

Q fever: information for farmers

This information sheet provides general advice on Q fever for farmers, farm workers and others involved with farm livestock, both for their own personal protection and to reduce health risks to the wider population.

Background

Q (Query) fever is caused by a type of bacteria found in domesticated and wild animals throughout the world. It is an important zoonosis – an animal infection that can cause illness in people, particularly those working with livestock.

Q fever in animals

Signs of disease are very uncommon but abortions (including large outbreaks) may occur in cattle, sheep and goats. The Q fever agent is unusual because it survives in the environment for many months as an infectious spore-like form which is resistant to heat, drying and disinfection. It is difficult to prevent animals becoming infected and there are no formal control programmes or vaccines for livestock in Britain.

Q fever in people

Infection usually results from inhaling the resistant spore form on dust particles contaminated with animal birth products (such as afterbirths), dung or urine; animal hides, wool or fur are other potential sources and abattoir workers are at particular risk. Very occasionally, outbreaks occur in urban areas, probably caused by windborne spread from nearby livestock premises. Infection can also be acquired via contact with infected materials through skin abrasions, or, very rarely, from unpasteurised milk and tick bites.

Disease in humans due to Q fever is rare in the UK, even among animal workers. Most people who are infected have no or very mild symptoms but very rarely serious illness occurs. Symptoms appear 2-3 weeks after exposure and include a flu-like illness with prolonged fever (2 weeks or more), tiredness, headache, muscle pains and occasionally pneumonia or other complications. Some people develop a chronic illness, with symptoms persisting for more than six months. Infection during pregnancy (whether or not the mother develops symptoms), can have an adverse effect on the developing fetus, including prematurity, low birth weight, or abortion. Rarely, heart valve infection may occur, generally in people with existing heart disease or those who have had heart by-pass surgery.

Avoiding human infection on farms

Working with animals inevitably involves close contact with contaminated material so good personal hygiene is very important. Relevant regulations¹ require farmers to adopt appropriate measures to minimise exposure of employees and farm visitors to zoonoses, like Q fever.

Farmers should inform their workers/staff about the possible risks and precautions while working with livestock.

- ◆ Wash hands thoroughly several times a day (especially if grossly contaminated) and always before eating, smoking and after finishing work for the day
- ◆ Wash skin wounds immediately with soap and running water and cover with a waterproof dressing
- ◆ Treat potentially infected animal tissues, such as afterbirths and aborted lambs, with care and respect. Handle with waterproof gloves
- ◆ Use additional personal protective equipment (including facemasks and goggles) for high risk activities, such as when handling abortions during confirmed Q fever outbreaks, using a pressure washer in lambing sheds, or working in very dusty livestock areas.² Store protective clothing separately from work clothing and do not wear contaminated or dusty work clothing at home
- ◆ If disposable facemasks are used, these should conform to EN149-FFP2 standards
- ◆ Do not drink unpasteurised milk, or eat or smoke in animal areas. If you think you have Q fever on your farm, stop sales of raw milk products until you have spoken to your local Environmental Health Officer

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- ◆ If exposure to ticks is unavoidable, use appropriate protective clothing and tick repellents. Check the entire body daily and promptly remove any attached ticks.
- ◆ Pregnant women should avoid close contact with sheep and lambs during the lambing season. As other livestock and domestic animals may also pose a hazard for Q fever, pregnant women should avoid exposure to cattle, goats, or cats, which are in the process of giving birth, or in the post-partum period. More advice for pregnant women is available on the HPA website at:

http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1200660050537?p=1191942148384

Good farm practices can help reduce human and animal health risks

- ◆ Maintain a closed flock or herd, but if not possible then quarantine and carefully observe replacements for three to four weeks before introduction
- ◆ Investigate farm abortion and stillbirth outbreaks and consult your veterinary surgeon as appropriate
- ◆ Isolate aborted animals until discharges cease; restrict access by animals and people where possible
- ◆ Windborne spread of Q fever is known to occur, therefore it is important to control airborne spread of the organism by minimising the generation of dust and aerosols where possible
- ◆ Be aware that contaminated aerosols can be spread by ventilation systems expelling air from livestock buildings into areas frequented by workers
- ◆ Treat soiled bedding removed from buildings where birth and abortions have occurred as a potentially high risk contaminated waste product. Promptly remove all afterbirths, aborted and stillborn lambs, calves, kids, and heavily contaminated litter. These must be disposed of in accordance with Animal By-Products regulations³, preferably by incineration
- ◆ Regularly clean and disinfect lambing sheds, calving pens and similar buildings to prevent accumulation of potentially contaminated material. Before using a high pressure hose after mucking out, dampen down first using a low pressure spray to reduce production of fine aerosols. Although Q fever is not susceptible to common farm disinfectants, they still help to control other important diseases
- ◆ Avoid cleaning out buildings and moving soiled bedding on windy days, and take care to avoid spillage, particularly onto public roads or footpaths
- ◆ Do not burn bedding or abortion material on a bonfire because it may increase risk of aerosol spread, especially in windy weather. It should be composted in a stack well away from livestock for several weeks followed by turning the exposed surface inwards and allowing it to heat up for several more weeks
- ◆ After stacking and composting for at least 3 months, spread manure onto arable land well away from people or livestock. Do not sell it directly to the public or use on allotments or gardens
- ◆ Practice good vermin control; keep dogs and cats away from abortion material and parturition products
- ◆ Control ticks and other parasites on livestock
- ◆ Consider restriction of visitors to the farm. Further advice may be sought from your local Health Protection Unit

Further information

¹Control of Substances Hazardous to Health Regulations 2002, as amended; the Management of Health and Safety at Work Regulations 1999 (MHSWR) and the Health and Safety at Work etc Act 1974.

²Control of Substances Hazardous to Health (4th Edition) - L5, Selection, Use and Maintenance of Respiratory Protective Equipment: A Practical Guide. (phone 01787 881165, or available at www.hsebooks.com). See also HSG53: Common zoonoses in agriculture – HSE Agriculture Information Sheet No 2 (revised).

³Animal By-products Regulations 2005

Useful websites

www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/QFever/

www.hse.gov.uk

www.defra.gov.uk/foodfarm/farmanimal/diseases/atoz/index.htm#q

www.defra.gov.uk/foodfarm/farmanimal/diseases/atoz/zoonoses/lambing.htm

(Lambing season press release)