Recommended Pre-test Management: **Controlling Bovine Papillomas**

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Bovine papillomas, or warts, continue to be a risk for bulls consigned to the MCA/MSU Bull Test. Despite our best efforts to reduce the risk of warts coming into the facility and spreading, it still can be problematic and potentially result in bulls not making the sale.

Bovine warts are caused by a contagious virus (papilloma virus) that spreads by direct contact from infected cattle to non-infected cattle or indirectly by getting on feeders, waters, halters and even pen walls. Warts are species-specific; they are not spread to humans or between different species. There are several strains of bovine papilloma virus (BPV) and each strain has an affinity for different regions of the body: BPV1 - nose, teats and glans penis, BPV2 - head, neck and brisket, BPV3 - head, neck and intra-digital, BPV4 - alimentary track and bladder, BPV5 and BPV6 - teat. Problems with warts on the penis arise during the breeding season when copulation may lead to warts breaking off and subsequent bleeding, infection or pain. Also, warts on the penis can lead to development of warts in exposed females.

Problems with cattle warts usually arise in younger cattle. Their immune system is at the developmental stage between losing their maternal immunity from colostrum and developing their own immunity to bacteria and viruses in their environment. Since the virus that causes warts tend to be isolated in the wart and not circulating in the blood stream, the animal's immune system is poorly stimulated. Therefore, it may take an extended length of time to develop immunity to the wart virus and see regression of the wart. As cattle mature, they develop an immune response to the virus and the wart regresses leaving little or no scaring.

Treatment for bovine warts involves surgical removal and/or crushing the wart. The immediate result is that more virus enters the circulation and stimulates the calf, increasing its immunity to bovine papilloma virus. The success of this procedure varies depending on the animal's ability to develop an immune response. This process will not remove the possibility of the wart virus spreading to other cattle or the warts coming back. Vaccination for bovine warts is often not effective in causing rapid regression of warts.

Commercial vaccines are more effective if they contain the specific strain that is involved in the infection. If commercial vaccines are used, they should be administered <u>three to four</u> times at two-week intervals and the last vaccination should be given 30 days before any exposure. The key to wart control on cattle is to examine the calf early and often for warts. At the first sign of warts, they should be crushed and/or removed. This process may need to be repeated numerous times before the calf is old enough to develop immunity to bovine warts. Multiple vaccinations with commercial vaccines should start 100 to 120 days before potential exposure. In addition the use of bleach for halters, feeders and waters and isolation of clinically affected cattle may help slow the spread of this disease.

(The above description was adapted from "Cattle Warts – and show cattle, Mel Pence DVM, MS, PAS, Diplomate ABVP (beef cattle), University of Georgia, College of Veterinary Medicine)

What the MCA/MSU bull test will continue to do to reduce risk of warts at the test station

- Monitor incoming bulls for any signs of warts – <u>they will not be allowed to enter the test</u>
- Appropriate sanitation of equipment and facilities
- Removal of any warts (surgically and/or crushing) observed during the test
- Administer wart vaccine at strategic points during the test

What you can do to further reduce the risk of warts in your bull (Recommended)

- Remove any warts (surgically and/or crushing) as soon as they are observed
- Sanitation of equipment and facilities
- To stimulate immunity, administer a commercially available wart vaccine <u>two to four</u> times prior to delivery to the bull test