

Is She Sick?

by Shannon Linderoth

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Every day, herdsman Abel Chavez and his fellow cow specialists at Thompson Dairy spend a couple of hours in one-on-one quality time with about 80 cows. While this may seem an inefficient use of time and resources — especially by parlor evaluation standards — results from the Wendell, Idaho, dairy's 2,000 cows say it is time well spent.

That's because these special-attention cows are fresh cows 12 days in milk or less. And this intensive program strives to find out which fresh cows are sick or not sick long before simple symptoms become full-blown, expensive diseases. "It has helped improve our cow health. We have much fewer DA's (displaced abomasums)," says Chavez. "I'm glad we're doing it."

So is dairy owner Rick Thompson. The program is labor intensive, but the payoff makes it worth it. "We've reduced our total cows culled at less than 60 days in milk by nearly 25 percent," explains Thompson. "We were at 5.65 percent in 2001, and this year we've dropped it to 4.22 percent." In addition, milk production is up and disease incidence is down.

The program takes fresh-cow management to the next level. That requires a commitment from both management and employees. In order to find out when fresh-cow disease occurs and get your cows off to a good start, use these four steps to conduct a fresh-cow exam.

1. Define health parameters.

Before walking into a pen of cows, ask your veterinarian to help define "normal" health parameters for your herd. For example, a normal cow is usually defined as one with a temperature between 101.5° and 103° F and is eating well, with good rumen sounds and heart rate, clear lungs, firm manure (or not runny) and no abnormal vaginal discharge. No assistance was required at calving. Your goal is to quickly identify animals that deviate from normal and offer early intervention.

2. Commit time and resources.

"This is definitely a skills position," says Earl Aalseth, veterinarian with the Pilchuck Veterinary Hospital in Snohomish, Wash., and one of Thompson Dairy's herd-health consultants responsible for the development and maintenance of its fresh-cow program. Assign your best people to the program and provide training to help identify fresh-cow diseases.

Don't ask employees to rush through the examination process. "Discipline yourself to put the necessary employees in the fresh pen and leave them alone to do their job until the protocols are finished," points out Mark Kirkpatrick, of Pfizer Animal Health Group's Veterinary Operations.

Figure on about one man-hour in the fresh-cow pen per 500 head of milking cows, especially as you begin your program. If you have 1,000 cows in milk that means you'll need one person to spend two hours in the fresh pen or two people to spend one hour. With time, the processes become routine and managers evaluate animals faster.

3. Look at, listen to and touch cows.

The in-pen process begins with a visual exam of each animal. Look for any indications a cow gives that she's not feeling well, Aalseth explains.

Look for cows with a "depressed" attitude — those that don't have bright eyes, or are reluctant to move. Next, feel her ears and body to find out if she is cold. Walk around the cow to observe her from all directions. Take her temperature and make note of any foul discharge from the vaginal area and watch to see if she's breathing hard. Note whether she has diarrhea and or her udder is abnormally swollen from mastitis. Observe her feeding behavior, too.

“We watch to see which cows aren’t eating, and also monitor the feed to make sure the ration is mixed correctly,” says Chavez.

If your appraisal finds anything other than normal results, conduct a more thorough physical exam. Feel along her neck for swollen lymph nodes, check for rumen fill and look for cloudy nasal discharge.

Use a stethoscope to listen for lung, heart and rumen sounds. “Compare what you hear to that of a healthy cow,” says Aalseth. Any deviation signals a less-than-healthy cow.

Lastly, palpate cows. Palpation detects uterine infections in hypocalcemic cows. Note whether the pelvic canal is swollen or damaged, if manure is normal or trends toward diarrhea, and whether the uterus has normal tone and discharge. This step should always be performed by day two or three after any assisted birth or if you notice a foul vaginal discharge. If none of these occur, then delay palpation until day four in milk and follow up every two days until the cow is ready to enter the main milking herd.

Keep a record of daily cow results.

4. Follow defined protocols

Once the exam is complete, follow your pre-set protocols for treatment. Treatment protocols are given on the next page. (Protocol 1 outlines daily evaluation procedures and Protocol 2 shows you which action to take when a cow is not normal.)

You can use these sample protocols, developed by veterinarian Aalseth, to help design the day-to-day protocol for your fresh-cow program. Work with your veterinarian to develop a program tailored to your operation and be sure to get employees’ input before instituting a program.

Resist the temptation to individualize protocols for each cow, especially after pen managers get the hang of things. You will have invested time, energy and training to develop steps to treat all cows the same and head off potential problems early, so use them. Non-standardized protocols cannot be objectively evaluated or modified.

“There is a very fine line between being able to visually identify sick cows and missing those that do not show obvious symptoms,” says Kirkpatrick. “You need to use proper mechanics, like temping cows on a regular basis, to keep your program and your cows operating at peak efficiency.”

After more than a year of working their aggressive fresh-cow-management program, employees and management at Thompson Dairy say it is well worth the time, energy, and money invested in the program. “It’s made a big difference on our dairy,” says Lisa Thompson.

PROACTIVE FRESH-COW PROTOCOL ONE

DEVELOPED BY VETERINARIAN EARL AALSETH, PILCHUCK VETERINARY HOSPITAL

Day 1 (day of calving)

- Milk fevers at calving, IV* with calcium/dextrose solution, 1-2 bottles as needed.
- Drench with a fresh-cow drench that includes 1 lb. calcium propionate, 0.5 lb. epsom salt, 0.25 lb. potassium chloride, 0.125 lb. salt, 12 oz. propylene glycol in 5 gallons of warm water.

Day 2 Temperature _____ Health status _____

Day 3 Temperature _____ Health status _____

Day 4 Temperature _____ Health status _____
Rectal palpation of uterus - normal or toxic

Day 5 Temperature _____ Health status _____

Day 6 Temperature _____ Health status _____
Rectal palpation of uterus - normal or toxic

Day 7 Temperature _____ Health status _____

Day 8 Temperature _____ Health status _____
Rectal palpation of uterus - normal or toxic

Day 9 Temperature _____ Health status _____

Day 10 Temperature _____ Health status _____
Rectal palpation of uterus - normal or toxic

Day 11 Temperature _____ Health status _____

Day 12 Temperature _____ Health status _____
Rectal palpation of uterus - normal or toxic
If normal, send to milk string.

FRESH-COW TREATMENT PROTOCOL TWO

DEVELOPED BY VETERINARIAN EARL AALSETH, PILCHUCK VETERINARY HOSPITAL

Normal Cows	Temperature	Visual
Protocol A	101-103 F	Looks normal, eats normal, ears normal: recheck health status daily for 12 days
Sick Cows	Temperature	Visual
Protocol B	Less than 101 F	Looks sick: (low calcium/magnesium) If severe shock, IV* calcium/dextrose solution, one-two bottles as needed. Follow IV calcium with fresh-cow drench as described in protocol one. If toxic metritis, proceed to protocol F.
Protocol C	Greater than 103 F	Looks normal: has a toxic uterus, temperature is 103-104 F, and last ECP injection was given more than three days ago — give 2cc* ECP IM* to improve uterine health if not more than 12 DIM. If fever doesn't decrease over next one-two days, switch to protocol D or E as prescribed.
Protocol D	Greater than 103 F	Looks fairly normal: If toxic uterus, temperature is from 103-104 degrees F, and last ECP injection was given less than 4 days ago, treat with maximum label dose of Excenel SQ for at least 3 days. If the fever/toxic uterus does not improve, examine the cow for other diseases and switch to protocol E for toxic metritis.
Protocol E	Greater than 103 F	Looks sick and/or temperature is greater than 104 F and uterus is toxic: treat with Polyflex or have your veterinarian prescribe penicillin for at least three days. Flunixin meglumine may be given per prescription to reduce fever and toxic effects. ECP may be given again if more than four days since previous injection and the cow is not more than 12 DIM. Treat with B vitamins at 40cc IM for three days for appetite. Fresh-cow drench also may be given.
Protocol F	Less than 101 F	Looks sick: has cold ears and toxic uterus, temperature is variable. Follow Protocol B which includes oral calcium, plus or minus IV calcium. Also follow Protocol D which includes antibiotics and/or ECP.

All milk and meat withholds must be respected for the drugs used. Obtain veterinary prescription as required.

ECP use requires prescription. With these protocols and especially the use of Excenel very few cows need to be taken off line.

*Key for all protocols: DIM=days in milk, IV= intravenously, IM=intramuscularly, cc=cubic centimeter, SQ=subcutaneously

INDIVIDUAL FRESH COW HEALTH RECORD

DEVELOPED BY VETERINARIAN EARL AALSETH, PILCHUCK VETERINARY HOSPITAL

Date _____

Cow number _____ Pen number _____ Date fresh _____ Days in milk _____

EXAM: Fill in the blank for the following health parameters.

Temperature (Normal=101-103 F) _____ **Rumen motility** (Normal=2-3 per minute) _____

Signs of abdominal pain (elbows pointed out, pinch test, curved spine, grinding teeth) _____

Abomasum (ok or pinging on left or right side) _____

Manure normal ___ runny ___ mucoid ___ dry ___

black ___ bloody ___

Lung sounds normal ___ abnormal ___ rate ___

Nose normal ___ discharge ___

Bad breath normal ___ ketotic ___ foul ___

Heart normal ___ irregular ___

Feet normal ___ involving hooves ___ involving joints, upper limbs ___

Udder normal ___ mastitis ___ affected quarter ___

Ears normal ___ cold ___

Body Condition Score (1-5) ___

DIAGNOSIS: _____

TREATMENT PLAN

	Actions	Progress (better, worse or no change)
Day 1		
Day 2		
Day 3		
Day 4		
Day 5		
Day 6		
Day 7		
Day 8		
Day 9		
Day 10		
Day 11		
Day 12		

Drug withdrawal Milk: Days _____ Date ok _____

Meat: Days _____ Date ok _____