Lumpy skin disease is a viral disease of cattle and buffalo that is transmitted between animals by arthropod vectors, including mosquitoes, biting flies and ticks. The virus is highly host specific and does not cause disease in humans. The disease has never been recorded in Australia, but internationally it has been spreading rapidly. Continued vigilance is important to protect animal health and Australia’s export trade in animals and animal products.

WHAT IS LUMPY SKIN DISEASE?

Lumpy skin disease (LSD) is a disease of cattle and buffalo caused by a capripox virus.

Since 2012, LSD has spread from Africa and the Middle East into south-eastern Europe, affecting European Union (EU) Member States (Greece and Bulgaria) and several other countries in the Balkans.

The disease spreads quickly and can cause substantial losses for beef and dairy producers. In the EU, there has been a very intensive (and expensive) vaccination and culling program implemented to halt the spread of the disease.

Although the risk of these diseases entering Australia is low, the potential economic impact of an incursion would be considerable due to the disruption of trade in livestock and livestock products, as well as costs associated with disease control and eradication.

HOW IS THE VIRUS SPREAD?

How lumpy skin disease virus is transmitted between animals is not fully understood. It is believed that arthropod vectors, direct contact, contaminated feed and water and iatrogenic means (e.g. repeated use of needles on different animals) can all spread the disease.

The virus is present in high concentrations in the skin nodules and scabs on affected animals and can be isolated from blood, saliva, ocular and nasal discharges and semen.

Lumpy skin disease virus can be found in blood for up to 21 days post-infection but shedding in semen may continue for at least 42 days post-infection.
WHAT SPECIES ARE AFFECTED?
Lumpy skin disease only affects cattle, water buffalo and closely related wildlife.

CAN THE LUMPY SKIN DISEASE VIRUS SPREAD TO HUMANS?
The disease does not affect humans.

WHAT ARE THE CLINICAL SIGNS OF LUMPY SKIN DISEASE?
The incubation period is between 4 and 14 days post-infection.

After an initial period of high fever (41°C) and swollen lymph glands, the animal may develop large, firm nodules that are up to 5 cm in diameter in the skin. These can be found all over the body, but particularly on the head, neck, udder, scrotum and perineum. The nodules may become necrotic and ulcerate, leading to an increased risk of flystrike.

There is a marked decrease in milk production in lactating cattle and depression, anorexia, rhinitis, conjunctivitis and excess salivation may be observed.

In severely affected animals, necrotic lesions can also develop in the respiratory and gastrointestinal tract.

The disease can be subclinical (up to 50% of cases in an outbreak) or may be very severe or even fatal.

WHAT DO I DO IF I SUSPECT LUMPY SKIN DISEASE?
Lumpy skin disease is a notifiable disease and any suspected cases must be reported to Agriculture Victoria on the Emergency Animal Disease hotline 1800 675 888 or to your local Agriculture Victoria Animal Health and Welfare staff.

WHAT SAMPLES SHOULD I COLLECT TO RULE OUT LUMPY SKIN DISEASE?
Collect:
- skin lesions (duplicate samples by excision or biopsy) in saline and formalin and
- blood samples - one each of clotted blood/serum (red/gold top tube) and EDTA blood tubes

WHAT DISEASES OF CATTLE COULD LOOK LIKE LUMPY SKIN DISEASE?
Differential diagnoses include:
- Ringworm and infection with other dermatophytes
- Dermatophilus infection
- Cutaneous leucosis
- Parapox (bovine popular stomatitis)
- Bovine herpes mammilitis
- Pseudo lumpy skin disease (bovine herpesvirus 2)
- Photosensitisation
- Insect bites
- Urticaria
- Demodecic mange
- Trauma, including burns

HOW IS LUMPY SKIN DISEASE CONTROLLED?
Management of lumpy skin disease relies on vaccination, control of animal movements and culling infected animals.

ACCESSIBILITY
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