

- There may be a swelling at the site where the vaccine is given, and a temporary drop in milk production, but the swelling will disappear after a few weeks with a return to normal milk production.

It is important to read the instructions for use on the vaccine labels. If you have any questions or need assistance with vaccination, contact your state or private veterinarian or animal health technician for help.

### Fly control

- To prevent biting insects from biting cattle, cattle can be dipped, sprayed or pour-ons applied that contains an insecticide or repellent.
- Make sure that the remedy used is registered with the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No. 36 of 1947) and use them only as the manufacturer directs.
- Read and follow the instructions on the labels of the products.
- Fly repellent effect of dips, sprays or pour-ons are short lived and hence only treating your cattle with an insecticide will not prevent them from getting LSD
- The best way to ensure that all cattle are protected is by vaccination alone.



Fig 2: These animals have been vaccinated and are protected. The farmer will benefit economically from his cattle.



Fig 1: These animals were not vaccinated and are now sick. This spells disaster for the farmer and his herd.

# LUMPY-SKIN DISEASE

a disease of socio-economic importance



For further information, contact your nearest animal health technician or state / private Veterinarian

#### Directorate: Animal Health

Disease control division  
Tel: +27 12 319 7456  
Fax: +27 12 329 7218  
E-mail: PA.DAH@daff.gov.za  
Website: www.daff.gov.za

#### Directorate: Food Import and Export Standards

Animal Health Promotion division  
Tel: +27 12 319 6004/6117/6444  
E-mail: info.sps@daff.gov.za  
Website: www.daff.gov.za



agriculture,  
forestry & fisheries

Department:  
Agriculture, Forestry and Fisheries  
REPUBLIC OF SOUTH AFRICA

## What is lumpy-skin disease (LSD)?

- It is a viral disease of cattle and is typically characterised by nodules or lumps on the skin.
- All cattle breeds in South Africa can be affected.
- It usually occurs during the wet summer and autumn months, when biting insects e.g. biting flies and mosquitoes are in abundance.
- The disease occurs throughout Africa.

## Why is lumpy-skin disease so important?

- It is a notifiable disease, which means that any suspected or confirmed case must be reported to the responsible state veterinarian.
- Up to 45% of your herd can become affected and the mortality (death) rate may reach 10%.
- The disease causes production losses: pregnant cattle may abort, marked reduction in milk yield, pneumonia, infertility, permanent damage to hides (skin), emaciation (loss of body condition). There is a loss in income because of lower production (deaths, milk and meat, abortions, lowered breeding potential, and damage to valuable hides), and the costs of drugs to symptomatically treat sick animals.

## What type of animals can be affected?

- Cattle of all ages can get this disease
- Vaccinated cattle are less likely to get the disease and may have less severe symptoms.
- Cattle which have had the disease and survived cannot be infected again (also immune).
- Calves are protected against the disease while drinking their mother's milk before 6 months of age, if their mothers were vaccinated or had the disease previously.

## How do cattle become infected?

- Biting flies play the most important role in spreading the virus.
- Infections increase during the wet summer and autumn months when there are more flies.
- Calves can be infected by drinking milk from a cow which has the disease.
- The disease can also spread through the saliva of infected animals when they use the same drinking trough.
- The disease can also be spread by man when injecting infected animals when using one needle to inject different animals

## What are the signs of lumpy-skin disease in cattle?

### Any one or more of the following:

- Skin nodules and ulcers:
  - can vary from a few to several thousand
  - the size ranges from 0,5–5 cm
  - they occur anywhere on the skin, including the nose, udder and vulva in
  - cows, the scrotum in bulls, as well as in the mouth (the gums)
- Legs may become swollen and the animal does not want to move
- Enlarged lymph nodes
- Pneumonia/coughing as a result of infection of the respiratory tract (the windpipe and lungs).
- Discharge from the nose and eyes
- Infertile bulls due to orchitis (infection of the testes)
- Infertile cows
- Mastitis this lowers milk production
- Fever
- Emaciation
- Salivation

## How can LSD be diagnosed?

- A basic diagnosis can be made by the presence of the typical lesions on the skin and in the mouth.
- In longhaired animals you should feel for the nodules on the skin, or you can wet the hair so that you can see the nodules more easily.
- A definite diagnosis can only be confirmed by a veterinarian by taking blood samples or samples of the skin nodules to a laboratory where they can identify the virus (this has to be done because there are other diseases which cause similar signs in cattle and therefore require different methods of control and treatment).
- If you suspect LSD in your herd, you must inform the state veterinarian

## What other diseases can LSD be confused with?

- Pseudo-lumpy-skin disease
- Demodicosis (Demodex)
- Besnoitiosis
- Oncocercariasis
- Insect bite allergies
- Bovine virus diarrhoea/mucosal disease
- Bovine malignant catarrhal fever (Snotsiekte)
- Rinderpest

**Because it is clear that there are many diseases causing similar signs, it is important to obtain a definite diagnosis to ensure the best preventative and control measures for your herd.**

## How is LSD treated?

- There is NO SPECIFIC TREATMENT for lumpy-skin disease.
- Nonspecific, supportive treatment (antibiotics, anti-inflammatory drugs and vitamin injections) is usually directed at treating the secondary bacterial infections, inflammation and fever, and improving the appetite of the animal.

## How can you prevent lumpy-skin disease in your herd?

- Prevention is the cheapest and best method of control of the disease.
- If your animals are vaccinated, you will suffer limited or no production or financial losses as a result of the ill effects of this disease.

## Vaccination (the best)

- There are several vaccines available on the market against LSD.
- When a vaccine is administered the vaccinated animal develops protective antibodies (made by white blood cells).
- These antibodies bind (help fight) the virus that is transmitted by biting insects, milk of infected animals or saliva of infected animals or humans using the same needle on many animals.
- The animal should therefore be protected against LSD.
- All cattle should be revaccinated or a booster vaccination given as per the instructions of the specific vaccine used
- Calves from vaccinated cows should be vaccinated for the first time at 6 months of age
- Calves from unvaccinated cows (or cows that have never had LSD before) will not be protected by their mother's milk and have to be vaccinated for the first time earlier than six months, as per the instructions of the specific vaccine being used.