GMP Traceability's innovative system for farmers, animal health technicians, veterinarians, producer organizations and governments

GMP News: Trichomonas / Vibriosis management for Beef and Dairy producers

GMP platform to manage Trichomonas and Vibriosis
Article reviewed by Dr JD Cloete (BVSc)

Trichomonas in bulls

Trichomonas (*Tritrichomonas foetus*) is a microscopic organism often found in the reproductive tract of cattle. The protozoa may be found in individual carrier cows or more frequently in the prepuce of bulls. It is transmitted predominantly during the breeding season. Bulls most often transmit the disease to susceptible cows. This results in an infection developing in the uterus of cows. This unfavorable environment causes the death of the ovum and sperm cells with the cow subsequently not conceiving.
Bulls do not develop the same level of immunity with vaccination so it is key to identify infected carrier bulls in the herd before they are introduced to the breeding cows. Bulls are sheath washed which is a procedure veterinarians and technicians use to collect samples from the bull's prepuce. This is where the trichomonas organism has the best survival opportunity but unfortunately for cattle owners also the best chance of being transmitted to cows during their heat cycle.

A bull being prepared in the crush for its trichomonas, vibriosis and fertility testing on a very dry and hot day in October 2016 in South Africa.

Trichomonas in cows

Trichomonas organisms are introduced to the cow's uterus during the breeding heat cycle wherein the cervix dilates and allowing access not only for the semen from the bull but also the infective trichomonas organisms harbored in the bull's sheath.

The organisms very quickly multiply in the uterus causing a uterus infection which is unfavorable for the survival of a fertilized ovum from the cow. Cows subsequently develop a yellowish discharge which is infected with the trichomonas organisms. Uninfected bulls that should also mate with such a cow have a very high possibility of becoming infected.

The infected cows generally do not become pregnant in a specified breeding day period for example 80 – 90 days. This results in decreased pregnancies with decreased number of calves being born from such a breeding season. This impacts directly upon the cattle owner's calf crop the following season. Figures quoted by farmers range from 10% – 60% reduction in a calf crop following such a disastrous incident.

For example this cow and calf from the Vryburg area in South Africa will be incorporated into the GMP Traceability program in November 2016

Trichomonas vaccinations: Cows and heifers

There are vaccines available commercially which can be administered to non-pregnant cows and heifers in order to assist them to develop an immunological response to counteract the probability of becoming infected with the organism. These vaccines must be administered eight weeks and again four weeks before the breeding season to previously unvaccinated heifers or cows. A single booster vaccination is repeated annually to such vaccinated heifers and cows to maintain the best levels of immune response to eliminate these organisms. This assists to achieve the maximum pregnancy and calving percentages for the cattle producer.

Trichomonas testing of bulls

Bulls should be tested the first time at least three months before the onset of the breeding season. Current trichomonas test rationale is to have 3 X qPCR (real time polymerase chain reaction) negative tests concluded before the breeding onset. Should any bull test positive during this period it affords the producer a little extra time to source a trichomonas and vibriosis negative bull. Positive bulls generally are culled and one can understand the impact of this financial loss. In addition the producer now has to scurry around to find a clean bull with its test certifications. This is where the GMP platform will become a very handy tool for bull users and traders.

GMP 'Clean bull' database

GMP Traceability has embarked on providing a 'Clean bull' database for all beef producers who may need to provide such bulls to clients or for clients to search from. These can be commercial or stud bulls, GMP is not restrictive in this regards. The GMP unique animal identification and data flow is a prerequisite.
There are many producers who need 'Clean bulls' to get their cows pregnant with the smallest possible risk factor associated. The GMP system has certain compliance screening actions and the unique animal identification process for such participating beef producers.

This includes diseases in cattle such as:

- Brucellosis
- Tuberculosis
- BVD PI (bovine virus diarrhea – persistently infected)
- EBL (Enzootic bovine leukosis)
- BJD (Bovine Johne's disease)
- Trichomonas

A producer's bulls from which cost effective commercial bull calves will become available at the end of 2017. The bulls underwent their first GMP fertility, trichomonas and vibriosis tests in October 2016 for the following breeding season of Nov – Dec 2016

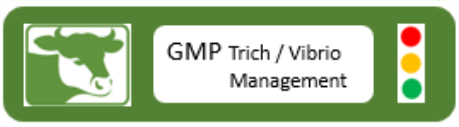
Interested clients and veterinarians may contact GMP Traceability for details as how to enrol in the program. GMP has also launched its program for brucellosis control and management in conjunction with advisory and participating private and state veterinarians.

GMP is launching programs for other livestock, ostriches, wildlife, dogs, cats, horses, birds and exotics. Join this AIP (Africa Innovation Program) award winning platform to assist you with the challenges in your herd.

GMP Central database robot flagging system

GMP has developed a copyright and patented animal identification, management and traceability system to the benefit of all animal owners and customers using the GMP Traceability platform.

The specific GMP copyright logo illustrations below will become more evident in the livestock and other sectors in the coming months.



Remain informed of exciting GMP Traceability system enhancements for animal owners and service providers in 2017

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GMP Traceability's innovative copyright and patented system for farmers, animal health technicians, veterinarians, producer organizations and governments
(GMP is an acronym for: Good Management Protocols)

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