least I have, several times. If you can sneak up on the animal who has been shot with a tranquilizer dart, many times you can just lay a loop over their head. Other times, you have to kind of step on the gas. With a little luck, you can get up along side the steer, and rope him. One thing that happens that you might not think about, is that everything in your veterinary unit is really stirred up before you have gone too far. Things kind of get shaken up in your cab, also. Pastures in Tennessee aren't real smooth.

A problem arises when you get that loop over his head. What do you dally around? The steering column is the easiest. That is not without complications, though, because if he wakes up, that rope really tightens fast. Out the window goes the gear shift indicator, so from then on you have to kind of guess what gear you are in. Sometimes more serious things happen like dented fenders, and worst of all, pulling out the steering column. But hang on. You don't want to lose your lariat rope. Good luck.

That's about all the time I have. I entertain quite a bit all over the place, telling country stories and practice tales, and playing the banjo and piano, but I always enjoy coming to the AABP Meeting and speaking to my peers. As I mentioned earlier, it's a humbling compliment, and I appreciate it.

Take time to enjoy God's beauty as you go from ranch to ranch, or farm to farm. Take your children or grandchildren on calls, carry a camera, and always remember two things:

- 1. Ox in the ditch every Sunday, sell the ox or fill up the ditch.
- 2. Remember, everywhere you go, there you are.

Mastitis Diagnostic Kit

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The major mastitis pathogens still account for more than 90% of clinical mastitis cases.

Bacterial culture is the gold standard in mastitis diagnosis and therapy planning. It is often avoided due to the difficulty in securing accurate, timely results. An on-farm or "cowside" test that rapidly identifies major mastitis pathogens would enable the veterinarian and/ or producer to make a more rational treatment decision. We have used such a test in a mastitis therapy trial in eastern Florida this past year. Our goal was to identify cows with Gram + infections at dry off. The culture device is the HY Lab Diagnostic Kit. It is available in four formats:

- 1. Select *Strep*: This medium differentiates the significant *Streptococcus* species involved in bovine mastitis.
- 2. Select Staph/Strep: This medium differentiates Staph. aureus from Staph. epidermidis and aids in Strep. identification.
- 3. Select Coli: This medium inhibits the growth of *Staph*. and *Strep*. *sp*. and differentiates *E*. *coli* from *Proteus* and *Pseudomonas*.
- 4. Select Staph: This medium provides accurate dif-

ferential diagnosis between Staph. aureus and Staph. epidermidis.

Each culture tube consists of a cylindrical screw capped tube. From the underside of the screw cap, a two sided paddle filled with media is suspended. The media may be selected in several combinations of the four formats above, one medium on each side of the paddle.

After the teats are forestripped and disinfected, the container is filled with a milk sample until both sides of the paddle are covered. The container is then capped, agitated and emptied. The screw cap is loosely closed and the milk is incubated at 37 degrees centigrade for 24 to 36 hours. (In most cases, the cultures can be read earlier. We found little change after 18 hours and the color changes in the media were evident at 12 hours.) Accuracy verification has been done by Dr. Ken Leslie, University of Guelph, and Dr. Bob Harman, University of Kentucky. There are suppressors in the media to inhibit the growth on bacteria not considered major pathogens, so contamination is less of a problem. Gram positive bacteria are readily differentiated from Gram negatives. Differentiation of the *Strep*. species is more difficult, but possible with training.

Rapid identification of the major mastitis pathogenesis an important advantage of the HY Lab Diagnostic Kit. This system can be used by the producer with minimal training because the color changes in the media are as, or more, important than colony morphology. The simple inexpensive incubator completes the package. The ultimate advantage is that the producer can select a treatment course more quickly and accurately.

The benefit to the producer is the selective use of antimicrobial therapy in cases of Gram + mastitis and the initiation of oxytocin or systemic therapy in Gram mastitis. For those who are certain that treating *Staph*. *aureus* cows during lactation is pointless, this system allows a true diagnostic rule-out.

Calf Delivery Tools of the Trade

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Few times when one is young and stubborn, our physical strength overpowers our mental capability. There was a time early in my practice career when I thought I could deliver any calf by brute strength.

As we grow older and hopefully wiser, we begin to use our mind instead of our strength. As a result of increasing age and hopefully being smarter, I designed several helpful devices to make dystocia in the cow more bearable.

The first instrument is a de-gloving instrument. Shaped much like a 180 degree shoe horn on a "T" handle, it aids in removing the skin from the muscle of the front leg. The length of the instrument is 13 inches. The second instrument is a 32 inch repelling instrument with a "T" handle in one end and a half circle in the other end to fit under the calf's tail head. The third instrument is a 32 inch "T" handle with a three-fourths circle on the other end to grab the calf's hock. These instruments are similar to some on the commercial market but seem to me to be more usable. The thickness of all the rods is three-eighths inch.

I have another instrument that I also use in delivering calves. It is a modified double come-a-long fetal extract. I would probably quit large animal practice if I could not use it.