Table 2. Disease case- definition, according to the diagnostic method used (OIE standards ([www.oie.int](http://www.oie.int)) and experts’ opinion). Ab-ELISA, antibody enzyme-linked immunosorbent assay; AGID, agar gel immunodiffusion test; C-ELISA, competitive enzyme-linked immunosorbent assay; CAT, card agglutination test; CFT, Complement fixation test; CMT, California mastitis test; DAT, direct agglutination test; DFA, direct fluorescent antibody test; DRIT, direct rapid immunohistochemistry test; ELISA, enzyme-linked immunosorbent assay; FAT, fluorescent antibody test; I-ELISA, indirect enzyme-linked immunosorbent assay; IFAT, immunofluorescent antibody test; IHC, Immunohistochemistry; Mab, monoclonal antibody; MALDI-TOF, matrix assisted laser desorption ionisation-time of flight; MAT, microscopic agglutination test; MIT, mouse inoculation test; MLST, multilocus sequence typing; NSP, non- structural protein; PCR, polymerase chain reaction; RIA, radioimmunoassay; RBT, Rose Bengal test; RLB, reverse line blotting; SAT, serum agglutination test; SHT, synergistic hemolysin inhibition test; SIA, syncytia induction assay; STP, structural protein; VN, virus neutralization test;

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| Disease | Confirmed case  (agent identification) | | Probable case (detection of immune responses, clinical appearance) |
| Anthrax | * RT-PCR * Demonstration of capsule, lack of motility, gamma phage lysis, penicillin susceptibility | | * Clinical observations |
| Babesiosis | * PCR * In vitro culture * Thick and thin blood smears from superficial capillaries or organ smears | | * Clinical observations * C-ELISA * IFAT * CFT * CAT |
| Blackleg | * Bacterial culture * PCR * IFAT | | * Clinical observations |
| Bluetongue | * RT-PCR of Bluetongue Virus nucleic acid in blood and other tissues * Real time RT-PCR * Classical virus isolation | | * C-ELISA (serogroup specific) * Virus neutralization (serotype specific) * AGID * CFT * Clinical signs |
| Bovine anaplasmosis | * PCR * Blood and organ smears | | * C-ELISA * I-ELISA * CAT * CFT |
| Bovine genital campylobecteriosis | * Culture * IFAT * Mab-based ELISA * MALDI-TOF * MLST * *C. fetus* species PCR (*nahE*) | | * Ab ELISA |
| Bovine spongiform encephalopathy | * IHC * Western Immunoblot * Rapid screening test * Histology | | * Clinical observations |
| Bovine tuberculosis | * Microscopic examination * Culture * PCR | | * Clinical observations * Tuberculin test * Interferon gamma assay * Lymphocyte proliferation assay * ELISA |
| Bovine Viral Diarrhoea (BVD) | * Virus isolation * Ag ELISA * Ag detection by IHC * NA detection by real time RT-PCR | | * Clinical observations * ELISA * VN |
| Brucellosis | * Staining methods * Culture * PCR | | * Clinical observations * RBT or BPAT * FPA * CFT * I-ELISA * C-ELISA * BST * SAT * NH and cytosol-based tests * Bulk milk tests, Milk I-ELISA or Milk-ring test |
| Caseous lymphadenitis | * Bacterial culture * PCR | | * Clinical observations * ELISA * SHI test |
| Chlamydiosis | * Bacterial culture * PCR | | * Clinical observations, post mortem examination |
| Coenurosis | * Necropsy and histopathology * Surgical treatment | | * Clinical observations * Cerebrospinal fluid analysis * Intradermal reaction test * Haemagglutination test |
| Contagious agalactia | * Culture * PCR * Real-time PCR | | * Clinical observations * CFT * ELISA * Immunoblotting |
| Contagious bovine pleuropneumonia (CBPP) | * Culture * PCR | | * Clinical obseravtions * CFT * Immunoblotting * C-ELISA |
| Contagious caprine pleuropneumonia (CCPP) | * Culture * PCR | | * Clinical observations * CFT * Latex agglutination * C-ELISA |
| Contagious ecthyma (Orf disease) | * Virus isolation | | * Clinical observations |
| Cowdriosis | * PCR * Agent solation in cell culture * Microscopic examination of brain smears | | * I-ELISA * C-ELISA * IFAT * Western blot |
| Cryptosporidiosis | * Coproscopy * Ag detection by immunochromatography * Ag ELISA * PCR * FAT | | * Clinical observations * Ab ELISA |
| Cysticercosis | * Necropsy * Ag ELISA * PCR | | * Clinical observations * Ab ELISA |
| Dermatophilosis | * Culture * RAPD or PGFE | | * Skin lesions * IFAT in smears or tissues |
| Dermatophytosis | * Parasitological recognition * Culture | | * Skin lesions |
| Echinococcosis | * Carcass inspection and parasite identification * Ag detection * PCR | | * ELISA |
| Enterotoxaemia | * Bacterial culture * PCR * In vitro neutralization assay * ELISA | | * Clinical observations |
| Enzootic bovine leukosis | * Virus isolation * PCR * SIA | | * RIA * AGID * ELISA |
| Fasciolosis | * Coproscopy * Necropsy * Ag ELISA * PCR-RFLP | | * ELISA |
| Foot and mouth disease | | * Virus isolation * Ag-ELISA * CFT * LFD * Real time RT-PCR * RT-PCR | * Clinical observations * NSP Ab ELISA * SP Ab ELISA * VNT * AGID |
| Haemorrhagic septicemia | * Culture * *Pasteurella multocida*-specific PCR | | * IHA |
| Infectious bovine rhinotracheitis/ infectious pustular vulvovaginitis (IBR) | * Virus isolation * Real-time PCR | | * ELISA * VN |
| Infectious necrotic hepatitis | * Bacterial culture * PCR * In vitro neutralization assay * ELISA | | * Post mortem examination |
| Infestation with ticks, fleas, lice, mange, mites | * Direct observation * Stereoscopy | | * Clinical observations |
| Leptospirosis | * Isolation by culture * PCR in tissues and body fluids | | * Clinical observations * MAT * ELISA |
| Listeriosis | * Culture * PCR | | * I-ELISA |
| Lumpy skin disease | * Virus isolation * PCR * Electron microscopy | | * Clinical observations * VN * IFAT |
| Malignant catarrhal fever | * Virus isolation * PCR | | * Clinical observations * C-ELISA * VN * IFAT * Immunoperoxidase test |
| Nematodiasis | * Coproscopy * Ag ELISA * Post mortem examination | | * Clinical observations |
| Neosporosis | * Histology and immunohistochemistry * PCR | | * Clinical observations * IFAT * Ab ELISA |
| Ovine epididymitis | * Bacterial culture * Microscopic examination of body fluid and tissue smears * PCR * SNP * MALDI-TOF | | * Clinical observations * ELISA * AGID * CFT |
| Paratuberculosis | * Histopathological examination * Faecal Ziehl-Nielsen staining * Culture * PCR | | * AGID * ELISA * CFT * Interferon gamma release assay * DTH |
| Pasteurellosis | * Bacterial culture * PCR * Histopathological examination | | * Clinical observations * ELISA * Clinical signs |
| Peste des petits ruminants (PPR) | * RT-PCR * Real time RT-PCR * Virus isolation in cell culture * Competitive ELISA | | * Clinical observations * VN * Immunocapture ELISA * AGID * Counter immunoelectrophoresis |
| Q fever (Coxiellosis) | * PCR * Culture * Staining * Genotyping | | * ELISA * IFA * CFT |
| Rabies | * DFA (antigen detection) * DRIT (antigen detection) * ELISA (antigen detection) * Cell culture (antigen detection) * MIT (virus isolation) * RT-PCR * Real-time RT-PCR | | * Clinical observations * VN * ELISA * Clinical signs |
| Salmonellosis | * Isolation * PCR | | * Clinical observations * SAT * ELISA |
| Schmallenberg | * PCR | | * Clinical signs * ELISA |
| Scrapie | * Histopathology * IHC * Western Immunoblot * Rapid tests | | * Clinical observations |
| Sheep and goat pox | * Virus isolation * Antigen detection * PCR | | * VN * IFAT * Clinical observations |
| Small ruminant lentivirus infections (Caprine arthritis/encephalitis, Maedi-Visna) | * Virus isolation * Antigen detection * PCR | | * Clinical observations * AGID * CFT * ELISA * VN * IFAT |
| Small ruminant tuberculosis | * Microscopic examination * Bacterial culture * PCR * Direct hybridisation * RFLP | | * Clinical observations * Tuberculin test * Interferon gamma assay * ELISA |
| Theileriosis | * Microscopic examination of blood and lymph node smears * PCR * RLB | | * Clinical observations * IFAT * ELISA |
| Toxoplasmosis | * PCR * Histopathology | | * IFAT * ELISA * DAT/MAT |
| Trichomonosis | * Microscopical examination * PCR * PCR + culture * Real-time PCR | | * Clinical observations * MAT, intradermal test (very limited in use) |
| Trypanosomosis | * Microscopic examination (dark ground buffy coat technique, haematocrit centrifuge technique, thick film, thin film, wet film) * PCR | | * IFAT * ELISA |