



BRUCELLOSIS VACCINATION PROTOCOL



Brucella abortus is a highly contagious bacteria that spreads rapidly through an unvaccinated herd. **With each aborted foetus exponentially increasing the number of bacteria found on the farm, making the eradication of the disease difficult.**¹

Vaccination remains a crucial preventative strategy implemented on farms to decrease the prevalence and transmission rate of Brucellosis in the herd.

In terms of Table 2 of Government Notice R 2026 of 1986-09-26 all heifers should be vaccinated against *Brucella abortus* between the ages of **4 and 8 months** due to the economic and zoonotic

implications of this disease. It is important to note, that no vaccine is effective in providing 100% immunity, this is due to individual variability and the animals ability to respond to immunisation.²

Unlike antibiotics that can **cure** infection; vaccines are a weakened or dead “copycat” of a disease and as such, rely on important variables such as health status and body condition of an animal, to name a few.

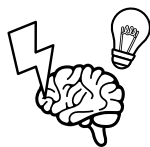
This then needs to be paired with correct and timeous vaccine administration to stimulate the desired immunological response.



BRUCELLOSIS VACCINATION



By administering a vaccine, we show the body a version of the disease that it might encounter one day. This enables the body to prepare itself in the fight against possible infection, by decreasing the severity of the clinical signs seen and the rate of disease transmission.



If over time, our vaccinated animal is not exposed to either the real disease or the "copycat" vaccine, the immune system starts to believe that there is no immediate risk and subsequently "forgets" its training on how to fight this disease.

Annual boosters serve as a jolt to the memory of the immune system, and this refresher course increases the herds overall immune status.

It is important for farmers to note, however, that there are some exceptions to this rule:

Vaccines containing the S19 *brucella abortus* strain may only be administered once in the heifer's life between the ages of 4 and 8 months old. **A booster dose will compromise the serological testing and inevitably cause a false positive animal resulting in unnecessary slaughter of that animal and quarantine of the herd.**

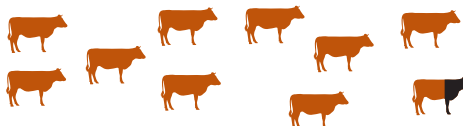
The first vaccination with either **RB-51** (between the ages of 4 - 10 months old)³ or S19 (between the ages of 4 - 8 months old) provides an approximate 65 % - 75 % protection against abortion, which in most farms is sufficient.⁴



It is recommended that heifers receive a booster dose of **RB-51** when they are 12- 16 month of age⁵, this ensures that we provide **optimal protection before mating and continuously increase the herd immune status without risk of false positive serological tests.**



In herds where there is a high risk of Brucellosis, the heifers may be given an additional booster **2-3 months** before mating with **RB-51**.⁶



With each booster vaccine of RB-51, the farmer will drastically improve the immune status of the herd.



ASK YOUR VET

About vaccination with **RB51**

Brucella abortus Vaccine

This vaccine may only be used by or under the supervision of persons registered in terms of or authorised in terms of section 23 (1) (c) of the Veterinary and Para-veterinary Professions Act, 1982 (Act 19 of 1982)

PROPOSED DOSING SCHEDULE:

— *Brucella abortus* negative herds:

Herds which have not been vaccinated against *Brucella abortus*:

- Vaccinate heifers between 4 and 10 months of age with 2 ml, administered subcutaneously.
- Revaccinate with full dose between 12 and 16 months of age.
- Adult cows, non-pregnant – administer 2 ml subcutaneously.

Herds with established immunity by previous vaccination against *Brucella abortus*:

- Vaccinate heifers between 4 and 10 months of age with 2 ml, administered subcutaneously.
- Revaccinate with a full dose between 12 and 16 months of age.

+ *Brucella abortus* positive herds:

- Vaccinate heifers between 4 and 10 months of age with 2 ml, administered subcutaneously.
- Revaccinate with full dose between 12 and 16 months of age.
- Adult cows, non-pregnant – administer 2 ml subcutaneously.



1. "Brucellosis in Cattle - Reproductive System."

2. Jan Du Preez and Francois (Faffa) Malan, *VACCINES AND IMMUNISATION OF FARM ANIMALS*.

3. MSD Animal Health, "Dossier Data on File."

4. Otto M Radostits et al., *Veterinary Medicine A Textbook of the Diseases of Cattle, Horses, Sheep, Pigs, and Goats*.

5. MSD Animal Health, "Dossier Data on File."

6. Agriculture, forestry & fisheries, "BOVINE BRUCELLOSIS MAUNAL." September 2016. extension://elhekieabhbkmcefcobjdjgcaadp/https://rpfos.co.za/images/nuus/2016/Brucellosis-in-Cattle-Interim-Manual-for-the-Veterinarian-&-AHT-Sept2016-signed.pdf.

MSD Veterinary Manual. "Brucellosis in Cattle - Reproductive System." Accessed June 22, 2022. <https://www.msddvetmanual.com/reproductive-system/brucellosis-in-large-animals/brucellosis-in-cattle>.

Jan Du Preez and Francois (Faffa) Malan. *VACCINES AND IMMUNISATION OF FARM ANIMALS*. MSD Animal Health. "Dossier Data on File," n.d.

Otto M Radostits, Clive C Gray, Kenneth W Hinchcliff, and Peter D Constable. *Veterinary Medicine A Textbook of the Diseases of Cattle, Horses, Sheep, Pigs, and Goats*. 10th ed. Saunders Elsevier, 2007.

RB-51 Reg. No. G3056 (Act 36/1947). Namibia Reg. No. V03/24.4/756 NSO
Composition: Lyophilised vaccine containing the RB-51 strain of *Brucella abortus*.

Intervet South Africa (Pty) Ltd | Reg. No. 1991/006580/07
20 Spartan Road, Spartan, 1619, RSA Private Bag X2026, Isando, 1600, RSA
Tel: +2711 923 9300, Fax: +2711 392 3158, Sales Fax: 086 603 1777
www.msdd-animal-health.co.za | ZA/R51/1114/0012

