

Texas AgriLife Extension Service

Hopkins Dairy Notes



Looking at the dairy industry into the future

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Special points of interest:

- Welcome to Dairy Notes
- Dry Cow Mastitis
- Environment and dairy farms
- Why you got inspected?
- What to do if you get inspected
- DOPA training October 27, 2009



There has been a lot of discussion and comments about the current situation in milk prices and policies. There is no doubt that those factors certainly can keep you busy and concerned, but it is also true that we need to look back and learn from the current situation to have a better idea of what it will take to make it milking tomorrow. The current economic situation is affecting the dairy industry worldwide. The

European Union responded by dehydrating milk and storing it. Several CWT (cooperatives working together) voluntary herd retirements have been conducted in the US to remove excessive productive animals. There is in general, reduced consumer's buying capacity that reflects as too much milk in the market forcing the prices to drop. To complicate things even more, recent public policies are trying to modify the way things are done to protect the environment. Public perception plays a signifi-

cant role in how we might do business tomorrow. It is not enough to produce milk today, we have to do it in the more environmentally friendly way as possible. This is the way it is going to be and we better be ready to face the new challenges with a positive attitude, looking forward into the new years to come.

Dry Cow Mastitis

D.S. Bruno. Texas Veterinary Medicine Diagnostic Laboratory, Amarillo Texas

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Mastitis in dairy cattle is very common during the dry period and early lactation. Intramammary infections (IMI) observed during the dry period can be due to a sub-clinical infection (presence of bacteria without signs of inflammation) carried into the dry period from the previous lactation (pre-existing infections), or those acquired at the period between drying off and calving (new infections). Mastitis during the dry period leads to a decrease in milk production, poor milk composition and high susceptibility to clinical

mastitis in the subsequent lactation, all of which dramatically impact dairy economics and animal health.

During the transition from a lactating to a completely non lactating dry udder, the mammary gland undergoes a series of changes that influence the cow's resistance to bacterial infection. With the cessation of milk removal, accumulation of milk into the udder will increase the pressure in the gland, causing the streak canal to widen and teat orifice to dilate, allowing bacteria into the

gland. Once inside the gland, the milk acts as a rich environment for bacteria to multiply. The mammary gland responds to an infection by increasing the influx of immune cells (somatic cells) that help to fight the infection. These cells migrate into the gland and release cytokines, which are proteins that initiate and regulate inflammation, immunity, and play an important role in mammary gland defenses. The successful elimination of the infectious agent or establishment of an infection will depend on the degree of the in-

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Dry Cow Mastitis

flammatory response, which is extremely variable among cows. A common practice to control and prevent intramammary infections during the dry period is the infusion of antibiotics into the udder at drying-off (dry cow therapy- DCT). The withdrawal time is different among the diverse DCT antibiotics, varying from hours to days after treat-

ment. However, there are increased concerns of public health and food safety about the use of antimicrobial drugs in food animals regarding antimicrobial drug residues in milk and dairy products, leading to antimicrobial resistance and selection of drug-resistant food borne pathogens. A report from New Zealand shows that intramammary

antibiotics make up more than 90% of all antimicrobials used in cattle in 2003 and have been used almost exclusively in dairy cattle. Public health concerns express a need to reduce the use of both preventive and curative antimicrobials in food animal production and new research is looking into antibody therapy to overcome this problem.



Example of well handled manure storage

What to do if you get inspected?

There are serious concerns about environmental inspection occurring in our county. There are two regulatory entities looking into the conservation of the environment. TCEQ is responsible at the state level while EPA has nation-wide responsibilities. Why would you be inspected if you already have a permit or are not required to have one? EPA will inspect your dairy to determine if you need a permit or if you are complying with federal envi-

ronmental laws. The first thing you need to do if you get inspected is to remain calm. Cooperate with the inspector. The inspector is after all just doing his/her job and probably do not even know you. Act friendly and respond passively to the questions. Provide the information as requested. Remain in control of yourself. If you know something is not correct do not hide it. Explain your plans to correct/amend the situation and the reasons why you are not in compliance of

the law. EPA operates in two stages: One with inspectors and another one with enforcers. If you handle the inspection process chances are that the process will end in a positive way.

There is currently an effort of dairy industry to respond proactively to the current situation in the region. Please remain informed and cooperate if requested.

If you ever get inspected, remember to remain calm and answer the questions as requested

Coming UP!

- 10/27/2009. East Texas Environmental Stewardship Conference (DOPA) 9:00 to 3:00 PM. South-West Dairy Museum. 5 CEU credits in the Dairy Outreach Program Area. Free. Lunch included.
- 11/04/2009. Pesticide applicator licensing and CEU. Sulphur Springs Civic Center. Registration at 8:00 AM. Cost: \$15 dollars, lunch included. More information call 903-885-3443
- Visit the Texas Dairy Matters website for complete information related to our industry at www.texasdairymatter.org



If inspected, share your records if requested.

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