

a squeeze chute. The left flank approach is used. In our hands this results in serious contamination of the peritoneal cavity, with hair from the calf and necrotic material from the uterus. After the uterus is sutured and returned to its normal position, an equine stomach tube is connected by a hose to a mixing faucet. The end of the tube is carried into the peritoneal cavity and an assistant delivers warm water as requested. The tubing is moved about and water continues to be discharged until the overflow through the incision is clear and free of foreign material. The free end of the tube is then carried to the floor of the abdomen and the other end is disconnected from the water supply. The excess water is siphoned out; antibiotics are left in the abdominal cavity and the incision closed as usual. The cow is kept on antibiotics for a week or so. About 80% of these cows have survived, using this procedure.

Dr. Koger: I guess no one can argue with 80% recoveries in emphysematous feti.

A Practical Approach to the Correction of Breeding Unsoundness:

Dr. Connie Ferreira, Cottonwood, California.

I practice in Shasta County in Northern California and I am in a 2 man practice. We have 3 occasionally, but we are now in a 2 man practice and we do a lot of bull evaluation. My hospital is part of the complex of the Shasta Livestock Auction Yard and we put on about 10 or 12 purebred sales a year and we do about 1500 evaluations on bulls. In doing this I want to kind of step on the doctors from Nebraska here. We are doing the footwork and were using various types of equipment and I do want to show you some that we are using and have used. My comments will be directed toward the pure-bred cattle. We have an in-house foot trimmer and it certainly enhanced the income of our practice. He's been with me for 27 years! He's a Mexican and he can trim a bull's feet and get him out of chute as fast as I can do the semen evaluation. I think that it behooves practitioners, particularly I know the older practitioners are cognizant of foot problems, and I think a lot of emphasis is given to the semen evaluation *per se* and maybe we're not looking at these feet as well as we can and I think that probably why we as practitioners really hate to fool with a 2000 pound bull's feet is that it hurts you!

I used an old Powder River, I'm sure you people from Oregon and Washington have seen a lot of these. They're still available. We don't use this any more. We've got it sitting out in the yard, but this is all we had when I first started practice. It does not lie the animal down, of course, but it does get his foot up where you can tie it and he doesn't kick your head off. The people from Nebraska had essentially the same chute as our latest one. It has a side panel which is manually operated. I will have to agree with the Doctor from Nebraska, that we have never found a chute that we can do foot trimming in and not choke the bull down or have problems with a bull that weighs 2000 or 2200 lbs. I have to give credit to my foot trimmer who devised a chute that cost about \$350 and I've looked at several priced from \$2500 to \$5000. We have three good chutes on ranches in our particular area, none of them work as this one does. We use the Black and Decker sander and you can get them at any machine shop, I agree with the doctor, you can just whip those out in nothing flat and there are other

sanders. One costs \$69.50 and we have a \$189.00 sander. We have an old firing iron made by Nicholson and I'm sure you people from Colorado and Montana have seen that and we use it a lot for interdigital fibromas. We cauterize the area after we remove them and many of you in equine practice find no need for these, most people now shudder at the sight of these things, so we put it to good use and we use it in our surgeries. We use a block for a sole abscess in cattle and we secure it with Technovite. You have about 20 to 30 minutes to get it on before it hardens. The champion bull at the Denver Great Western, 4 years ago was sent to us recently. He was purchased at a terrible price and couldn't even mount a cow. We found solar abscesses in both feet. I think that we are reluctant to examine these feet and do a really good job on them because it is tough work and you can get hurt. The reason I preface this whole topic is, if you don't have a foot trimmer, you just can't do the work. I think it enhances the practice economically and it is a good thing to have in your practice. The blocks were left on the front feet for 120 days and the bull serviced 35 cows. He could not serve before. I am in a little Northern area of the County where the weather is inclement and these were put on in winter time. Once in a while I pick up a fungus infection and it is mistaken a lot for foot rot or foul foot, or whatever you prefer to call it. I think we are treating these with antibiotics but don't do them any good. We scrape them off and then we cauterize them with a firing iron. You can do that I'm sure with other hot irons but the firing iron usually heats in 10 or 12 seconds and it just does a beautiful job very quickly.

We believe these things are hereditary. We have done as many as 18 to 20 sires. You might say, "Why do you fool with these and why do you keep the bull?" I don't think that it is our decision because if we refuse to do these and remove them, Bill will go down the road and get somebody else to do them, so we do a combination. I know that in the literature several workers have recommended that the toes be wired together. We do, I imagine, a couple hundred of these a year but we do not wire the toes together. You don't have any trouble if you don't get into the soft, spongy tissue and don't get into them too deeply. I think that you can get along all right with it. You may miss a sole abscess if you don't trim the feet and I think we really miss them, I know I did for years. In our bull breeding soundness program I am involved with the sales and we just cut these out and we are finding that 10 to 15% of these bulls have hind feet that are bad. We watch performances on these bulls and they'll last a couple of years and I think you've just wasted your money. This is another technique. We're using raw nitrogen on that. I have a brymill cryosurgery machine that is enclosed in a liquid system. It works very well. There is no bleeding and the only problem is that you don't know whether you've got the corn or not. I've done approximately 80 of these and checked back on about 50 or them and they healed beautifully with no bleeding, no infection and you can turn them right out into the corral. We had a Shorthorn bull that was purchased in Iowa and he had injured himself on a truck. There was a lesion between the dew claws and the bottom of the foot in the volar region. A tendon was lacerated and the veterinarian at the point of origin did the best he could. We trimmed it off and protected the area with gauze and furacin and the cryosurgery was applied to it. I looked at the bull 3 months ago and the lesion is absolutely gone.

A condition that we see a lot in bulls during bull evalua-

tion is the so-called "water on the knee", or hygroma. I was always afraid to invade these. We dissected out an area about the size of an orange full of fluid. I merely opened it and tied it off deeply at the neck of origin, right at the joint, with #2 gut and stitched it back up. We put a wrap on it and I want to tell you about this because most people don't want to invade that area. I can say that I've done about 20 with absolutely no blowups, they just heal beautifully. We don't like to have them put them in sales but they certainly look better and it's something that you can do. Another condition that we see in 15% of the English breeds is the toe turning in. This is what prompted me to incorporate foot trimming into our practice. Another breeding unsoundness is a very straight leg. My tip is that if you are doing breeding evaluation you should incorporate foot trimming in your practice for it is a terrific practice builder. It blends in with your breeding soundness program. You do a better job and give better service to the pure breed industry.

Question: How do you operate your chute?

Answer: It is on a two horse motor and it is hydraulic. It just picks them right up and it is absolutely safe as far as protecting the operator. You can tie the 4 feet independently. The problem with most chutes is that they don't sit on the ground and this is real important if you get a heavy bull in there. We have two pivots that you unwind like you did with another chute to set it on solid ground so there's absolutely no rocking whatever. The bull can't tip it and he is not going to roll out of there. It works very well.

Question: Do you "block" the sole abscess?

Answer: We dig them until we get everything out and we'll pack them in cotton with iodine and then just put the block right over the top of it. I think the reason for our using blocks is that it puts the bull back into use, he'll go ahead and service cows.

Question: What about semen evaluation?

Answer: I have probably about 50 purebred herds that we take care of semen evaluation for breeding soundness. I don't like to use semen evaluation because, as I mentioned earlier, too much emphasis is put on the semen examination. The bull has got to be able to mount and get on the cow and breed her. This is probably one of the biggest problems in most of our pure-bred bulls but you can not tell the breeder that it is a hereditary trait, and that he shouldn't be doing it unless he is a good friend. He is not going to do anything about it anyway, so trim them. Start trimming them at an age because trimming really helps, I think. It has been estimated that 10 to 15% of these are hereditary, foot problems 10-12%, upper leg problems, 15%, but I have yet to be able to convince any of our pure-bred breeders to eliminate the bull. I can remember doing 20 interdigital fibromas out of one bull and he knows this and he should be out of the herd, but you can't get them to do that.

Use of a Technician in Dairy Practice:

Dr. G. A. Ledbetter, Davis, California

I am going to talk to you just briefly about the use of technical help in dairy practice. By technical help, I'm referring to non-veterinary lay help. Just to brief you on where our practice is, we are down in southern California, in one

of the three main dairy areas of California, the Chino valley. What are the reasons for considering a technician? The reasons we consider it in our practice are that they can provide or increase laboratory capability, they can handle field tasks not requiring the veterinarian. They can fill in office personnel, and the bottom line is that they can increase veterinary efficiency. Let us consider field assistance. The first thing that comes to mind is assisting you in surgeries. I might add that of the four veterinary practices that are using animal health technicians in our area, all four of them are using females. It's nice when you are cleaning up or talking to the dairyman concerning post-operative care, the technician can be standing there administering fluids or whatever, again this is a time saver. Vaccinating and dehorning calves, we find that this is a big time saver here. In order to comply with the USDA I do all the tattooing myself, I feel that since I'm the one that is ultimately responsible, I think that's an important task, but while checking cows or whatever, the technician can have all the calves ready to go, vaccinated, dehorned, ear-tagged and everything and all I have to do is tattoo them. I also do a lot of calves at calf ranches. A lot of our dairymen at Chino send their calves out to be custom-raised. We vaccinate and dehorn about 500 calves a month and technical help is a big aid here. I mentioned that a technician can provide or increase your laboratory capabilities, in my practice we do monthly tank samples for all of my clients. Again, we collect our samples out of the top of the tank, we like to use a syringe. Sterile infusion pipettes are great if the milk is down too low and you can't reach it. I send the technician on a route. She has certain days each month that she goes around and visits all my herds, picks up all the samples, brings them back to the laboratory and processes them all herself. This way I know it's done on a given day every month. I do not have to rely on myself remembering to do it while I'm there. We provide somatic cell counts, bacteria counts, antibiotic tests, etc. We are fortunate to have veterinary reference laboratories close by, however you do have to fill out forms to make blood smears, etc. and she helps in this respect.

I said that a technician can handle field tasks, not requiring a veterinarian, probably the biggest area we use our technician in this is collecting milk samples if we happen to have a problem mastitis. There is no reason that I need to be there in the field so I send my technician out. To me it is important to maintain my health, when I was a veterinary student, I did this for 4 years, so I feel I paid my dues, I wouldn't ask her to do anything I have not done myself! A technician can fill in for office personnel, if your secretary has to go away, or whatever, you always have one extra person around the office area that can keep the ball rolling. This can be just cleaning up instruments, sterilizing instruments, doing records or running the computer. I feel that it is important that they have a good appearance and periodically she cleans all of our trucks and keeps things looking good. The bottom line is that a technician can increase veterinary efficiency. When vaccinating and dehorning calves in a chute, if I were by myself I could do in the neighborhood of 30 calves per hour, charging \$2.50 per calf, this works out to about \$75.00 per hour. I have no cost for technician time so I net \$75 an hour. With a technician I can increase my efficiency by at least 5 calves an hour. I feel this is a very conservative estimate and it raises my gross to \$87.50 per hour. It costs me \$7.50 for technician time, I've netted \$80 and increased my net to myself of \$5