



"Bang's Disease" is a name that was given to cattle Brucellosis caused by the bacteria *Brucella abortus*. Bangs was the last name of the Danish veterinarian who first isolated *Brucella abortus* as the causative agent back in 1897. Once a vaccine was formulated to immunize cattle against *Brucella abortus* it took on the name "Bangs vaccine." Bangs vaccination can only be done by a licensed and accredited veterinarian who applies an official USDA metal tag and tattoo to the right ear at the time of vaccination. It is also limited to heifers between the ages of 4 & 12 months. The vaccine is a live culture of *Brucella abortus* and care must be taken that we are not injected with the vaccine.

Cattle Brucellosis is often confused with Tuberculosis, but it is an entirely different disease. Brucellosis presents itself as an abortion storm, usually after five months of gestation. It is passed through the consumption of an affected placenta or an aborted fetus. Fences or road barriers have been effective at preventing spread between herds in the past, but cattle that graze with affected wildlife during the spring calving season are at risk of infection. Other clinical signs that accompany abortions include: retained placentas, lameness due to arthritic joints, mastitis in cows, or orchitis (swollen testicles) in bulls. Bulls will harbor the bacteria in their reproductive tract, which in turn can infect the cowherd. Calves that are infected at birth will usually clear the infection and be fine (via natural vaccination). More importantly, *Brucella abortus* is zoonotic, which means it can cause disease in humans who come into contact with contaminated material. Thankfully, cattle Brucellosis has been nearly eradicated from the United States due to required "test & slaughter" practices and the use of the Bangs vaccine on heifers. The remaining *Brucella abortus* cases are mainly isolated to Bison and Elk herds in the Rocky Mountain area. Most all states have attained Brucellosis free status which has changed the requirements for moving cattle across state lines. In the past, Bangs vaccination was required to move female cattle across state lines, but many states have taken this requirement off their list.

So often the question arises: "Do I really need to Bangs vaccinate my heifers?" The answer is really a personal one. If we never see an outbreak of cattle Brucellosis, than no, it's not crucial, but if we do see an outbreak and our cattle herds are naïve to *Brucella abortus* than yes, we could have a mess on our hands. A vaccinated herd would be immune to an outbreak and would not have to go through a required extermination. In addition, vaccinated heifers and cows are still more "saleable" as some states still require the vaccination for incoming cattle, and many buyers prefer Bangs vaccinated animals.

So what considerations should be made prior to Bangs vaccination? Ideally, for best immunity, avoid giving any other vaccinations at the time you have the vet out to Bangs. If you must give other vaccines at the same time, make sure you discuss with your vet which ones are acceptable. *Brucella abortus* is a Gram negative bacteria, and care should be taken not to give more than two Gram negative vaccines at the same time. Also, your veterinarian will be much happier if there are no ear tags, nor registration tattoos in the right ear prior to Bangs vaccination. It is a great time, however, to apply your registration tattoos and additional ear tags once the vet has placed the official tag and tattoo in its appropriate place.

Hopefully this article has been helpful for making vaccination decisions for your herd, and if you have any questions or topics for future vetscorner articles, please e-mail me at cowvet03@yahoo.com. Happy grazing!