

TMR Test Mix

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Displaced abomasums ? Acidosis-laminitis ? Butterfat depression ? Any of the above plus high feed bills? Maybe the cows suffer from too little effective fiber and cannot perform like they are expected to.

TMR mixers have been a tremendous tool for dairy nutrition management. However, like any other tool, mixer wagons can be poorly managed. When an auger mixer is overloaded, has badly worn augers, or mixes too long, effective fiber can be destroyed. This results in sub-optimal rumen function, poorer production, and increased digestive disease.

A simple test can be done to diagnose mixer abuse of forages and fiber. The TMR test mix is performed with a spring scale, plastic buckets or a weighing tarp, a grain shovel, a dry floor, and some exercise.

HINTS:

1. Abused fiber TMRs will feel much wetter than they really are...moisture is released from the fiber of the silages when they are mashed.
2. **ALWAYS** have the dairy manager conduct this TMR test mix. This test can be so dramatic that

many will not believe the test was done accurately, unless they participated!

3. This problem is difficult, if not impossible, to have if one uses a reel, paddle, or tumble mixer. Auger mixers are the typical problem.

Each feedstuff fed to one cow for one day is collected and weighed. Afterwards, the TMR is mixed by shovel on the dry floor. Comparing the appearance and feeling of the TMR test mix with the "same TMR" as it is delivered from the mixer will often point out the "mixer abuse."

Many dairies have grown beyond the capacity of their TMR mixers. Overloading will lead to extended mixing times, which leads to fiber abuse. We have witnessed good managers accept as routine that the mixer has to run for 10-15 minutes in order to get all the silage into the TMR mix! The space is increased in the mixer because the fiber is mashed up and the normally turgid fiber is collapsed.

Feedstuffs should be weighed, then gently and thoroughly mixed with a mixer. Make sure your TMRs are not Measured, Mixed and MASHED!

Tidbits From Tennessee V

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Well it sure is humbling to receive an encore to be on the Practice Tips Session again this year. As I have gone through my cookbook and ideas, I can't help but think that all of you out there have a lot handier things to talk about, and that mine will get old before long. But I sincerely thank you for the invitation again.

Of the 12 years I was in practice, about 6 were by myself. You all that have gone that route will be able to identify with a lot of what I say. I did about 80% large animal, mostly dairy and horse, with a lot of beef. I also spayed cats, trimmed Doberman ears, and pinned a lot of bones, like most of you all have done — regular old

bread and butter livestock practice.

I've been out of practice about 10 or 12 years now, and my mama wanted me to spay her cat last summer. I did, and it survived, so I may still have the touch!

I better get into my material, or time will get away from me.

When you think about magnets in cattle practice, several types come to mind. Rumen magnets are probably the most common. Magnets in feeding systems are common also. Most clinics have refrigerator magnets. Biomagnets are those used for equine lameness, and human injuries. I include them in my presentation because I have had them work exceptionally well on me. One day while I was palpating a cow, she jumped to the side, as you all have had them do, and something on the inside of my elbow popped. It hurt until a veterinary friend of mine told me about what are called Nikken Biomagnets. I thought it was a bunch of voodoo and snake oil until the pain in my elbow stopped after taping what is called a mini-magnet over the area.

They come in various sizes and shapes for use in a variety of situations. The magnetic charge the mitochondria to increase cellular metabolism. This increases the blood flow and by a series of events, relieves much of the pain. Many physicians, chiropractors and physical therapists are starting to use them for a variety of conditions. Several NFL and major league baseball teams use them in their training rooms because they work and there are no side effects like can result from long-term oral medication. Also, it is much easier to tape a magnet to an area than take a whirlpool on an airplane.

One of the main things I was glad to find out is that they can do no harm. Several physicians have done exhaustive studies of the literature from the U.S. and Japan to verify this.

Much like you all, when I was in practice by myself, I worked 80-90 hours a week frequently, and sleep came at a premium. This magnetic technology has broadened into sleep systems that increase the efficiency of the time you sleep. An OB-GYN physician in Tacoma, Washington found much relief from using a magnetic sleep system, which is a mattress, or a pad over a mattress, plus a pillow. He was suffering from what he called post-call nausea after being on call all night. During the next day, he could hardly function after a few nights of maybe 1-2 hours of sleep apiece. After sleeping on a Nikken sleep system on the call bed at the hospital, he can function the next day, and after 5-6 hours sleep after going off call, he recovers. He says that now he feels like he has his life back again. I wish I had had one when I was in practice. I'll be around after the Practice Tips Session for anyone who might like to ask about biomagnets.

I have been doing some consulting work for a fly

tag company which may revolutionize fly control. They have patented what is called the Morgan Rechargeable Ear Tag. It is a polyurethane ID tag that has a chamber for holding insecticide. A small amount is dispensed daily through a channel to a dispensing port. The level dispensed each day is the same. After about 6 months when the last drop is daubed off the tag, there is no more. This reduces fly resistance, because there is no small trickle of insecticide to challenge the stronger flies to survive. This is a big problem when impregnated tags aren't removed in the fall.

The Morgan Recharger tags are especially effective against hornflies, and greatly reduce faceflies. They are used in pairs, and need not be used in calves sucking cows. They are applied with conventional tagging pliers, and can be numbered with a felt tipped pen. Each season, a different insecticide can be chosen to recharge with. The formulations are made especially for the dispensing system, with regard to viscosity, ingredients, etc., so other insecticides won't work in them. Retention is excellent, and fly control is superior.

The cost of using the Morgan tag should be compared to a combination of fly control measures, and not to impregnated tags alone. The control realized is like what results from using a combination of things, including impregnated tags, backrubbers, flyps, sprays, etc., but is way more cost effective, labor-saving, and just plain a whole lot less trouble. When you can put tags in a bunch of heifers with 600-1000 flies per head, at the Texas A&M Experiment Station down here at Riesel one morning, and can't find but 0-10 horn flies per head later that day, and the rest of the whole season, that's effective fly control.

Their federal license has been approved, and they are negotiating for marketing at this time. I'll have some information up here afterward, if anyone is interested.

For years, I have bought lariat rope in 600' coils and tied lariat ropes for cowboys and veterinarians. I put a leather burner in one end for serious roping, and splice a quick release honda in the other, for treating cattle. I call it a treatment lariat. Handy and versatile.

Everyone who does much beef cattle work needs to learn to rope. Get you a sawhorse and a lariat, and start out. After you have roped that booger about 10,000 times, you may be ready to come out after one on a horse. Most veterinary roping is done on foot, however. We've all laid a loop over an old cow's head in a box stall, and snubbed her up to examine and treat her. There are times when you need a tranquilizer rifle, but I haven't had that work right every time.

Many times you end up roping the steer or cow from your truck. There comes the problem. I don't see how you right-handed veterinarians can do complete beef cattle practice because you can't rope while you're driving your truck. We left handers can, can't we? At

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 fend-

ers, 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