luxemburg, WI 2014. *Adapted from presentation developed by S. Mills-Lloyd.
 - d. "What Lies Beneath: The Underestimated Cost of Mastitis", Milk Quality Meeting, Luxemburg, WI, 2013. *Co-wrote with T. Kohlman.
 - e. "Beginner Artificial Insemination" (English and Spanish), Beginner Artificial Insemination Course, Kewaunee, WI, 2013. *Co-wrote and presented with C. Cordoba and K. Pfeiffer.
 - f. "Raising Healthy Dairy Calves in Winter", Bilingual Dairy Workers' Training on Winter Calf Management, Luxemburg, WI and Bonduel, WI, 2013. *Co-wrote with T Kohlman.
 - g. Numerous farm visits and individual one-on-one consultations.
- 3. Scholarship Presentations:**
- a. "The Prevalence of Digital Dermatitis in Eastern Wisconsin Dairy Herds," Dairy Team Wisline, 2017.
 - b. "Using Technology to Determine the Prevalence of Digital Dermatitis in Eastern Wisconsin Dairy Herds," Joint Council of Extension Professionals, Eau Claire, WI, 2017.
- 4. Newsletters:**
- a. "The Foghorn", UW-Extension Kewaunee County Newsletter (editor), monthly, (circulation 900)
 - b. "Dairy Partner/El Compañero" Bilingual Newsletter (contributor), bi-monthly, (circulation 500)
- 5. Radio:**
- a. Bjurstrom, A. (Monthly, 2013-present).Agriculture Report. Door County Daily News (five radio stations). Sturgeon Bay, WI. www.doorcountydailynews.com/news/
- 6. Print Media:**
- a. "Keeping cows on their feet by avoiding lameness," *co-wrote with T. Kohlman. Wisconsin State Farmer, December 15, 2017, page 2D (circulation 15,000)
 - b. "How good herds fight digital dermatitis." Hoard's Dairyman, August 25, 2017, page 502. (circulation 52,200) **(Exhibit 3)**
 - c. "Digital dermatitis is here to stay." Hoard's Dairyman, August 10, 2017, page 465. (circulation 52,200) **(Exhibit 4)**
 - d. "Lameness in dairy cattle is costly". Wisconsin Agriculturist, Dec. 2016, page 46. (circ 25,000) **(Exhibit 5)**
- 7. Computer Applications:**
- a. Kewaunee County UW-Extension Agriculture Website: <https://kewaunee.uwex.edu/>
 - b. Kewaunee County UW-Extension Agriculture (Facebook Page) www.facebook.com/Kewaunee-County-UW-Extension-Ag-Program
 - c. UW-Extension Dairy Team (Facebook Page) www.facebook.com/UWExtensionDairyTeam/
 - d. Wisconsin Beef Information Center (Facebook Page). www.facebook.com/Wisconsin-Beef-Information-Center
 - e. Dairy Producers/Agriculture Professionals MailChimp e-newsletter (278 addresses)
 - f. UW-Extension Kewaunee County Twitter <https://twitter.com/KewauneeCtyUWEX>
- 8. Educational Papers and Fact Sheets:**
- a. A. Bjurstrom & T. Kohlman. "Walking Strong – Prevalence of Digital Dermatitis in Eastern Wisconsin Dairy Herds," Whitepaper, 2016. **(Exhibit 6)**
 - b. A. Bjurstrom. "Walking Strong – 'Footbath Management'" Factsheet, 2016 (English and Spanish). **(Exhibit 7)**
 - c. T. Kohlman & A. Bjurstrom. "Walking Strong – 'Proper Foot Wrap Application'" Factsheet, 2016 (English and Spanish). **(Exhibit 8)**
- 9. Poster Sessions and Educational Displays:**
- a. Prevalence of Digital Dermatitis in Eastern WI Dairy Herds
 - i. PDPW Annual Business Conference, Madison, WI, 2017.
 - ii. Wisconsin Public Farm Service Farm Show, Oshkosh, WI, 2017.
 - iii. World Dairy Expo, Madison, WI, 2016.
 - iv. Agriculture & Natural Resources Annual Professional Development Conference (ANRE), Oshkosh, WI, 2016.

MAJOR PROGRAM: Dairy Production Management and Modernization, continued**10. Research and Field Survey Projects:**

- a. Wisconsin Alfalfa Yield Persistency Project, 2012-Present. M. Bertram. (data collection)
- b. Intuitive Cost of Production Analysis: Traditional versus Automated Calf Feeding Systems, 2017. Akins, et. al. (data collection)
- c. Prevalence of Digital Dermatitis in Eastern Wisconsin Dairy Herds, 2016. A. Bjurstrom. (primary investigator)
- d. Calf Sanitation Audit, 2015-16. S. Mills-Lloyd. (collaborator)
- e. ReproMoney Reproduction Management Teams, 2013-2014. C. Cordoba. (collaborator)
- f. Economic Cost and Labor Efficiencies Associated with Raising Dairy Herd Replacements on WI Dairy Farms and Custom Heifer Raising Operations, 2013. M. Hagedorn, et. al. (data collection)

11. Multiplier Contacts: Veterinarians, nutritionists, consultants, lenders, and other educators.**Results & Outcomes:****Objective 1: Individuals learned and adopted practices to improve production, profitability, and efficiency.**

Meetings focusing on production management practices were developed and presented. Formal meetings focused on milk quality, calf management, and artificial insemination training. Based on post meeting evaluations, producers increased knowledge in production management practices.

Milk quality is often a focus on dairy farms and this educator provides on-farm consulting regarding milk quality issues, but also holds educational meetings. One meeting held in Kewaunee County featured this educator and the UW-Extension Milk Quality Specialist. This educator co-wrote and presented, "What Lies Beneath: The Underestimated Cost of Mastitis." Sixteen people attended the meeting, 15 of which were dairy producers or dairy employees representing nearly 10,000 head of milk cows. Participants were asked to rank their knowledge of the topic in a pre- and post-meeting evaluation (n=14) on a five-point scale (1 = low, 5 = high). Based on evaluations ([Exhibit 9](#)), attendees reported increasing their knowledge on the costs of mastitis on the following topics: "Drugs & Bugs...Understanding Allowable Antibiotic Usage in Dairy Cows" (+2.39), "Milking Machines, Teat Tissue Stresses and Mastitis Risk" (+1.05), and "No Residue Left Behind...Utilizing Treatment Records" (+1.28). Attendees reported planning to adopt the following practices as a result of the meeting: do refresher training on milking prep; improve record keeping; make sure employees keep records on udder health issues; track repro and milk quality issues more closely; and use effective dry cow management.

The "Start Them Right...Raise Them Right - Winter Calf Care" meeting focused on production and care and was presented in English and Spanish. The meeting included hands-on training to improve dairy producer and employee calf care skills. This educator co-wrote and presented, "Raising Healthy Calves in Winter" in Kewaunee and Shawano Counties. Attendees were asked to indicate their knowledge in five learning objectives pre- and post-meeting (scale of one to seven, 1=low, 7=high). Evaluations (n=38) showed respondents increased knowledge/understanding after the meeting (on 7 point scale, one being low, five being high) of the following learning objectives: understand components of a winter calf management program (+2.47); ability to determine nesting score (+2.31); understand the 5 C's of calf raising (+2.31); identify cold weather comfort indicators (+2.25); and understand what "cold" is (+2.05) ([Exhibit 10](#)).

Another skills training meeting focused on artificial insemination (AI). The program was developed and taught with two other educators. Unlike AI training offered by commercial bull studs, the training was presented in English and Spanish. A pilot training was conducted at a two-day meeting in Kewaunee County with 10 participants (eight English-, two Spanish-speaking). Pre- and post-meeting evaluations (n=10) indicated participants increased their knowledge, on a five-point scale (1 = low, 5 = high) related to:

- Equipment +1.5
- Synchronization Protocols +1.4
- AI Management +1.1
- Anatomy +1.1

MAJOR PROGRAM: Dairy Production Management and Modernization, continued

All 10 participants indicated they would implement practices learned at the meeting on their own farm, or the farm they worked at. In follow-up conversations with two participants, one person said she took the class because her sons who had been breeding the herd were now off the farm, and she had become the primary breeder. Another participant said he took the class because his AI technician was retiring and the class gave him the skills to practice AI before his technician's retirement. In follow up conversations with the two farm owners that sent employees, both indicated they sent their employees to the class because it was offered in Spanish.

Objective 2: Individuals learned how to improve animal comfort and production through facility modernization and design.

A Qualtrics survey was sent to 108 producers who used this educator's services to address modernization over the last five years. Thirty-seven surveys were returned for a 34 percent return rate. Based on survey results (n=37), the following changes were made by producers: 49 percent implemented all the changes; 27 percent implemented some of the changes; and 24 percent did not implement changes. Specific examples of changes made by producers are highlighted in [\(Exhibit 11\)](#).

Sometimes making a decision to not change is best for the producer. Five survey participants indicated they did not yet have financing to make the changes suggested and one decided on a different facility plan. Producers indicated they made the following changes based on advice provided by this agent and UW-Extension:

- "We had to bring our heifers home from the custom grower at short-notice and UW-Extension helped us figure out the best configuration for pens and grouping based on the facilities we had available."
- "We were losing a lot of calves in the tie-stall barn and we worked with Aerica to improve ventilation. Ultimately we decided putting the calves in hutches was the best decision. The extra "push" from Aerica helped convince the other farm owners it was the right thing to do for our calves."
- "We worked with UW-Extension on planning our new robot barn for close to a year, but low milk prices have put a temporary hold on that project. Aerica worked with us to rework our existing facilities to add more cows without significant cost until we can afford to move forward with the new barn."

Implications: Production management decisions impact profitability and efficiency in virtually every aspect of a farming operation. Management teams provide accountability, share the workload among team members, provide stronger networking and open communication, strengthen relationships, and establish business goals. Simple changes to animal well-being and/or comfort can improve production, therefore improving profitability. When faced with this challenge producers, with the help of this educator, will continue to scrutinize their management practices as they have recently begun to do in order to increase profitability with minimal financial contribution. Producers focus on the basics in the areas of herd health, milk quality, cow comfort, and reproductive management using information provided by UW-Extension. This has afforded them the ability to maintain healthier, more productive cows to help make Kewaunee County a leading county in milk production per cow. Production management programming has also allowed this educator to reach an underserved and ethnically diverse Spanish-speaking audience. Providing training for Spanish-speaking employees enhances their ability to adopt and implement new skills that have a direct impact on the health of the animal and dairy production.

Improving animal facilities help the producer increase efficiency through healthier animals and skilled employees. The University's visibility and value is increased through a personal connection with producers. The producer values the opportunity to interact with this educator and UW-Extension specialists on-farm. On-farm work through farm management teams and applied research has given this educator the opportunity to create scholarly work that is shared with producers locally, statewide, and nationally.

MAJOR RESEARCH EFFORT: The Prevalence of Digital Dermatitis in Eastern Wisconsin Dairy Herds

Situation and Research Question: Lameness in dairy cattle is one of the most costly issues on the farm, measured both economically and through herd health. Digital dermatitis (DD) is one of the most common causes

MAJOR RESEARCH EFFORT: The Prevalence of Digital Dermatitis in Eastern WI Dairy Herds, continued

of dairy cattle lameness. Advanced cases of DD are often associated with other hoof issues such as necrotic toe and wall lesions, severe heel erosion, and severe sole ulcers. Udder health issues such as teat necrosis and udder sores have also been attributed to DD. According to the National Animal Disease Information Service, cows that suffer from lameness attributed to DD are also higher risk for reduced fertility and milk yield.

According to the University of Wisconsin School of Veterinary Medicine, 20 to 25 percent of cows in the United States are clinically lame at any given time. A cow's health, reproduction, and production is greatly impacted by lameness.

This educator served as the primary investigator and project leader of an on-farm field survey project to determine:

1. What is the prevalence of Digital Dermatitis in eastern Wisconsin dairy herds?
2. What management practices contribute to or prevent the spread of Digital Dermatitis?

Materials and Methods: The identification and scoring of DD lesions on individual cows and the collection of farm management practices were conducted by 11 county based University of Wisconsin-Extension agriculture educators in 10 counties. To facilitate consistency in scoring as well as understand the mechanics of DD, agriculture educators attended a four-hour classroom training followed by five hours of on-farm training on two different farms. Dairy operations were divided into three categories to represent a broad spectrum of the eastern Wisconsin dairy industry: small – tiestall operation (n=15), medium – freestall operation up to 700 cows (n=19), and large – freestall operation with 700 cows or more (n=11).

County agricultural educators visited farms to identify, score, and record three primary stages and chronicity of DD on individual milking cows. Lesions were observed only on the hind feet since research has indicated hind feet have 90 to 95 percent of DD lesions. Zinpro's "DD Check" app was used to score and record stage and severity of individual cow lesions. A Qualtrics offline survey was developed by this educator and used to collect farm hoof health management practices from participating farms. For a detailed summary of materials and methods, please see exhibit 6.

One hundred percent of the milking cows were identified, scored, and recorded for DD on operations with 150 cows or less. For operations with 150 cows or more a minimum of 150 milking cows, or 20 percent of the herd whichever was greater, were identified, scored, and recorded for DD. Data presented from "medium" and "large herds" in the following "Results and Discussion" section reflect groups of cows, and not the whole herd. Cooperating farms each received a detailed DD report listing the cow identification with the corresponding lesion stage and chronicity. Farms received the percent prevalence of lesions within groups of cows scored.

The following is a highlight of the DD project, in which this educator served as the primary investigator. For full detailed results, please see exhibit 6.

Results:

- 45 eastern Wisconsin dairy operations were studied
- 11,817 cows were identified, scored, and recorded for stage and chronicity of digital dermatitis
- Prevalence of DD within the group of 11,817 cows was scored and recorded:
 - 81.1 percent of cows scored M0 (no lesion)
 - 1.8 percent of cows scored M2 (acute, active lesion)
 - 17.1 percent of cows scored M4 (chronic, nonactive lesion)
- Prevalence of DD within a group of cows recorded based on operation type:
 - Small (tie-stall operation) – M0: 76.1 percent, M2: 5.8 percent, M4: 17.4 percent
 - Medium (freestall operation up to 700 cows) – M0: 72.0 percent, M2: 3.2 percent, M4: 24.6 percent
 - Large (freestall operation with 700 cows or greater) – M0: 82.9 percent, M2: 1.1 percent, M4: 16.0 percent

MAJOR RESEARCH EFFORT: The Prevalence of Digital Dermatitis in Eastern WI Dairy Herds, continued

- 17.8 percent of herds had a low (≤ 5 percent) prevalence of DD with a group of cows scored
- Prevalence of DD between tiestall and freestall operations was similar
- Concentration of footbath solution, trimming frequency, and type of treatment had a significant ($p > 0.1$) impact on types and prevalence of the DD lesion

Implications: This project resulted in numerous publications including a white-paper co-authored by this educator (**Exhibit 6**). In addition, a seven-part factsheet series (English and Spanish) was developed by this educator and cooperating educators on various topics of hoof health. This educator authored "Footbath Management" (**Exhibit 7**) and "Proper Foot Wrap Application," (**Exhibit 8**) which was also printed in the Wisconsin State Farmer. Two articles were published in Hoard's Dairyman (**Exhibits 3 & 4**), and one article in the Wisconsin Agriculturist (**Exhibit 5**). A presentation "The Prevalence of Digital Dermatitis in Eastern Wisconsin Dairy Herds" (**Exhibit 2**) was co-developed by this educator and T. Kohlman and presented at meetings in 2017, and will be presented at the Wisconsin Dairy and Beef Well-Being Conference in 2018. Project publications and results were valued by peers based on WACAA communication awards received and numerous radio interview requests. In addition to written outreach on the DD project, a poster was presented at the 2016 World Dairy Expo, 2017 ANRE conference, 2017 PDPW Conference, and 2017 Wisconsin Public Service Farm Show, reaching potentially hundreds of dairy producers and agriculture professionals.

Since DD is an ongoing management challenge on many farms, this educator conducted follow-up work based on the project. One follow-up project included taking footbath pH measurements at nine dairy farms milking approximately 23,000 cows during the summer of 2017. The project captured footbath management practices via Qualtrics survey and how it potentially affects solution pH levels. This educator and a UW-Extension intern took footbath pH readings of fresh footbaths, readings after every 50 cows passed through, and immediately before it was changed. Additional work on the project includes collecting footbath samples to be tested for bacteria counts and then compared with footbath pH levels. Since DD has also become prevalent in the beef industry, it will be a topic presented at Beef Cow/Calf meetings summer 2018. Additional fact sheets and written material (articles) will focus on DD in the beef industry.

MAJOR TEACHING EVENT: The Prevalence of Digital Dermatitis in Eastern Wisconsin Dairy Herds

Situation Statement: The DD research project provided insight on the prevalence of the disease on typical commercial dairy herds in Eastern Wisconsin. The data was summarized into a presentation to disseminate to dairy producers and dairy service providers. (**Exhibit 2**)

Audience: Dairy producers, agribusiness professionals, and UW-Extension agriculture agents.

Objectives:

1. Individuals will increase knowledge in prevention and management of DD.
2. Individuals will change or adapt management practices to control DD in the herd.

Response: Materials were co-developed with UW-Extension Fond du Lac County Dairy & Livestock Agent and included "The Prevalence of Digital Dermatitis in Eastern Wisconsin Dairy Herds" PowerPoint (**Exhibit 2**), white-paper (**Exhibit 6**), and two bilingual factsheets (**Exhibit 7 & 8**).

Evaluation and Results: This educator has presented "The Prevalence of Digital Dermatitis Eastern Wisconsin Dairy Herds" at seven meetings (face to face, Wisline, or webinar) to 193 individuals. Based on post-meeting evaluations collected at three of the meetings (n=49), 100 percent of respondents reported increasing their knowledge in the prevention and management of DD.

Objective 1: Individuals will increase knowledge in prevention and management of DD.

Based on post-meeting evaluations (**Exhibit 12**) of three "Walking Strong" meetings, respondents (n=49) indicated their knowledge increased (+2.37) (on a five point scale, 1 being low and 5 being high).

MAJOR TEACHING EVENT: The Prevalence of Digital Dermatitis in Eastern WI Dairy Herds, continued

Statements shared by respondents:

- “I didn’t know digital dermatitis couldn’t be cured, only managed.”
- “Footbath management is very different than how I was trained years ago, I’m happy I came to the meeting so I have the newest information”.
- “I didn’t know the footbath doesn’t cure the wart, now I know once she has it, she has it for life.”
- “Harsh chemicals aren’t helping in the footbath, they’re hurting.”

Objective 2: Dairy producers change or adapt management practices to control DD in the herd.

As indicated by post-meeting evaluations (n=49), 41 respondents indicated they planned to adopt, or share with their clientele in the case of agribusiness professionals, the following items based on what they learned:

- Check and manage footbath/increase footbath length/change current footbath design (13)
- Get DD Check app (11)
- Apply lighter foot wraps with less (7)
- Work to treat M2 cows before they get worse (4)
- Change footbath solution more often (4)
- Trim hooves more often (2)

This educator had a follow-up conversation with a meeting attendee who reported that based on what he learned, he began changing footbath solution after every 250-300 cows. He knew the solution was getting dirty because the footbath design allowed several cows to pass through at once, which often led to soiling of the solution. It was not economically viable to replace the footbath, but changing the solution more frequently improved the quality and consistency of each cow’s footbath treatment. Another producer reported using the DD Check app to score cows while he was milking. He taught employees to use the app and now cows are scored on a monthly basis. By scoring cows more frequently, he has established a baseline to monitor new infections and maintain chronic nonactive DD lesions.

Implications: The presentation will be part of the 2018 Dairy and Livestock Well-being Conference and the summer beef-cow calf series of meetings. According to UW-School of Veterinary Medicine, beef animals are also susceptible to DD and is increasing in prevalence. This presentation was adapted by UW-Extension Oconto County Agent and presented at a local fall beef meeting reaching an additional 16 individuals. This educator will continue to offer programming focusing on hoof health and continue to work with producers to understand what causes it and how to manage it for the well-being of their animals.

PROFESSIONAL DEVELOPMENT

State, regional, and national professional improvement opportunities related to major programming efforts outlined in this brief:

<u>Sponsoring Institution and Course/Program</u>	<u>Location and Date</u>
Four-State Dairy Management Conference	June 2017
Multiple Dairy Team, District In-services and ANRE Faculty Conferences	Various Locations, 2013-present
World Dairy Expo	Madison, WI, 2013-present
Professional Dairy Producers of Wisconsin	Madison, WI, 2013-present

Certifications:

- a. Dairy Beef Quality Assurance Certified Trainer, 2014
- b. National Farmers Assuring Responsible Management (FARM) Certified Evaluator, 2013
- c. Dairyland Initiative Training - Positive Pressure Tube Systems (Ventilation), 2013

PLANS AND REPORTS

- Multi-Year Plan of Work ([Exhibit 13](#))
- Success Stories and Results Narratives ([Exhibit 14](#))

Addendum

Five-Year Professional Improvement Plan

The UW-Extension professional development program consists of three categories of activities:

Self-directed Professional Activities:

- Wisconsin Joint Council of Extension Professionals (JCEP) Conference (annually)
- National Association of County Agriculture Agents Professional Improvement Conference (annually)
- Epsilon Sigma Phi Professional Development Conference (annually)

Institution and Program Area Professional Development:

- UW-Extension Cooperative Extension All-Faculty Conferences
- UW-Extension Agricultural and Natural Resources Program Area All-Faculty Conference (annually)
- UW-Extension East-Metro All-Faculty In-Service (annually)
- UW-Extension Dairy Team In-Service (annually)
- UW-Extension Livestock Team In-Service (annually)

Program Specific Professional Development:

- Dairy Farm Management
 - World Dairy Expo Trade Show and Presentations
 - Professional Dairy Producers of Wisconsin annual conference
 - National Mastitis Council Annual and/or Regional Meetings
 - Other related professional development opportunities
- Beef/Livestock Management
 - Regional, National or other related industry meetings or professional development opportunities