

**BRUCELLOSIS IN CATTLE**

**I. DEFINITIONS**

- A. "Uniform Methods and Rules" means the U.S. Department of Agriculture's rules for the eradication of brucellosis.
- B. "VS Form 1-27" means a USDA federal document for the movement of livestock.
- C. "VIC" means Veterinarian in Charge.
- D. "S-Brand" means an S shaped hot brand that identifies cattle as brucellosis exposed, untested or positive and shall be sold for slaughter only.
- E. "Slaughter" means animals butchered and processed into meat products
- F. "Quarantine Feedlot" means a confined area under State brucellosis quarantine that has been approved by the State animal health official and the APHIS AVIC and is maintained for feeding cattle and/or bison of unknown or brucellosis-exposed status, with limited provisions for pasturing or grazing.
- G. "B-Brand" means a "B"-shaped hot brand that identifies cattle as brucellosis positive and shall be sold for slaughter only. B-branding is to be used in the disposition of cattle that may be eligible for federal indemnification or other compensation.

**II. VACCINATION OF BRUCELLOSIS INFECTED CATTLE HERDS**

- A. Every cattle herd in which *Brucella abortus* field strain infection has been confirmed, as determined by the designated epidemiologist(s); and every herd that would be qualified for depopulation with indemnification, as determined by the Federal VIC and the Arkansas State Veterinarian and the designated epidemiologist(s), fall under the jurisdiction of this rule. Factors to be considered in the qualification of a herd for federally funded depopulation are: the number of reactors disclosed on the first test; the persistence of reactors of subsequent tests; the danger of exposure to surrounding herds; other matters as considered by the regulatory officials, such as public health risk.
- B. All herd owner/manager(s) have three options in the management of their infected herds:
  - 1. Complete herd depopulation. This option is contingent on the availability of state-federal funds for indemnification, and the qualification of the herd(s) to receive that indemnity.
  - 2. Adult (whole herd) vaccination of bovine females in their infected herd(s), with follow-up testing and quarantine releasing requirements as provided in this rule and the Uniform Methods and Rules.
  - 3. S-brand and sell for slaughter or to an approved quarantined feedlot on a VS Form 1-27 all sexually intact animals within 30 days of the formulation of the herd plan. Bull and heifer calves may be neutered (castrated or spayed) in lieu of S-branding and selling them. (Verification of neutering must be made before the quarantine will be released.)

C. A herd or herds may still qualify for federal depopulation funds (if available) even if previously subject to whole herd vaccination, as long as other provisions of this rule are met.

### **III. DEPOPULATION OF BRUCELLA ABORTUS INFECTED CATTLE HERDS**

A. All bovine animals in approved herds are to be depopulated except steers and/or spayed heifers. Heifers over 400 pounds body weight will be S-branded or spayed.

B. All animals to be depopulated shall be branded and tagged within 15 days after approval of the depopulation. Within 15 days after the branding and tagging, the animals must be slaughtered at a federally inspected slaughtering establishment. Any extensions of these time limits can be granted only by the federal Veterinarian in Charge. Thirty days after the approval of the depopulation, there will be no sexually intact bovine animals on the premise.

C. The premises are not to be restocked with sexually intact bovine animals for a minimum of 90 days following depopulation.

D. The premises are to be inspected by Arkansas Agriculture Department personnel prior to restocking.

If the inspector determines that certain areas or facilities need cleaning and disinfection, this must be accomplished prior to restocking.

If the inspection reveal other species to be infected with *Brucella abortus*, said animals must be removed from the farm premises at least 90 days prior to restocking.

#### **E. Restocking Requirements:**

(1) All female cattle must be official calfhood vaccinates.

(2) All test eligible cattle must have a negative brucellosis test within 30 days prior to arrival at premises.

(3) The cattle must be retested at the owner's expense 45 to 120 days after arrival. However, additional tests may be required beyond 120 days.

### **IV. MANAGEMENT OF BRUCELLOSIS AND ADJACENT HERDS AND ON-FARM CALFHOOD VACCINATION**

#### **A. Determination of an Infected Herd**

1. The criteria outlined in the "Uniform Methods and Rules" shall be used to designate infected animals and herds.

2. When blood test results on animals or herds are not definitive, or when blood tests of Brucellosis Ring Test (BRT) suspicious dairy herds are not productive, additional diagnostic procedures will be done under supervision of the State Epidemiologist. The evaluation of all diagnostic test results and the final determination of infection will be made by the State Epidemiologist.

3. Once infection has been ascertained, the herd will be placed under a state quarantine.
4. Other species showing symptoms should be isolated from cattle or destroyed.

#### B. Infected Herd Quarantine

1. Quarantine may be issued by state and federal animal health regulatory officials and accredited veterinary practitioners. One copy of the quarantine will go to the county sheriff's office.

2. The quarantine shall include all cattle except for steers and spayed heifers (identified with a S-brand in the left jaw, and a spay tag in the left ear) in all herds and premises maintained by the recipient of the quarantine.

3. Exceptions to herd quarantine procedure:

- a. Exceptions will be made for those herds for which there is proof (as judged by the section veterinary medical officer [VMO] and State Epidemiologist or State Veterinarian) that the herd is indeed separate and distinct from the infected herd.
- b. Individual herds may be released from quarantine if a complete negative herd blood test is accomplished and permission is granted by the section VMO and the State Epidemiologist or State Veterinarian.

4. a. All heifers present while there is active infection in the herd shall remain under quarantine until one of the following criteria are met:

- (1) They are spayed, or
- (2) They are S-branded, or
- (3) They have been tested negative twice:
  - (a) After they have reached 18 months of age, and
  - (b) At least three (3) weeks after they have calved.

b. The entire herd shall remain under quarantine as long as those heifers are intermingled with it.

5. The following deviations concerning heifers are applicable:

- a. Heifers in Rivanol negative MCI reactor herds in which no infection is disclosed on the farm will not be placed under these restrictions.
- b. Heifers in Rivanol positive MCI reactor herds will be placed under quarantine with the rest of the herd; but, if no infection is found on the farm, enforcement of the restrictions on heifers will be up to the discretion of the VMO or the State Epidemiologist or State Veterinarian.
- c. Any heifer calves born after the removal of the last reactor from the herd will not be restricted.

6. Movement of animals out of a quarantined infected herd.

a. Movement of animals out of a quarantined infected herd is authorized only in the accompaniment of a VS Form 1-27 shipping permit issued by a representative of the Arkansas Livestock and Poultry Commission or an accredited veterinary practitioner.

b. Reactors must be B-branded and S-branded exposed cattle in herd depopulations must be tagged on the farm premises of origin except that:

(1) Under permission of the State Veterinarian, they may be followed to an auction market by a representative of the Arkansas Livestock and Poultry Commission (livestock inspector, animal health technician or veterinarian) where they can be branded and tagged immediately upon arrival, or

(2) They may move directly for immediate slaughter, using USDA back tag identification in the accompaniment of an Arkansas Livestock and Poultry Commission representative, or in vehicles closed with official seals. The slaughter house must be USDA or state inspected.

c. Reactors and S-branded exposed cattle in herd depopulations may move through a maximum of one auction market on their way to slaughter.

#### 7. Exposed Cattle

a. Cattle considered to be "exposed" if they have been in contact with cattle from a quarantined herd for a period of 24 hours or more.

b. Exposed cattle or serological suspects from an infected herd must be S-branded on the farm premises of origin except as follows:

(1) Under permission of the State Veterinarian, they may be followed to an auction market by a representative of the Arkansas Livestock and Poultry Commission (livestock inspector, animal health technician, or veterinarian) where they can be branded and tagged immediately upon arrival. They may then be sold to a quarantined feedlot or direct to slaughter, or

(2) They may move directly for immediate slaughter, using USDA back tag identification in the accompaniment of an Arkansas Livestock and Poultry Commission representative, or in vehicles closed with official seals. The slaughter house must be USDA or state inspected.

c. Test ineligible animals (steers and spayed heifers) are not restricted in movement.

d. The movement of other test eligible animals from the farm premises of origin, until the herd is released from quarantine, is strictly prohibited. However, with the permission of the section VMO and the State Epidemiologist, the total herd may be moved under quarantine from farm premises to farm premises.

#### C. Testing and Quarantine Release Criteria of An Infected Herd

##### 1. Test Eligible Animals:

a. All intact calfhooed vaccinated females and males 18 months of age and older, or if they are parturient, and

b. All intact non-calfhood vaccinated females 6 months of age and older. All heifer calves, between the ages of 4 and 12 months, of known negative dams, shall be tested at the time they are calfhood vaccinated.

**2. Testing Procedure:**

a. A herd plan (to expedite eradication activities) shall be agreed upon and signed by the herd owner or manager and the section VMO, State Epidemiologist, State Veterinarian or veterinary practitioner.

b. All test eligible cattle shall be gathered and restrained at regular intervals as specified by the herd plan, and with the approval of the State Epidemiologist and section VMO.

c. After a herd is adult vaccinated, there will be an interval of no more than four (4) months from the date of the adult vaccination until the regular testing regimen begins again.

d. Disclosure of reactors:

(1) The card (Buffered Brucella Antigen) test may be run on the farm under a shelter with an ambient temperature of no more than 75 degrees and no less than 70 degrees, provided:

(a) The owner or manager of the herd signs a card test agreement (LR-4)

(b) A duly authorized representative of the Livestock and Poultry Commission runs the test, or if it is done under the supervision of a section VMO.

(2) Final confirmation, or declaration, of test results will be done at the Brucellosis Laboratory in Little Rock.

(3) Retest of reactors is prohibited without the permission of the State Veterinarian or State Epidemiologist.

e. Disposition of reactors:

Except under special determination by the State Epidemiologist or State Veterinarian, all reactors must be B-branded and tagged within fifteen (15) days from the date of laboratory confirmation, and slaughtered within fifteen (15) days after the date of branding and tagging. Heifer calves off of reactor dams shall also be B-branded and tagged. Bull calves off of reactors must be castrated, and heifer calves may be spayed in lieu of B-branding.

f. Disposition of suspects (there are two options):

(1) They may be isolated from the main herd and retested in thirty days from the date of the incriminating test, or as determined by the State Epidemiologist or State Veterinarian, for further serological, and perhaps microbiological, evaluation, or,

(2) they may be S-branded and sold for slaughter or consigned to a quarantined feedlot.

g. Any cattle herd in which "S" or "B" branded cattle shall appear shall be immediately quarantined and all associated cattle subject to immediate brucellosis testing at owner's expense.

**3. Quarantine Releasing Criteria:**

A minimum of three (3) consecutive negative complete herd tests, with the last one coming at least six (6) months after the removal of the last reactor from the herd, will be required for the

herd to qualify for quarantine release. (A retest of those animals remaining from the previously quarantined herd shall be done six (6) to ten (10) months after the quarantine is released.)

#### D. Testing of Adjacent Herds

All herds within a one (1) mile radius of the fence line perimeter of the infected pasture or premises; or, all herds located on the first two farm premises located on a tangent extending out each direction from the fence line perimeter of the infected pasture or premises; or, whichever of the two previously mentioned conditions is satisfied first. Each of these herds shall be quarantined, which will be released if a laboratory confirmed complete herd negative test is achieved. As long as the index herd continues to exhibit active infection, each contiguous adjacent herd shall be re-quarantined and retested every 4 to 6 months. After the index herd is released from quarantine, each contiguous adjacent herd may be re-quarantined and retested upon the decision of the State Epidemiologist.

#### E. On Farm Calfhood Vaccination

1. Free of charge to owners, as long as funds are available.
2. Vaccination age 4 to 12 months.
3. Method of getting calves vaccinated:
  - a. State/federal employees - no charge
  - b. Veterinary practitioner - no charge, while funds are available. Fee basis work by state/federal government - no charge to owner. Fees to be paid to veterinarians as set by policy of the Arkansas Livestock and Poultry Commission. Clinic charge for calfhood vaccination when farmers bring calves to private practitioner's clinic shall also be set by policy of the Arkansas Livestock and Poultry Commission.
4. All heifers that are over 1 year of age and unvaccinated will be S-branded (and sent to slaughter or to a quarantined feedlot), or spayed.
5. This Rule does not interfere with the veterinarian, market operator or State Veterinarian entering an agreement to vaccinate calves at a concentration point or market.

### **V. EXPOSED BRUCELLOSIS CATTLE**

A. Cattle received at a livestock auction barn or cattle examined on the farm and found to be in a reactor status shall be branded with the letter "B" on the left jaw.

B. Exposed cattle of all ages from a common origin or those cattle associated with such reactor cattle, after twenty-four (24) hours of such association, or cattle from a quarantined herd are deemed to be "exposed" cattle for purposes of this rule. Exposed cattle have three options of movement:

1. Remain or return to the farm or point of origin under isolation and quarantine. None of the animals may become part of a new breeding herd;
2. Be consigned to slaughter and moved on a VS 1-27; or
3. Be consigned to an approved quarantined feed lot.

C. Exposed cattle that are consigned to slaughter or to a quarantined feed lot under the provisions of this rule shall be branded (with hot brand or freeze brand) on the right jaw with the letter "S". An acid brand or "Blue Ear" marking is not acceptable. The hot brand shall be in substitution of the "Blue Ear" marking.

D. All eligible exposed cattle received at livestock auction barns must be Brucellosis blood tested and branded as provided above. No "owner option" will be permitted.

E. Any cattle herd in which "S" branded cattle shall appear shall be immediately quarantined and all associated cattle subject to immediate Brucellosis testing at owner's expense.

F. All known exposed cattle in interstate movement consigned to slaughter or a quarantined feed lot shall be branded with "S" prior to their entry into Arkansas.

## **VI. PENALTIES AND AUTHORITY**

A. Failure to comply with any of the provisions of this rule may result in administrative penalties as provided by law.

B. Authority. ACA §§ 2-32-501 et seq.; 2-33-107(a); 2-40-103.















