

Livestock abortion-associated zoonoses

Are you currently a licensed clinical veterinarian that works with livestock? (check one) • Yes • No *If No, send to finished survey page.*

1. What is your age (years)? _____

2. Sex: • Male • Female • Prefer not to answer

3. What year did you graduate from veterinary school? _____

Please answer the following questions based on your current veterinary practice.

4. In what state(s) do you practice? _____ 4a. Which state do you primarily practice in? _____

5. What is your position in the veterinary practice? • Owner/Partner • Associate • Relief vet • Consultant • Other _____

6. How many other veterinarians work at this practice? _____

7. How many hours per week do you generally work in practice? • 0-19hr/wk • 20-39hr/wk • 40+ hr/wk

8. During an average workweek, what percentage of time do you spend in contact with livestock? • 25% • 50% • 75% • >75%

9. How would you classify your veterinary practice: • Mixed • Food/ large • Specialty/Referral • Industry • Other _____

10. Please indicate your practice type: • Non mobile (e.g. haul in clinic) • Mixed mobile/clinic • Mobile only • Stationed at farm

11. What species of animal do you primarily treat? *Select only 1* • Beef Cattle • Dairy Cattle • Small Ruminant • Swine • Poultry • Equine • Companion Animal • Other _____

12. Please indicate how the following diseases are transmitted to humans (select all that apply):

	Direct contact	Fomite	Aerosol	Oral (consumption of contaminated food/water)	Vector-borne	Other (w/ write in option)	Not sure
Brucellosis	•	•	•	•	•	•	•
Q fever (<i>Coxiella burnetii</i>)	•	•	•	•	•	•	•
Salmonellosis	•	•	•	•	•	•	•
Leptospirosis	•	•	•	•	•	•	•
Campylobacteriosis	•	•	•	•	•	•	•

13. In the past 12 months, how often were you contacted by clients to consult or examine livestock that had aborted?

• 0 • 1-5 times • 6-15 times • 16-30 times • >30 times

14. In the past 12 months, did you examine any livestock or consult with a client for the following reasons? Select all that apply.

- One uncomplicated abortion •
- Large-scale abortion event •
- Reproductive failure (e.g. too many open females) •
- More abortions than expected •
- Aborted fetuses that were abnormal in appearance •
- Weak offspring were produced •
- Female livestock required reproductive diagnostic work up or treatment •
- Provide recommendations to prevent additional abortions •

15. In the past 12 months, what percentage of abortions did you submit for diagnostic work up?

• 0% • 1-5% • 6-10% • 11-20% • 21-30% • >30%

16. In the past 12 months, what events served as a trigger to submit specimens for diagnostic work up for an abortion? Select all that apply.

- Abortion storm (acute) •
- Increased incidence of abortions over a longer time period •
- Introduction of new animals •
- Zoonotic concern •

Other _____

•

17. If you were to submit samples for the following diseases, which samples would you collect and submit? Select all that apply.

	Blood/ serum	Milk	Placenta	Vaginal secretions	Aborted Fetus	Feces	Other (w/ write in option)
Brucellosis	•	•	•	•	•	•	•
Q fever (<i>Coxiella burnetii</i>)	•	•	•	•	•	•	•
Salmonellosis	•	•	•	•	•	•	•
Leptospirosis	•	•	•	•	•	•	•
Campylobacteriosis	•	•	•	•	•	•	•

18. Have you diagnosed (via laboratory confirmation) any of the following diseases in livestock in the past 5 years? Select all that apply.

- Brucellosis
- Q fever (*Coxiella burnetii*)
- Salmonellosis
- Leptospirosis
- Campylobacteriosis

19. Select the reporting status for each animal disease in your primary state of practice. Select all that apply.

	Nationally notifiable in animals	State reportable in Animals	Not Reportable	Not Sure	
<i>Brucella abortus</i>	•	•	•	•	
<i>Brucella suis</i>	•	•	•	•	
Q fever (<i>Coxiella burnetii</i>)	•	•	•	•	
Salmonellosis	•	•	•	•	
Leptospirosis	•	•	•	•	
Campylobacteriosis	•	•	•	•	

20. Select the option that best describes your perceived occupational risk of acquiring the following zoonotic diseases in your primary work environment.

	No risk	Slight risk	Moderate risk	High risk	
<i>Brucella abortus</i>	•	•	•	•	
<i>Brucella suis</i>	•	•	•	•	
Q fever (<i>Coxiella burnetii</i>)	•	•	•	•	
Salmonellosis	•	•	•	•	
Leptospirosis	•	•	•	•	
Campylobacteriosis	•	•	•	•	

24. At any time in your career, has a medical care provider diagnosed you with acute brucellosis (non-vaccine strain), Q fever (*C. burnetii*), salmonellosis, leptospirosis, or campylobacteriosis due to suspected animal contact?: • Yes • No

If "yes" to 24

24a. Which disease(s) were you diagnosed with? Select all that apply.

- Brucellosis
- Q fever (*C. burnetii*)
- Salmonellosis
- Leptospirosis
- Campylobacteriosis

24b. Was this disease [*disease name selected above will appear here*] confirmed by a diagnostic laboratory? • Yes

- No
- Not sure *ask for each dz selected*

25. Indicate your level of awareness with the Compendium of Veterinary Standard Precautions for Zoonotic Disease Prevention in Veterinary Personnel. • Not aware • Slightly aware • Somewhat aware • Moderately aware • Extremely aware

26. Which personal protective equipment (PPE) do you have access to at your practice? Select all that apply.

- gloves
- OB sleeves
- rubber boots
- disposable shoe covers
- reusable protective clothing (e.g. coveralls, lab coat)
- disposable protective clothing (e.g. Tyvex or similar coveralls, lab gown)
- surgical mask
- respirator (e.g. N95)
- goggles
- faceshield
- none

27. How often is PPE readily available and accessible to you? • never • sometimes • often • always

28. Does your practice provide training on when and how to use, care for, and maintain your PPE? • Yes • No • Unsure

29. Do you wear a respirator as part of your personal protective equipment? • Yes • No *if no skip to Q 30*

29a. What type of respirator do you use? • Filtering Facepiece (e.g. N95 or P100) • elastomeric half-mask • elastomeric full-face
• Powered Air-Purifying Respirator (PAPR) • Other _____

29b. Is there a written respirator program available at your practice? • Yes • No • Unsure

29c. Is there an identified staff member who is responsible for the respirator program? • Yes • No • Unsure

29d. Have you been medically cleared by your physician to wear a respirator? • Yes • No • Unsure

29e. Have you received respiratory fit-testing to identify what model of respirator to wear? • Yes • No • Unsure

If yes, 29f. Please indicate where you were last fit tested for the respirator:

- Public health department
- Occupational health department
- At your practice
- Other

29g. Have you been trained on when to use the respirator, limitations, care and maintenance, and conducting user seal checks? • Yes • No • Unsure

30. Indicate the level of importance the following motivators have for your decision to use PPE.

	Not important	Of little importance	Moderately important	Important	Very Important
Concern for personal safety	•	•	•	•	•
Concern for spreading disease to other humans	•	•	•	•	•
Concern for spreading disease to other animals	•	•	•	•	•
Concern for liability	•	•	•	•	•
Adherence to workplace policy	•	•	•	•	•
Concern about pregnancy/ability to conceive	•	•	•	•	•
Please indicate other motivators to PPE use not listed above	<i>Write in</i>				

31. Indicate the level of concern you have towards each potential barrier to PPE use.

	Not concerned	Slightly concerned	Moderately concerned	Very concerned
Cost of equipment	•	•	•	•
Negative perceptions of others to PPE	•	•	•	•
Inconvenience of taking the gear with you in the field	•	•	•	•
Inconvenience of disposal or disinfection after use in the field	•	•	•	•
Inconvenience of wearing PPE	•	•	•	•
Belief that it is unnecessary	•	•	•	•
Unsure how to use PPE properly	•	•	•	•
Unsure what PPE to use for a specific situation	•	•	•	•
Decreased safety due to mobility or visibility while in use	•	•	•	•
Please indicate other barriers to PPE use not listed above	<i>Write in</i>			

32. What resource(s) do you consult for information on zoonotic diseases? Select all that apply.

- Textbooks
- Journal articles
- CE/conferences
- Webinars
- Organization website (e.g. AVMA)
- CDC website
- USDA website
- Colleagues
- Veterinary professional websites (e.g. VIN, DVM360)
- Veterinary school websites
- Other _____

33. What topics would you like to receive more continuing education opportunities?

- PPE use
- Zoonotic diseases
- Regulatory reporting requirements
- Infection control
- Other _____

34. Through which resources would you like to receive educational materials? Select all that apply.

- Textbooks
- Journal articles
- CE/conferences
- Webinars
- Organization website (e.g. AVMA)
- CDC website
- USDA website
- Colleagues
- Veterinary professional websites (e.g. VIN, DVM360)
- Veterinary school websites
- Other _____

Closing page message:

Thank you for taking time out of your busy schedule to complete this survey. The knowledge gained from responses like yours will help improve and enhance zoonotic disease education and prevention strategies targeted to veterinarians.

Please visit the following websites to learn more about specific zoonotic diseases and occupational health recommendations.

Brucellosis <https://www.cdc.gov/brucellosis/veterinarians/index.html>

Q fever <https://www.cdc.gov/qfever/index.html>

Salmonellosis <https://www.cdc.gov/healthypets/diseases/salmonella.html>

Leptospirosis <https://www.cdc.gov/leptospirosis/index.html>

Campylobacteriosis <https://www.cdc.gov/campylobacter/index.html>

Veterinary Safety and Health <https://www.cdc.gov/niosh/topics/veterinary/>

Respirators <https://www.cdc.gov/niosh/topics/respirators/>

Veterinary Standard Precautions <http://nasphv.org/documentsCompendiaVet.html>