



FROZEN AFRICAN REDWATER VACCINE FOR CATTLE (BABESIA BIGEMINA)

Reg. No. G 1175 (Act 36/1947)

Namibia: NSR 0956

Frozen *Babesia bigemina*-infective bovine blood for the immunisation of cattle against the African form of redwater.

Frozen redwater vaccine may only be kept on dry ice or in liquid nitrogen (temperatures below than -70 °C). An ordinary household freezer (-18 °C) is not suitable for storage of this vaccine. Vaccine, which on receipt is completely thawed, is ineffective and must not be used. Frozen vaccine removed from storage (liquid nitrogen/dry ice) will thaw slowly when put on melting ice. If kept on melting ice it will be suitable for use for a maximum period of 4 hours. Thawed vaccine cannot be refrozen for later use.

RECOMMENDATIONS FOR USE

Since this vaccine contains only **one** of the redwater parasites it is important that you should know which of the two species causes problems in your area and then use the appropriate vaccine.

The African form of redwater has a wide distribution since it is transmitted by both blue tick species. One of the blue tick species occurs virtually throughout the entire country and is only absent in the drier parts of the Eastern and Western Cape Provinces, Western Free State and in the higher-lying areas of the Drakensberg and Lesotho.

CALVES:

In the areas where the blue ticks occur all calves should be vaccinated at approximately 6 months of age (between 3 and 9 months). This age group shows only mild reactions which normally require no treatment, but daily supervision during the expected reaction period is strongly recommended.

ADULT CATTLE:

The vaccination of adult animals is labour intensive and demands strict supervision. It is advisable not to inoculate more animals than can conveniently be handled at a time, because rectal temperatures must be taken daily from the 5th to the 21st day after inoculation.

The vaccine may cause anaemia and fever. Avoid subjecting the animals to any form of stress, such as rough handling or driving them over long distances, during the expected reaction period.

Under normal circumstances only a single vaccination is sufficient.

Asiatic redwater (*Babesia bovis*) vaccine and Anaplasmosis vaccine may also safely be administered with this vaccine.

WARNINGS

Do not slaughter animals for human consumption within 7 days of vaccination.

Vaccinate healthy animals only.

Keep out of reach of children, uninformed persons and animals.

The organisms in the vaccine are less virulent than most natural strains, but even so, some animals may react severely. It is especially European breeds, imported cattle, and older animals in general, that may require treatment. Pregnant animals may abort and cows in milk will suffer production losses if not treated in time.

Although this product has been extensively tested under a wide range of conditions, failure thereof may ensue as a result of a number of reasons. If this is suspected, seek veterinary advice and notify the registration holder.

DIRECTIONS FOR USE

Use only as directed.

Depending on the facilities available for storage and transport of the frozen vaccine, one of the following methods can be used:

Rapid thawing (Vaccine remains effective for 30 minutes):

- Take the vaccine in the frozen state on dry ice or in liquid nitrogen to the work area.
- Muster the correct number of cattle **before thawing the vaccine**.
- Thaw the vaccine **rapidly** in lukewarm water (40 °C, approximately body temperature). Gentle agitation of the vaccine bottle will reduce the thawing time to approximately **5 minutes**.
- Thaw sufficient vaccine only for immediate administration.
- If any delay is experienced during vaccination, the **thawed vaccine** may be placed on **melting ice** for a **maximum period of 30 minutes** before administration.

Slow thawing (Vaccine remains effective for 4 hours)

- Frozen vaccine may be removed from storage (liquid nitrogen/dry ice) and put on **melting ice** and then transported to the work area.
- The vaccine will **thaw slowly** on melting ice, and if kept on melting ice (provided that an excess of ice is constantly present in the container) it will be suitable for use for a **maximum period of 4 hours** after removal from liquid nitrogen or dry ice.

Sterilise needles and syringes by boiling in water for at least 15 minutes. Do not use disinfectants or methylated spirits for sterilising either syringes or needles. Preferably use a separate needle for each animal.

DOSAGE: 1 ml intramuscularly, irrespective of age or body mass

EFFECTS OF THE VACCINE

Strict daily supervision is normally recommended for approximately 3 weeks after inoculation. Animals may start to develop fever from the 5th day after inoculation. Although it is not necessary to take daily temperatures of calves, they must still be watched closely for any signs of illness from the 5th day after inoculation, for approximately 16 days.

Body temperatures of 40 °C and higher, or any other signs of illness, may indicate the onset of a severe reaction and such animals must be treated without delay to prevent possible deaths. Immunity develops 4 to 6 weeks after inoculation. In the case of African redwater the immunity is apparently short-lived; exposure to infected ticks in the field is essential to maintain the immunity. However, immunity cannot be guaranteed in all animals.

TREATMENT

The use of drugs to control redwater vaccine reactions of natural redwater outbreaks is very critical and strict attention must be paid to this aspect to ensure successful immunisation against redwater.

Treatment of redwater infections with certain drugs, especially at an early stage of the reaction, may have a negative influence on the degree and duration of immunity because the infections are immediately sterilised and the animals do not develop a natural carrier-state.

It is therefore recommended that a drug, that will not sterilise the infection, be used to treat African redwater vaccine reactions. Euflavine, which may only be administered intravenously, or a 1/3 of the recommended therapeutic dose of diminazene can be used for this purpose. With severe vaccine reactions, however, the 1/3 dose of diminazene might not be able to control the reaction and the standard therapeutic dose should be considered. If long-acting drugs containing imidocarb or diminazene are used to treat adult cattle prophylactically during natural redwater outbreaks, these animals should be vaccinated only after the drugs have been broken down by the animal's system and excreted, because its residual effect will neutralise the vaccine. Consult Onderstepoort Biological Products or the local veterinarian for precise details, because it may take as long as 6 months before revaccination can be recommended.

PACKING

Available in bottles of 5 doses.

Registration holder: Onderstepoort Biological Products (Ltd.), Private Bag X 07, ONDERSTEEPOORT 0110

Tel. (012) 522-1500

Co. Reg no. 2000/022686/06



BEVRORE AFRIKA ROOIWATER ENTSTOF VIR BEESTE (BABESIA BIGEMINA)

Reg. Nr. G 1175 (Wet 36/1947)

Namibië: NSR 0956

Bevroe *Babesia bigemina*-besmetlike beesbloed vir die immunisering van beeste teen Afrika rooiwater.

Bevroe rooiwater entstof mag slegs op droë ys of in vloeibare stikstof bewaar word (temperatuur laer as -70 °C). 'n Gewone huishoudelike vrieskas (-18 °C) is nie geskik vir die berging van die entstof nie. Entstof wat by ontvangs heeltemal ontdooi het, is oneffektief en moet nie gebruik word nie. Bevroe rooiwater entstof wat direk vanuit berging (vloeibare stikstof/droë ys) op smeltende ys geplaas word, sal stadig ontdooi. Indien dit op smeltende ys gehou word, sal dit vir slegs 'n maksimum tydperk van 4 ure nog geskik wees vir gebruik. Ontdooide entstof kan nie weer bevries word vir latere gebruik nie.

AANBEVELINGS VIR GEBRUIK

Die entstof bevat slegs **een** van die rooiwaterparasiete. Dit is dus noodsaaklik dat u weet watter organisme(s) in u area verliese veroorsaak om sodoende die regte entstof toe te dien.

Die Afrika vorm van rooiwater is die wydste versprei en word deur beide bloubosluisspesies oorgedra. Die een bloubosluis kom voor in feitlik die hele land en is net afwesig in die droër dele van die Oos- en Wes Kaapprovinsies, westelike Vrystaat en die hoëliggende dele van die Drakensberge en Lesotho.

KALWERS:

In dele van die land waar bloubosluisse voorkom, behoort alle kalwers ingeënt te word op ongeveer 6 maande ouderdom (tussen 3 en 9 maande). Hierdie ouderdomsklas toon slegs matige reaksies wat normaalweg geen behandeling vereis nie, maar daaglikse toesig gedurende die verwagte reaksietyd word sterk aanbeveel.

VOLWASSE BEESTE:

Die inenting van volwasse diere is arbeidsintensief en vereis baie strenger toesig. Slegs hanteerbare getalle beeste moet op 'n slag ingeënt word aangesien rektale temperatuur daaglikse geneem moet word vanaf die 5 de tot 21 ste dag na inenting.

Die entstof mag bloedarmoede en koors tot gevolg hê. Vermoed enige spanningsdruk, bv. langafstand aanjaag en ruwe hantering van diere gedurende die verwagte reaksietyd.

Onder normale omstandighede is slegs 'n enkele inenting voldoende.

Asiatiese rooiwater (*Babesia bovis*) entstof en Anaplasmose entstof kan ook met veiligheid gelyktydig met die entstof toegedien word.

WAARSKUWINGS

Moet nie diere binne 7 dae na inenting vir menslike verbruik slag nie.

Slegs gesonde diere moet ingeënt word.

Hou buite bereik van kinders, oningeligte persone en diere.

Die organismes in die entstof is minder virulent as die meeste natuurlike stamme, nogtans kom hewige reaksies voor by sommige ingelente diere. Dit is veral Europese beesrasse, ingevoerde beeste en in die algemeen over diere wat behandeling mag vereis. Dragtige diere mag aborteer en melkkoeie sal produksieverliese ondergaan indien tydigte behandeling nie toegepas word nie. Alhoewel hierdie produk breedvoerig onder 'n wye verskeidenheid van toestande getoets is, mag dit faal as gevolg van verskeie redes. Indien dit vermoed word, raadpleeg 'n veearts en verwittig die registrasiehouer.

GEBRUIKSAANWYSINGS

Gebruik slegs soos voorgeskryf.

Afhangende van die fasiliteite beskikbaar t.o.v. die stoor en vervoer van die bevroe entstof kan een van die volgende metodes gevolg word:

Vinnige ontdooiing (Entstof bly effektief vir 30 minute):

- Neem die entstof in bevroe toestand op droë ys of in vloeibare stikstof na die werksarea.
- Kry die korrekte getal beeste gereed **voordat die entstof ontdooi word.**
- Entstof moet **vinnig** in loutwarm water (40 °C, ongeveer liggaamstemperatuur) ontdooi word. Matige skud van die entstofbottel sal die ontdooiingsproses versnel tot ongeveer **5 minute.**
- Ontdooi slegs genoeg entstof wat onmiddellik gebruik kan word.
- Indien enige vertraging met die inenting ondervind word, kan **ontdooide entstof** vir 'n **maksimum periode van 30 minute** op **smeltende ys** geplaas word voor toediening.

Stadige ontdooiing (Entstof bly effektief vir 4 ure):

- Bevroe entstof kan direk vanuit berging (vloeibare stikstof/droë ys) op **smeltende ys** geplaas word en dan na die werksarea vervoer word.
- Op smeltende ys sal die entstof **stadig ontdooi** en indien dit op smeltende ys gehou word (op voorwaarde dat 'n oormaat ys altyd teenwoordig is in die houer), is dit nog geskik vir gebruik vir 'n **maksimum periode van 4 ure** nadat dit uit die vloeibare stikstof of droë ys verwyder is.

Steriliseer spuit en naalde deur dit vir ten minste 15 minute in water te kook. Moet nie ontsmettingsmiddels of brandspiritus gebruik om spuit en naalde te steriliseer nie. 'n Afsonderlike naald moet verkieslik vir elke dier gebruik word.

DOSIS: 1 ml binnespiers, ongeag die ouderdom of liggaamsmassa

UITWERKING VAN DIE ENTSTOF

Normaalweg word streng daaglikse toesig vir ongeveer 3 weke na inenting aanbeveel. Diere mag begin koors ontwikkel so gou as die 5 de dag na inenting. Alhoewel daaglikse temperatuur van kalwers nie geneem hoef te word nie, moet hulle nogtans streng dopgehou word vir enige siektetekens vanaf die 5 de dag na inenting vir ongeveer 16 dae.

Liggaamstemperatuur van 40 °C en hoër of enige ander siektetekens mag dui op die begin van hewige reaksies en sulke diere behoort sonder versuim behandel te word om moontlike vrektes te voorkom.

Immunitet ontwikkel 4 tot 6 weke na inenting. In die geval van die Afrika vorm blyk immunitet kortstondig te wees in welke geval blootstelling aan besmette bloubosluisse in die veld nodig is om die immunitet te onderhou. Immunitet kan egter nie in alle diere gewaarborg word nie.

BEHANDELING

Die gebruik van rooiwatermiddels om entstofreaksies of natuurlike uitbreke te beheer is uiters krities en moet baie nou op gelet word om suksesvolle immunisering teen rooiwater te verseker.

Behandeling van rooiwaterbesmettings met sekere middels, veral vroeg gedurende die reaksie, mag die graad en duurte van die immunitet nadelig beïnvloed, omrede die besmettings onmiddellik gesteriliseer word en die diere dus nie 'n natuurlike draertoestand ontwikkel nie.

Daar word aanbeveel dat slegs middels, wat nie die besmetting sal steriliseer nie, gebruik word om Afrika rooiwater entstofreaksies te beheer. Euflavine, wat slegs binnears toegedien mag word, of 'n 1/3 van die aanbevole terapeutiese dosis van diminaseen kan vir die doel gebruik word. Met hewige entstofreaksies mag 'n 1/3 dosis diminaseen egter nie die reaksies voldoende beheer nie en moet die standaard terapeutiese dosis oorweeg word.

Indien langwerkende middels wat imidokarb of diminaseen bevat gebruik word om volwasse beeste voorkomend te behandel gedurende natuurlike rooiwateruitbreke, kan die diere slegs suksesvol ingeënt word nadat die middels deur die dier se sisteem afgebreek en uitgeskei is, aangesien die nawerking van die middels die entstof sal neutraliseer. Raadpleeg Onderstepoort Biologiese Produkte of die plaaslike veearts vir besonderhede, want dit kan so lank as 6 maande neem voordat herinenting aanbeveel mag word.

VERPAKKING

Beskikbaar in bottels van 5 dosisse.

Registrasiehouer: Onderstepoort Biologiese Produkte (Bpk.), Privaatsak X 07, ONDERSTEPSPOORT 0110

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