

Question: How important is calfhooD vaccination? When should I and when should I not vaccinate my heifer calves?

Answer: CalfhooD vaccination is an official procedure, performed only by an accredited veterinarian, to help protect cattle against brucellosis. Sometimes referred to as Bangs disease in cows or undulant fever when humans are infected, brucellosis is a contagious disease caused by bacteria of the genus *Brucella*. Traditionally cattle, bison, and swine were most threatened by this disease but other animals including wild and domestic ruminants, horses, dogs, and humans are susceptible.

In ruminants, *Brucella* generally targets the reproductive organs and the udder. Animals show no sign of disease other than reproductive failure, birth of weak calves, or most commonly, abortion. There is no effective treatment for this disease and infected animals have the potential to shed infective organisms for life. Bacteria are passed in milk and discharges from the reproductive tract, contaminate feed and water sources, and can persist in the environment for a considerable length of time.

Brucellosis like tuberculosis was a very costly, widespread and serious disease in the US during the first half of the 20th century. In the 1930's the USDA initiated the Cooperative State Federal Brucellosis Eradication Program. This is a joint effort of diagnostic, regulatory, and field veterinarians which involves routine testing of all market animals, surveillance in slaughter facilities, routine surveillance of dairy herds, testing of all cattle being transported to another state, and vaccination of heifer calves. Positive animals are traced back to herd of origin where quarantine, testing, and slaughter commence. This coordinated eradication effort has been very successful to the point of near completion. The northern US has been brucellosis free for more than twenty years, Vermont was declared brucellosis free in 1979. The remnants of this disease are found in a few southern states that continue to find an occasional infected herd, and in the free ranging bison herds of Yellowstone and Grand Teton National Parks.

For many years calfhooD vaccination has been recommended to all cattle producers as an important component of the USDA program. Female cattle between the ages of four and eight months are eligible. An accredited veterinarian administers a modified live vaccine which must be handled carefully in that inadvertent injection can cause human illness. Calves are given official ear tag identification and a tattoo in the middle rib of the right ear. Information is recorded and maintained by the State Departments of Agriculture.

Each state has specific requirements for import of cattle from out of state. In the recent past every bovine over six months of age had to be calfhooD vaccinated and/or blood tested negative for brucellosis, to travel interstate. You will recall similar requirements for tuberculosis, the disease for which an eradication program paralleled that of brucellosis. As more states have achieved free status, health requirements relative to these diseases, for interstate movement, have been relaxed. There remain approximately ten states in the south and the west where female cattle are not permitted entry unless they are official calfhooD vaccinates. This means that once a heifer has reached its ninth month of age and is not calfhooD vaccinated, she can never enter one of these states regardless of blood test status. In most cases these regulations apply only to cattle intended for breeding purposes. Cows heading to a certified feedlot or slaughter facility are usually exempt.

The current position of the regulatory veterinarians in Vermont and in many other class free states where risk of exposure is very low, is that calfhood vaccination is no longer necessary or recommended. The exception to this position is for producers who intend to sell breeding cattle in states where only official vaccinates are permitted entry. State regulations vary and change periodically so check with your veterinarian for current specific state requirements if your marketing strategy includes south central or western regions of the USA.