JOHNE’S is one of the nasty problems we have to deal with on our farms. Calves can get infected right after they’re born, if not before. Clinical cases don’t show up for years. And our tests are far from perfect. The bottom line is that Johne’s increasingly is being looked at as a management disease. At least, making improvements in how we handle our cattle, starting at the moment of birth, is the key to controlling Johne’s spread and cutting incidence in a herd.

Here’s how these four operations are tackling the Johne’s threat:

What Johne’s tests do you use?
Moser: The Cornell ELISA blood test which costs us $5 instead of the normal $5 because we are on NYSCHAP. We used to use fecal culture, but it costs more, and there was the long turnaround time.

All cows are tested at dry-off. This enables us to use recent test status for colostrum management and maternity pen management.

Scheider: ELISA blood test at dry-off. We have not used different tests in the past, but we are considering switching to fecal culture testing because of its accuracy in identifying positive cows.

Neahring: Fecal and blood tests. We fecal test two times per year on all milking cows. We blood test sometime in December or January so we have up-to-date results in time for the calving season. The state pays for all of our testing.

Lewis: We do a milk test at dry-off for all cows in the herd. It costs $4. We used to use a blood test only for suspect cows. But using the whole-herd test helps us manage the positives differently.

Describe your Johne’s incidence.
Moser: In 2000, we had 15 to 18 percent of our cows moderate to high positives on fecal culture. At present, we have about 10 percent positive (40 or greater) on Cornell’s ELISA test.

Scheider: Prior to our expansion in 2001, we did not believe we had any Johne’s cows, but we were not testing. With the expansion, we began testing all mature cows and discovered that some of our original herd, indeed, was positive.

The number of clinical cases has been 2 percent of the herd. ELISA positives run about 7 percent. We are seeing fewer clinical cases. One animal born in our expanded facility has become clinical.

Neahring: Last fecal test was 7 percent with one or more colonies and with none “too numerous to count (TNTC).” On previous tests, we had as many as six TNTC, but those cows have been culled. We have also culled most cows with results of more than 10 colonies. The majority of those cows remaining that test positive have one to nine colonies. We haven’t been on the program long enough to really see the kind of results we want which is zero percent positive!

Lewis: We started the milk test during February 2005. So far, we are running roughly 8 percent positives or suspicious. We can’t really compare this to the past since we did not check the entire herd before.

Please describe your strategy for dealing with a Johne’s test positive or suspicious cow.
Moser: Positive cows are not bred back. Those cows and suspicious cows are freshened in the free stall barn or outside (not in the fresh pen). After calving, those cows are moved into the main free stall barn.

Scheider: ELISA-positive cows are coded. Clinical cows are culled.

Neahring: Johne’s cows are marked with plastic leg bands and ear tags so that their colostrum or waste milk is not fed to calves and so that we are sure to remove the calf right away at calving. If the cow’s fecal count is more than 15, we put her on the cull list, and she does not stay for another lactation. We will cull her when her milk drops at the end of the grazing season. We mark positive fresh cows with Blu-Kote.

Lewis: Positive cows are culled in a separate area. We are a grade herd so basically we are looking at milk in the bulk tank for our income. As a result, when a test-positive cow shows signs...
Two fecal tests a year on all milking cows plus a blood test before late winter calving is part of the Johne’s strategy on this seasonal, grass-based operation with 170 milking age New Zealand Friesian/Jersey crosses. Neahring is a member of Tillamook Cooperative Creamery which provides all members with a Johne’s assessment. “The assessment was especially good,” said Steve, shown with his son, Tim (left), and son-in-law Brian Bailey. “It forces us to evaluate what we do and to look for weak places in our Johne’s program.”

Seven percent of the samples on the herd’s last fecal test showed one or more colonies and none with “too numerous to count.” They have had as many as six TNTCs in the past. Cows with fecal counts of more than 15 are put on the cull list and do not stay for another lactation.

The Neahrings have moved calves away from where the cows are housed to eliminate the chance for manure contamination. Johne’s-positive cows are marked so special effort can be made to remove calves soon after birth and ensure no mistakes are made with colostrum feeding. Colostrum from Johne’s-positive cows is discarded. They plan to make maternity pens easier to clean between calvings.

of diarrhea, we culled them, regardless of age, reprod status, milk, or genetics.

How are test-positive cows handled?

Moser: We handle all cattle to minimize the spread of Johne’s. We raise the calves from positive cows, but colostrum from positive cows is discarded.

Scheider: Colostrum from test-positive cows is discarded or fed to bull calves. Currently, we keep all heifer calves in the herd.

Neahring: Colostrum from positive test cows is discarded. So far, we have opted to take a chance on the calf, keeping them in the herd.

Lewis: We do not save the colostrum from positive cows. We do keep the heifer calves, but we “V” ear notch them as a visual reminder that they are more likely to be infected and become positive in the future. We actually would be less likely to spend any extra money on or be real patient with a notched cow . . . paying for a surgery, for example.

What about fresh cows and newborns?

Moser: Like I said, only test-negative (below 40) cows are calved out in the fresh pen. The rest freshen in the free stall or outside, depending on time of year.

All newborns are removed from dam as soon as possible and put in a separate barn. If we as- sign with any calving, the cow is cleaned care- fully, and we make sure we use clean equipment. We always wash our boots and hands before as- sisting with a calving.

Scheider: Cows are placed in a birthing pen when in advanced labor. After freshening, cows are removed as soon as possible. Calves are pro- cessed and fed colostrum from a cow which has tested negative. They are moved to the calf fa- cility with a truck which is only used to haul calves and by a driver with clean boots. Calf feeding equipment is cleaned and sanitized after each calf uses it.

Neahring: We try to remove the calf from the cow and make sure it receives goodcolostrum. Johne’s cows’colostrum is discarded. We are building a heated pen for newborns this year and making removal of the calf a priority.

The state vet claims that they have tested the outside of the udders of a group of dry cows that tested negative, but they still found that the samples from the contaminants on the udders were positive on every cow. That herd had a 50 percent infection rate.

We are also remodeling the maternity pens to make them easier to clean between cows. As we calve so many cows in two months’ time, ease of cleaning is a must.

Lewis: In the past, we had only one area for housing our fresh cows, so all went into that pen. The newborn calves are separated from the cows as soon as possible. We try to do it in less than one hour.

What are practices regarding colostrum?

Moser: We usecolostrum as a single source . . . cow to calf (not pooled). We only usecolostrum from cows that aren’t suspicious or positive. Otherwise, we use frozen colostrum from a negative cow or a colostrum replacer. We use a colostrometer to check for quality colostrum. We do not feed any waste milk.

Scheider: Colostrum harvesting equipment is sanitized between each cow. Each individual cow’s colostrum is placed into a separate container and marked with the cow’s ID number, date, and person who collected it. Colostrum is then frozen to await a negative Johne’s test and a negative Mycoplasma test before being fed to calves.

No waste milk is fed to calves. Pasteurization is intriguing, but we have many logistical is- sues since the milk would need to be transported to another farm where the calves are housed.

Neahring: Positive cows are marked and their colostrum discarded. We save good colostrum in the refrigerator or freezer for future use. Only waste milk from negative cows is fed. We also feed milk replacer when we don’t have enough milk.

Lewis: We do not save colostrum from test-positive cows. We save colostrum from older neg- ative-tested cows to use for calves from Johne’s- positive cows and first-calf heifers without much colostrum. We do not use colostrum substitutes, and we do not pasteurize. We feed our waste milk to bull calves and use milk replacer for the heifers.

Have you had a Johne’s assessment?

Moser: Yes, we have an annual Johne’s review through NYSCHAP. It is conducted by our veter- inarian, Mark Thomas. We get good marks for our colostrum management and calf manage- ment. We have learned that we need to pay care- ful attention to preventing manure contamina- tion from the cows to the young stock. NYSCHAP has been a good program for us in New York (NYSCHAP-vet.cornell.edu)

Scheider: Our veterinarian recently conducted a Johne’s assessment. Fortunately, we scored “very low” or “low” in all on-farm risk categories.

We will be getting a designated manure buck- et that will be used only at the calf farm. Our worst score (moderate risk) involved acquisition of outside replacements.

Neahring: Yes. First time by our local vet and second time by the state vet. We got good rat- ings for our testing schedule and for our culling.

We need to concentrate on taking calves away (Continued on following page)
from cows sooner, keeping dry
cows pens cleaner. Also, we need to
clean tires on mixer wagon be-
tween feed aisles.

Lewis: Yes. The first was con-
ducted by Dr. Viteto. We have just
had our second assessment.

We already were separating
calves away from cows right after
birth. Also, we were keeping older
animals and younger ones sepa-
rated, and we had been using
clean feeding equipment.

We saw the need to have a sep-
arate calving area for positive
cows and to either switch to milk
replacer or pasteurize our milk.

Lewis: We have not purchased
any animals for several years.

What specific housing and ma-
nure-handling measures have
you changed?

Moser: Calves now are housed
in a separate barn. Before, there
was a chance of milking cows con-
taminating calves when they re-
turned from the milking parlor.

We use separate feeding and ma-
nure-handling equipment. One skid-
steer is used to push up feed and
clean out mangers, another to han-
dle manure. At first, we used sepa-
rate attachments for one skid-steer.

Calves are removed from the
dam as soon as possible after birth
to a clean, dry pen away from
other animals. And we quit pool-
ing colostrum.

We now pay a lot more attention
to cleanliness everywhere. That
includes boots, hands, clothes, nee-
dles, barn equipment, tractors,
pens, and walkways. This helps in
the control of all diseases, not just
Johne’s.

Finally, we do not feed any left-
over feed to any other animals. All
cattle get fresh feed every day.

Scheider: Loaders and buckets
which handle feed are not used to
handle manure.

Manure-handling loaders do not
pass through feed alleys. Refusal
TMR is fed only to steers. Our calf
facility and the facility for our
heifers now are located on farms
with no adult animals. There, feed
and water are offered predomi-
nantly at fenceline locations to
lessen fecal contamination.

Young heifers are moved only in
trailers which do not haul adult
animals. Trailers which haul
springing heifers are pressure
washed after hauling any clinical
cows.

Originally, in our current facili-
ty, one barn housed prefresh, post-
fresh, and hospital cows plus the
birthing area. The hospital cows
were subsequently moved to a dif-
f erent barn.

Visitors are directed to the of-
fice to receive plastic boots. Ma-
nure-laden clothing, unauthorized
stock trailers, and walking in feed
mangers are discouraged. Ren-
dering trucks enter the farm from
a secondary location and stay ap-
proximately 1/4 mile from where
calves are born.

Neahring: The feed push-up
scrapper for the cows never gets
into the manure. The same is true
for the feed pusher for the heifers.

We moved the calves into anoth-
er barn so they are away from
other cattle. A heated newborn
pen away from all other calves
also is under construction, and a
redesign of the maternity pens
should help.

Because all the replacement
heifers we will raise are the A.I.
calves born in February and
March, we have decided to make
that our priority and will do every-
thing we can to protect those
calves from infection, especially
during the first few days. We also
are changing the calf pen design
for up to weaning age.

Lewis: We built a new dry cow
barn this last year which gave us
more room to calve positive and
negative cows in separate areas.
We try very hard not to walk in
any feed or feed areas with ma-
nure on our boots.

We have one loader that we load
feed with. If we have to use anoth-
er loader for feeding, we take the
time to power wash the bucket
thoroughly before we use it.