

MANAGING THE RISK OF JOHNE'S DISEASE IN DAIRY BEEF PROGRAMS

INTRODUCTION

The Australian Dairy Industry is increasing its focus on socially and economically sustainable management practices for surplus calves. As such, the use of beef on dairy breeding programs is increasing, resulting in more surplus dairy calves being purpose-bred for beef production. This fact sheet addresses the management of Johne's disease in these systems.

JOHNE'S DISEASE

Johne's disease (JD) is a contagious infection caused by the bacterium *Mycobacterium paratuberculosis*, which can cause cattle to lose weight, decline in overall performance and eventually lead to death. Infection with JD usually occurs when calves and young cattle (< 12 months) are exposed to faeces from older infected animals (e.g. on contaminated udders, or in contaminated milk or feed). However, signs of disease will not normally develop until the animal is about 4 years or older. Managing the risk of JD may therefore be more important in breeding operations where young

and old cattle mix and may be less important on properties that trade in youngstock alone.

While JD is more prevalent in dairy herds than beef herds, both the beef and dairy industries have JD scoring systems as outlined below. Having a JD score for your herd is not compulsory for either beef or dairy.

Do I need a JD score for my herd?

- | | |
|---|--|
|  | Yes, if the buyer(s) of your cattle requires a JD score for cattle they are purchasing |
|  | Recommended, if you are breeding cattle as JD is readily contracted by calves and it is more prevalent in dairy cattle |
|  | Yes, if you intend to sell cattle within or to the Northern Territory |
|  | No, if you sell cattle to buyers who do not require cattle with a JD score |
|  | Abattoirs, feedlots and live export enterprises often do not require a score (confirm with buyers first) |

Note: Western Australia now has its own JD **entry requirements** and producers wishing to send cattle to that state should review these requirements before deciding what they will implement in their herd.

The JD scoring tools

The Johne's Beef Assurance Score (J-BAS) and Johne's Disease Dairy Score (JDDS) are roughly equivalent risk assessment tools. Sourcing cattle from high scoring herds is one way of reducing the risk of Johne's disease entering a herd. However, the score should not be solely relied upon to make decisions about purchasing cattle if a producer is concerned about JD entering their herd.



Additional information should be sought, and the use of a [National Cattle Health Declaration](#) is highly recommended to provide some additional assurance with the animals.

It is important to note that the Johne's score of the herd will be negatively affected if a clinical case is detected or there is a positive test. Introducing cattle from higher risk herds can affect your herd score. The introduction of small numbers of cattle with a score one or two below your herd's score can be managed through your biosecurity plan. Producers with higher assurance herds should not introduce unmanaged risk animals to their herd.

Basic details on the J-BAS and JDDS are listed in the tables on the right. For further information see links for each scoring system to the right.

Biosecurity in dairy beef systems

The sale of surplus dairy calves usually occurs at a younger age than conventional beef cattle, often before or shortly after weaning. Because of this, young dairy calves entering a beef property have particular requirements for care.

Young calves entering a beef system are much more susceptible to climate extremes, parasites and diseases. Calves should be managed so that:

- They are kept in paddocks or yards that are protected from poor climate and free from faecal contamination of other livestock.
- Cleaning of yards should be done in the order of youngest to oldest with machinery cleaned before starting yard clean up.
- Handling of calves should be done in the order from youngest to oldest.
- Any equipment used in the feeding or handling of calves should be regularly cleaned and maintained.
- The animals should be started on a similar diet to that which they were fed on the source farm and any changes to the diet should be made gradually.
- All NLIS and transport requirements are fulfilled in the transfer of calves between properties.
- For more information on rearing dairy calves, visit [Dairy Australia- calf rearing](#)

JOHNE'S BEEF ASSURANCE SCORE (J-BAS)

8 HIGH ASSURANCE

Two successive negative Sample tests 2 years apart, and ongoing triennial Check Test, veterinary oversight of biosecurity plan

7 ASSURANCE

One negative Sample test a minimum of 5 years after the last confirmed clinical case (or if no history of disease) and ongoing triennial Check Test, veterinary oversight of biosecurity plan

6 MANAGED DISEASE RISK

No history of JD on property or minimum 5 years since last clinical case confirmed on property, biosecurity plan in place for five years

4 PROGRESSING

If previously infected, minimum of 2 years of biosecurity plan implemented and since last clinical case of JD confirmed on property, plus all high-risk animals identified and removed. If no previous infection, biosecurity plan in place for 2 years

2 FIRST STEPS

Biosecurity plan in place. Clinical case(s) removed

0 UNMANAGED RISK

Suspect, infected and unknown

JOHNE'S DISEASE DAIRY SCORE (JDDS)

8 MANAGED RISK OF INFECTION

1 negative test every 2 years and maintain active biosecurity plan overseen by veterinarian annually

7 MANAGED RISK OF INFECTION

1 negative test every 2 years and maintain active biosecurity plan

6 MANAGED RISK OF CLINICAL DISEASE

1 negative test every 3 years and maintain active biosecurity plan*

5 MANAGED RISK OF CLINICAL DISEASE

1 negative test 1-3 years after attaining score 4*

4 MANAGED RISK OF CLINICAL DISEASE

No clinical cases for over 5 years and maintain active biosecurity plan*

3 FIRST STEPS PROGRESSING

No clinical cases in the last 4 years

2 FIRST STEPS PROGRESSING

No clinical cases in the last 3 years

1 - FIRST STEPS PROGRESSING

Maintain active biosecurity plan

0 - UNMANAGED RISK

Clinical cases and JD status not known

* Vaccination with Silirum® allows some variation to this. See the JDDS document for more details.