

## 1. TITLE QUERY FEVER

Hello. I am contestant \_\_\_\_\_. I have been involved with the 4-H Dairy Goat project since I was eight years old. I have enjoyed entering my goats in competitions, shows and exhibitions. I pride myself on maintaining a healthy herd and increasing my knowledge on goat health issues.

Today, I would like to share with you what I have learned about a fairly new contagious problem... Q Fever.

2. QUERY FEVER OR Q FEVER. Q fever is caused by infection with the bacteria *Coxiella burnetii*. Cattle, sheep, and goats are commonly infected and people often become exposed by breathing in dust contaminated from infected animal body fluids. People in direct contact with animals during birthing, such as veterinarians and farmers may be at higher risk for infection.

3. ANIMALS AND HUMANS. Q fever was first recognized as a human disease in Australia in 1935 and in the United States in the early 1940s. The “Q” stands for “query” and was applied at a time when the cause was unknown. *C. burnetii* can survive for long periods of time in the environment and may be carried long distances by wind.

4. TRANSMISSION. Sheep appear to be infected most frequently, followed by goats and less frequently, cattle. The bacterium can also infect pets, including cats, dogs and rabbits. Ticks can carry the disease, but ticks are considered to be of minor importance in transmission of Q fever among animals and people. *Coxiella burnetii* can be shed in feces, urine, and milk of infected animals. However, the vaginal secretions and uterine fluids released from infected ewes and does during birthing carry the highest number of *Coxiella burnetii*.

5. WHAT TO LOOK FOR. Shedding of *Coxiella burnetii* in the vaginal secretions can continue for days to weeks after birthing. It is important to note that the dam, the offspring, and the birthing membranes and fluids can appear perfectly healthy while the organism is being shed in these materials. Occasionally, infection does result in visible signs of disease, usually in sheep and goats. Infected ewes and does may abort or give birth to weak offspring, and Q fever should be considered as a possible cause of outbreaks of abortion in flocks and goat herds.

## 6. ABORTION OUTBREAK = LOSS TO PRODUCERS

- Q fever can be diagnosed via blood tests
- Q Fever can be treated with Veterinarian prescribed Antibiotics
- A vaccine to prevent Q fever is commercially available but only in Australia

7. CONTAGIOUS TO HUMANS Q fever was made a nationally notifiable disease in the United States in 1999. CDC compiles the number of cases reported by state and local health departments and reports national trends. The number of Q fever cases reported to CDC has increased, from 19 cases reported in 2000, to 173 cases reported in 2007. In 2008, the Q fever case definition was changed to allow for the reporting of chronic and acute Q fever separately.

Some people never get sick; however, those who do usually develop flu-like symptoms including fever, chills, fatigue, and muscle pain. The infection can resurface years later.

8. SYMPTOMS Many people infected with Q fever never show symptoms. If you do have symptoms, you'll probably notice them between three and 30 days after exposure to the bacteria. Signs and symptoms may include:

- High fever, up to 105 F (41 C)
- Severe headache
- Fatigue
- Chills
- Cough
- Nausea
- Vomiting
- Diarrhea
- Sensitivity to light

9. Q FEVER CAN CAUSE SERIOUS COMPLICATIONS Certain factors can increase your risk of being infected with Q fever bacteria, including:

A Q fever recurrence can affect your heart, liver, lungs and brain, giving rise to serious complications, such as:

- **Endocarditis.** An inflammation of the membrane inside your heart, endocarditis can severely damage your heart valves. Endocarditis is the most deadly of Q fever's complications.

- **Lung issues.** Some people who have Q fever develop pneumonia. This can lead to acute respiratory distress, a medical emergency in which you're not getting enough oxygen.
- **Pregnancy problems.** Chronic Q fever increases the risk of miscarriage, low birth weight, premature birth and stillbirth.
- **Liver damage.** Some people who have Q fever develop hepatitis, an inflammation of the liver that interferes with its function.
- **Meningitis.** Q fever can cause meningitis, an inflammation of the membrane surrounding your brain and spinal cord.

10. WHO IS AT THE GREATEST RISK? Certain occupations place you at higher risk because you're exposed to animals and animal products as part of your job. At-risk occupations include veterinary medicine, meat processing, livestock farming and animal research.

Location. Simply being near a farm or farming facility may put you at higher risk of Q fever, because the bacteria can travel long distances, accompanying dust particles in the air.

Men are more likely to develop symptomatic acute Q fever.

11. In Conclusion: Prevention is critical in eradicating Q Fever.

Animal Testing and Treatment, Know you have a clean, disease free herd.

Do Not Handle Birthing fluids without protective gloves and a face mask.

Always clean birthing areas and dispose of all items which may be contaminated.

Only consume pasteurized milk and milk products.

12. My Resources

13. Are there any questions?