

---

---

# Розділ 11. Короткі повідомлення

## BIO-SAFETY AND BIO-SECURITY INVOLVED IN WORKING WITH *BRUCELLA* SPECIES AT THE VETERINARY LABORATORY AGENCY, GREAT BRITAIN

*Emma Stubberfield, Simon Brew, Lorraine Perrett and Judy Stack*  
*Veterinary Laboratories Agency, Department of Bacteriology*

Brucellosis, caused by infection with *Brucella* species, is an important zoonotic disease associated with reproductive disease in cattle, sheep, goats and pigs and febrile disease in humans.

In Great Britain (GB) there are legislations that contribute to maintaining the welfare of animals and health and safety of humans when working with pathogens that are classified as dangerous. Pathogens are classified by both the Advisory Committee on Dangerous Pathogens (ACDP) and the Department for Environment, Food and Rural Affairs (Defra). Classification is based on the inherent hazard of organisms.

The ACDP produces an approved list which classifies dangerous pathogens into four hazard groups. The ACDP hazard groupings are primarily concerned with hazards posed to human health under the Control of Substances Hazardous to Health (COSHH) Regulations. *B. suis*, *B. melitensis*, *B. abortus* and *B. canis* have all been reported to cause human infection by contact with infected material or consumption of unpasteurised infected dairy products. Due to the capability of these *Brucella* species causing severe disease and posing a serious risk to employees, they are listed as ACDP hazard group 3.

The Defra classification of pathogens is for the purpose of preventing the introduction and spread into Great Britain which, if introduced, could cause serious disease and economic loss to the British livestock and poultry industries. This is detailed under the auspices of the Specified Animal Pathogens Order, 2008 (SAPO). Great Britain has been officially Brucellosis free since 1985 therefore due to the risk of spread from the laboratory to the environment and subsequent introduction of infection to livestock *B. abortus*, *B. melitensis*, *B. suis* and *B. ovis* are listed Specified Animal Pathogens and as such require handling within Containment Level 3 laboratories.

*Brucella suis* has been weaponised in history. GB legislation Anti-Terrorism, Crime and Security Act 2001 (ATCSA) relates to the bio-security of dangerous pathogens and toxins (Schedule 5 pathogens). This schedule is divided into 3 groups (A, B, C) with *B. abortus*, *B. melitensis*, *B. suis* and *B. canis* all listed under group B.

Due to these GB legislative requirements, the hazards associated and to ensure that security is maintained whilst working with *Brucella* species there are a number of measures put into place at the VLA.

This presentation will detail all the bio-security and bio-safety measures in place at VLA for working with *Brucella* species to ensure safety of personnel and prevention of release of the organism into the environment.

### БІОБЕЗПЕКА ТА БІОЗАХИСТ ПРИ РОБОТІ З ВИДАМИ *BRUCELLA* У ВЕТЕРИНАРНІЙ ЛАБОРАТОРНІЙ АГЕНЦІЇ, ВЕЛИКОБРИТАНІЯ

*Емма Стабберфілд, Саймон Брю, Лорейн Перре, Джуді Стак*  
*Ветеринарна лабораторна агенція, Відділ бактеріології*

*В статті детально розглядаються заходи щодо забезпечення біобезпеки та біозахисту при роботі з видами *Brucella* у Ветеринарній лабораторній агенції Великобританії. Ці заходи спрямовані на забезпечення безпеки персоналу та запобігання потрапляння небезпечних організмів у довкілля.*

## BIOSECURITY & BIOSAFETY AT THE VETERINARY LABORATORIES AGENCY, UK

*Judy Stack*  
*Veterinary Laboratories Agency, Department of Bacteriology*

Ensuring all work with dangerous pathogens is safely conducted is essential and consists of combination of factors, all aimed to provide a **biosafe and biosecure** working environment. Considerations must be made to ensure that the people working with them are capable, confident, trained and aware of legislation pertaining to working with such hazardous organisms.

Are we clear what we mean by these two terms?

**Biosafety:** Is the consistent application of safety measures to minimize or prevent exposure to the person handling a biological agent. These persons may be technicians in a laboratory or people in another room in the same building. ie keep dangerous pathogens away from people.

**Biosecurity:** Means maintaining a biological agent a secure way, usually by physical methods, to ensure it does not constitute a hazard to man or his environment ie keeping dangerous people away from pathogens.