



SPRING 2022

## Subclinical Mastitis Detection

VETERINARIANS

James Shissler, VMD

Tying in with recent dairy producer meeting and discussions about selective dry treatment, milking system evaluations, and our culturing services, is subclinical mastitis detection. All individuals that milk on the dairy should be trained in clinical mastitis detection (abnormal milk and/or udder). Subclinical mastitis, however, (SCC over 200,000, but milk appears normal) is even more frequent and costly to dairy operations. Undetermined mastitis can greatly reduce milk yield, spread infections to other cows particularly if contagious pathogens, and increase overall SCC and bacterial counts in the tank reducing milk quality.

Failure to treat subclinical mastitis can lead to chronic infection, or even chronic inflammation (prolonged inflammatory response that has no detectable bacteria or infection, and not treatable with antibiotics). Unfortunately on these cows the only options become culling, feeding to calves, or killing quarters.

Routine subclinical mastitis detection should be part of your milking, fresh cow, and dry off protocol. What tools can detect subclinical mastitis?

- A simple CMT paddle and solution may be used in fresh cows for the first several days fresh to detect infections obtained either during the dry period or early lactation.
- Can also be used just prior to dry off to make decisions on selective dry therapy.
- Also, any cows determined on DHIA to be over 200,000 SCC on your "hot sheet" check the top SCC cows in your DHIA reports after every test and any with gelling on CMT test should be cultured.
- Also, if your milking system is capable of detecting changes in conductivity, or cows with fevers of unknown origin should have their milk checked by CMT test and cultured.

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"Agriculture is our wisest pursuit because it will in the end contribute most to real wealth, good morals, and happiness."

THOMAS JEFFERSON

A background image of a glass of milk with a straw, partially filled, with a blue header and footer bar.

## 2022 Dairy Producer's Meeting - REVIEW

James Shissler, VMD

We wanted to take a moment to thank everyone who was able to attend our recent Dairy Producer meeting at Shady Maple. We couldn't do it without you, our clients who are always striving to better their herd health and businesses. We appreciate your support not only for the meeting but throughout the year, as we would not be here without you choosing us for your herd health needs!

We also thank our sponsors for their financial support, as well as giving producers the opportunity to network with supporting agri-related businesses.

Our support staff also goes to great lengths throughout the year and meeting day to organize and make sure things flow smoothly. We would be lost without them and can't thank them enough for making our jobs easier!

Whether you were able to attend the meeting or couldn't make it this year, here is a brief summary and overview from the talks. We have extra notebooks from the meeting if interested and feel free to discuss with any of our vets any follow up questions you may have. We've already gotten a lot of positive feedback from producers that have implemented or are considering implementing some of the management practices discussed. We're happy to help with any implementation or monitoring. Thank you again for your support!

### 2022 Dairy Meeting Highlights

#### Milking Equipment Evaluation

Dr. Edward Fuhrman gave an excellent presentation on a newer service offered by Agricultural Vets. He covered evaluation of milking systems and equipment. Many have already taken advantage of this service, and many more are interested. It's often difficult to have milking equipment companies do a very thorough analysis of milking equipment.

- Many times higher SCC on dairies is a result of milking system issues from improper vacuums, pulsator, takeoffs and bimodal regulators. This can cause overmilking, teat end damage, that can increase susceptibility to mastitis.

- All parts of the milking system are evaluated for proper function.

- Also, measurements are performed with Vadias to evaluate pulsator, take offs, liner fit, teat end vacuum, and check for a bimodal milk curve, which can indicate improper stimulation or let down, many times resulting in overmilking and lower milk production.

- Teat ends are evaluated for everted teat openings, cracking, or "cauliflower" appearance indicating improper vacuums and overmilking.

- Any herds with higher SCC and mastitis issues should definitely consider this service.

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**Dr. Whitney Knauer, Assistant Professor at University of MN, gave two presentations, one about selective dry cow therapy, and one about paired calf housing.**

#### **Selective Dry Cow therapy:**

**For several decades, blanket dry cow therapy with antibiotics has been a common practice to cure existing infections, prevent new dry cow infections, and often reduce SCC in early lactation. Many contagious Staph and Strep infections have been greatly reduced using these practices.**

- Selective dry cow therapy has been practiced by some already, promoted because it reduces antibiotic use by dairies, and may become necessary in the face of dry cow tube shortages.**
- This program may not be right for all dairies, but can help some producers reduce antibiotic use and cost associated with it.**
- Producers that are under 250,000 cells/ml bulk tank, low numbers of Staph aureus or Strep, may choose selective dry therapy**
- Cows are put into 2 categories, antibiotic + teat sealant, and cows that only receive teat sealant**
- Extremely clean and proper infusion technique and well trained personnel is key**
- The program should be monitored by the producer and veterinarian to verify it's working.**
- Two approaches to select cows for selective dry off. One would be culturing each quarter a few days before dry off. The other would be an algorithm approach for cows less than 200,000 SCC every test during lactation, no clinical mastitis in the 2 weeks prior to dry off, and less than 2 clinical mastitis cases during lactation.**

#### **Paired Calf housing:**

**Paired calf housing has been researched for a number of years and has been gaining popularity more recently. Benefits include improved pre-weaning growth, improved starter intake, less stress (laying down more, less vocalizing) after pen movement and weaning. Post weaning health and reduction of pneumonia is often seen due to lower stress.**

- Calves should be at least 7 days of age to make sure they're vigorous, healthy, and drinking well.**
- Ideally no more than 14 day difference in age between pen mates.**
- Calf hutches and calf barns can often be easily adapted to paired housing. At least 35 square feet per calf is recommended.**
- Feed at least 1 and ½ gallons per day of a high quality replacer or milk.**
- Reduce cross sucking by adding a barrier during feeding to reduce milk stealing and cross sucking.**
- Use a bottle or bucket with nipple to stimulate natural teat sucking to reduce cross sucking.**

**Any questions on this year's topics we are happy to answer. We hope to see you at next years meeting!**



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# Veterinary Acupuncture

Cindy Foulke, DVM

Ag Vets is excited to announce a new service being provided to our clients. Acupuncture therapy is now being offered for all large animal species. This is a great alternative medicine practice which has been well researched and has documented many beneficial physiological changes. Alternative medicine therapies are not meant to be miracle cure-alls, but to be used along with conventional western medicine. Alternative medicine and Western medicine both have their strengths and weaknesses, which makes them great to use together to complement each other.

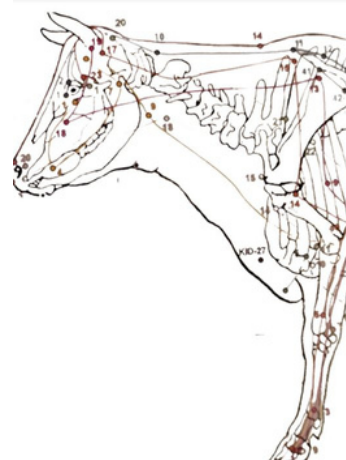
Veterinary acupuncture was originally and primarily used for agriculturally important species such as cattle, pigs, and horses. Over the years, it has been adapted to other species including small animals. It involves stimulating certain points on the body with the use of small, sterile needles in order to alleviate pain and treat various conditions. Research has shown that acupoints are located over areas with large numbers of nerve bundles, blood vessels, and lymphatic vessels. In the response to the stimulation, the body releases endogenous opioids and neurotransmitters that help to relieve inflammation, treat pain, stimulate the immune system, help with hormone and reproductive regulation, and promote intestinal regulation. Acupuncture can safely be combined with medications being used to treat medical conditions.

Conditions that can benefit from acupuncture include musculoskeletal disorders such as arthritis, disc disease, back pain, laminitis, and injuries, gastrointestinal disorders, neurologic problems, respiratory issues, and chronic diseases. Identifying the medical problems that the patient has is very important to determine a beneficial treatment plan.

At each scheduled appointment, the animal will be assessed to determine if it is a candidate for the procedure. The length of each treatment and frequency are often dependent on the individual animal, the disease being treated, and the response to treatment. Acupuncture needles are usually left in position for 10-20 minutes and may also include adjunct treatment such as electroacupuncture (electrical stimulation of the points), aquapuncture (injection of a therapeutic drug at the site of an acupuncture point), or moxibustion (heat treatment).

A typical patient is treated weekly or biweekly for 3-6 weeks and then may be placed on a less frequent maintenance program. While some improvement may be observed after the first treatment, a minimum of 3 treatments is often recommended to see if acupuncture is effective. As the animal improves, the frequency of treatments can be spaced further apart. Some conditions may be cured, while others may need regular treatments to maintain the patient's comfort and mobility.

If you are interested in this service, please contact us to set up an appointment.



# Certificates of Veterinary Inspection

Teri Coon, DVM

Warmer temps and longer days are a sure sign of spring's arrival. Spring weather also signals an increase in cattle shows, fairs, and sales, as well as movement of cattle to other states. Most fairs, shows, and sales require a Certificate of Veterinary Inspection (CVI), commonly referred to as a health chart or trucking papers. All cattle crossing state lines are required to have a CVI. Each show, fair, sale, or state of destination will have their own requirements that must be met prior to the cattle's arrival at the event location.

These requirements generally include things such as disease testing, vaccinations, methods of identification, and include a specific timeframe that the CVI is good for. As you prepare for this year's show/sale season, here are some tips for low stress CVIs:

● **READ THE RULES** - Each show, sale, or state destination has different requirements that must be met. Have a copy of these requirements available when scheduling and during the appointment. Knowing what these requirements are before your appointment will increase the efficiency of the visit and reduce the risk of an incomplete CVI. Requirements for cattle traveling to other states can be obtained by calling into the office, visiting with your veterinarian, or calling the destination state's USDA office. Requirements for Pennsylvania show and sale cattle are often included with the entry information, or can be found by connecting with the sale committee or reading the show book.

● **PLAN AHEAD** - Call the office to schedule your appointment several weeks ahead of the event. This will ensure you can get an appointment time that will work for both you and your veterinarian during this busier season. Scheduling well in advance will also allow for enough time to complete any necessary vaccinations or testing prior to the event.

● **PROPERLY IDENTIFY YOUR CATTLE** - Most CVIs require that cattle are officially identified with a tag that contains a USDA shield. Metal tags, registration tags, RFID tags, and brucellosis vaccination tags are the most commonly listed ones. However, some events may have different or more specific requirements. If you do not have the proper identification method, be sure to mention it when scheduling your appointment for the CVI. The veterinarian can assist you in obtaining the proper official ID form and apply it at the visit.

● **HEALTHY CATTLE** - Be sure the cattle you need the CVI for are healthy at the time of your appointment. A CVI requires that the animals listed on the chart are free from infectious, contagious, or communicable diseases. Unhealthy animals are ineligible. If your cattle are sick (respiratory disease, diarrhea, ringworm, sore foot, etc) the CVI must be postponed until they are back in good health. Feel free to call the office to schedule a veterinarian for a visit, telemed appointment, or phone call to help with an appropriate treatment plan if needed.

● **BE READY** - To improve the efficiency of the visit, the cattle should be caught up and clean before the veterinarian arrives, and all the necessary information should be at hand. The veterinarian will need to examine each animal, confirm the identification numbers, and may need to administer necessary vaccinations and/or sample for or perform any required testing.

- Name, address and telephone number of exhibitor, event location and animal hauler.
- Name and ALL identification numbers. If the cow has 7 different tags or tattoos, list all 7.
- Gender, breed, and color
- Birthdate
- Any vaccination information required for the event that was completed prior to the CVI appointment. Include the exact product name, date given, lot or serial number, and expiration date if available.

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## Certificates of Veterinary Inspection, CONTINUED

- **DOUBLE CHECK** - After you receive your CVI, take several minutes to review all the information listed, paying special attention to tag numbers. Both paper copies and electronic versions should have each section thoroughly reviewed to confirm that every item listed is accurate. We are all human and make mistakes. It is best to find errors immediately, while there's still time to correct the document, instead of on the day of the event, when your veterinarian is probably not immediately available.
- **MAKE A COPY** - Moving, shows, and sales can be a chaotic time and it is easy to misplace a few papers in the turmoil. Having an extra copy of the CVI can keep you out of a jam. The CVI should travel with, and stay with, the cattle. If someone else is hauling your cattle, send a copy of the CVI with the trucker. If a show requires that the CVI stays in the show office, give them a copy and keep one in the show box. At a sale, the CVI goes with the cattle (occasionally a copy is needed for each animal if you are selling more than one). Make a copy to keep for yourself (paper copy, electronic copy, or even take a picture with your phone).
- **SELF CHECK** - Prior to the cattle loading, or even as they are getting onto the trailer/truck/train, give them a once over. Check them yourself so you can be sure the cattle are still healthy and verify that the ones loading are actually listed on the CVI.

By having all your paperwork in order ahead of time, you can confidently exhibit at the fair/show, sell, or send your cattle to their new destination without the hassles that often accompany a last minute, rushed, or incomplete CVI, health chart, or trucking paper. Enjoy this eventful season!



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