

# **Monthly report on livestock disease trends as informally reported by veterinarians belonging to the Ruminant Veterinary Association of South Africa (RuVASA), a group of the South African Veterinary Association**

## **August 2020**

(Previous disease reports can be seen on the RuVASA website [www.ruvasa.co.za](http://www.ruvasa.co.za) )

These reports include data from individual practices

Click on Disease Reports

**The following practices and laboratories (140) submitted reports during August 2020:**

### **Mpumalanga (13)**

Balfour – Dr. Louis van Jaarsveld  
Bethal – Dr. Hardus Pieters  
Ermelo – Dr. Ben Potgieter  
Grootvlei – Dr. Neels van Wyk  
Hendrina – Dr. Anja Steinberg  
Lydenburg – Dr. Marietjie Malan  
Lydenburg – Drs. Trümpelmann and Steyn  
Malalane – Drs. Van Sittert an Van Sittert  
Middelburg – Dr. Neil Fourie  
Nelspruit – Dr. André Beytel  
Piet Retief - Drs. Niebuhr en Weber  
Standerton – Dr. Kobie Kroon  
Volkstrust – Dr. Johan Blaauw

### **Gauteng (11)**

Bapsfontein – Drs. Engelbrecht, Olivier and Nagel  
Bronkhorstspuit – Dr. De Bruin, De Bruin and Labuschagne  
Hammanskraal – Dr. Hentie Engelbrecht  
Krugersdorp – Dr. Danie Odendaal  
Magaliesburg – Dr. Ryan Jeffery  
Nigel – Dr. Cindy van der Westhuizen  
Nigel – Dr. Henry Labuschagne



Onderstepoort Veterinary Academic Hospital – Proff. Holm and Leask and Drs. Fitte, Grobler, Hentzen, Koepfel, Leask, Magadu, Magagula, Marufu, Mokoele, O’Dell, Tagwirreyi, Tshuma, Van den Hurk and Van der Leek

Pretoria – Dr. Hanneke Pienaar

Rayton -Dr. Frans Malan

Vanderbijlpark – Dr. Kobus Kok

### **Limpopo (10)**

Bela-Bela (Warmbaths) - Dr. Nele Sabbe

Hoedspruit – Dr. Llana van Wyk

Makhado (Louis Trichardt) -Drs. Harris, Klopper and Jacobs

Modimolle (Nylstroom) – Drs. Huber, Bredell and Barnard

Mokopane (Potgietersburg) – Dr. Henk Visser

Polokwane (Pietersburg) – Drs. Watson, Viljoen, Jansen van Vuuren, Van Rooyen, Snyman and Cremona

Thabazimbi – Dr. Minette Nel

Tzaneen – ZZ2 - Dr. Danie Odendaal

Tzaneen- Drs. Cordier and Van der Berg

Vaalwater – Dr. Hampie van Staden

### **North West (14)**

Beestekraal – Dr. Alwyn Venter

Brits – Dr. Boshoff and Coertze

Brits – Dr. Gerhardus Scheepers

Christiana – Dr. Pieter Nel

Klerksdorp – Drs. Geraal, Van den Berg, Van den Berg and Greyling

Leeudoringstad – Dr. Ian Jonker

Lichtenburg – Dr. Nelmarie-Krüger-Rall

Ottosdal – Dr. Sharnelle Ferreira

Potchefstroom – Dr. Martin Jordaan

Rustenburg – Drs. Goosen, Grobler, Sparks, Van Egdom, Van Rensburg and Van Rooyen

Schweizer-Reneke – Dr. Pieter Venter

Stella - Dr. Magdaleen Vosser

Vryburg – Dr. Jurie Kritzing

Vryburg – Drs. De Jager and Rautenbach

### **Free State (32)**

Bethlehem – Drs. Strydom and Strydom

Bethlehem – Dr. J.C du Plessis

Bloemfontein – Dr. Stephan Wessels

Bloemfontein – Dr. Lizanne Meiring

Bothaville – Dr. Gerrie Kemp

Bultfontein – Dr. Santjie Pieterse



Clocolan – Drs. Wasserman and Kleynhans  
Dewetsdorp – Dr. Marike Badenhorst  
Excelsior/Ladybrand – Dr. Dedré Nel  
Ficksburg – Dr. Woody Kotzé  
Frankfort – Drs. Lesssing, Cilliers and Janse van Rensburg  
Harrismith – Dr. Wim Slabber  
Hertzogville – Dr. Nico Hendrikz  
Hoopstad – Dr. Kobus Pretorius  
Hoopstad – Dr. Cassie van der Walt  
Kroonstad – Drs. Daffue, Eksteen, Van Zyl and Van der Walt  
Memel – Drs. Nixon and Nixon  
Oranjeville - Dr. D’Wall Hauptfleisch  
Parys – Drs. Wessels and Wessels  
Philippolis – Dr. Stephan Vermeulen  
Reitz – Dr. Murray Smith  
Senekal – Dr. Jan Blignaut  
Senekal – Dr. Theo Kotze  
Smithfield – Dr. Nienke van Hasselt  
Viljoenskroon – Dr. Johan Kahts  
Villiers – Drs. Hattingh, Krüger, Maree and Muller  
Vrede – Drs. Bester-Cloete, Myburgh and Roos  
Vrede – Dr. Rudolph Fourie  
Warden – Dr. Paul Reynolds  
Wesselsbron – Dr. Johan Jacobs  
Winburg – Drs. Albertyn and Albertyn  
Zastron – Drs. Troskie and Strauss

### **KwaZulu-Natal (12)**

Bergville – Dr. Jubie Muller  
Camperdown – Dr. Anthony van Tonder  
Dundee – Drs. Marais and Fynn  
Eshowe – Drs. Pryke and Hoffman  
Estcourt – Drs. Turner, Tedder, Taylor, Tratschler, Van Rooyen and Alwar  
Kokstad – Drs. Clowes, Shrives and Lees  
Mooi River – Drs. Edmunds, Fowler and Still  
Mtubatuba – Dr. Trevor Viljoen  
Newcastle – Dr. Barry Rafferty  
Pietermaritzburg – Drs. Kretzmann, Watkins and De Freitas  
Pongola – Dr. Heinz Kohrs  
Vryheid – Drs. Theron and Theron

### **Eastern Cape (13)**



Adelaide – Dr. Steve Cockroft  
Alexandria – Dr. Charlene Boy  
Aliwal North – Drs. Troskie and Strauss  
Bathurst – Dr. Jane Pistorius  
Graaff- Reinet - Dr. Roland Larson  
Graaff-Reinet – Hobson, Strydom and Hennesy  
Humansdorp – Drs. Van Niekerk, Jansen van Vuuren and Davis  
Jeffreys Bay - Drs. Lategan and Hoek  
Port Alfred – drs. De Bruyn and Jonk  
Steynsburg – Dr. Johan van Rooyen  
Stutterheim – Dr Dave Watermann  
Uitenhage – Drs. Mulder and Krüger  
Witelsbos – Dr. Elmien Kotze

### **Western Cape (19)**

Beaufort West - Dr. Jaco Pienaar  
Beaufort West – Dr. Bennie Grobler  
Caledon – Drs. Louw and Viljoen  
Ceres – Drs. Pieterse, Wium, De Villiers and Scheepers  
Darling – Drs. Van der Merwe, Adam, Jenkins and Lord  
George – Drs. Strydom, Truter and Pettifer  
Heidelberg – Dr. Albert van Zyl  
Malmesbury – Dr. Otto Kriek  
Moorreesburg – Dr. Suenett Kotzé  
Oudtshoorn – Dr. Glen Carlisle  
Oudtshoorn – Dr. Adriaan Olivier  
Paarl – Dr. Carla van der Merwe  
Piketberg – Dr. André van der Merwe  
Riversdale -Drs. Du Plessis, Taylor and De Bruyn  
Stellenbosch – Dr. Alfred Kidd  
Swellendam – Drs. Malan and Fourie  
Vredenburg – Dr. Izak Rust  
Wellington – Drs. Van Zy and Louw  
Worcester – Dr. Kobus Rabe

### **Northern Cape (9)**

Calvinia – Dr. Bertus Nel  
Colesberg – Drs. Rous and Rous  
De Aar – Dr. Donald Anderson  
Kathu – Dr. Jan Vorster  
Kimberley – Drs. Swart, Smith and Hyslop  
Kimberley – State Vet group



Kuruman – Dr. Gerhard van der Westhuizen

Postmasburg – Dr. Boeta van der Merwe

Upington – Drs. Vorster and Visser

**Feedlots (2)**

Dr. Eben Du Preez

Drs. Morrisand Le Riche

**Mastitis consultant (1)**

Dr. Theo Kotzé – Moqhaka district (Kroonstad municipality)

**Laboratory reports (7)**

Dr. Marijke Henton - Vetdiagnostix, Johannesburg

Dr. Rick Last – Vetdiagnostix, Pietermaritzburg

Dr. Liza du Plessis – Idexx SA

Dr. Annelie Cloete – Elsenburg

Dr. Sophette Gers – Pathcare, Cape Town

Prof. Emily Mitchell – University of Pretoria

Amanda McKenzie – Vryburg Veterinary Laboratory

## **TRACEABILITY: BEYOND THE TAG**

Any farmer who thinks that a tag in the ear represents a traceability system for a beef herd is far off the mark; it simply links the animal to a production unit. A farm or feedlot should have good management practices across the entire production system, writes **Dr Danie Odendaal**, a veterinary herd health consultant and director of Veterinarian Network.





## FAST FACTS

- **A controlled breeding programme enables a farmer to implement herd health and production management actions at specific times of the year.**
- **When implementing a livestock identification and traceability system, a farmer should have a specific outcome in mind.**
- **To be worth the time and effort, a management practice must hold a direct benefit for the farming enterprise.**

Traceability involves more than simply identifying animals and keeping track of a particular livestock unit throughout the value chain. It entails a complete herd management system that includes the sustainable use of natural resources; a programme to ensure the health, welfare and safety of the animals and animal products produced and sold; animal recording and breeding according to genetic potential for optimal production under given environmental conditions; and sound record-keeping to prove compliance with good management practices.

I was provided with the ideal opportunity to put these guidelines into practice when asked in 2018 by Tommie van Zyl, CEO of ZZ2, to develop and implement such a comprehensive system for its beef cattle division. ZZ2 employs a systems approach to every production unit of its farming business, but its beef cattle division at the time lacked such an approach. These systems are generally well developed in intensive animal production (pig and poultry production), but not in most extensive production units such as beef cattle production. I worked with Fanie Potgieter, manager of ZZ2's cattle division, and our overall goal was to ensure that this system served as a model for the entire beef industry.

Our first priority was to synchronise the 12-month production cycle of the cattle with the 12-month environmental cycle, as the start of the project coincided with the end of a severe drought in Limpopo. At the time, the herd was calving throughout the year, which made planning impossible.

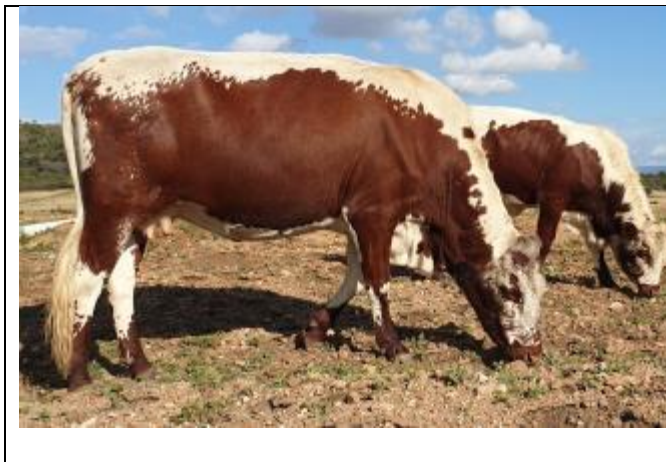
Our second aim was to establish a biosecurity plan to eliminate specific diseases that could pose a health hazard for consumers (zoo noses) or buyers of live animals from the various studs that ZZ2 operates. A further challenge in this respect was the foot-and-mouth disease outbreaks in Limpopo, which threaten the various herds that are run extensively on the company's 40 000ha.



Our third aim was to electronically tag all the animals and ensure that the record-keeping reflected all of the management actions taken to address the stated goals. The BenguFarm programme was used for this, as it could integrate all of the individual animal records with the biosecurity system that was developed.

This animal, says Dr Danie Odendaal, is the perfect example of a functional cow. Synchronising the cows' highest nutritional needs with the period of highest nutritional availability, he says, is one of the most important management goals for profitable cattle farming.

Pinzgauer calves before weaning. ZZ2 owns both the largest Pinzgauer and PinZ<sup>2</sup>yl studs in the world. According to ZZ2, the latter breed brings together the better of two different worlds, namely, one of the oldest European pure breeds, the Pinzgauer, and one of the oldest indigenous pure breeds in South Africa, the Nguni.



## PRODUCTION PERIODS

To use all natural resources optimally, a strictly controlled breeding policy must be implemented.

Controlled breeding is used to ensure that cows calve within a short period for the most effective utilisation of natural grazing. Synchronising the cows' highest nutritional needs with the period of highest nutritional availability, together with an effective grazing plan, are the most important management goals for profitable cattle farming.

Controlled breeding also assists with implementing herd health and production management actions at specific times of the year. This entails implementing a 12-month production cycle for breeding females and other animals in the herd that is divided into four production periods, each with its own critical control points (CCPs). Each of these, in turn, has a subset of management actions pertaining to it that must be executed and recorded according to a checklist. There are four production periods within the production cycle, each with a number of CCPs:



## • Period 1: Calving and preparation for breeding

The CCPs include monitoring and managing cows before and during calving and the survival of newborn and young calves, as well as testing and preparing bulls and cows for the new breeding season.

## • Period 2: Breeding and pre-weaning calf growth

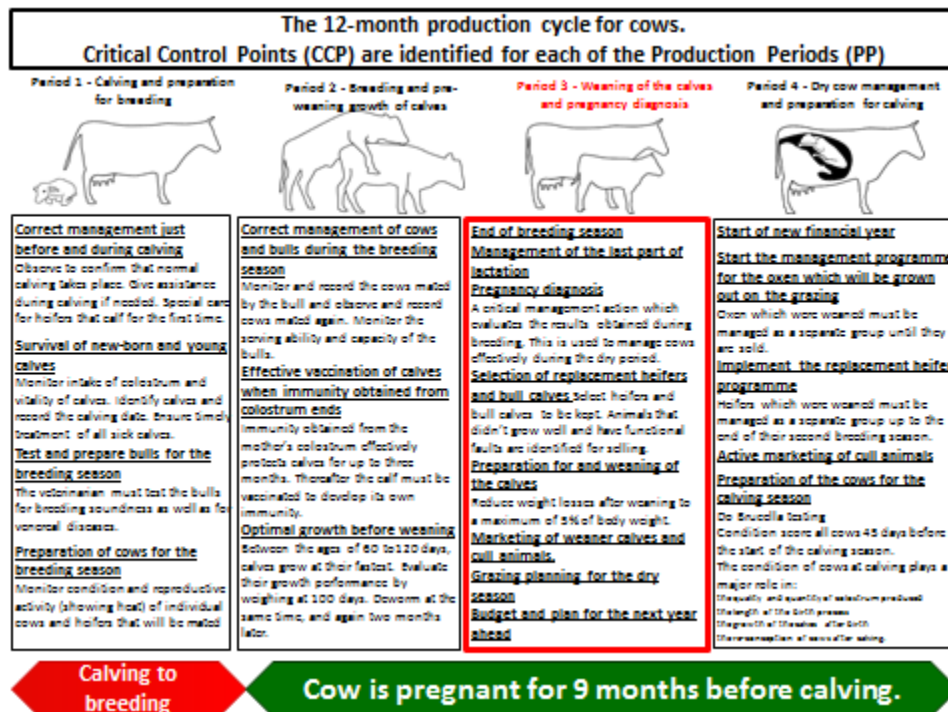
The CCPs are the management of bulls and cows during the breeding season, vaccination of calves, and management of optimal growth in calves during the pre-weaning period.

## • Period 3: Weaning of calves and pregnancy diagnosis

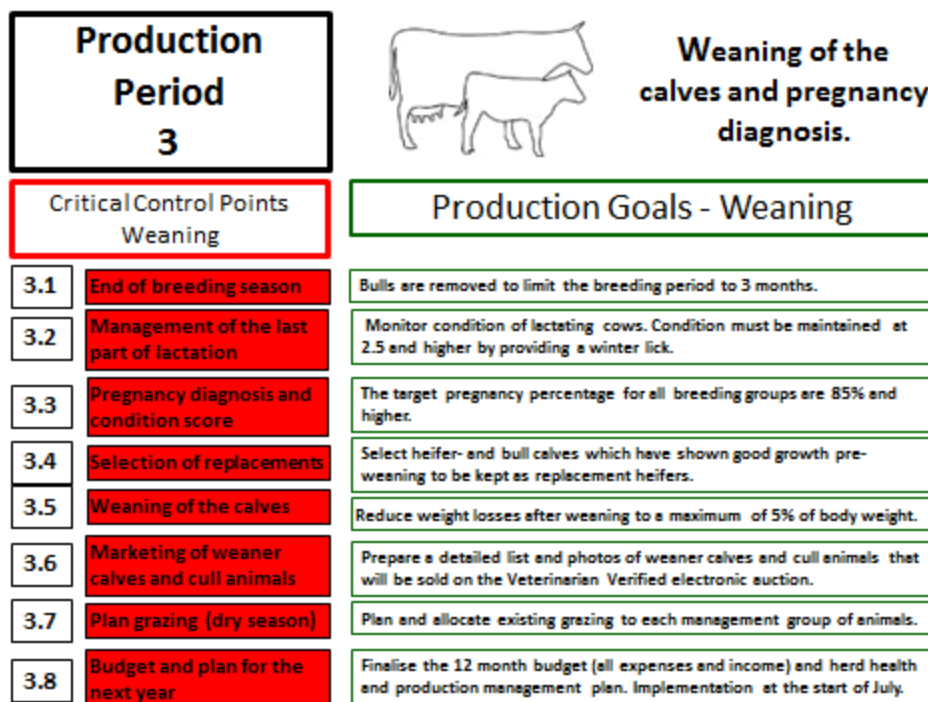
The CCPs are shown in detail in the table on the next page.

## • Period 4: Dry-cow management and preparation for calving

The CCPs, namely dry-cow management and preparation for calving, include putting in place the programme for oxen to be grown out on grazing, implementing the replacement heifer programme, preparing cows for calving, and marketing animals to be culled.







## HEALTH AND SAFETY

When implementing a livestock identification and traceability system, it is crucial to have specific outcomes in mind. Selling healthy animals is the most important aspect of the system.

In this regard, for the management plan that we developed for ZZ2's beef cattle division, it was essential to ensure that diseases such as bovine brucellosis and venereal diseases were eradicated from the herd and that the animals were tested and declared disease-free by a veterinarian.

## TRACEABILITY ENTAILS A COMPLETE HERD MANAGEMENT SYSTEM

With the challenge of foot-and-mouth disease, it was also essential to implement a daily observation card, which was used to record the first signs of such a disease, but also served to identify other diseases at an early stage. This system was previously developed by me for use in small-scale farming units, but was implemented in its full context at ZZ2 with in-depth training and retraining of 52 cattle handlers and managers.

## GENETIC POTENTIAL

There are a number of specific environmental limitations in Limpopo. These include seasonal or annual droughts that affect grazing availability; high to extremely high summer temperatures, which affect animal productivity; and a high prevalence of ticks and tick-borne disease, which can cause mortality and production losses.

For these reasons, the cattle breed also had to be adapted. This was done using the principle followed throughout all ZZ2 farming systems, namely to farm with nature as the guide



Over a number of years, ZZ2 developed a unique breed of cattle, the PinZ2yl, which is a combination of the best of both worlds. The breed consists of 50% Pinzgauer genetics, a long, large-framed, fast-growing European breed, crossed with 50% Nguni for optimal adaptation to the regional environmental challenges.

## **GOOD RECORDS TO PROVE COMPLIANCE**

It takes much time and effort to put in place all the components of good management practices, such as natural resource management and a biosecurity and herd health management. To be worth it, these actions must benefit the farming enterprise. In this case, the implementation of an animal identification and traceability system should give the farmer better or differentiated access to the market or result in a price premium.

This year, ZZ2 will hold a weaner electronic auction of more than 1 000 calves, all of which will have full traceability from birth throughout the production system. With the advent of electronic auctions, the assurance given by the traceability system based on specific records becomes very important for potential buyers, as in many cases they will not see the animals in person before buying them.

This auction will thus be a practical test of the system, and will also pose the next challenge: to follow the calves bought by individual feedlots through the next production phase, and compare their results with average calves fed at the same time. These results will help build an animal identification and traceability system that unlocks value for all role players in the production chain.

• Email Dr Danie Odendaal at [veeartsnetwerk@gmail.com](mailto:veeartsnetwerk@gmail.com)

## **Brucella health status for the sale of breeding animals**

### **Brucellosis steering committee August 2020**

Brucellosis is a highly contagious disease of cattle caused by the bacteria *Brucella abortus*. The disease can have a very long incubation period (time from exposure until disease is present) which makes diagnosis difficult. Brucellosis is considered a herd disease as cattle that test negative in an infected herd may still be in the incubation period of the disease and not yet test positive.

Cattle in the incubation period can easily be sold as “negative” to another farmer, and when on the new farm they calve or abort and each release around 46 million bacteria into the environment to infect other cattle.

If a heifer calf is infected in utero when the mother is infected, the heifer will not test positive (known as latent infection) until she is at least 4-5 months pregnant, or only after calving. This is because the pregnant uterus forms the sugar erythritol from around 4 months pregnancy, and the bacteria require this sugar to grow. This growth will result in the formation of antibodies that are measured in the blood tests.

Beware of heifers that individually test “negative” for brucellosis prior to calving if they do not originate from a brucellosis negative herd.



If there is no herd history of annual negative Brucella testing then individual cow or bull testing is worthless.

Only if the following conditions are adhered to will the testing of individual animals before a sale be sufficient:

Up to date and regular herd tests that are negative.

No cattle of unknown health status should be introduced into the herd, only cattle from tested brucella negative herds can be introduced.

Basic biosecurity measures should be applied (e.g. proper fencing, no contact with other cattle of unknown disease status, quarantine and test newly introduced cattle for disease before letting them join your herd)

With the above in mind, the following “rules” should be adhered to when sending cattle to an auction or sale:

In your cattle herd, all (i) bulls, (ii) female cattle that have calved and (iii) heifers that are >4 months pregnant must be tested for brucellosis with negative results. This herd test should be done annually. Heifers should be re-tested 14 to 30 days after calving.

All heifers should be vaccinated between the ages of 4 and 8 months using a registered Brucella vaccine (S19 or RB51). Female cattle older than 8 months may not be vaccinated with S19 as it can cause false positive test reactions. Booster vaccination of female cattle is only allowed with RB51 with permission of State Vet (according to Table 2 of the Animal Diseases Regulations). Bulls should not be vaccinated as they can become sterile.

It is a very good biosecurity measure to once a new animal(s) is introduced onto a property, to keep it completely separate (in quarantine) and have it tested for disease, and treat for external and internal parasites before introducing the animal(s) into your herd. This will help you to ensure that your new animals are healthy and it will protect your existing herd from accidental introduction of diseases and parasites.

**The Veterinary Strategy 2016 -2026 is 4 years down the line**

**How are we doing?**



The core strategies are depicted in the table below:

CORE STRATEGIES		OBJECTIVES
Foundation	Strengthening of the veterinary authority for better governance and service delivery	Restore national chain of command for all aspects of veterinary services and form the legislative and procedural basis to effectively further animal health and welfare, food safety, food security and market access in South Africa.
Pillar 1	Strengthening competencies for animal health	To strengthen animal disease surveillance, prevention, control and eradication programmes to improve animal production, market access and contributing to the one health initiative.
Pillar 2	Strengthening competencies for veterinary public health, feed and food safety	To strengthen control systems for enhanced public health, feed and food safety and trade.
Pillar 3	Strengthening competencies for veterinary laboratory diagnostics	To strengthen competencies and accreditation for food safety and animal health diagnostic laboratories and research.
Pillar 4	Development and implementation of an Animal and Products Identification, Recording and Traceability (AIRT) System	To improve animal identification and traceability, which will aid in the control of animal diseases, promote food safety and the quality of livestock data for trade purposes.
Pillar 5	Strengthening competencies for animal welfare	To improve animal welfare legislation and standards and ensure that animal keepers fulfil their responsibilities.



## CRITICAL SUCCESS FACTORS

Critical to the success of the implementation of this strategy is to ensure:

- (a) A clear chain of command for animal disease management.
- (b) Establishment of an animal identification and traceability system.
- (c) Ensuring overall ownership and participation of government and all industry stakeholders irrespective of level of development and the necessary awareness creation.
- (d) Obtaining the necessary financial support for the identified improvement areas.
- (e) Preparation of supporting legislation and regulations.

With reference to surveillance, the VS should maintain and improve the current passive surveillance programmes and progressively extend the passive surveillance systems to the private veterinary network. VS should consult with private veterinarians, industry, smallholders and their representatives in the development of official delegation to private veterinarians. VS should train producers and veterinarians in their responsibilities in relation to recognition and reporting of controlled/notifiable and other diseases and develop and implement a comprehensive national disease reporting system from field to national level. The system should specify consistent reporting procedures (consider the utilisation of mobile devices and apps), data management and collation and include formal inputs from private veterinarians and abattoirs. Veterinary services should have their own courier service for the submission of samples.



## **5.5.2 Animal identification**

### **5.5.2.1 Animal identification and movement control<sup>36</sup>**

For a progressive livestock industry, the VS need to standardise all private sector identification systems (such as those currently used for the purposes of trade, breeding etc.) through developing an accreditation process. These ID systems should be easily aligned with future longer term planning for a national ID system. The VS must ensure that data collected at all levels are collated to actualise the national livestock census and develop and implement a national livestock property identification system. The VS should undertake a thorough planning, including cost analysis, for national compulsory lifelong individual identification of livestock, especially considering:



- o relevant legislation and regulations, and their economic and social impact
- o the complexity and cost of ongoing database management, including recording and data entry for all movements/births/deaths etc
- o the human resources and the conditions under which animal identification should be implemented (farmers, private veterinarians, government AHTs),
- o the way the overall system might be financed (cost recovery system)

The VS should further consult and request business plans from farmer groups to ensure that the process to standardise systems also incorporates their needs and perspectives on a national compulsory life-long identification system. The VS should develop and implement legislation/regulations to standardise existing private individual identification systems and explore requirements for a legislative framework to impose a national standardised compulsory identification system for permanent individual identification of all livestock including farmed game. If initiated, there will be a need to progressively train staff, farmers or private veterinarians in tagging and data entry for livestock identification. The VS should develop a stakeholder communications plan relating to both standardised and compulsory livestock identification and explore the development of a database to record all identified animals, updating their movements, treatments, deaths etc. This will also need to ensure compatibility for other aspects such as animal production/management/breeding etc. It was further suggested that a cell phone application could be developed to load information into the database.

An independent agency/organisation may be needed to administer the animal identification system. Cattle should be used as the species to pilot the programme.



## CHAPTER 8: CONCLUSIONS AND RECOMMENDATIONS

Prioritisation of the objectives of this strategy can be divided into short, medium and long term as shown in the table below:

	Core Strategy	Short term (1-3 years)	Medium term (3-5 years)	Long term (5-10 years)
Foundation	Strengthening of the veterinary authority for better governance	<ul style="list-style-type: none"> <li>- Establish specialised legal support team</li> <li>- Establish national risk analysis unit</li> <li>- Develop system of authorisation</li> <li>- Veterinary and para-veterinary professional development</li> </ul>	<ul style="list-style-type: none"> <li>- Develop joint programmes with stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>- Restore national chain of command for all aspects of veterinary services (changes in structuring)</li> </ul>
Pillar 1	Strengthening competencies for animal health	<ul style="list-style-type: none"> <li>- Address the challenges of implementation of the Animal Diseases Act (Act 35 of 1984)</li> <li>- Improve animal disease surveillance system</li> </ul>	<ul style="list-style-type: none"> <li>- Run pilot project for brucellosis control in cattle (develop model)</li> <li>- Develop and implement control programmes for other animal diseases</li> </ul>	<ul style="list-style-type: none"> <li>- Establish effective and efficient administration for animal disease control</li> </ul>
Pillar 2	Strengthening competencies for veterinary public health, feed and food safety	<ul style="list-style-type: none"> <li>- Define veterinary services' contribution to the national antimicrobial resistance strategy framework</li> <li>- Consult and implement VPH strategic implementation plan (Inci IMI)</li> </ul>	<ul style="list-style-type: none"> <li>- Develop a single Veterinary Medicine Act</li> <li>- Revise Meat Safety Act (Act 40 of 2000)</li> </ul>	<ul style="list-style-type: none"> <li>- Establish effective and efficient administration for food safety system</li> </ul>
Pillar 3	Strengthening competencies for veterinary laboratory diagnostics	<ul style="list-style-type: none"> <li>- Laboratory approval plan, including SANAS accreditation, to be further developed and consulted</li> </ul>	<ul style="list-style-type: none"> <li>- Expand laboratory capacity under veterinary services</li> </ul>	<ul style="list-style-type: none"> <li>- Expand laboratory capacity under veterinary services</li> </ul>
Pillar 4	Development and implementation of an Animal and Products Identification, Recording and Traceability (AIRT) System	<ul style="list-style-type: none"> <li>- Policy for individual animal identification and value chain traceability to be developed and consulted</li> <li>- Draft legislation</li> <li>- Provide framework for animal identification</li> <li>- Develop government controlled database</li> </ul>	<ul style="list-style-type: none"> <li>- Implement legislation</li> <li>- Establish effective and efficient administration for AIRT system</li> <li>- Run pilot project on cattle</li> </ul>	<ul style="list-style-type: none"> <li>- Comprehensive animal movement recording and relevant controls</li> </ul>
Pillar 5	Strengthening competencies for animal welfare	<ul style="list-style-type: none"> <li>- Update/revise legislation</li> <li>- Establish national animal welfare unit</li> <li>- Animal Welfare Strategic Implementation Plan further developed and consulted</li> </ul>	<ul style="list-style-type: none"> <li>- Develop welfare guidelines for the keeping of various animal species and industries</li> <li>- Develop welfare guidelines for the various types of slaughter for the various</li> </ul>	<ul style="list-style-type: none"> <li>- Implementation of all animal welfare legislation and standards</li> </ul>



## **BIOSECURITY**

Biosecurity should not be just a word but should be an action. All of us (producer organizations, farmers and their employees, politicians, veterinarians, co-op personnel, representatives, auctioneers, agricultural writers and inhabitants of the Republic of South Africa) should be protecting our national herd becoming infected with organisms which could harm them and the people consuming products of animal origin.

We have been talking and writing, participating in TV and radio programmes, farmer's days and meetings on brucellosis, foot and mouth disease, Rift Valley fever, trichomonosis, Asiatic red water, cryptosporidiosis, *E. coli*, snotsiekte, rabies, fear of East Coast fever, sheep scab, ram's disease, listeriosis, tuberculosis, African swine fever, bird flu to name a few important diseases that we were confronted with during the last year or two. Stock theft and farm murders are on the increase. Water sources are polluted. Welfare issues were problematic.

Farmers had been hit by export restrictions, falling of meat prices and production losses – when will we ever learn to protect our investments with all our might!

**We are not doing what we should! Identifying our animals, controlling movement, vaccinating our animals and demanding vendor declarations when buying animals - Buyer beware!**

**As was recently experienced, an auction could be the most dangerous place to buy animals if biosecurity measures are not heeded. All animals should be branded with a registered brand mark and or tattoo, health certificates in place and seller's home address (not post box number, should be available. Take note that foot and mouth disease, bovine brucellosis, tuberculosis, Johne's disease, trichomonosis, vibriosis, sheep scab (to name a few diseases) and parasites resistant to certain antiparasitics are **herd and flock** diseases! Contact your veterinarian to assess your risk bringing in animals onto your farming unit. As an additional precaution, quarantine animals for at least 28 days.**

All is not doom and gloom – many farmers, although in the minority, are doing the correct thing. Following a closed herd policy, identifying their animals, testing their animals for brucellosis, movement control, animals that are bought and showed are quarantined before introducing them into the herd. Joint action by government and private sector during disease outbreaks through the National Animal Health Forum proved to be successful.

Our main goal now, should be to get a Livestock Identification and Traceability System (LITS) in place. This will enable us to establish certain disease-free compartments and help to contain an outbreak within a short time period.

In unity lies our strength – join your producer organization!!

**What to do to be prepared for future outbreaks**



## Get a traceability system in place

### Biosecurity guidelines

<http://nahf.co.za/wp-content/uploads/FMD-Basic-Biosecurity-Guidelines-2019-11-19-Ver-3-1.pdf>

1. During a FMD outbreak it is the producer's responsibility to keep their animals from getting infected.
2. Although FMD does not pose a food safety or public health concern it has a major impact on animal health and international trade.
3. Each commercial farm should appoint a biosecurity manager.
4. A written biosecurity plan is a basic requirement.
5. Development of a plan must be done by the biosecurity manager with assistance from a veterinarian.
6. The biosecurity plan must include a line of separation/demarcation of the biosecurity area.
7. Training:
  - a. Train all personnel in biosecurity principles at least annually.
8. Access:
  - a. Access points to the area must be identified and demarcated clearly.
  - b. Loading site must be identified away from animals.
  - c. A cleaning and disinfection station needs to be made available and should be away from any animals and an SOP for cleaning of all vehicles entering the biosecurity area must be adhered to.
  - d. Parking areas away from animal areas must be provided.
  - e. Vehicle movement pathways must be mapped.
  - f. Draw up a map demarcating all these areas.
  - g. The control boundary should always be respected and identified to all personnel.
  - h. No access of vehicles or personnel to the biosecure area unless via proper decontamination protocols. People with any suspected contact with infected animals (or having been in an affected area) should stay away from "clean animals for at least a week.
  - i. Access points should be respected, well demarcated and procedures of access described. Biosecurity Guidelines-FMD 2019-11-19 2
  - j. Animals arriving on the farm should only be directly from a guaranteed healthy herd accompanied by signed and dated veterinary health certificates.
  - k. Personnel entering the biosecure area should shower and change clothing before entering the area.
  - l. Logbooks of all persons, vehicles, equipment etc entering or leaving the biosecure area should be kept.



m. No entry of persons, vehicles or products should be allowed if not expressly permitted by the biosecurity officer.

n. Feed brought into the biosecure area should only be from sources determined by the biosecurity manager.

o. For further information go to [www.securebeef.org](http://www.securebeef.org)

9. Quarantine:

a. For extra security cattle should be quarantined at least 100 meters for 21 days away from the herd.

b. There will be absolutely no contact with the herd either directly or indirectly.

c. They should only be introduced after clinical (and preferably serological) evaluation.

**It is now the time that we take ownership of our own industry!!!!!!!**

### **The basis of Disease Control is Animal Identification and Traceability**

Visit: <https://www.icar.org/index.php/certifications/animal-identification-certifications/>

### **Summary of disease report for August 2020**

140 Reports from veterinary practices and laboratories were received (Mpumalanga (MP) 10; Gauteng (G) 11; Limpopo (L) 10; Northwest (NW) 14; Free State (FS) 32; KwaZulu-Natal (KZN) 12; Eastern Cape (EC) 13; Western Cape (WC) 19; Northern Cape (NC) 9; Feedlots (FL) 2; Mastitis consultant (MC) 1 and Laboratories (Lab) 7)

### **A list of diseases and conditions reported by veterinarians in 5 or more provinces**

<b>Disease or condition</b>	<b>Number of provinces reporting</b>
Coccidiosis	9
Warts	9
Protein	9



Lameness	9
Lung infection	9
Dystocia	9
Vaginal prolaps	9
	9
Bont-legged ticks	8
Pasteurellosis	8
Orf	8
Energy	8
Abortions	8
Downer	8
Retained afterbirth	8
Uterine prolaps	8
Roundworms	7
Wireworms	7
African red water	7
Anaplasmosis	7
Trichomonosis	7
Pulpy kidney	7
<i>E. coli</i>	7
BMC (snotsiekte)	7
Phosphate	7



Diarrhoea	7
Liver fluke	6
Conical fluke	6
Cryptosporidiosis	6
Biting lice	6
Bovine brucellosis	6
Tulip	6
Vitamin A deficiency	6
Stillbirths	6
Blue udder	6
Eye infections	6
Joint ill	6
Mastitis	6
Acidosis	6
Ketosis (domsiekte)	6
Metritis	6
Poor conception	6
Tapeworms	5
Blue ticks	5
Mange mites	5
Asiatic red water	5
Heartwater	5



Blackquarter	5
Red gut (cattle)	5
Urea	5
Calcium deficiency	5
Selenium deficiency	5
Urolithiasis	5
Bloat	5
Eye cancer	5
Navel ill	5

## Bovine Brucellosis

Although we have made positive steps in controlling Bovine brucellosis, the model disease stated in the Veterinary Strategy, we as a country is far from achieving our goal!

**If farmers will just comply by vaccinating their animals against brucellosis, according to law, the incidence of brucellosis will drop dramatically as shedding of bacteria will drop!**

Many farmers are still shrugging their shoulders and saying: “Why should I test my animals as it will only cost me money and what if there are positive animals? My farm will be placed under quarantine, so I am not going to test my animals!”

Dr. Trudie Prinsloo a veterinarian and legal advisor has compiled legal aspects regarding brucellosis control and it is VERY IMPORTANT that you should avail yourself with the content of this document.

It is available in English and Afrikaans.

<http://nahf.co.za/brucellosis-legal-aspects-2018-12-11/>



# When buying cattle this Vendor declaration can help you to minimize risk!

## VENDOR DECLARATION BOVINE BRUCELLOSIS

I hereby declare that I am the legal owner or authorised representative of the cattle on sale and am competent to make this declaration

1	The cattle for sale are clearly and permanently identified		Yes	No
2	The cattle for sale/slaughter were born on my farm		Yes	No
3	The farm has a closed herd policy i.e. I do not buy in cattle, rent out grazing or speculate with cattle		Yes	No
4	I practice bio-security on my farm to a level that is **	Poor	Moderate	Good
5	I vaccinate my heifer calves against Bovine Brucellosis once between the ages of 4 – 8 months		Yes	No
6	In addition, I vaccinate my cattle older than 8 months with RB51		Yes	No
7	I have all the cattle on my farm tested for Bovine Brucellosis		Yes (date)	No
8	My herd has been tested negative within the past year		Yes	No
9	I did not buy in cattle since my last negative brucellosis test		Yes	No
10	I/my vet investigates any abortions on my farm		Yes	No
11	To the best of my knowledge, my immediate neighbours and farms in my area are free of Bovine Brucellosis		Yes	No
12	I use a veterinarian to advise me on my cattle's herd health		Yes	No
13	The cattle handling facilities on my farm are	Poor	Average	Good



Note: Vaccination does not mean freedom from Bovine Brucellosis as cattle can still be carriers  
Please attach the most recent *Brucella* blood test certificate

Owner or authorised representative: .....

Signature: .....

Date: .....

**\*\* \* Biosecurity**

Poor – speculates with cattle, does not vaccinate, poor fences, cattle come into contact with other cattle

Medium – Vaccinates heifers, does not buy in cattle of unknown health status

Good – closed herd/never buys in cattle, vaccinates heifers and no contact with other cattle, follows a herd health plan as advised by his veterinarian, does not allow transport trucks onto property, washes and disinfects truck after returning from the abattoir or auction grounds.

Compiled by: Dr. Sewellyn Davey, Chairman of the Brucellosis Steering committee of the National Animal Health Forum



## **OVINE JOHNE'S DISEASE VENDOR DECLARATION**

### **ON THE SALE OF SHEEP**

(Updated Draft May 2015)

- |  |     |    |
|--|-----|----|
| 1. I hereby declare that I am the owner or authorised representative of the sheep on sale and am competent to make this declaration.                   | YES | NO |
| 2. The sheep for sale are clearly identified in the accompanying description.  | YES | NO |
| 3. The sheep for sale were born on my farm.  | YES | NO |
| 4. The farm has a closed flock policy. (No live sheep are brought onto the farm from elsewhere)  | YES | NO |
| 5. I know the signs of the disease and to the best of my knowledge, all of my properties are free of cases of Ovine Johne's Disease.                   | YES | NO |
| 6. I have actively looked for Ovine Johne's Disease and have had tests done for this.  | YES | NO |
| 7. To the best of my knowledge, my immediate neighbours and farms in my magisterial district of my farm(s) are free of cases of Ovine Johne's Disease. | YES | NO |

- |  |     |       |
|--|-----|-------|
| 8. The sheep on my properties have been vaccinated against Ovine Johne's Disease and are clearly marked with the approved ear tag. | YES | NO    |
| 9. All lambs born are vaccinated   | YES | NO    |
| 10. If vaccinated, the number of years that the vaccinations have been done is   |     | years |

**NOTE:** Vaccination does not mean freedom from OJD, vaccinated animals can still be carriers.

Statement 8 and 9 apply only to already infected flocks, and such sheep can only be sold to other infected flocks by law.

Buyers should consult their veterinary advisor before any purchases.

Signature \_\_\_\_\_

Date \_\_\_\_\_

NAME \_\_\_\_\_

Farm: \_\_\_\_\_

District: \_\_\_\_\_

OWNER OR AUTHORIZED  
REPRESENTATIVE

The use of this declaration is supported by the following organisations:



UNIVERSITEIT VAN PRETORIA  
UNIVERSITY OF PRETORIA  
UNIVERSITÉIT VAN PRETORIA



**RUVASA**  
Rural Veterinary Association of South Africa





# SOP for the control of Bovine Brucellosis

Audit date: \_\_\_\_\_

Authorised person: \_\_\_\_\_

		Y/N	Comment
1	Fences and gates in good condition		
2	Gate control - log in		
3	Disinfection of vehicles coming onto the farm		
4	Protective clothing and boots given to people visiting the farm (cattle area) coming from high risk areas eg. veterinarians, nutritionists, representatives, truck drivers, workers, etc.		
5	Sterilizing equipment coming in contact with cattle		
6	Run off water/ streams from neighbouring farms		
7	All animals identified with a brand mark and ear tag		
8	Data base of all animals		
9	Closed herd		
10	When last were animals bought in or moved from another farm?		
11	Only buy in animals from a farm which has a recent negative tested brucellosis herd certificate		
12	Origin(s) of acquired cattle? Bought at an auction?		
13	Keep heifers separate from herd until they have calved and tested negative for brucellosis		
14	Quarantine camp available		
15	Separate calving camps		
16	Were all heifers vaccinated between 4 and 8 months vaccinated with Strain 19 or RB51?		
17	Any cattle vaccinated with Strain 19 over 8 months of age? History over last few years.		
18	Were there any abortions on the farm – samples taken, diagnosis?		
19	All sexually mature cattle in herd tested for bovine brucellosis (provide proof)		



20	Bovine brucellosis is a State controlled disease. Positive cattle are branded with a C on the right side of the neck.		
21	Isolation of infected animals & separate handling facilities		
22	Prohibition of movement of animals off quarantined property except under cover of a Red cross permit for slaughter at an abattoir		
23	Prohibition of use and on-farm disposal of unboiled, unpasteurised or unsterilised milk on quarantined property		
24	Disinfection of places where infection is a possibility.		
25	Neighbours/ recent buyers informed of infected herd status		
26	Fly, crow and predator control		
27	Destruction of afterbirths/abortions in a responsible manner		
28	Beware of livestock, game interface		

Websites that are there to help you with information regarding animal health:

## National Animal Health Forum

[www.nahf.co.za](http://www.nahf.co.za)

Read what the Forum is all about:

<http://nahf.co.za/about/>

This website will become the information centre of animal health in Southern Africa.

On the toolbar click on **Stakeholders** and you will find links to producer organizations and other organizations who are participating in the NAHF

<http://nahf.co.za/stakeholders/>

Provincial Animal Health Forums have their own site – click on **Provinces** <http://nahf.co.za/provinces/>

Important is to study the Veterinary Strategy (2016 -2026) as it gives direction to where we are going with Animal Health in South Africa.

<http://nahf.co.za/wp-content/uploads/Vet-strategy-final-signed.pdf>

Click on **Info centre** for more information on the “war” we have against Bovine Brucellosis. Please be up to date on the role all have to play to control this zoonotic disease.

<http://nahf.co.za/category/diseases/brucellosis/>



Information on other controlled diseases (Foot and Mouth Disease, Ovine Johne's Disease, Pest of small stock – PPR, and African Horse Sickness) is available.

This link will continuously be updated.

Information on **antibiotic resistance** is also available at this address:

<http://nahf.co.za/category/antibiotic-resistance/>

## **Rural Veterinary Association of South Africa**

[www.ruvasa.co.za](http://www.ruvasa.co.za)

Click on **Disease reporting** where maps and information can be sourced on the prevalence of diseases in all provinces. Abattoir reports are available. Use the information available to update management programmes

## **Landbouweekblad's webpage**

[www.landbou.com](http://www.landbou.com)

[Kundiges](#)

[Vra vir Faffa](#)

[Lees alle antwoorde](#)

[Beeste](#)

[Siektes](#)

[Brusellose](#)

### **The following can be typed in the "Soekblokkie"**

Stop Brusellose

Gevaar om Beesbrusellose (BBR) deur vendusies en skoue te versprei

Rapportering aan bure of ander eienaars oor die voorkoms van brusellose

Inligting oor brusellose op die NAHF se webblad

Kuddebestuur voor die dekseisoen

Bees Brusellose handleiding

Teenliggaamwaardes om beesbrusellose in koeie te bepaal

Veterinêre Strategie 2016 -2026

'n Dosyn dinge wat jy moet weet van beesbrusellose

Vyf kernfeite wat jy van beesbrusellose (Besmetlike misgeboorte – BM) behoort te weet

Veiligheid van vleis en biltong afkomstig van 'n bees met brusellose

Vervoer van diere uit 'n positiewe brusellose kudde



Beheer van brucellose in 'n beeskudde

Boerderypraktyke wat die gevaar van die voorkoms van brucellose verhoog

Pak brucellose by die horings

Brucellose kan jou lewe verwoes

Brucellose in wild

Bestuur van positiewe besmetlike misgeboorte beeste

Aankoop van beeste wat besmetlike misgeboorte het

Antwoorde oor brucellose

Behandeling van besmetlike misgeboorte

Besmetlike misgeboorte uitbreek in 'n kudde

Gevaar van brucellose onderskat

RB51-inenting teen brucellose in dragtige koeie

Alles oor Besmetlike Misgeboorte (BM)

Kompensasie vir BM en TB positiewe beeste?

Nóg vrae oor besmetlike misgeboorte

Koeie positief getoets vir besmetlike misgeboorte

Vrae, antwoorde oor besmetlike misgeboorte

Brucellose: Wat staan ons te doen?

## **Internal parasite control**

[www.wormx.info](http://www.wormx.info)

## **Farm gates, Fences and Foresight, the 3 F's!**

**Bear this in mind as this is where most disease-causing organisms enter or exit farms!**

**Major examples are: Foot and mouth disease, brucellosis, Johne's disease, TB, cryptosporidiosis, trichomonosis, vibriosis, sheep scab, resistant parasites such as red lice, blue ticks and internal parasites (Buyer beware programmes).**



**Insist on VENDOR'S DECLARATIONS when buying animals.**

**Quarantine**

**Immunization programmes**

**Speak to your veterinarian**

**Abide the law- vaccinate cattle against anthrax and heifers against brucellosis!**

**For the detailed report and previous reports go to [www.ruvasa.co.za](http://www.ruvasa.co.za) and click on Disease reporting**

**Internal parasites**

The following reports were received from practices regarding internal parasite infestations:

Internal parasites	MP	G	L	NW	FS	KZN	EC	WC	NC
Roundworms		x	x	x	x	x	x	x	
Resistant roundworms		x		x	x			x	
Wireworm	x		x		x	x	x	x	x
Brown stomach-worm								x	
Long-necked bankruptworm									
White bankruptworm									
Large-mouthed bowelworm									
Nodularworm							x		
Lungworm									
Eyeworm									
<i>Parafilaria</i>									x
Tapeworms		x	x	x	x			x	
Liver fluke	x			x	x	x	x	x	
Conical fluke	x		x		x	x	x	x	



Cysticercosis (measles)				x		x		x	x
Schistosomiasis (bilharzia)									
Coccidiosis	x	x	x	x	x	x	x	x	x
Cryptosporidiosis		x	x		x	x	x	x	

Late winter rain fell in some areas of the country and temperatures rose which favours the hatching of eggs of most internal parasites. Sheep farmers can be caught unaware. Check for clinical signs of parasitism such as anaemia, bottle jaw, weight loss and diarrhoea.

Beware of liver fluke and conical fluke outbreaks when animals are grazing in vleis and other wet areas where the intermediate hosts, water snails, are abundant.

Coccidiosis outbreaks were reported from all nine provinces. Young animals are most susceptible.

Cryptosporidiosis outbreaks causing huge losses were reported from 6 provinces. A product has been registered to treat animals against this deadly parasite.

[https://www.google.co.za/search?hl=en&tbm=isch&source=hp&biw=1344&bih=608&ei=PyxyXOO7OcutkwXinK3oCA&q=cryptosporidium+parvum&oq=Cryptosporidium&gs\\_l=img.1.1.0l10.2885.9850..16402...0.0..0.708.5719.2-4j4j3j2j1.....0....1..gws-wiz-img.....0.o66yefU7Ric](https://www.google.co.za/search?hl=en&tbm=isch&source=hp&biw=1344&bih=608&ei=PyxyXOO7OcutkwXinK3oCA&q=cryptosporidium+parvum&oq=Cryptosporidium&gs_l=img.1.1.0l10.2885.9850..16402...0.0..0.708.5719.2-4j4j3j2j1.....0....1..gws-wiz-img.....0.o66yefU7Ric)

## Prevention of Cryptosporidiosis

Prevention is the best control method.

Animals with a well-developed immune system will generally overcome *Cryptosporidium* thus this must be the main aim in controlling *Cryptosporidium*.

A consistent, vet approved and farm appropriate vaccination program for other diseases.

Ensure no nutritional deficiencies especially vitamin A and Selenium

Excellent bio-security

Ensure clean pathogen free water sources

Hygiene training of personnel

Consult your veterinarian

## HOLISTIC INTERNAL PARASITE MANAGEMENT FOR SHEEP AND GOATS

Gareth Bath, Jan van Wyk and Faffa Malan



## **INTRODUCTION**

Over the past ten to fifteen years there has been a radical rethink on our previous worm control strategies and assumptions due to the ever-accelerating failure of anthelmintics globally. This has caused a quiet but drastic revolution in many of the “received wisdoms” which governed advice to farmers for close to a century.

For a start, we have to abandon the underlying philosophy that internal parasites are an evil plague which should be maximally suppressed, or preferably eradicated. We have to learn to live with parasites, and prevent only the unacceptable production losses, while simultaneously breeding animals fit for the environment, rather than making the environment fit for existing animals. By regarding parasites as part of the natural order of things, we will be able to see them simply as potential problems to be managed in order to achieve optimum productivity and profitability.

Only well integrated, holistic planning has a long-term chance of success, and unless all elements of our potential armamentarium are harnessed, the results will not match the expectations.

While this paper applies to helminths, and mainly nematodes, the parallels and inferences which can be made for ectoparasites, and indeed other organisms, should be obvious.

## **WORM MANAGEMENT PRINCIPLES**

### **A FLOCK MANAGEMENT REQUIREMENTS**

#### **Separation of Groups**

Since different classes of animals vary in their susceptibility to worm infection and its effects, they should be separated into groups, which are grazed, treated and managed as distinct entities. If these distinctions are not made one may be forced to treat the flock according to the most susceptible group. The most susceptible groups can still be managed and treated more intensively in a mixed flock, but this becomes more difficult.



**Identify the groups most at risk**

Research has shown that the more susceptible animals are lambs/weanlings; and pregnant/lactating ewes. The former are susceptible because they cannot yet mount an effective immune response to infection, the latter are prone to infection because of a temporary suppression of immunity. (PPRR). These groups must get special attention.



### **Separation of pastures**

Unless pastures can be divided by fencing or herding, all sheep will be exposed to a similar challenge, regardless of whether they are susceptible or resistant to infection and its effects. This will prevent any differentiation in management and treatment. Diversion of pastures is not only good for internal parasite control, it also aids pasture management. Electric fences can be used as temporary pasturage dividers. In communally farmed areas, herding or tethering can achieve the same result without fencing.

### **Resting of pastures**

If pastures can be separated, it is then possible to rest them effectively, which has decided advantages to pasture management and improvement. If such pastures can be rested long enough, this will also have a significant effect on the survival of worm larvae and therefore the infection rate of the flock. Although the time needed for effective resting of pastures will vary with the climate, weather and worm species, a useful rule of thumb for effective resting is at least 3 months in subtropical for temperate climates, but as little as 1 month in the tropics. The longer the rest, the better it is for worm management.

### **Alternation of host species**

Sheep and goats share the same worm species and alternation with one another is ineffective for worm management. However, other species like cattle, horses and ostriches are generally not susceptible to the worms of sheep and goats. If they are used to graze pastures before or after sheep or goats, they act as "vacuum cleaners" on the pasture, as they ingest many larvae which cannot develop further into egg-laying adults. The other advantage is that the pasture can still be utilised in its growing season, which prevents the grass from becoming senescent, and optimises its usefulness. This aids in maintaining the profitability of the farm.

### **Mend water leaks**

Water points (troughs, windmills) should not be allowed to leak, as this encourages the growth of grass. Since this is where sheep concentrate, the area can become lethally contaminated by larvae.

### **Avoid grass in pens**

Where sheep or goats have to be penned for lengthy periods (usually at night, to combat theft or predation) there can be a fatal buildup of larvae on the grass growing there. Sheep become hungry overnight and will eat these morsels of food. In consequence they



will ingest massive numbers of larvae. It is therefore necessary to remove all grass from such pens.

**Fence off moist areas**

Areas particularly prone to high moisture and therefore the survival of worm larvae, like streams and marshes, should be separated to reduce the challenge of the flock.



### **Strategic movement of flocks**

The aim should be to create "safe" (not necessarily "worm free") pastures. By planning changes in camps or paddocks, stock will be subject to lower challenges and need less chemical treatment. Any grazing system where a significant proportion of the pasture is rested for a full growing season will be particularly effective.

### **Quarantine and treatment**

Do not simply introduce purchased animals into the flock or herd. They must be quarantined in a worm-unfriendly pen (bare earth or concrete) and treated intensively using the best drugs and schedule. If financially feasible, do an FECRT to ensure minimum carry-over of drug-resistant parasites. Then place them on infected pasture if there is no multiple resistance.

## **B GENETIC SELECTION**

### **Selection for resistance**

Resistance (the acquired or innate ability to prevent or minimise infection by parasites) is heritable and can be selected for, by measuring the faecal egg counts and using only those sheep with the lowest FEC's for breeding. For practical and economical reasons, this is usually only done for rams. Some successful breeding programmes have been undertaken but they require good organisation and meticulous record keeping. Culling of bad ewes and their offspring is also practical and recommended.

### **Selection for resilience**

Resilience (the ability to withstand the effects of infection and produce satisfactorily in spite of it) is also heritable. At present, only two proven methods, FAMACHA® and Haematocrit determination exist, although preliminary results suggest that Body Condition Scoring may also be useful. The FAMACHA® System can be used only where wireworm is the major parasite. By treating according to clinical anaemia (an indicator of poor resilience), only those sheep unable to cope with wireworm are treated. This reduces selection pressure for anthelmintic resistance and at the same time allows the



farmer to cull the non-copers, in the long term thus being able to breed an animal better adapted to the environment.

It is also possible to select rams by a system of allocation of selection indices. This is currently under investigation and will require measuring individual ram FECs and FAMACHA® scores (or haematocrits) to make the measurement more accurate.



## **C      MONITORING SYSTEMS**

### **FEC**

Regular (monthly or 2 - monthly) monitoring of faecal egg counts on a group or flock basis will help to indicate when dosing is really needed, and equally important, when it can be delayed or even omitted. A bulk (composite) FEC comprising a single count of faeces pooled from equal samples from 10 to 20 sheep is certainly cheaper than dosing the whole flock unnecessarily. Keep graphs or tables of changes to indicate when parasite buildup is likely.

### **FECRT**

Every farmer should have the flock tested for drug resistance in the worm population on his farm, at regular intervals of not less than two years. Only by knowing exactly what the state of anthelmintic resistance on a farm is, can appropriate action be taken. Generalisations like "benzimidazole resistance is found on most farms" are not much use since they cannot tell us what the situation is on a particular farm. Just as important, we must know not only that resistance is present, but also how bad it is. Can we still use the drug group at all? Separate bulk faecal samples from each drug group will reduce the cost to acceptable levels.

### **FAMACHA® evaluation**

Apart from selection and culling, this system also allows frequent, cheap and easy monitoring of the current situation as regards worm infection, but applies only to haemonchosis.

## **D      OPTIMISE ANTHELMINTIC USE**

### **Establish the important parasites species present**

Unless the prevalence and importance of worm species is known, worm management becomes dangerous and unpredictable guesswork. It can also be ineffective and very costly.

### **Use the most suitable drug**



If the parasites are ranked in order of economic importance and their susceptibility to groups of anthelmintics is known and combined with knowledge on the anthelmintic resistance situation on the farm, it is then possible to decide which drug(s) and formulations will be the most suitable in each situation. This includes their cost and a cost/benefit analysis. Neither the cheapest nor the most expensive drug is necessarily the best one to use. Beware of generic drugs sold by an unknown company.

### **Avoid too frequent treatment**

The old approach of "dosing clean" must be completely abandoned, although not by reducing the dosage rate per animal. The aim has to be to treat only sufficient times and enough individual animals to maintain the equilibrium between parasite, host and environment (that is, worm management). Overtreatment ensures that only resistant parasites can survive. Minimal treatment programmes must be the new watchword, but it must be ensured that every treatment is effective.

### **Treat all and stay**

This is a major departure from the recommendations made for close to a century. If **all** sheep are to be treated, they should remain in the camp (paddock) where they were grazing before treatment. This will prevent sheep from contaminating a new pasture with only those resistant parasites which survived treatment, thus in the process unwittingly causing the selection for resistance parasites. In most cases they should remain in the paddock for at least 2-3 weeks after treatment to pick up unselected larvae for propagation of the susceptible worms in the new camp/paddock. However, should a long-acting anthelmintic be used, this period will have to be longer (2 to 3 weeks after the effective residual action ends). Particularly bolus (slow release) formulations should be used with great caution.

### **Treat selectively**

It is preferable to treat only those sheep or goats unable to cope with the current infection challenge, provided the percentage of non-copers remains below 20%. This can be done with the FAMACHA® system for haemonchosis, or possibly with Body Condition Scoring for other parasites. If clinically unaffected animals are left untreated, an immediate move to new pasture will not be detrimental. In the absence of such selective treatment, just leaving a small percentage (10-25%) of the flock intentionally untreated can be beneficial to slow AR development.



## **Move then treat**

*Another way of achieving the same result as “treat all and stay” is to move the flock to a new “safe” pasture and delay treatment for 2-3 weeks, to allow the seeding of the new pasture with unselected worms, before treating the flock.*

## **Herbal Remedies**

These are often touted as the answer to worm control. However, unless they have been properly tested and proven by an independent body, they may be useless or even harmful.

## **E IMPROVED ANTHELMINTIC EFFICACY**

### **Dose over the tongue**

By placing the tip of the gun towards the back of the mouth, over the tongue, closure of the oesophageal groove does not occur and thus the full dose lands in the rumen where it is absorbed more slowly - this is particularly important for anthelmintic groups which rely on prolonged blood levels for their effect, like the benzimidazoles and macrocyclic lactones.

This prolonged level of activity (a long so-called "killing zone") means that the drug against which worms have developed a moderate degree of resistance can be made more effective, although of course the resistance of the worms is not reduced, but rather partially overcome. However, dosing (drenching) over the tongue, if done carelessly, can result in two very severe consequences:



the dose can land up the lungs, and cause pneumonia  
the nozzle of the dosing gun can penetrate the pharynx and cause severe, fatal infection. If the sheep jumps forward, the operator must let the gun 'ride' with the sheep, and not oppose it, and the dose must be delivered by a measured, steady pressure rather than a single squeeze.

### **Reduce feed intake**

It has been shown in the case of benzimidazoles and closantel that reducing feed intake (i.e. starvation) for 24 hours prior to treatment will improve the absorption of the remedy because of the lower rate of flow of ingesta. As in the previous case, this results in a more effective exposure of the parasite to the drug.

In turn, this means that the drug is clinically more effective and can partially overcome drug resistance.

### **Repeat the dose**

This only applies to benzimidazoles and macrocyclic lactones. Two doses given 12 hours apart will again increase the "killing zone" of these drugs, allowing more time for a cumulative killing effect. Thus, resistant worms can still be killed, although this is achieved at a cost since two normal doses rather than one are needed. A double dose, given at one time, will have **no** beneficial effect with these two groups of anthelmintics.

### **Increase the dose**

This only applies to drugs which rely mainly on peak concentrations for their effect. In this case, a double amount of drug given at one time can overcome drug resistance in worms. This is useful for the imidasothiazoles (levamisole). There is however a relatively low safety margin, only 2x – 3x the therapeutic dose may sometimes cause problems of toxicity.

### **Correct dosage**

It may seem too obvious, but a lot of problems are caused by not weighing sheep, not calibrating and checking the dosing gun for accuracy and repeatability, and not reconciling the amount of drug used with the number of sheep treated. Underdosing may be a factor leading to anthelmintic resistance, but it is more likely to be the cause of ineffective treatment.

### **Drug combinations**



Combining drugs from different activity groups in one dose may temporarily improve the effective clinical action of these drugs, but only if each drug concerned is unaffected by resistance. However, many authorities believe that this will not slow the development of resistance and could even enhance it. If drugs are mixed, this can only be done if the formulation has been fully tested and carried by experts, in registered products. Home made combinations are dangerous and illegal. Such combinations often just give temporary relief and disguise the emergence of AR until it is severe and multiple.

### **Sustained delivery**

Medicated blocks or controlled release capsules will increase the clinical efficacy of those drugs which rely on prolonged action for their effectiveness. However, we have to bear in mind that prolonged exposure to a drug at low levels will increase selection for resistance. This approach will therefore not be permanent, and should only be used for very specific, limited purposes (e.g. weaners on green pasture) and not the entire flock in all circumstances.

### **Goats are different**

Because of differences in the rate of metabolising drugs, goats must be treated as different to sheep. This means that goats must often be given a higher dosage rate than sheep except where there is a possibility of toxicity. Note that many anthelmintics may not be registered for use in goats, or that the recommended dose given is the same as for sheep. Unfortunately, therefore if the product is not registered for use in goats, or the dosage rate is increased, the user has no legal redress if the product is used and fails, or causes losses.

## **F EFFECTIVE PLANNING**

### **Use the expert**

Knowledgeable veterinarians, who know the area, farming systems and risks can construct a simple, practical, economic and effective holistic worm management strategy. They can consult helminthologists where necessary.

### **Use a programme**

Unless a basic planned system is in place and is used, actions will inevitably be largely reactive and based on *ad hoc* or panic decisions. But this does not imply a rigid adherence to the basic plan.

### **Flexibility**



The programme must be flexible to allow for changes in weather, management and farming systems, drug costs or other factors.

### **Treatment strategy**

It is probably true that on most farms animals are either dosed too often, or with inappropriate drugs, or at the wrong times, or with no coherent plan. By setting up a well thought out dosing plan, we can cut out ineffective doses which only add to the selection pressure for parasite resistance. This is one of the areas in which the knowledge and skills of the local vet are vital for success.

## **II OTHER MEASURES AND FACTORS**

### **Protein supplementation**

Since resistance and resilience are dependent on adequate nutrition, and the most important factor identified is protein, it is possible to ameliorate the effects of parasites by feeding animals better. We need to know when and how much of what supplement must be supplied to which class of animal, and what the cost / benefit ratio would be before this aspect can be fully integrated into our overall approach.

### **Condition scoring**

The early indications are that this may be useful for identifying individual animals for treatment against some non-haematophagous worm species. The principle is that animals with a condition score which is more than half a score **below** the flock or herd average are treated. If the animals have a condition score below 2 and the risk of worm infestation is high, then treatment should be given.

### **Weather monitoring**

Factors which affect the survival, development and infectivity of larvae on pastures must be considered. Temperature, rainfall, rainfall pattern, humidity and cloud cover will all have an effect and must be considered when making worm management decisions.

### **Flock/Herd history**

Without knowing details of numbers, types, ages, reproductive stages, treatment, stocking rates, grazing pressures and livestock movements, decision making is at best arbitrary and at worst potentially disastrous.



**Veld/pasture assessment and history**

Coupled with livestock data, the advisor has to consider details of the veld or pasture type, its condition, growth stage, the soil cover, soil moisture, slope and the grazing history.

**Assessment and decision support computer programmes**

A few of these are available internationally, others are under development. Using computer power, they evaluate all the known risk factors and advocate alternative actions based on the given situation and data provided. The evaluation is of course only as good as the inputs given and these programmes cannot substitute entirely for the skills, knowledge and assessment of the advisor or the farmer.

### III CONTROL MEASURES UNDER DEVELOPMENT

**Predacious fungi**

Nematophagous fungi in the soil can severely constrain larval survival by immobilizing and killing them. Practical implementation is, however, still a long way off.

**Dilution of resistance**

By the re-introduction of susceptible strains to a farm where a parasite strain has become resistant to anthelmintics, it is possible to significantly reduce the degree of resistance by a dilution effect. There is some indication that this can be effective on severely affected farms, but the process is slow, labour-intensive and costly.

**Vaccination**

Although this “holy grail” of worm control still remains a mirage as a practical, economical solution to worms, it is theoretically attainable and may be a potent factor when the problems which have prevented its commercial implementation are eventually overcome.

**Condensed Tannins**

Plants containing higher levels of tannins suppress worm egg counts, but also have problems with palatability and digestibility.

**Cupric oxide**

Needles of oxidised copper wire dosed into the rumen will reduce worm egg counts, but the longterm toxic effects (especially with sheep) have to be considered, especially if the diet is high in copper.



### **Change in body weight**

Lack of satisfactory weights gain, or even weight loss, can be considered as indicators for the treatment of individual animals in a flock. However, weighing is time consuming and may not be applicable in a given situation.

## **IV INTEGRATED PARASITE MANAGEMENT**

If any of the foregoing principles are used exclusively, failure will be certain. It is only by using a prudent mix of strategies that sustainable, cost-effective measures can be established. The decision on which measures are to be used in a given situation can only be made by an expert who is conversant with local conditions. This programme will of course have to be drawn up in close consultation with the livestock owner(s).

Whether the farming system is based on communal ownership, subsistence farming, small-scale farming, commercial farming or stud farming, the principles remain the same. Only the mixture and weighting of measures used to manage parasites will vary according to circumstances.

## **V ACTION CHECKLIST**

To implement the holistic use of all the available worm control strategies and principles, the veterinary advisor needs to go about setting up a sustainable programme methodically. The starting point is always the basic management programme, although even this may need to be modified to accommodate sustainable parasite control. Once the key activities like lambing, mating and shearing have been established, and the basic grazing programme has been decided, the requirements of effective parasite management may be superimposed. Planning is a dynamic and never-ending activity, and plans need to be revised each year as necessary.

By following the checklist, advisors can ensure that all appropriate measures have been considered and used.

Make sure that the farmer understands and supports the need for change  
Ensure that all measures are practical, integrated and financially defensible  
Use an incremented approach, do not try to do everything at once  
Evaluate and use knowledge in stock flow, reproductive programme, grazing systems, pasture or veld conditions and weather to decide on appropriate and integrated worm management actions.  
Are the groups/classes of animals properly separated? If not, implement this if possible.



Give weanlings and late pregnant/lactating ewes most attention and the best circumstances

Are the pastures properly fenced, and are there enough camps for effective management?

Implement a satisfactory pasture resting programme. Keep well rested pastures for susceptible groups

Graze camps sequentially by cattle, small stock and other host species if available

Make sure that animals are getting the right nutrition, especially protein, and avoid putting animals in poor condition onto high risk pastures

Mend water leaks and fence off moist areas

Remove all grass from pens where animals are routinely held for long periods

Buy rams selected for resistance (FEC) and/or resilience (FAMACHA<sup>®</sup>/haematocrit)

Cull the minority of ewes which are unable to cope with prevailing parasite burdens

Institute a planned programme for FECs to monitor the parasite situation

Ensure that the FECRT is done every second year

Introduce TST and Institute the FAMACHA<sup>®</sup> system for haemonchosis or BCS for other worm species

Ensure that the types and relative importance of parasites have been established on each farm as well as when they are likely to occur

Select and use the best drug for each situation

If all animals are treated, do not move to new pastures for 2-3 weeks or longer depending on the drug and formulation used

Ensure that the drug used is given in the most effective way

Quarantine and treat all introductions and put them onto infected pasture

Stick to what is possible in a given situation

(Revised: August 2006)

FAMACHA cards can be obtained through your veterinarian (famachasystem@gmail.com)

Serious problems due to diarrhoea in lambs and calves were received from many areas. In many instances *Cryptosporidium* and pathogenic strains of *E. coli* were involved. Consult your veterinarian for help!

[https://www.google.co.za/search?hl=en&tbm=isch&source=hp&biw=1344&bih=608&ei=PyxyXOO7OcutkwXinK3oCA&q=cryptosporidium+parvum&oq=Cryptosporidium&gs\\_l=img.1.1.0l10.2885.9850..16402...0.0..0.708.5719.2-4j4j3j2j1.....0....1..gws-wiz-img.....0.o66yefU7Ric](https://www.google.co.za/search?hl=en&tbm=isch&source=hp&biw=1344&bih=608&ei=PyxyXOO7OcutkwXinK3oCA&q=cryptosporidium+parvum&oq=Cryptosporidium&gs_l=img.1.1.0l10.2885.9850..16402...0.0..0.708.5719.2-4j4j3j2j1.....0....1..gws-wiz-img.....0.o66yefU7Ric)

**Prevention of Cryptosporidiosis**



Prevention is the best control method.

Animals with a well-developed immune system will generally overcome *Cryptosporidium* thus this must be the main aim in controlling *Cryptosporidium*.

A consistent, vet approved and farm appropriate vaccination program for other diseases.

Ensure no nutritional deficiencies especially vitamin A and Selenium

Excellent bio-security

Ensure clean pathogen free water sources

Hygiene training of personnel

Consult your veterinarian

## External parasites

The following reports were received from practices regarding external parasite infestations:

External parasites	MP	G	L	NW	FS	KZN	EC	WC	NC
Blue ticks	x				x	x	x	x	
Resistant blue ticks					x	x			
Heartwater ticks	x	x	x			x			
Brown ear-ticks									
Bont-legged ticks	x	x		x	x	x	x	x	x
Red-legged ticks	x			x	x			x	
Paralysis ticks					x				
Tampans									
Biting lice	x	x		x	x			x	x
Sucking lice				x	x			x	x
Fleas									
Itch mites					x				
Sheep scab		x		x	x				
Mange mites	x	x		x	x	x			
Nuisance flies	x		x	x	x				



Midges	x								
Mosquitoes									
Blowflies					x				
Screw-worm		x							
Gedoelestia (uitpeuloogsiekte)									
Nasal bot	x				x			x	

Blue ticks (African and Asiatic blue ticks) are able to transmit red water, anaplasmosis and lumpy skin disease.

Make sure to assess the blue tick resistance status on your farm before buying tickicides. Your veterinarian will be able to collect engorged blue ticks to be tested for resistance.

Actives to be tested for resistance are: organophosphates, pyrethroids, amidines, fipronil. Actives registered only for controlling blue ticks are: macrocyclic lactones, fluazuron (acaricide growth regulator).

Discuss your tick control programme with your veterinarian. Immature stages of multi-host ticks are prevalent in winter, especially in the ears. By treating cattle where brown ear-ticks are a problem, fewer adult ticks will be seen in summer!

Lice and mange infections increased during the colder winter months. Immunity to these parasites decreases as protein and energy become less available due to malnutrition.

**Now is the time to update your management programme with the help of your veterinarian!**

## Tick borne diseases

The following tick-borne diseases were reported by practices in the provinces:

Tick borne diseases	MP	G	L	NW	FS	KZN	EC	WC	NC
African red water	x		x	x	x	x	x	x	
Asiatic red water	x		x			x	x	x	
Anaplasmosis	x			x	x	x	x	x	x
Heartwater	x		x	x		x	x		



Lumpy skin disease			x		x			x	
Corridor disease									
Theileriosis						x			

Asiatic red water is spreading and is one of the deadliest diseases in cattle.

Numerous mortalities were reported!

Anaplasmosis outbreaks were reported from 7 provinces. Biting flies are the main transmitters of this disease.

Red water and anaplasmosis can be confirmed by examining blood smears under a microscope.

The keyword is: **vaccinate** your animals! Contact your veterinarian.

Tick toxicosis

Tick toxicosis	MP	G	L	NW	FS	KZN	EC	WC	NC
Sweating sickness		x							

## Insect transmittable diseases

The following insect transmittable diseases were reported by practices in the provinces:

Insect transmittable diseases	MP	G	L	NW	FS	KZN	EC	WC	NC
Lumpy skin disease			x		x			x	
Pseudo Lumpy skin disease (Allerton virus)									
Ephemeral fever (Three-day-stiff sickness)							x		
Blue tongue		x							x
Rift Valley Fever									
Wesselsbron									
Nagana						x			



Due to colder weather conditions insect numbers have died down. Vaccines are available, the only reason why there were so many outbreaks of lumpy skin disease, blue tongue and three-day-stiff sickness last season, could have been that animals were not vaccinated or that the cold chain was broken! Now is the time to plan your vaccination programme for the spring and summer season.

## Venerial diseases

The following venereal diseases were reported by practices in the provinces:

Venereal diseases	MP	G	L	NW	FS	KZN	EC	WC	NC
Trichomonosis	x		x	x	x	x		x	x
Vibriosis					x			x	
Pizzle disease					x				x
<i>Actinobacillus seminis</i> plus HPA									

New cases of **trichomonosis** are reported every month and this disease is out of control.

**Make sure to buy bulls from farmers where biosecurity measures are in place and bulls are tested for these diseases at regular intervals. Trichomonosis (7 provinces).**

**Venerial disease is a HERD disease! Calculate your losses if these diseases are not eradicated on your farm!**

Make sure that fences are in tact and gates closed so that bulls cannot escape to neighbouring cows that may be infected with *Trichomonas* and become infected or infected neighbouring bulls are jumping fences.

Cattle study groups should discuss preventative and control measures with their veterinarians. **Be sure to test bulls regularly for these diseases.**

**Beware when buying in or sharing bulls! Remember female animals may also be infected.**

Study the Good management SOP's for cattle farmers on the RPO website

<http://www.rpo.co.za/wp-content/uploads/2016/04/nuutRPO-NERPO-Code-Addendum.pdf>

<http://www.rpo.co.za/wp-content/uploads/2016/04/nuutRPO-NERPO-Code-Addendum-4-Good-management-practices-and-SOPs-for-cattle-farmers-1.pdf>

Consider Trichomonosis as an area disease, farmers should work together to keep areas free from diseases such as trichomonosis, brucellosis, tuberculosis, Johne's disease and sheep scab.



## Bacterial diseases

The following bacterial diseases were reported by practices in the provinces:

[illegible]



Pasteurellosis (see pneumonia -lungs)	x	x	x	x	x		x	x	x
<i>Fusibacterium necrophorum</i>								x	
Septicaemia	x				x			x	
<i>E. coli</i>	x	x		x	x	x	x	x	
<i>Klebsiella</i>									
<i>Coxiella</i> (Q-fever)					x				
<i>Mycoplasma</i>									
Enzootic abortion			x	x				x	x
Lumpy wool ( <i>Dermatophilus</i> )		x			x				
Bovine dermatophilosis (Senkobo disease)	x								
Uterine gangrene									x
Wooden tongue				x					
Lumpy jaw									
Interdigital dermatitis									

Multiclostridial vaccines should be used if blackquarter outbreaks still occur when only using a vaccine containing *Clostridium chauvoei*. Remember to give a booster vaccine when using an inactivate vaccine for the first time. **Read the packet insert!!** Study the table above and determine the risk for animals on your farm.

Get advice from your veterinarian on *Cryptosporidium*/*E. coli* outbreaks in your area and what to do to prevent losses in lambs and calves.

Enzootic abortion contributes to the disappearance of foetuses in sheep and goats scanned pregnant. **Vaccinate replacement ewes with the live vaccine before putting them to the ram!**

Pulpy kidney (*Clostridium perfringens* type D – *epsilon* toxin) is still the biggest killer of sheep. There are various factors that could lead to pulpy kidney such as: the intestinal tract stops functioning (stasis), sudden change from poor veld to lush artificial pastures; sudden change in diet; grazing of fodder crops such as lucerne, green wheat and green oats, diet high in protein, overeating of



concentrates or fertile pastures, deworming and coccidiosis infection. Sudden changes in the weather and grazing in wilted pastures, may also play a predispositional role.

Be sure to vaccinate animals against botulism especially if chicken litter is going to be fed to animals.

Q-fever, a zoonosis, seems to be more prevalent, beware! An abortion storm in sheep should make farmers aware of Q-fever!

**Challenging farmer's unions and study groups to eradicate brucellosis in their area!! Many success stories are received!**

**Ask for vendor's declarations before buying in animals and quarantine them before releasing them onto the farm!!!!**

**A positive heifer is a TROJAN HORSE!!! This latent carrier of brucellosis may only test positive after calving!!!!**

**PREVENTION IS BETTER AND CHEAPER THAN TREATMENT!**

**Do not save yourself bankrupt!**

**Q-fever, enzootic abortion, brucellosis, are all zoonotic diseases and should be handled with utmost care!**

## **Viral diseases**

The following viral diseases were reported by practices in the provinces:

<b>Viral diseases</b>	<b>MP</b>	<b>G</b>	<b>L</b>	<b>NW</b>	<b>FS</b>	<b>KZN</b>	<b>EC</b>	<b>WC</b>	<b>NC</b>
<b>BMC (snotsiekte)</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>		<b>x</b>		<b>x</b>
<b>Rabies (cattle)</b>				<b>x</b>					
<b>BVD</b>					<b>x</b>	<b>x</b>			
<b>IBR</b>					<b>x</b>	<b>x</b>		<b>x</b>	
<b>BRSV</b>						<b>x</b>			
<b>PI3</b>						<b>x</b>			
<b>Maedi visna virus</b>									
<b>Rotavirus</b>					<b>x</b>	<b>x</b>	<b>x</b>		



Coronavirus		x			x				
Enzootic bovine leucosis (EBL)					x			x	
Sheep leucosis									
Jaagsiekte									
Orf	x	x		x	x	x	x	x	x
Warts	x	x	x	x	x	x	x	x	x
Herpes mammillitis - goats									

There is no treatment for viral diseases with the result that animals have to be protected by vaccinations if they are available.

Preventative vaccinations are the best way to protect animals against viruses and bacteria causing pneumonia.

Keep cattle and wildebeest well separated especially when wildebeest are under stress to prevent snotsiekte outbreaks! There is also a sheep associated form of the disease.

**Snotsiekte was reported from 7 provinces!! Have a dialogue with your neighbour if wildebeest are in the area.**

**BMC is a notifiable disease and have to be reported to the State Veterinarian.**

<http://nahf.co.za/controlled-and-notifiable-diseases/>

Discuss vaccination programmes and biosecurity measures with your veterinarian.

Orf is a zoonosis.

## Fungal diseases

The following fungal disease was reported by practices in the provinces:

Fungal diseases	MP	G	L	NW	FS	KZN	EC	WC	NC
Ringworm	x	x		x	x	x	x	x	

## Protozoal diseases



















Moxidectin									
Oxytetracycline									
Tilmicosin									
Bromoxynil nitrate									
Ionophor									
Monensin									
Hypo									
Diazinon									
Glyphosate									
Chicken litter									
Medicated maize seed									

Beware when buying in animals or moving them into rested grazing camps as they are the animals which usually eat toxic plants such as tulip (6 provnecs) and ink berries (*Cestrum*).

Do have activated charcoal on the farm as the antidote for tulip poisoning! Dosage: 2 gram per Kg body weight, 1 Kg charcoal for 500kg animal. Toxic plants are sometimes eaten by young animals that do not know these plants. Be aware of this situation and know where these plants are growing on the farm.

Thirty sheep died when they ate *Eucolyptus* (bloekom) leaves

Urea poisoning occurs every month on some farms – make sure of the dosage rate and rain wetting urea..

Every now and then goats die when they are injected in the neck area, rather inject them in the tail fold.

**Make sure that licks containing urea are mixed and formulated properly. Many mortalities were reported wher mixing instructions and calculations were not followed correctly!**

## Nutritional deficiencies



The following nutritional deficiencies were reported by practices in the provinces:

Deficiencies	MP	G	L	NW	FS	KZN	EC	WC	NC
Energy	x	x	x	x	x	x	x		x
Protein	x	x	x	x	x	x	x	x	x
Phosphate	x	x	x	x	x			x	x
Calcium	x	x		x	x			x	

Nutritional deficiencies were reported from most provinces. It is important that ewes and cows receive sufficient supplementation so as to have optimal colostrum quality for their offspring!

## Micro-nutritional and vitamin deficiencies

The following micro-nutritional deficiencies and vitamins were reported by practices in the provinces:

Deficiencies	MP	G	L	NW	FS	KZN	EC	WC	NC
Iodine									
Copper		x							
Zinc		x						x	
Selenium		x		x	x	x			x
Magnesium									
Manganese									
Vitamin A	x			x	x		x	x	x
Vitamin B 1		x			x	x			

**Members of RuVASA's hearts go out to our colleagues and their clients in drought-stricken areas!**

There are antagonists such as calcium, iron and sulphur which hamper the uptake of micro-minerals. Have water and soil samples analysed to see what the levels of these antagonists are. Arrange with your veterinarian to have liver samples analysed to determine the status of these micro-minerals in your herd or flock.

Selenium is a powerful anti-oxidant and necessary for immunity. Check the status of the herd.



Beware of fluoride poisoning as borehole water levels drop.

Supplement animals with vitamin A and Zinc during winter and drought conditions.

## Multifactorial diseases and other conditions

The following conditions were reported by practices in the provinces

Multifactorial diseases and other conditions	MP	G	L	NW	FS	KZN	EC	WC	NC
Abortions	x	x		x	x	x	x	x	x
Stillbirths	x		x	x	x		x	x	
Abscesses	x	x	x	x	x	x		x	x
Intestinal ulcers									
Bladder stones –urolithiasis			x	x	x	x		x	
Blindness	x				x		x		x
Bloat	x			x	x	x		x	
Blue udder	x			x	x		x	x	x
Diarrhoea	x	x		x	x	x		x	x
Epididymitis		x			x	x		x	
Eye cancer	x				x	x	x		x
Eye infections	x	x		x	x	x		x	
Skin lymphoma									
Joint ill	x			x	x	x	x		x
Cystitis									
Icterus									
Lameness/foot problems	x	x	x	x	x	x	x	x	x
Lung infection	x	x	x	x	x	x	x	x	x
Mastitis	x	x		x	x	x		x	



Navel ill	x				x	x	x	x	
Umbilical hernia		x							
Red gut (sheep, torsion of gut)		x							
Rectal prolaps									x
Rumen stasis						x			
Abdominal impaction									
Abdominal hernia									
Floppy kid syndrome									
Swellsiekte									
Traumatic reticulo-pericarditis	x			x	x	x			
Trauma	x			x		x		x	x
Teeth wear									
Plastic bags (ingestion)									
Downer	x	x	x	x	x	x		x	x
Poor condition									
Anaphylactic shock									
Vestibular syndrome (middle ear infection)	x				x				
Hernia									
Deformities									
Wet carcasses at abattoir				x				x	
Yellow carcasses at abattoir					x			x	

Discuss the origin, treatment and prevention of these diseases with your veterinarian.



The cause of abortions should be established: brucellosis, enzootic abortion, Q-fever, leptospirosis, Rift valley fever, etc. The necessary preventative measures can then be taken.

**Lung diseases are killers in the winter. Excellent vaccines are available!**

## Metabolic diseases

**The following diseases were reported by practices in the provinces:**

Metabolic diseases	MP	G	L	NW	FS	KZN	EC	WC	NC
Acidosis	x		x		x	x		x	x
Displaced abomasum		x				x			
Ketosis (Domsiekte)		x		x	x	x	x	x	
Milk fever					x	x	x	x	

**Make sure that you adapt animals to feed containing concentrates as more and more cases of acidosis are reported when grazing animals on harvested maize fields.**

**Discuss the etiology, treatment and prevention of these diseases with your veterinarian.**

## Reproductive diseases

[illegible]



Penis injury									
Orchitis									

**Secret of making money is to have an offspring of EACH heifer, cow, ewe or doe on the farm and wean that calf, lamb or kid EVERY YEAR!!**

**Vitamin A deficiencies occur in winter and supplementation may be worthwhile**

A poor conception rate on many farms is a huge issue. Visit your veterinarian to rectify this problem.

### Environmental conditions

	MP	G	L	NW	FS	KZN	EC	WC	NC
Exposure to cold					x	x	x	x	
Frozen to death				x	x		x	x	
Heat stress									
Lightning					x				
Electrocution									
Drought					x				

### Other conditions

	MP	G	L	NW	FS	KZN	EC	WC	NC
Dermatospraxis					x				x
Genetic disorders					x				
Drug residues (milk, meat, liver, kidney etc)									
Predators					x				
Theft/Sabotage	x				x				



Trauma (fractures etc)		x	x		x			x	
Trauma (veldfires)		x				x			

In the CODE OF CONDUCT of the RPO the following standard operating procedures are documented.  
The local veterinarian should be your partner to help you achieve the necessary standards.

<http://www.rpo.co.za/BestPractices/English.aspx>

#### PRECAUTIONARY MEASURES TO SUPPORT BIO-SECURITY.

Precautionary measures are required to protect the herd against diseases acquired because of external contact. The following categories are of concern:

##### 1. DIRECT LIVESTOCK PURCHASES (and own animals returning):

The following should be **verified** before importing new animals into the herd:

How long animals have resided at the purchase or previous location?

Have there been any recent disease outbreaks in the location?

Do brand marks clearly confirm ownership?

Was a vaccination program followed (need paper or veterinarian proof). What are the local prevalent external parasites and the routinely implemented control program?

Is a veterinarian supported control program against transmittable diseases followed?

Dates and sufficient number of tests for reproductive diseases of both male and female

Dates and tests for zoonotic diseases

The above should also be verified with the purchaser's own veterinarian.

##### 2. PURCHASES FROM SALES OR SPECULATORS

Purchase only in areas which are not in close proximity to scheduled areas

Visually inspect the animals before purchasing for:

\* brand marks

\* parasite infestation

##### 3. TRANSPORT TO THE FARM

Use only reputable transporters

Has the truck been cleaned and disinfected?

Truck to follow the shortest uninterrupted route

Truck to take the shortest route to the handling facilities

Do not allow the truck personnel to get in contact with the farm herd

##### 4. ARRIVAL ON THE FARM

Off-load the livestock to limit stress and to be visually evaluated for any unnatural conditions.

Isolate them from the farm herd and shared facilities for at least 21 days (quarantine)

Retest for diseases of concern if needed, before mixing with the rest of the herd

Process new arrivals within 24 hrs after arrival (unique ID tag brand, dip, dose, vaccinate)

Inspect regularly



## **5. FEED PURCHASES**

Ensure bales of hay are sourced from areas that are not bordering scheduled areas

Purchase feed from reputable dealers only

Avoid buying feed in second hand bags

Ensure feed trucks are also disinfected and cleaned, especially if also used to transport animals to abattoirs

## **6. VISITORS**

Do not allow strangers or their vehicles amongst the livestock

Ensure fences are well maintained and preferably jackal and warthog proof

## **7. EMPLOYEES**

Do not allow the employees to eat in feed stores

Supply employees with sufficient ablution facilities

Regularly arrange to let employees be medicated for tape worm and have health check-ups

Keep record of all employee livestock on the property

Treat employee livestock with separate but dedicated health programs

Ensure employees understand the reason behind the implemented bio-security measures to help ensure compliance.

## **GENERAL AND REPRODUCTION MANAGEMENT**

Record keeping: All animals are individually identified and recorded.

To prove ownership: All animals are marked with the registered brand mark according to the Animal Identification Act, No 6 of 2002.

A defined breeding season is the basis of effective management: The breeding season coincides with the rainy season, i.e. the period when nutritive value of the pasture is at its best.

Sufficient energy reserves in the herd as measured by condition scoring are vital, especially for effective breeding, and when inadequate the herd is supplemented in consultation with a nutritionist: Condition scoring of bulls and cows are regularly done, particularly at the onset of the breeding season and supplemented if necessary.

Bull - cow ratios are maintained: A ratio of 1 to 25 is maintained in every separate herd.

Fertility of breeding bulls: All breeding bulls are tested for mating ability and semen quality before the breeding season.

Sexually transferable diseases: Sheath washes or scrapes on bulls are performed annually.

Diseases that can cause poor conception, abortion or weak calves: Cows are vaccinated against such diseases in consultation with the veterinarian.

Breeding success monitored by a veterinarian: Rectal pregnancy or scan diagnosis is done by the veterinarian 8 weeks after the breeding season.

Twenty percent of cows or more not pregnant: Further tests are done to determine cause of low pregnancy rate.

Culling of non-pregnant cows: Non-pregnant cows are removed from the herd and considered a necessary bonus to supporting herd income.

## **HERD HEALTH AND BIO-SECURITY**

Maintenance of herd health is key to a successful enterprise: A veterinarian should visit the farm bi-annually at least.



Calf mortality before 3 months of age is an important reason for poor weaning percentage: Good management practices are applied to limit early calf deaths.

Some diseases and parasites (internal and external) are more often encountered in specific areas: Annual vaccinations and a parasite control program should be applied according to regional requirements and in liaison with the veterinarian.

Farmers selling weaned calves to feedlots may want to have a market advantage compared to others: A specific vaccination program is applied before weaning for that purpose.

Herds may be at risk of being exposed to CA and TB: The herd is tested annually for CA and all heifers are vaccinated against CA between 4 and 8 months of age with an efficient, approved remedy. The herd is tested at least every 5 years for TB

Precautionary measures are required to prevent diseases being imported into the herd: A quarantine program to keep incoming animals separate is followed. All incoming animals have a suitable certificate of negative test results or are of a certified clean, closed herd.

Stock remedies and medicines should be registered, correctly stored and used before the transpire date: All medicines and stock remedies are registered, stored and applied according to prescription.

Prescribed medicines with a specific application are under the control of the veterinary profession: All prescription medicines are obtained and applied under prescription from a veterinarian.

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## Practices that had nothing to report

Beestekraal – Dr. Alwyn Venter

Brits – Dr. Gerhardus Scheepers

Cape Town – Dr. Sophette Gers

Hammanskraal – Dr. Hentie Engelbrecht

Harrismith – Dr. Wim Slabber

Magaliesburg – Ryan Jeffrey

Ottosdal – Dr. Sharnelle Ferreira

Rayton – Dr. Frans Malan

Stellenbosch – Dr. Annelie Cloete

Tzaneen – Drs. Cordier and Van der Berg

Vanderbylpark- Dr. Kobus Kok

Wellington – Dr. William van Zyl

## Ostriches

## Western Cape

### Oudtshoorn

Roundworms	3 - Pasture grazing good rains along coastal productin areas
Tapeworms	3



Red gut	1 - Feed intake up and down/ leads to gastro-intestinal tract disturbance and red gut – clostridial enteroxaemia
Mycoplasma	3 - Airsacculitis, wind cold, poor body condition Temp fluctuations/ dust/ cold – increased moist rales, rhinitis and sinusitis, more pronounce post cold spell.
Soil pica and rectal prolaps	3 - Adaption to intensive feeding in cold wet weatehr = moist areas in camps and soil pica
Protein, Energy deficiency, poor growth	3 - Energy playing an important role, insufficient eating time with shorter days, last chciks of season severe heato f late summer and now cold spell and rain– becomes a negative/ catabolic downward spiral
Rectal prolaps/ Cryptosporidium	3 -Soil pica and heat stress = cryptosporidium overgrowth
Diarrhoea	3
New Castle Disease	Previous findings of July was foudn to be false positive
Weakness	3 - Prot and energy deficiency – late chicks more severely affected, insufficient time to feed (daylight/ high temp), high demand for energy (cold evenings), underlying infections chronic enterotoxaemia and airsacculitis.
Cold exposure	3

## Equines

### Limpopo

#### Bela-Bela

Wounds – 10 month old, foal bitten by stallion, wounds so severe euthanased

### KwaZulu-Natal

#### Kokstad

Theileriosis - 3



## **Game**

### **Mpumalanga**

#### **Lydenburg**

Protein deficiency – 3

Energy deficiency - 3

### **Gauteng**

#### **Pretoria**

Bont ticks – 3

Brown ear-ticks – 2

Selenium deficiency - 2

### **Limpopo**

#### **Bela-Bela**

Infection of rumen and abdomen (died) wire penetration – Sable

Rope in rumen – Eland died

Wound in buttock – White Rhino, fought

#### **Modimolle**

Snare – Wildebeest

Snare – Buffalo

Snare – Giraffe

Wireworm – Sable, another bull severe wireworm

### **North West**

#### **Klerksdorp**

Copper deficiency – 1

#### **Lichtenburg**

Rabies – 1 Jackal

#### **Potchefstroom**

Pasteurella – Eland - 2

#### **Schweizer-Reneke**

Red-legged ticks – 2

Bont legged-ticks – 2

Pneumonia – 3

Poor condition – 3 Lack of food

#### **Vryburg**

Wireworm – Gemsbok 3

Downer – Gemsbok 3

## **Llama**

### **Limpopo**

#### **Bela-Bela**

Newborn Llama -hyperflexus of tarsi, hip disjointed. Placed in boma with mother; splints and supportive bandages; on road to recovery



## Swine

### Gauteng

#### Ondertepoort

Lameness – 1

Vaginal prolapse - 1

## Monthly report on Livestock and Wildlife isolations for August 2020 from Vetdiagnostix –Microbiology Laboratory, supplied by dr. Marijke Henton ([henton@vetdx.co.za](mailto:henton@vetdx.co.za))

RuVASA monthly reports

Vetdiagnostix; bacteriology

Bovine Respiratory Disease yielded *Pasteurella multocida* [12], *Mannheimia haemolytica* [11], *Mannheimia* 8C [3], *Histophilus somni* [10], *Trueperella pyogenes* [2] and *Mycoplasma* [3].

*H. somni* was also isolated from the uterus of cows showing reproductive problems. *Salmonella* Dublin was the cause of an abortion as well as causing septicaemia on another farm.

Cases of enteritis were caused by *Salmonella* Typhimurium [1], *Clostridium perfringens* [3] and *E. coli* [9].

One of the *E. coli* enteritis cases yielded virulence factors associated with enterohaemorrhagic [EHEC] strains of *E. coli* which cause disease in older calves, between 2 weeks and 2 months of age. Two of the *E. coli* isolates were ESBL [Extended Spectrum Beta Lactamase] producers, and both were resistant to most antibiotics that can be used in calves.

Clostridial myositis was caused by *Clostridium novyi* [5], *C. chauvoei* [3] and *C. septicum* [2].

Enteritis in sheep and goats was caused by *E. coli* [5], and one of them was an EHEC strain, and one an ESBL strain. ESBL positive *E. coli* was also the cause of epididymitis in rams. Two cases of septicaemia were caused by *E. coli*.

Two cases of caseous lymphangitis were also encountered in sheep.

Septicaemia in pigs was associated with *S. Typhimurium* [2], *E. coli* [2 cases, and both were ESBL producers] and *T. pyogenes*. *T. pyogenes* was associated with vaginal discharges and so was *Streptococcus suis*. Enteritis was associated with *E. coli* [3]. *Actinobacillus pleuropneumoniae* caused pneumonia.

No significant isolates were made from wild/game animals.



## Monthly report: Dr Theo Kotzé – Moqhaka (Kroonstad) district

### Veterinary Mastitis Consultant: Bovine Industry

[0827849706@vodamail.co.za](mailto:0827849706@vodamail.co.za)

0827849706

Mastitis – general mastitis cases

### Feedlot report received from Dr. Eben du Preez for August 2020 ([edupreez1@telkomsa.net](mailto:edupreez1@telkomsa.net))

Condition	Comments and Specie
Parafilaria	B 3
Bont-legged ticks	B 2
Red legged-ticks	B 3, O 3
Biting lice	B 3
Sucking lice	B 3
Red gut	B 1
Botulism	B 2
Pulpy kidney	O 1
Brucellosis	B 1
Bovine brucellosis (new farm)	B 1
Ringworm	B 3
Warts	B 3
Prussic acid poisoning	O 3
Energy deficiency	B 3
Phosphate deficiency	B 3



Vitamin A deficiency	B 1, O 3
Gifblaar poisoning	B 3
Acidosis	B 3
Blue udder	O 1
Joint ill	B 1
Lameness	B 3, O 3
Lungs	B 3, O 3
Eye infection	B 3, O 3
Diarrhoea	B 3, O 3
Abscesses	B 2, O 1
Trauma	B 1, O 1
Pericarditis	B 3
Deaths reported by farmers:  Cattle: acidosis, botulism, gifblaar, pneumonia  Sheep: Pneumonia	

**Feedlot report received from Drs. Morris and Le Riche August 2020**  
**([shaun@octavoscene.co.za](mailto:shaun@octavoscene.co.za))**

Condition	Comments and Specie
Botulism	15 Buffalo died near Kuruman - bones
Chronic pneumonia	Numerous cases in cattle
Permanent infected BVD calves (PI's)	Numerous cases found at abattoirs



Antibiotic resistance	Tracheal washing samples showed ncreasing numbers of antibiotic resistance
Bloat	Numerous cases in feedlots
Parafilaria	False bruising seen at abattoirs
Leptospirosis	Red urine and yellow carcasses at abattoir
Hearwater	Cattle

## Monthly report for August 2020 from Dr R D Last (BVSc; M.Med.Vet(Path); MRCVS)

Specialist Veterinary Pathologist, Vetdiagnostix - Veterinary Pathology Services

LIVESTOCK DISEASE SURVEILANCE			
LIVESTOCK SPECIES	DISEASE AGENT	NO. CASES	LOCATION
OVINE LAMBS	CRYPTOSPORIDIOSIS	1	KARIEGA, E.CAPE
BOVINE CALF	SARCINA ABOMASITIS	1	N.CAPE
GOAT ADULT	HEARTWATER	1	SOUTPANSBERG, LIMPOPO
BOVINE CALF	SALMONELLA TYPHIMURIUM	1	JEFFERIES BAY, E.CAPE
BOVINE CALF	THYROID GOITRE	1	PARYS, FREE STATE
OVINE ADULT EWE	ACUTE SENEIOSIS	1	PIET RETIEF, MPUMULANGA
GOATS	CHEMICAL RUMENITIS	1	DUNDEE, KZN
BOVINE CALF	EMBOLIC E.COLI PNEUMONIA	1	DUNDEE, KZN
BOVINE CALF	COCCIDIOSIS	1	JEFFERIES BAY, E.CAPE
BOVINE ADULT	PULMONARY THROMBOEMBOLISM	1	BETHLEHEM
BOVINE CALVES	CRYPTOSPORIDIOSIS	1	KOKSTAD, KZN
BOVINE CALVES	CRYPTOSPORIDIOSIS	1	BOSBERG, N.CAPE
BOVINE CALVES	CRYPTOSPORIDIOSIS	1	KOKSTAD, KZN
BOVINE CALVES	CRYPTOSPORIDIOSIS	1	GREYTOWN, KZN

WILDLIFE DISEASE SURVEILANCE			
WILDLIFE SPECIES	DISEASE AGENT	NO. CASES	LOCATION
BUSHBUCK	EXPOSURE/HYPOTHERMIA	1	THABAZIMBI, LIMPOPO
BUFFALO, ADULT BULL	CAPTURE MYOPATHY	1	HARRISMITH, FREE STATE





Section of Pathology  
Department of Paraclinical Sciences  
Faculty of Veterinary Science

Aug 27th, 2020

DAFF

Import/Export Policy Unit Subdirectorate

**Monthly report: Faculty of Veterinary Science cases**

**Wildlife cases sent to referring veterinarians between 28<sup>th</sup> July and 27<sup>th</sup> Aug 2020**

Cases from State vet Skukuza or Orpen (none)

Cases imported with master permit (none)

<u>PMDate</u>	Species	Final	<u>Histo No</u>
07-May-20	Lion	Reproductive tract atrophy	\$1336-20
17-Jun-20	Cheetah	Acute heart failure	\$1531-20
17-Jun-20	Cheetah	Abandoned cub	\$1530-20
29-Jun-20	Burchell's Zebra	Parasitic bronchopneumonia and gastroenteritis	\$1659-20
29-Jun-20	Burchell's Zebra	Verminous dermatitis	\$1657-20
05-Jul-20	Lion	Reproductive tract atrophy	\$1137-20
15-Jul-2020	African Elephant	No diagnosis possible	\$1820-20
24-Jul-20	African Buffalo	Necrotizing hepatitis	\$1930-20

Kind regards,

A handwritten signature in purple ink that reads "Emily Mitchell".

Prof. Emily Mitchell



## DISEASE DISTRIBUTION REPORT AS REPORTED BY VETERINARIANS

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<b><u>Poisonings (Plant) and Fungal</u></b>	<a href="#">Cardiac glycoside poisoning</a> , <a href="#">Cestrum</a> , <a href="#">Cynanchum</a> poisoning, <a href="#">Geeldikkop/Dikoor</a> , <a href="#">Gifblaar</a> , <a href="#">Lantana</a> , <a href="#">Prussic acid poisoning</a> , <a href="#">Seneciosis</a> , <a href="#">Tulip Poisoning</a> , <a href="#">Mycotoxycosis</a> , <a href="#">Diplodiosis</a> , <a href="#">Other</a>
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<b><u>Non specific diseases</u></b>	<a href="#">Dermatosparaxis</a> , <a href="#">Genetic disorders</a> , <a href="#">Preditors</a> , <a href="#">Sabotation/Theft</a> , <a href="#">Trauma</a> , <a href="#">Veld fires</a> , <a href="#">other</a> , <a href="#">Traumatic Reticulo-pericarditis</a>

## Internal Parasites

### Roundworms in general



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average		2.0 (3)	3.0 (2)	2.0 (1)	1.2 (5)	1.7 (7)	2.0 (2)	2.3 (7)	



Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef		3.0 (1)		1.7 (3)		1.0 (1)		
Dairy							2.0 (1)	
Sheep		2.5 (2)	3.0 (1)	2.0 (1)	1.2 (5)	1.7 (3)	2.0 (1)	2.8 (4)
Goat		1.0 (1)				2.0 (1)	2.0 (1)	2.0 (1)

## Gauteng

### Pretoria, Anima Veterinary Consulting Rooms

Sheep: 3

### Pretoria, Onderstepoort Academic Hospital and Production Animal Clinic

Sheep: 2

Five sheep

Goat: 1

## Limpopo

### Makhado, Blouberg Dierekliniek

Sheep: 3

### Tzaneen, ZZ2 Farm Practice

Beef: 3

## North West

### Christiana, Christiana Dierehospitaal

Sheep: 2

## Free State

### Bloemfontein, Dr Stephan Wessels

Sheep: 1

### Clocolan, Clocolan Dierekliniek

Sheep: 2

### Kroonstad, Kroonstad Dierehospitaal



Sheep: 1
<b>Viljoenskroon, Viljoenskroon Dierekliniek</b>
Sheep: 1
<b>Villiers, Wilgepoort Veedienste</b>
Sheep: 1
<b>Kwazulu-Natal</b>
<b>Eshowe, Eshowe Veterinary Hospital</b>
Sheep: 2
<b>Estcourt, Estcourt Vet Clinic</b>
Sheep: 2
<b>Mooi River, Mooirivier Vet Clinic</b>
Beef: 2, Sheep: 1
<b>Mtubatuba, Mtubatuba Animal Clinic</b>
Beef: 2, Goat: 2
<b>Pietermaritzburg, Veterinary House Hospital</b>
Beef: 1
<b>Eastern Cape</b>
<b>Graaff-Reinet, Graaff Reinet Veterinary Clinic</b>
Sheep: 2, Goat: 2
<b>Western Cape</b>
<b>Caledon, Caledon Dierekliniek</b>
Sheep: 3
<b>George, George Animal Hospital</b>
Sheep: 3
<b>Heidelberg (WC), Heidelberg Dierekliniek</b>
Sheep: 2
<b>Moorreesburg, Korhaanrug Dieregesondheid</b>



Sheep: 3

**Riversdale, Riversdal Dierekliniek**

Beef: 1, Dairy: 2, Goat: 2

**Resistant Round Worms**



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average		2.0 (1)		1.0 (1)	1.0 (1)			3.0 (1)	

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Sheep		2.0 (1)		1.0 (1)	1.0 (1)			3.0 (1)	
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**Gauteng**

**Pretoria, Anima Veterinary Consulting Rooms**

Sheep: 2

**North West**

**Christiana, Christiana Dierehospitaal**

Sheep: 1

**Free State**

**Bloemfontein, Dr Stephan Wessels**

Sheep: 1

**Western Cape**

**George, George Animal Hospital**

Sheep: 3

**Wireworm**



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
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<b>Average</b>	1.5 (2)		2.0 (3)		2.1 (8)	1.5 (2)	2.0 (1)	3.0 (1)	2.0 (1)
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Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

<b>Sheep</b>	1.5 (2)		2.0 (2)		2.0 (7)	2.0 (1)	2.0 (1)	3.0 (1)	2.0 (1)
<b>Goat</b>			2.0 (1)		3.0 (1)	1.0 (1)			

## Mpumalanga

### Hendrina, Mooiplaas Veterinere Dienste

Sheep: 1

### Piet Retief, Pets Vet Hospital

Sheep: 2

## Limpopo

### Mokopane, Bundu Veterinary Services

Sheep: 2

### Polokwane, Pietersburg Veterinary Clinic

Sheep: 2, Goat: 2

## Free State

### Bethlehem, Bethlehem Animal Hospital

Sheep: 3, Goat: 3

### Bultfontein, Greylingrust Dieresprekkamer

Sheep: 2

### Clocolan, Clocolan Dierekliniek

Sheep: 2

### Frankfort, Frankfort Dierekliniek

Sheep: 3

### Villiers, Wilgepoort Veedienste

Sheep: 1



**Wesselsbron, Wesselsbron Dierekliniek**

Sheep: 1

**Winburg, Winburg Dierekliniek**

Sheep: 2

**Kwazulu-Natal****Camperdown, Camperdown Vet Clinic**

Sheep: 2, Goat: 1

**Eastern Cape****Adelaide, Adelaide Veterinary Clinic**

Sheep: 2

Internal parasite burdens low, odd cases of wireworm infestation in weaner lambs on pastures

**Western Cape****George, George Animal Hospital**

Sheep: 3

**Northern Cape****Colesberg, Karoo Veterinary Hospital**

Sheep: 2

**Brown stomach-worm**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
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Average								3.0 (1)	
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Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Sheep								3.0 (1)	
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**Western Cape****Heidelberg (WC), Heidelberg Dierekliniek**



Sheep: 3

## Nodular worm



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average							3.0 (1)		

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Sheep

3.0 (1)

### Eastern Cape

Steynsburg, Steynsburg Dierehospitaal

Sheep: 3

## Tape Worms



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average		1.8 (4)	1.0 (2)	1.8 (4)	2.3 (8)			2.0 (1)	

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef

1.0 (1)

Sheep

1.5 (2)

1.0 (1)

1.8 (4)

2.4 (7)

2.0 (1)

Goat

2.0 (2)

1.0 (1)

### Gauteng

Bronkhorstspuit, Kerkstraat Dierekliniek

Sheep: 1

Nigel, Nigel Diere Spreekkamer



Sheep: 2, Goat: 2

**Pretoria, Anima Veterinary Consulting Rooms**

Goat: 2

**Limpopo**

**Polokwane, Pietersburg Veterinary Clinic**

Sheep: 1, Goat: 1

**North West**

**Brits, Zodiac Dierekliniek**

Sheep: 2

**Christiana, Christiana Dierehospitaal**

Sheep: 1

**Klerksdorp, Klerksdorp Dierehospitaal**

Sheep: 1

**Vryburg, Vryburg Dierehospitaal**

Sheep: 3

**Free State**

**Bloemfontein, Dr Stephan Wessels**

Sheep: 3

**Ficksburg, Oosvrystaat Dierse Produkte**

Sheep: 3

**Kroonstad, Kroonstad Dierehospitaal**

Sheep: 2

**Reitz, Riemland Dierehospitaal**

Beef: 1, Sheep: 2

**Viljoenskroon, Viljoenskroon Dierekliniek**

Sheep: 2

**Villiers, Wilgepoort Veedienste**







<b>Dairy</b>		1.5 (2)
<b>Sheep</b>	2.5 (2)	2.0 (1)
<b>Mpumalanga</b>		
<b>Bethal, Bethal Dierekliniek</b>		
Beef: 2		
<b>North West</b>		
<b>Klerksdorp, Klerksdorp Dierehospitaal</b>		
Beef: 1		
<b>Free State</b>		
<b>Bethlehem, Bethlehem Animal Hospital</b>		
Beef: 3		
<b>Clocolan, Clocolan Dierekliniek</b>		
Beef: 3, Sheep: 3		
<b>Frankfort, Frankfort Dierekliniek</b>		
Beef: 2		
<b>Villiers, Wilgepoort Veedienste</b>		
Beef: 2, Sheep: 2		
<b>Kwazulu-Natal</b>		
<b>Vryheid, Vryheid Privaat Veeartse</b>		
Beef: 2		
<b>Eastern Cape</b>		
<b>Steynsburg, Steynsburg Dierehospitaal</b>		
Beef: 3		
<b>Western Cape</b>		
<b>George, George Animal Hospital</b>		
Dairy: 2, Sheep: 2		
<b>Paarl, Paarl Dierehospitaal;</b>		



Beef: 1

#### Riversdale, Riversdal Direkliniek

Dairy: 1

### Conical Flukes

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	2.3 (3)		1.0 (1)		1.9 (10)	2.0 (1)	2.5 (2)	2.0 (1)	

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef	2.5 (2)		1.0 (1)		2.0 (6)	2.0 (1)	2.5 (2)		
Dairy					2.0 (1)				
Sheep	2.0 (1)				1.7 (3)			2.0 (1)	

#### Mpumalanga

##### Bethal, Bethal Direkliniek

Beef: 2

##### Lydenburg, Longtom Direkliniek

Beef: 3, Sheep: 2

#### Limpopo

##### Modimolle, Kranskop Direkliniek

Beef: 1

Bull died acutely, necropsy was done too late, many adult conical fluke in rumen

#### Free State

##### Bethlehem, Bethlehem Animal Hospital

Dairy: 2

##### Clocolan, Clocolan Direkliniek



Beef: 2
<b>Kroonstad, Kroonstad Dierehospitaal</b>
Sheep: 1
<b>Memel, Memel Veterinary Clinic</b>
Sheep: 2
<b>Oranjeville, Grasveld Kuddegeseondheid</b>
Beef: 2, Sheep: 2
<b>Reitz, Riemland Dierehospitaal</b>
Beef: 2
<b>Villiers, Wilgepoort Veedienste</b>
Beef: 2
<b>Vrede, Saulshoek Dieregesondheid.</b>
Beef: 2
<b>Winburg, Winburg Dierekliniek</b>
Beef: 2
<b>Kwazulu-Natal</b>
<b>Mooi River, Mooirivier Vet Clinic</b>
Beef: 2
<b>Eastern Cape</b>
<b>Alexandria, Riverview Trading Vet Consulting Services</b>
Beef: 2
<b>Steynsburg, Steynsburg Dierehospitaal</b>
Beef: 3
<b>Western Cape</b>
<b>Malmesbury, Dr Otto Kriek</b>
Sheep: 2
Sheep were bought in and placed in a paddock with water with fresh water snails. A few deaths occurred.




$\frac{1}{2}$ 

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

## North West

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26



Blue ticks									
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	2.0 (4)				1.8 (6)	2.0 (4)	2.0 (2)	2.5 (4)	
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
Beef	2.0 (3)				1.8 (5)	2.0 (4)	2.0 (2)	2.5 (2)	
Dairy								2.5 (2)	
Sheep	2.0 (1)				2.0 (1)				
Mpumalanga									
Balfour, Balfour Dierekliniek									
Beef: 2, Sheep: 2									
Lydenburg, Longtom Dierekliniek									
Beef: 2									
Nelspruit, Nelspruit Animal Hospital									
Beef: 2									
Free State									
Bethlehem, Bethlehem Animal Hospital									
Beef: 1									
Ficksburg, Oosvrystaat Diere Produkte									
Beef: 2, Sheep: 2									
Villiers, Wilgepoort Veedienste									
Beef: 1									
Vrede, Saulshoek Dieregesondheid.									
Beef: 2									



Winburg, Winburg Dierekliniek									
Beef: 3									
Kwazulu-Natal									
Bergville, Bergville Veterinary Clinic									
Beef: 2									
Dundee, Endumeni Herd health									
Beef: 2									
Mooi River, Mooirivier Vet Clinic									
Beef: 2									
Mtubatuba, Mtubatuba Animal Clinic									
Beef: 2									
Eastern Cape									
Aliwal North, Hertzogbrug Dierekliniek									
Beef: 2									
Graaff-Reinet, Graaff Reinet Veterinary Clinic									
Beef: 2									
Western Cape									
George, George Animal Hospital									
Beef: 3, Dairy: 3									
Riversdale, Riversdal Dierekliniek									
Beef: 2, Dairy: 2									
Resistant blue Ticks									^
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average					3.0 (1)	2.0 (1)			



Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

<b>Beef</b>		3.0 (1)	2.0 (1)
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#### Free State

##### Winburg, Winburg Dierekliniek

Beef: 3

#### Kwazulu-Natal

##### Eshowe, Eshowe Veterinary Hospital

Beef: 2

### Heartwater (Bont) ticks

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
<b>Average</b>	2.0 (1)	3.0 (2)	1.0 (3)			1.6 (7)			

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

<b>Beef</b>	2.0 (1)	3.0 (1)	1.0 (1)		1.8 (4)
<b>Sheep</b>		3.0 (1)	1.0 (1)		1.0 (1)
<b>Goat</b>			1.0 (1)		1.5 (2)

#### Mpumalanga

##### Lydenburg, Longtom Dierekliniek

Beef: 2

#### Gauteng

##### Pretoria, Anima Veterinary Consulting Rooms

Beef: 3, Sheep: 3

#### Limpopo



**Polokwane, Pietersburg Veterinary Clinic**

Beef: 1, Sheep: 1, Goat: 1

**Kwazulu-Natal****Bergville, Bergville Veterinary Clinic**

Beef: 2

**Dundee, Endumeni Herd health**

Beef: 2

**Mtubatuba, Mtubatuba Animal Clinic**

Beef: 2, Goat: 2

**Pongola, Pongola Animal Clinic**

Beef: 1, Sheep: 1, Goat: 1

**Bont-legged ticks**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.5 (2)	1.0 (1)		3.0 (1)	2.0 (2)	2.0 (1)	2.0 (1)	1.0 (1)	2.0 (1)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef	1.5 (2)	1.0 (1)		3.0 (1)	2.0 (1)	2.0 (1)	2.0 (1)		
Sheep					2.0 (1)			1.0 (1)	2.0 (1)

**Mpumalanga****Balfour, Balfour Dierekliniek**

Beef: 1

**Lydenburg, Longtom Dierekliniek**

Beef: 2

**Gauteng**



<b>Bapsfontein, Bapsfontein Dierehospitaal</b>									
Beef: 1									
<b>North West</b>									
<b>Christiana, Christiana Dierehospitaal</b>									
Beef: 3									
<b>Free State</b>									
<b>Philippolis, Rowelsfontein veearts Spreekkamer</b>									
Sheep: 2									
<b>Winburg, Winburg Dierekliniek</b>									
Beef: 2									
<b>Kwazulu-Natal</b>									
<b>Dundee, Endumeni Herd health</b>									
Beef: 2									
<b>Eastern Cape</b>									
<b>Adelaide, Adelaide Veterinary Clinic</b>									
Beef: 2									
Tick challenge low, ticks on udders									
<b>Western Cape</b>									
<b>Beaufort West, Beaufort Dierekliniek</b>									
Sheep: 1									
<b>Northern Cape</b>									
<b>De Aar, De Aar Veterinary Clinic</b>									
Sheep: 2									
Ticks more prevalent									
<b>Red-legged ticks</b>									<a href="#">^</a>
<b>PROVINCE</b>	<b>Mpumalanga</b>	<b>Gauteng</b>	<b>Limpopo</b>	<b>North West</b>	<b>Free State</b>	<b>Kwazulu-Natal</b>	<b>Eastern Cape</b>	<b>Western Cape</b>	<b>Northern Cape</b>







PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
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Average					1.0 (1)				
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Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef					1.0 (1)				
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#### Free State

Bloemfontein, Dr Stephan Wessels

Beef: 1

Biting lice (red lice)									<a href="#">^</a>
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PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
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Average	2.0 (3)	1.0 (1)		3.0 (1)	2.6 (5)			3.0 (1)	3.0 (1)
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Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef	1.5 (2)	1.0 (1)		3.0 (1)	2.6 (5)			3.0 (1)	3.0 (1)
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Sheep	3.0 (1)							3.0 (1)	
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#### Mpumalanga

Balfour, Balfour Dierekliniek

Beef: 1

Standerton, Econovet

Beef: 2, Sheep: 3

#### Gauteng

Krugersdorp, Veearts Netwerk



Beef: 1									
North West									
Leeudoringstad, Leeudoringstad Dierekliniek									
Beef: 3									
Free State									
Clocolan, Clocolan Dierekliniek									
Beef: 2									
Dewetsdorp, Platkop Dierekliniek									
Beef: 3									
Hertzogville, Hertzogville Dierekliniek									
Beef: 3									
Hoopstad, Hoopstad Dierekliniek									
Beef: 3									
Warden, Warden Dierekliniek									
Beef: 2									
Western Cape									
George, George Animal Hospital									
Sheep: 3									
Northern Cape									
Postmasburg, Postmasburg Dierekliniek									
Beef: 3									
Sucking lice (blue lice)									<a href="#">^</a>
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average				3.0 (1)	2.4 (7)			2.0 (1)	3.0 (1)



Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

<b>Beef</b>		3.0 (1)	2.4 (7)		
<b>Goat</b>				2.0 (1)	3.0 (1)
<b>North West</b>					
<b>Leeudoringstad, Leeudoringstad Dierekliniek</b>					
Beef: 3					
<b>Free State</b>					
<b>Bloemfontein, Dr Stephan Wessels</b>					
Beef: 3					
<b>Clocolan, Clocolan Dierekliniek</b>					
Beef: 2					
<b>Ficksburg, Oosvrystaat Diere Produkte</b>					
Beef: 2					
<b>Hertzogville, Hertzogville Dierekliniek</b>					
Beef: 3					
<b>Hoopstad, Hoopstad Dierekliniek</b>					
Beef: 3					
<b>Memel, Memel Veterinary Clinic</b>					
Beef: 2					
<b>Warden, Warden Dierekliniek</b>					
Beef: 2					
<b>Western Cape</b>					
<b>Oudtshoorn, Ostrimed</b>					
Goat: 2					
<b>Northern Cape</b>					
<b>Postmasburg, Postmasburg Dierekliniek</b>					



Goat: 3

## Scab mites



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average		2.5 (2)		2.0 (2)	2.0 (5)				

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef		2.0 (1)							
Sheep		3.0 (1)		2.0 (2)	2.0 (5)				

### Gauteng

#### Bronkhorstspuit, Kerkstraat Dierekliniek

Beef: 2

#### Pretoria, Anima Veterinary Consulting Rooms

Sheep: 3

Sheep coming from a feedlot in Swartruggens

### North West

#### Christiana, Christiana Dierehospitaal

Sheep: 3

#### Lichtenburg, Dr CM Kruger-Rall

Sheep: 1

One outbreak

### Free State

#### Bloemfontein, Dr Stephan Wessels

Sheep: 1

#### Clocolan, Clocolan Dierekliniek



Sheep: 2

## Smithfield, Freestate Smithfield SV

Sheep: 3

Springfontein communage - 55 cases

## Villiers, Wilgepoort Veedienste

Sheep: 3

**Wesselsbron, Wesselsbron Dierekliniek**

Sheep: 1

## Mange Mites

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	2.0 (1)	2.0 (1)		3.0 (3)	2.7 (7)	2.0 (1)			



Beef: 3									
Sarcoptes mites									
Vryburg, Molopo Dierekliniek									
Beef: 3									
Vryburg, Vryburg Dierehospitaal									
Beef: 3									
Free State									
Bloemfontein, Dr Stephan Wessels									
Beef: 3									
Excelsior, Weltevrede Dierekliniek									
Beef: 3									
Hoopstad, Hoopstad Dierekliniek									
Beef: 3									
Villiers, Wilgepoort Veedienste									
Beef: 2, Sheep: 3									
Wesselsbron, Wesselsbron Dierekliniek									
Beef: 2									
Winburg, Winburg Dierekliniek									
Beef: 3									
Kwazulu-Natal									
Estcourt, Estcourt Vet Clinic									
Goat: 2									
Nuisance Flies									<a href="#">^</a>
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.0 (2)			3.0 (1)	2.0 (1)	2.0 (3)			



Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

<b>Beef</b>	1.0 (1)			2.0 (1)	2.0 (2)
<b>Dairy</b>			3.0 (1)		
<b>Sheep</b>	1.0 (1)				
<b>Goat</b>				2.0 (1)	

## Mpumalanga

### Balfour, Balfour Dierekliniek

Beef: 1, Sheep: 1

## North West

### Vryburg, Vryburg Dierehospitaal

Dairy: 3

## Free State

### Winburg, Winburg Dierekliniek

Beef: 2

## Kwazulu-Natal

### Bergville, Bergville Veterinary Clinic

Beef: 2

### Mtubatuba, Mtubatuba Animal Clinic

Beef: 2, Goat: 2

## Blowflies



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
<b>Average</b>					2.0 (1)				



Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

**Beef** 2.0 (1)

## Free State

### Winburg, Winburg Direklinik

Beef: 2

## Screw-worm

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
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<b>Average</b>		1.0 (1)							
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Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

**Beef** 1.0 (1)

## Gauteng

### Nigel, Nigel Diere Spreekkamer

Beef: 1

## Nasal bot larvae

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
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<b>Average</b>	3.0 (1)				1.0 (1)			1.0 (1)	
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Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

**Sheep** 3.0 (1) 1.0 (1) 1.0 (1)

## Mpumalanga



**Lydenburg, Longtom Direkliniek**

Sheep: 3

**Free State****Wesselsbron, Wesselsbron Direkliniek**

Sheep: 1

**Western Cape****Beaufort West, Beaufort Direkliniek**

Sheep: 1

**Midges**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
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Average	1.7 (3)								
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Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef	1.0 (1)								
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Sheep	2.0 (2)								
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**Mpumalanga****Balfour, Balfour Direkliniek**

Beef: 1, Sheep: 1

**Lydenburg, Longtom Direkliniek**

Sheep: 3

**Itch mite**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
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Average						2.0 (1)			
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
Sheep						2.0 (1)			
Free State									
Villiers, Wilgepoort Veedienste									
Sheep: 2									
Tick-borne Diseases									
African red water									<a href="#">^</a>
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	2.0 (2)		1.5 (2)	2.0 (1)	3.0 (1)	1.6 (5)	1.5 (2)	2.0 (1)	
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
Beef	2.0 (2)		1.5 (2)	2.0 (1)	3.0 (1)	1.6 (5)	1.0 (1)		
Dairy							2.0 (1)	2.0 (1)	
Mpumalanga									
Hendrina, Mooiplaas Veterinere Dienste									
Beef: 2									
Lydenburg, Longtom Dierekliniek									
Beef: 2									
Limpopo									
Makhado, Blouberg Dierekliniek									
Beef: 2									



Two cases
<b>Polokwane, Pietersburg Veterinary Clinic</b>
Beef: 1
<b>North West</b>
<b>Brits, Brits Dierekliniek</b>
Beef: 2
<b>Free State</b>
<b>Hoopstad, Hoopstad Dierekliniek</b>
Beef: 3
<b>Kwazulu-Natal</b>
<b>Bergville, Bergville Veterinary Clinic</b>
Beef: 2
<b>Dundee, Endumeni Herd health</b>
Beef: 2
<b>Mooi River, Mooirivier Vet Clinic</b>
Beef: 1
<b>Mtubatuba, Mtubatuba Animal Clinic</b>
Beef: 1
<b>Pietermaritzburg, Veterinary House Hospital</b>
Beef: 2
<b>Eastern Cape</b>
<b>Jeffreys Bay, Cape Cross Veterinary Hospital</b>
Dairy: 2
<b>Uitenhage, Uitenhage Dierehospitaal</b>
Beef: 1
<b>Western Cape</b>
<b>Riversdale, Riversdal Dierekliniek</b>



Dairy: 2

Asiatic red water	<a href="#">^</a> <a href="#">_</a>
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PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.7 (3)		1.0 (1)			2.0 (1)	2.0 (1)	1.5 (2)	

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

<b>Beef</b>	1.7 (3)	1.0 (1)	2.0 (1)	1.0 (1)
<b>Dairy</b>				2.0 (1)

**Mpumalanga**

**Balfour, Balfour Dierkliniek**

Beef: 2

## Hendrina, Mooiplaas Veterinere Dienste

Beef: 1

## Volksrust, Cape Cross Volksrust Dierehospitaal

Beef: 2

Two cows died

## Limpopo

**Makhado, Blouberg Dierekliniek**

Beef: 1

## Kwazulu-Natal

## Dundee, Endumeni Herd health

Beef: 2

## Eastern Cape

## Jeffreys Bay, Cape Cross Veterinary Hospital



Dairy: 2

## Western Cape

### Riversdale, Riversdal Dierekliniek

Dairy: 2

### Swellendam, Swellendam Dierehospitaal

Beef: 1

## Anaplasmosis



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.0 (1)			3.0 (1)	1.5 (11)	1.5 (4)	2.0 (1)	2.0 (5)	2.0 (1)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef	1.0 (1)			3.0 (1)	1.6 (9)	1.7 (3)	2.0 (1)	1.7 (3)	2.0 (1)
Dairy					1.5 (2)	1.0 (1)		2.5 (2)	

## Mpumalanga

### Balfour, Balfour Dierekliniek

Beef: 1

## North West

### Christiana, Christiana Dierehospitaal

Beef: 3

## Free State

### Bloemfontein, Dr Stephan Wessels

Beef: 1

### Bultfontein, Greylingrust Dieresprekkamer

Beef: 1



**Clocolan, Clocolan Dierekliniek**

Beef: 2

**Dewetsdorp, Platkop Dierekliniek**

Dairy: 2

**Excelsior, Weltevrede Dierekliniek**

Beef: 2

**Ficksburg, Oosvrystaat Diere Produkte**

Beef: 1

**Hoopstad, Hoopstad Dierekliniek**

Beef: 3

**Hoopstad, Kameeldoring Dierekliniek**

Beef: 1

**Villiers, Wilgepoort Veedienste**

Beef: 2

**Warden, Warden Dierekliniek**

Beef: 1

**Wesselsbron, Wesselsbron Dierekliniek**

Dairy: 1

**Kwazulu-Natal****Bergville, Bergville Veterinary Clinic**

Beef: 2

**Dundee, Endumeni Herd health**

Dairy: 1

**Mooi River, Mooirivier Vet Clinic**

Beef: 1

**Pietermaritzburg, Veterinary House Hospital**

Beef: 2



<b>Eastern Cape</b>									
<b>Graaff-Reinet, Graaff Reinet Veterinary Clinic</b>									
Beef: 2									
<b>Western Cape</b>									
<b>Malmesbury, Dr Otto Kriek</b>									
Dairy: 2									
<b>Moorreesburg, Korhaanrug Dieregesondheid</b>									
Beef: 2									
<b>Riversdale, Riversdal Dierekliniek</b>									
Beef: 2, Dairy: 3									
<b>Stellenbosch, Stellenbosch Animal Hospital</b>									
Beef: 1									
<b>Northern Cape</b>									
<b>Kuruman, Kuruman Dierekliniek</b>									
Beef: 2									
<b>Heartwater</b>									<a href="#">^</a>
<b>PROVINCE</b>	<b>Mpumalanga</b>	<b>Gauteng</b>	<b>Limpopo</b>	<b>North West</b>	<b>Free State</b>	<b>Kwazulu-Natal</b>	<b>Eastern Cape</b>	<b>Western Cape</b>	<b>Northern Cape</b>
<b>Average</b>	2.0 (4)		1.8 (5)	2.3 (3)		2.0 (6)	3.0 (2)		
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
<b>Beef</b>	2.0 (1)		2.0 (3)	3.0 (1)		2.0 (2)			
<b>Dairy</b>							3.0 (1)		
<b>Sheep</b>	2.0 (1)		2.0 (1)	2.0 (2)		2.0 (1)			
<b>Goat</b>	2.0 (2)		1.0 (1)			2.0 (3)	3.0 (1)		



<b>Mpumalanga</b>
<b>Lydenburg, Longtom Diereklíníek</b>
Beef: 2, Sheep: 2, Goat: 2
<b>Nelspruit, Nelspruit Animal Hospital</b>
Goat: 2
<b>Limpopo</b>
<b>Hoedspruit, Aardvark veterinary services</b>
Goat: 1
<b>Makhado, Blouberg Diereklíníek</b>
Beef: 3
Twenty cases
<b>Mokopane, Bundu Veterinary Services</b>
Beef: 2, Sheep: 2
<b>Tzaneen, ZZ2 Farm Practice</b>
Beef: 1
<b>North West</b>
<b>Brits, Zodiac Diereklíníek</b>
Sheep: 2
<b>Rustenburg, Bergbos Diereklíníek</b>
Sheep: 2
<b>Stella, Stella Diereklíníek</b>
Beef: 3
<b>Kwazulu-Natal</b>
<b>Bergville, Bergville Veterinary Clinic</b>
Beef: 2
<b>Eshowe, Eshowe Veterinary Hospital</b>
Sheep: 2



**Estcourt, Estcourt Vet Clinic**

Goat: 2

**Mtubatuba, Mtubatuba Animal Clinic**

Beef: 2, Goat: 2

**Pongola, Pongola Animal Clinic**

Goat: 2

Month old kids

**Eastern Cape****Bathurst, Dr Jane Pistorius**

Goat: 3

**Jeffreys Bay, Cape Cross Veterinary Hospital**

Dairy: 3

**Sweating Sickness**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
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Average		1.0 (1)							
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Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef		1.0 (1)							
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**Gauteng****Pretoria, Anima Veterinary Consulting Rooms**

Beef: 1

**Theileriosis**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
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**Caledon, Caledon Dierekliniek**

Beef: 2

**Riversdale, Riversdal Dierekliniek**

Beef: 2

**Swellendam, Swellendam Dierehospitaal**

Beef: 2, Dairy: 2

**Three-day-stiffsickness**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
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**Average**

3.0 (1)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

**Dairy**

3.0 (1)

**Eastern Cape****Jeffreys Bay, Cape Cross Veterinary Hospital**

Dairy: 3

40 cases, early in season

**Blue tongue**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
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**Average**

2.0 (1)

2.0 (1)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

**Sheep**

2.0 (1)

2.0 (1)







Beef	2.2 (6)		1.0 (1)	2.8 (4)	2.2 (13)	1.0 (2)		2.0 (1)	1.0 (1)
Mpumalanga									
Bethal, Bethal Dierekliniek									
Beef: 2									
Ermelo, Môregloed Veterinêre Spreekkamer									
Beef: 3									
Grootvlei, Grootvlei Dierekliniek									
Beef: 2									
Hendrina, Mooiplaas Veterinêre Dienste									
Beef: 1									
Piet Retief, Pets Vet Hospital									
Beef: 2									
Standerton, Econovet									
Beef: 3									
Limpopo									
Polokwane, Pietersburg Veterinary Clinic									
Beef: 1									
North West									
Klerksdorp, Klerksdorp Dierehospitaal									
Beef: 3									
Stella, Stella Dierekliniek									
Beef: 3									
Vryburg, Molopo Dierekliniek									
Beef: 2									
Vryburg, Vryburg Dierehospitaal									
Beef: 3									



<b>Free State</b>
<b>Bloemfontein, Dr Stephan Wessels</b>
Beef: 2
New farm Excelsior
<b>Excelsior, Weltevrede Dierekliniek</b>
Beef: 2
<b>Hertzogville, Hertzogville Dierekliniek</b>
Beef: 2
One herd
<b>Hoopstad, Hoopstad Dierekliniek</b>
Beef: 3
<b>Kroonstad, Kroonstad Dierehospitaal</b>
Beef: 2
<b>Memel, Memel Veterinary Clinic</b>
Beef: 2
<b>Oranjeville, Grasveld Kuddegesondheid</b>
Beef: 2
<b>Viljoenskroon, Viljoenskroon Dierekliniek</b>
Beef: 1
<b>Villiers, Wilgepoort Veedienste</b>
Beef: 3
<b>Vrede, Saulshoek Dieregesondheid.</b>
Beef: 2
<b>Vrede, Vrede Dierehospitaal</b>
Beef: 2
To farms
<b>Warden, Warden Dierekliniek</b>



Beef: 2

Winburg, Winburg Dierekliniek

Beef: 3

Kwazulu-Natal

Bergville, Bergville Veterinary Clinic

Beef: 1

Dundee, Endumeni Herd health

Beef: 1

Western Cape

George, George Animal Hospital

Beef: 2

Northern Cape

Kuruman, Kuruman Dierekliniek

Beef: 1

Vibriosis

[^](#)

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average					2.0 (5)			2.0 (1)	

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef

2.0 (5)

2.0 (1)

Free State

Bloemfontein, Dr Stephan Wessels

Beef: 1

Excelsior, Weltevrede Dierekliniek

Beef: 2



**Hertzogville, Hertzogville Dierekliniek**

Beef: 2

One herd

**Villiers, Wilgepoort Veedienste**

Beef: 2

**Winburg, Winburg Dierekliniek**

Beef: 3

**Western Cape****George, George Animal Hospital**

Beef: 2

**Pizzle disease**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average					2.0 (1)				2.0 (1)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Sheep					2.0 (1)				2.0 (1)
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**Free State****Reitz, Riemland Dierehospitaal**

Sheep: 2

**Northern Cape****Colesberg, Karoo Veterinary Hospital**

Sheep: 2

**Bacterial Disease (other)**



Q-Fever <i>Coxiella</i>									
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average					2.0 (1)				
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
Goat					2.0 (1)				
Free State									
Villiers, Wilgepoort Veedienste									
Goat: 2									
Blackquarter									
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	3.0 (3)			1.7 (3)	1.8 (6)	2.3 (3)		1.0 (2)	
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
Beef	3.0 (2)			1.7 (3)	1.8 (6)	2.0 (2)		1.0 (1)	
Dairy						3.0 (1)		1.0 (1)	
Sheep	3.0 (1)								
Mpumalanga									
Ermelo, Môregloed Veterinêre Spreekkamer									
Beef: 3									
Lydenburg, Longtom Dierekliniek									
Beef: 3, Sheep: 3									



Merino flock with heavy pregnant ewes and feedlot lambs, acute necrosis of muscles of the inner thigh, groin, subcutis - acute deaths.

## **North West**

### **Klerksdorp, Klerksdorp Dierehospitaal**

Beef: 2

### **Leeudoringstad, Leeudoringstad Dierekliniek**

Beef: 2

### **Lichtenburg, Dr CM Kruger-Rall**

Beef: 1

## **Free State**

### **Bethlehem, Bethlehem Animal Hospital**

Beef: 1

### **Frankfort, Frankfort Dierekliniek**

Beef: 2

### **Hoopstad, Hoopstad Dierekliniek**

Beef: 3

### **Reitz, Riemland Dierehospitaal**

Beef: 2

### **Viljoenskroon, Viljoenskroon Dierekliniek**

Beef: 1

### **Winburg, Winburg Dierekliniek**

Beef: 2

## **Kwazulu-Natal**

### **Dundee, Endumeni Herd health**

Beef: 3, Dairy: 3

### **Mooi River, Mooirivier Vet Clinic**

Beef: 1

## **Western Cape**



**Darling, Tygerberg Dierehospitaal Darling**

Dairy: 1

**Heidelberg (WC), Heidelberg Dierekliniek**

Beef: 1

**Botulism**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average					1.0 (1)				1.0 (1)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

**Beef** 1.0 (1)**Sheep** 1.0 (1)**Free State****Villiers, Wilgepoort Veedienste**

Beef: 1

**Northern Cape****Kimberley, Kimberley Dierekliniek**

Sheep: 1

**Pulpy Kidney**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	2.5 (2)	2.0 (1)		1.0 (1)	2.1 (9)	1.0 (1)		1.3 (3)	1.5 (2)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported



Sheep	2.5 (2)	2.0 (1)	1.0 (1)	2.1 (9)	1.0 (1)	1.3 (3)	1.5 (2)
Mpumalanga							
Lydenburg, Longtom Dierekliniek							
Sheep: 3							
Piet Retief, Pets Vet Hospital							
Sheep: 2							
Gauteng							
Bapsfontein, Bapsfontein Dierehospitaal							
Sheep: 2							
North West							
Christiana, Christiana Dierehospitaal							
Sheep: 1							
Free State							
Bethlehem, Bethlehem Animal Hospital							
Sheep: 1							
Bloemfontein, Dr Stephan Wessels							
Sheep: 3							
Clocolan, Clocolan Dierekliniek							
Sheep: 2							
Frankfort, Frankfort Dierekliniek							
Sheep: 3							
Hoopstad, Hoopstad Dierekliniek							
Sheep: 3							
Oranjeville, Grasveld Kuddegeseondheid							
Sheep: 2							
Villiers, Wilgepoort Veedienste							
Sheep: 2							



**Vrede, Vrede Dierehospitaal**

Sheep: 2

**Wesselsbron, Wesselsbron Dierekliniek**

Sheep: 1

**Kwazulu-Natal****Mooi River, Mooirivier Vet Clinic**

Sheep: 1

**Western Cape****Malmesbury, Groenkloof Dierekliniek**

Sheep: 2

**Oudtshoorn, Ostrimed**

Sheep: 1

**Stellenbosch, Stellenbosch Animal Hospital**

Sheep: 1

**Northern Cape****Kimberley, Kimberley Dierekliniek**

Sheep: 1

**Kuruman, Kuruman Dierekliniek**

Sheep: 2

**Lamb dysentery**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
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**Average****3.0 (1)**

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

**Goat****3.0 (1)**



## Northern Cape

### Postmasburg, Postmasburg Dierekliniek

Goat: 3

#### Swelled head disease



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.3 (3)	1.5 (2)							

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef	1.0 (1)	2.0 (1)							
Dairy		1.0 (1)							
Sheep	1.5 (2)								

## Mpumalanga

### Ermelo, Môregloed Veterinêre Spreekkamer

Beef: 1, Sheep: 1

### Piet Retief, Pets Vet Hospital

Sheep: 2

## Gauteng

### Bronkhorstspuit, Kerkstraat Dierekliniek

Beef: 2, Dairy: 1

#### Red gut (cattle)



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.0 (1)			1.0 (1)	2.0 (2)	2.0 (2)		1.0 (1)	



Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef	1.0 (1)		1.0 (1)	2.0 (2)	2.0 (2)		1.0 (1)
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## Mpumalanga

## Hendrina, Mooiplaas Veterinêre Dienste

Beef: 1

## North West

## Klerksdorp, Klerksdorp Dierhospitaal

Beef: 1

## Free State

## Oranjeville, Grasveld Kuddegesondheid

Beef: 2

## Warden, Warden Dierkliniek

Beef: 2

## Kwazulu-Natal

**Kokstad, E.G.Veterinary Services**

Beef: 3

Clostridial infections are still causing quite a few mortalities on farms with improper vaccinations, especially animals on feedlot rations. There have also been a few cases in the Swartberg area of *Clostridium perfringens* type A infections.

**Mooi River, Mooirivier Vet Clinic**

Beef: 1

## Western Cape

**Darling, Tygerberg Dierehospitaal Darling**

Beef: 1

## Blood gut (Sheep)





PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average		2.0 (1)			1.7 (3)			1.8 (4)	
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
Sheep		2.0 (1)			1.7 (3)			2.0 (3)	
Goat								1.0 (1)	
Gauteng									
Bapsfontein, Bapsfontein Dierehospitaal									
Sheep: 2									
Free State									
Bethlehem, Bethlehem Animal Hospital									
Sheep: 1									
Oranjeville, Grasveld Kuddegeseondheid									
Sheep: 2									
Villiers, Wilgepoort Veedienste									
Sheep: 2									
Western Cape									
Heidelberg (WC), Heidelberg Dierekliniek									
Sheep: 3									
Malmesbury, Dr Otto Kriek									
Sheep: 2									
Oudtshoorn, Ostrimed									
Sheep: 1, Goat: 1									
Tetanus									



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average		1.0 (1)			1.4 (5)				3.0 (1)
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
Sheep		1.0 (1)			1.4 (5)				3.0 (1)
<b>Gauteng</b>									
<b>Bapsfontein, Bapsfontein Dierehospitaal</b>									
Sheep: 1									
<b>Free State</b>									
<b>Bethlehem, Bethlehem Animal Hospital</b>									
Sheep: 1									
<b>Clocolan, Clocolan Dierekliniek</b>									
Sheep: 1									
<b>Reitz, Riemland Dierehospitaal</b>									
Sheep: 1									
<b>Villiers, Wilgepoort Veedienste</b>									
Sheep: 2									
<b>Winburg, Winburg Dierekliniek</b>									
Sheep: 2									
<b>Northern Cape</b>									
<b>Kuruman, Kuruman Dierekliniek</b>									
Sheep: 3									
<b>Salmonellosis</b>									<a href="#">^</a>
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape



<b>Average</b>					2.0 (1)	2.5 (2)		2.0 (1)	2.0 (2)
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
<b>Beef</b>					2.0 (1)	2.5 (2)			
<b>Dairy</b>								2.0 (1)	
<b>Sheep</b>									2.0 (1)
<b>Goat</b>									2.0 (1)
<b>Free State</b>									
<b>Viljoenskroon, Viljoenskroon Dierekliniek</b>									
Beef: 2									
<b>Kwazulu-Natal</b>									
<b>Kokstad, E.G.Veterinary Services</b>									
Beef: 2									
Two beef farmers have suspected Salmonellosis in calves, but we are still awaiting lab results.									
<b>Mooi River, Mooirivier Vet Clinic</b>									
Beef: 3									
<b>Western Cape</b>									
<b>Riversdale, Riversdal Dierekliniek</b>									
Dairy: 2									
<b>Northern Cape</b>									
<b>Kathu, Kathu Dierekliniek</b>									
Sheep: 2, Goat: 2									
<b><i>Brucella abortus</i></b>									<a href="#">^</a>
<b>PROVINCE</b>	<b>Mpumalanga</b>	<b>Gauteng</b>	<b>Limpopo</b>	<b>North West</b>	<b>Free State</b>	<b>Kwazulu-Natal</b>	<b>Eastern Cape</b>	<b>Western Cape</b>	<b>Northern Cape</b>



<b>Average</b>	1.8 (5)		3.0 (1)	2.8 (8)	2.2 (9)		1.0 (1)		1.0 (1)
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Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

<b>Beef</b>	1.8 (5)		3.0 (1)	2.7 (7)	2.4 (8)		1.0 (1)		1.0 (1)
<b>Dairy</b>				3.0 (1)	1.0 (1)				

## Mpumalanga

### Balfour, Balfour Dierekliniek

Beef: 2

### Ermelo, Môregloed Veterinêre Spreekkamer

Beef: 1

### Grootvlei, Grootvlei Dierekliniek

Beef: 2

### Lydenburg, Longtom Dierekliniek

Beef: 2

### Middelburg, Neil Fourie Veeartsenydienste

Beef: 2

## Limpopo

### Makhado, Blouberg Dierekliniek

Beef: 3

96 positive cattle

## North West

### Brits, Brits Dierekliniek

Beef: 1, Dairy: 3

### Klerksdorp, Klerksdorp Dierehospitaal

Beef: 3

### Leeudoringstad, Leeudoringstad Dierekliniek



Beef: 3

**Lichtenburg, Dr CM Kruger-Rall**

Beef: 3

Three farms, 15 cases

**Stella, Stella Dierekliniek**

Beef: 3

**Vryburg, Vryburg Dierehospitaal**

Beef: 3

**Vryburg, Vryburg Prov Vet Laboratory**

Beef: 3

A Total of 58 herds, 4025 animals tested. 20 Positive herds: Naledi = 8/25 herds (8 positive herds out of 25 herds tested), Mamusa = 3/7 herds, Mafikeng = 0/0 herds, Lekwa Teemane = 0/1 herds, Greater Taung = 2/6 herds, Kagisano = 5/15 herds, Molopo = 1/3 herds, Potchefstroom Region (subcontracted to Vryburg Vet Lab) = 1/1 herds. (Titre: 18-24 = 16 animals. Titre: 30-49 = 20 animals. Titre: >60 = 140 animals)

**Free State**

**Bloemfontein, Dr Stephan Wessels**

Beef: 1

Positive herd Dealesville area

**Clocolan, Clocolan Dierekliniek**

Beef: 1

**Excelsior, Weltevrede Dierekliniek**

Beef: 3

**Hoopstad, Hoopstad Dierekliniek**

Beef: 3

**Kroonstad, Dr. Theo Kotze Senekal**

Dairy: 1

New brucellosis outbreak in Rosendal dairy farm

**Kroonstad, Kroonstad Dierehospitaal**

Beef: 3



**Viljoenskroon, Viljoenskroon Dierekliniek**

Beef: 2

**Villiers, Wilgepoort Veedienste**

Beef: 3

**Winburg, Winburg Dierekliniek**

Beef: 3

**Eastern Cape****Aliwal North, Hertzogbrug Dierekliniek**

Beef: 1

**Northern Cape****Kimberley, Kimberley Dierekliniek**

Beef: 1

***Brucella ovis***

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average					1.4 (5)	2.0 (1)			

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

**Sheep**

1.4 (5)

2.0 (1)

**Free State****Bethlehem, Bethlehem Animal Hospital**

Sheep: 1

**Clocolan, Clocolan Dierekliniek**

Sheep: 1

**Oranjeville, Grasveld Kuddegeseondheid**

Sheep: 2



**Villiers, Wilgepoort Veedienste**

Sheep: 2

**Wesselsbron, Wesselsbron Direkliniek**

Sheep: 1

**Kwazulu-Natal****Dundee, Endumeni Herd health**

Sheep: 2

**Bovine Tuberculosis**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average		1.0 (1)							

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef		1.0 (1)							
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**Gauteng****Pretoria, Anima Veterinary Consulting Rooms**

Beef: 1

Only one positive test in the herd

**Johne`s disease**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average								1.0 (1)	

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported







**Ermelo, Môregloed Veterinêre Spreekkamer**

Beef: 1

**Northern Cape****Kathu, Kathu Dierekliniek**

Goat: 3

**Septicaemia**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average				2.0 (1)	1.0 (1)			1.0 (1)	

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

**Beef**

2.0 (1)

**Sheep**

1.0 (1)

1.0 (1)

**North West****Vryburg, Vryburg Dierehospitaal**

Beef: 2

**Free State****Villiers, Wilgepoort Veedienste**

Sheep: 1

**Western Cape****Paarl, Paarl Dierehospitaal;**

Sheep: 1

***E. coli***

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
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<b>Average</b>	1.8 (5)	3.0 (1)		2.3 (6)	2.0 (2)	2.0 (1)	1.7 (3)	3.0 (2)
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Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

<b>Beef</b>	1.7 (3)	3.0 (1)		2.3 (3)	1.0 (1)			
<b>Dairy</b>					3.0 (1)			
<b>Sheep</b>	2.0 (2)			2.5 (2)			1.5 (2)	3.0 (1)
<b>Goat</b>				2.0 (1)		2.0 (1)	2.0 (1)	3.0 (1)

#### **Mpumalanga**

##### **Balfour, Balfour Dierekliniek**

Beef: 2, Sheep: 2

##### **Grootvlei, Grootvlei Dierekliniek**

Beef: 2, Sheep: 2

##### **Lydenburg, Longtom Dierekliniek**

Beef: 1

#### **Gauteng**

##### **Pretoria, Anima Veterinary Consulting Rooms**

Beef: 3

#### **Free State**

##### **Hoopstad, Hoopstad Dierekliniek**

Beef: 3, Sheep: 3

##### **Hoopstad, Kameeldoring Dierekliniek**

Goat: 2

##### **Viljoenskroon, Viljoenskroon Dierekliniek**

Beef: 2

##### **Winburg, Winburg Dierekliniek**

Beef: 2, Sheep: 2



## Kwazulu-Natal

### Kokstad, E.G.Veterinary Services

Dairy: 3

There have been a large number of dairy and beef calves affected with Cryptosporidiosis, as well as Rotavirus. One dairy has concurrent MDR (Multiple drug resistance) *E. coli*, which we are busy testing virulence.

### Mooi River, Mooirivier Vet Clinic

Beef: 1

## Eastern Cape

### Graaff-Reinet, Graaff Reinet Veterinary Clinic

Goat: 2

## Western Cape

### Beaufort West, Beaufort Dierekliniek

Sheep: 1

### Oudtshoorn, Ostrimed

Sheep: 2, Goat: 2

## Northern Cape

### Kathu, Kathu Dierekliniek

Sheep: 3, Goat: 3

## Enzootic Abortion



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average				3.0 (1)	2.0 (1)			1.5 (2)	2.0 (2)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Sheep				3.0 (1)	2.0 (1)			1.5 (2)	2.0 (2)
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## North West



**Vryburg, Vryburg Dierehospitaal**

Sheep: 3

**Free State****Villiers, Wilgepoort Veedienste**

Sheep: 2

**Western Cape****Beaufort West, Beaufort Dierekliniek**

Sheep: 1

**Oudtshoorn, Ostrimed**

Sheep: 2

**Northern Cape****Colesberg, Karoo Veterinary Hospital**

Sheep: 2

**Kuruman, Kuruman Dierekliniek**

Sheep: 2

**Dermatophilosis (Lumpy Wool)**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average		1.0 (1)			2.0 (2)				

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Sheep		1.0 (1)			2.0 (2)				
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**Gauteng****Bronkhorstspuit, Kerkstraat Dierekliniek**

Sheep: 1

**Free State**



## Frankfort, Frankfort Dierkliniek

Sheep: 2

**Reitz, Riemland Dierhospitaal**

Sheep: 2

## Intrauterine Gangrene

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average									2.5 (2)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Sheep	2.0 (1)
Goat	3.0 (1)

## Northern Cape

## Kuruman, Kuruman Dierkliniek

Sheep: 2

## Postmasburg, Postmasburg Dierekliniek

Goat: 3

## Bovine Dermatophilosis (Senkobo disease)

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	2.0 (1)								

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

<b>Beef</b>	2.0 (1)	
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Beef: 1

Wooden tongue

## Free State

### Bloemfontein, University Free State

Dairy: 2

Subclinical infection

## Kwazulu-Natal

### Kokstad, E.G.Veterinary Services

Beef: 3

Clostridial infections are still causing quite a few mortalities on farms with improper vaccinations, especially animals on feedlot rations. There have also been a few cases in the Swartberg area of *Clostridium perfringens* type A infections.

## Western Cape

### Piketberg, Piketberg Dierehospitaal

Sheep: 2

Rams tested for fertility, bacteria seen in semen smears

## Pasteurellosis



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.8 (5)	1.0 (1)	2.0 (1)	2.3 (4)	2.3 (11)		2.0 (2)	3.0 (1)	2.0 (1)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef	1.5 (2)	1.0 (1)	2.0 (1)	2.0 (3)	2.2 (5)		1.0 (1)		
Sheep	2.0 (3)			3.0 (1)	2.3 (6)			3.0 (1)	2.0 (1)
Goat							3.0 (1)		

## Mpumalanga



**Ermelo, Môregloed Veterinêre Spreekkamer**

Beef: 1, Sheep: 2

**Grootvlei, Grootvlei Dierekliniek**

Sheep: 2

**Hendrina, Mooiplaas Veterinêre Dienste**

Beef: 2, Sheep: 2

**Gauteng****Nigel, Nigel Diere Spreekkamer**

Beef: 1

**Limpopo****Makhado, Blouberg Dierekliniek**

Beef: 2

Four cases

**North West****Brits, Brits Dierekliniek**

Beef: 2

**Leeudoringstad, Leeudoringstad Dierekliniek**

Beef: 3, Sheep: 3

**Rustenburg, Bergbos Dierekliniek**

Beef: 1

**Free State****Bethlehem, Bethlehem Animal Hospital**

Beef: 2, Sheep: 1

**Hoopstad, Hoopstad Dierekliniek**

Beef: 3, Sheep: 3

**Hoopstad, Kameeldoring Dierekliniek**

Sheep: 2



**Kroonstad, Dr. Theo Kotze Senekal**

Beef: 1

*Pasteurella* outbreak in feedlot

**Villiers, Wilgepoort Veedienste**

Beef: 3, Sheep: 3

**Vrede, Saulshoek Dieregesondheid.**

Beef: 2

**Vrede, Vrede Dierehospitaal**

Sheep: 3

**Winburg, Winburg Dierekliniek**

Sheep: 2

**Eastern Cape****Adelaide, Adelaide Veterinary Clinic**

Goat: 3

Quite a number of *Pasteurella* pneumonia cases in yearling Angoras, freshly shorn

**Aliwal North, Hertzogbrug Dierekliniek**

Beef: 1

**Western Cape****Heidelberg (WC), Heidelberg Dierekliniek**

Sheep: 3

**Northern Cape****Colesberg, Karoo Veterinary Hospital**

Sheep: 2

**Protozoal diseases (other)****Besnoitiosis**



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
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Average			1.0 (1)						
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Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef			1.0 (1)						
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## Limpopo

### Tzaneen, ZZ2 Farm Practice

Beef: 1

## Coccidiosis [^](#)

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.5 (2)	1.3 (3)	2.0 (1)	2.0 (2)	2.3 (3)	1.5 (2)	2.0 (1)	1.8 (4)	2.5 (2)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef	1.0 (1)	1.0 (1)	2.0 (1)			1.0 (1)			
Dairy								1.0 (1)	
Sheep		2.0 (1)		2.0 (1)	2.3 (3)	2.0 (1)		2.0 (3)	3.0 (1)
Goat	2.0 (1)	1.0 (1)		2.0 (1)			2.0 (1)		2.0 (1)

## Mpumalanga

### Volsrust, Cape Cross Volsrust Dierehospitaal

Beef: 1

Calf, kraaled

Goat: 2



Kids kraaled, 3 to 6 weeks old

## **Gauteng**

### **Bapsfontein, Bapsfontein Dierehospitaal**

Sheep: 2

### **Nigel, Nigel Diere Spreekkamer**

Beef: 1

### **Pretoria, Onderstepoort Academic Hospital and Production Animal Clinic**

Goat: 1

## **Limpopo**

### **Makhado, Blouberg Dierekliniek**

Beef: 2

Eight cases

## **North West**

### **Klerksdorp, Klerksdorp Dierehospitaal**

Sheep: 2, Goat: 2

## **Free State**

### **Bloemfontein, Dr Stephan Wessels**

Sheep: 3

### **Reitz, Riemland Dierehospitaal**

Sheep: 2

### **Villiers, Wilgepoort Veedienste**

Sheep: 2

## **Kwazulu-Natal**

### **Eshowe, Eshowe Veterinary Hospital**

Sheep: 2

### **Mooi River, Mooirivier Vet Clinic**

Beef: 1



<b>Eastern Cape</b>									
<b>Bathurst, Dr Jane Pistorius</b>									
Goat: 2									
<b>Western Cape</b>									
<b>Darling, Tygerberg Dierehospitaal Darling</b>									
Sheep: 2									
<b>George, George Animal Hospital</b>									
Sheep: 3									
<b>Oudtshoorn, Oudtshoorn Dierekliniek</b>									
Sheep: 1									
<b>Riversdale, Riversdal Dierekliniek</b>									
Dairy: 1									
<b>Northern Cape</b>									
<b>Kuruman, Kuruman Dierekliniek</b>									
Sheep: 3									
<b>Postmasburg, Postmasburg Dierekliniek</b>									
Goat: 2									
<b><i>Cryptosporidium</i></b>									<a href="#">^</a>
<b>PROVINCE</b>	<b>Mpumalanga</b>	<b>Gauteng</b>	<b>Limpopo</b>	<b>North West</b>	<b>Free State</b>	<b>Kwazulu-Natal</b>	<b>Eastern Cape</b>	<b>Western Cape</b>	<b>Northern Cape</b>
<b>Average</b>		3.0 (1)	2.0 (1)		1.5 (2)	2.1 (7)	3.0 (2)	2.3 (6)	
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
<b>Beef</b>		3.0 (1)	2.0 (1)			2.0 (3)			
<b>Dairy</b>						2.3 (3)	3.0 (2)	2.3 (3)	



Sheep	1.5 (2)	2.0 (1)	2.0 (1)
Goat			2.5 (2)
<b>Gauteng</b>			
<b>Pretoria, Anima Veterinary Consulting Rooms</b>			
Beef: 3			
Calves coming from a dairy in Estcourt			
<b>Limpopo</b>			
<b>Makhado, Blouberg Dierekliniek</b>			
Beef: 2			
Six cases			
<b>Free State</b>			
<b>Villiers, Wilgepoort Veedienste</b>			
Sheep: 1			
<b>Winburg, Winburg Dierekliniek</b>			
Sheep: 2			
<b>Kwazulu-Natal</b>			
<b>Dundee, Endumeni Herd health</b>			
Beef: 1, Dairy: 2			
<b>Estcourt, Estcourt Vet Clinic</b>			
Beef: 2, Dairy: 2, Sheep: 2			
<b>Kokstad, E.G.Veterinary Services</b>			
Beef: 3			
There have been a large number of dairy and beef calves affected with Cryptosporidiosis, as well as Rotavirus. One dairy has concurrent MDR (Multiple drug resistance) <i>E. coli</i> , which we are busy testing virulence.			
Dairy: 3			
There have been a large number of dairy and beef calves affected with Cryptosporidiosis, as well as Rotavirus. One dairy has concurrent MDR (Multiple drug resistance) <i>E. coli</i> , which we are busy testing virulence.			
<b>Eastern Cape</b>			



**Alexandria, Riverview Trading Vet Consulting Services**

Dairy: 3

Cookhouse area

**Jeffreys Bay, Cape Cross Veterinary Hospital**

Dairy: 3

Calves

**Western Cape****Darling, Tygerberg Dierehospitaal Darling**

Dairy: 3

Calves

Goat: 3

Kids

**Malmesbury, Dr Otto Kriek**

Dairy: 1

**Oudtshoorn, Ostrimed**

Sheep: 2, Goat: 2

**Riversdale, Riversdal Dierekliniek**

Dairy: 3

**Fungal diseases****Ringworm**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.0 (2)	1.5 (2)		2.8 (5)	2.0 (12)	1.6 (5)	2.5 (2)	1.0 (2)	

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported



<b>Beef</b>	1.0 (2)	1.0 (1)		2.8 (5)	2.0 (11)	1.6 (5)	2.5 (2)	1.0 (1)
<b>Dairy</b>					2.0 (1)			
<b>Sheep</b>		2.0 (1)						1.0 (1)

## **Mpumalanga**

### **Balfour, Balfour Dierekliniek**

Beef: 1

### **Grootvlei, Grootvlei Dierekliniek**

Beef: 1

## **Gauteng**

### **Nigel, Nigel Diere Spreekkamer**

Beef: 1

### **Pretoria, Anima Veterinary Consulting Rooms**

Sheep: 2

## **North West**

### **Brits, Brits Dierekliniek**

Beef: 2

### **Christiana, Christiana Dierehospitaal**

Beef: 3

### **Leeudoringstad, Leeudoringstad Dierekliniek**

Beef: 3

### **Stella, Stella Dierekliniek**

Beef: 3

### **Vryburg, Vryburg Dierehospitaal**

Beef: 3

## **Free State**

### **Bloemfontein, Dr Stephan Wessels**



Beef: 1

**Bloemfontein, University Free State**

Beef: 2

**Dewetsdorp, Platkop Dierekliniek**

Beef: 3, Dairy: 2

**Excelsior, Weltevrede Dierekliniek**

Beef: 2

**Ficksburg, Oosvrystaat Diere Produkte**

Beef: 2

**Hoopstad, Hoopstad Dierekliniek**

Beef: 3

**Kroonstad, Kroonstad Dierehospitaal**

Beef: 2

**Viljoenskroon, Viljoenskroon Dierekliniek**

Beef: 2

**Villiers, Wilgepoort Veedienste**

Beef: 2

**Vrede, Saulshoek Dieregesondheid.**

Beef: 2

**Wesselsbron, Wesselsbron Dierekliniek**

Beef: 1

**Kwazulu-Natal**

**Bergville, Bergville Veterinary Clinic**

Beef: 2

**Camperdown, Camperdown Vet Clinic**

Beef: 1

**Dundee, Endumeni Herd health**



## Mpumalanga



**Ermelo, Môregloed Veterinêre Spreekkamer**

Beef: 1

**Gauteng****Pretoria, Anima Veterinary Consulting Rooms**

Beef: 1

**Limpopo****Vaalwater, Vaalwater Dieresprekkamer**

Beef: 1

**North West****Brits, Brits Dierekliniek**

Beef: 2

**Brits, Zodiac Dierekliniek**

Beef: 1

**Leeudoringstad, Leeudoringstad Dierekliniek**

Beef: 2

Three cattle

**Vryburg, Vryburg Dierehospitaal**

Beef: 2

**Free State****Bloemfontein, Dr Stephan Wessels**

Beef: 1

**Hoopstad, Hoopstad Dierekliniek**

Beef: 1

**Winburg, Winburg Dierekliniek**

Beef: 2

**Eastern Cape****Stutterheim, Stutterheim Veterinary Clinic**











Beef: 2

## BRSV (Bovine respiratory syncytial virus)



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
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**Average**

2.0 (1)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

**Beef**

2.0 (1)

### Kwazulu-Natal

Pietermaritzburg, Veterinary House Hospital

Beef: 2

## PI3



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
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**Average**

2.0 (1)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

**Beef**

2.0 (1)

### Kwazulu-Natal

Pietermaritzburg, Veterinary House Hospital

Beef: 2

## Enzootic Bovine Leucosis (EBL)





PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average					2.0 (1)			2.0 (1)	
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
Beef					2.0 (1)				
Dairy								2.0 (1)	
Free State									
Winburg, Winburg Dierekliniek									
Beef: 2									
Western Cape									
Malmesbury, Dr Otto Kriek									
Dairy: 2									
Orf									<a href="#">^</a>
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	2.0 (3)	2.0 (1)		2.6 (5)	2.0 (7)	2.0 (2)	1.0 (1)	1.7 (9)	2.0 (1)
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
Sheep	2.0 (1)	2.0 (1)		2.3 (3)	2.0 (6)	1.0 (1)	1.0 (1)	1.8 (6)	2.0 (1)
Goat	2.0 (2)			3.0 (2)	2.0 (1)	3.0 (1)		1.3 (3)	
Mpumalanga									
Lydenburg, Longtom Dierekliniek									
Sheep: 2, Goat: 3									



**Nelspruit, Nelspruit Animal Hospital**

Goat: 1

**Gauteng****Pretoria, Anima Veterinary Consulting Rooms**

Sheep: 2

**North West****Christiana, Christiana Dierehospitaal**

Sheep: 3, Goat: 3

**Leeudoringstad, Leeudoringstad Dierekliniek**

Sheep: 3, Goat: 3

**Schweizer-Reneke, Buffeldoorn Dierekliniek SR**

Sheep: 1

One flock

**Free State****Bloemfontein, Dr Stephan Wessels**

Sheep: 1

**Excelsior, Weltevrede Dierekliniek**

Sheep: 2, Goat: 2

**Hoopstad, Hoopstad Dierekliniek**

Sheep: 3

**Kroonstad, Kroonstad Dierehospitaal**

Sheep: 2

**Oranjeville, Grasveld Kuddegeseondheid**

Sheep: 2

**Viljoenskroon, Viljoenskroon Dierekliniek**

Sheep: 2

**Kwazulu-Natal**



**Estcourt, Estcourt Vet Clinic**

Goat: 3

**Newcastle, Ncanduvet Newcastle**

Sheep: 1

**Eastern Cape****Graaff-Reinet, Graaff Reinet Veterinary Clinic**

Sheep: 1

**Western Cape****Beaufort West, Beaufort Dierekliniek**

Sheep: 1

**Beaufort West, Beaufort West State Vet**

Sheep: 1

Vaccine prepared

**Darling, Tygerberg Dierehospitaal Darling**

Sheep: 2

**George, George Animal Hospital**

Sheep: 3

**Moorreesburg, Korhaanrug Dieregesondheid**

Sheep: 3

**Oudtshoorn, Ostrimed**

Goat: 1

**Oudtshoorn, Oudtshoorn Dierekliniek**

Sheep: 1, Goat: 1

**Stellenbosch, Stellenbosch Animal Hospital**

Goat: 2

**Northern Cape****Kuruman, Kuruman Dierekliniek**



Sheep: 2

## Warts



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.5 (2)	1.0 (1)	2.0 (1)	2.8 (4)	1.8 (9)	1.3 (4)	1.0 (1)	1.5 (2)	2.0 (1)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef	1.5 (2)	1.0 (1)	2.0 (1)	2.7 (3)	1.9 (7)	1.3 (4)		1.5 (2)	
Dairy					1.5 (2)				
Sheep				3.0 (1)			1.0 (1)		
Goat									2.0 (1)

### Mpumalanga

**Hendrina, Mooiplaas Veterinêre Dienste**

Beef: 1

**Lydenburg, Longtom Dierekliniek**

Beef: 2

### Gauteng

**Nigel, Nigel Diere Spreekkamer**

Beef: 1

### Limpopo

**Makhado, Blouberg Dierekliniek**

Beef: 2

Four cases

### North West

**Christiana, Christiana Dierehospitaal**



Beef: 3, Sheep: 3

**Leeudoringstad, Leeudoringstad Dierekliniek**

Beef: 3

**Vryburg, Vryburg Dierhospitaal**

Beef: 2

**Free State**

**Bloemfontein, Dr Stephan Wessels**

Beef: 1

**Bloemfontein, University Free State**

Beef: 1

**Dewetsdorp, Platkop Dierekliniek**

Dairy: 2

**Hoopstad, Hoopstad Dierekliniek**

Beef: 3

**Kroonstad, Kroonstad Dierhospitaal**

Dairy: 1

**Viljoenskroon, Viljoenskroon Dierekliniek**

Beef: 3

**Villiers, Wilgepoort Veedienste**

Beef: 2

**Wesselsbron, Wesselsbron Dierekliniek**

Beef: 1

**Winburg, Winburg Dierekliniek**

Beef: 2

**Kwazulu-Natal**

**Eshowe, Eshowe Veterinary Hospital**

Beef: 2



5 cattle

Estcourt, Estcourt Vet Clinic

Beef: 1

Mooi River, Mooirivier Vet Clinic

Beef: 1

Mtubatuba, Mtubatuba Animal Clinic

Beef: 1

Eastern Cape

Uitenhage, Uitenhage Dierehospitaal

Sheep: 1

Western Cape

Stellenbosch, Stellenbosch Animal Hospital

Beef: 1

Swellendam, Swellendam Dierehospitaal

Beef: 2

Northern Cape

Postmasburg, Postmasburg Dierekliniek

Goat: 2

Rota virus

PROVINCE

Mpumalanga

Gauteng

Limpopo

North West

Free State

Kwazulu-Natal

Eastern Cape

Western Cape

Northern Cape

Average

2.0 (1)

2.3 (3)

3.0 (1)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef

2.0 (1)

2.0 (2)

Dairy

3.0 (1)

3.0 (1)







**Bapsfontein, Bapsfontein Dierehospitaal**

Goat: 1

**Free State****Villiers, Wilgepoort Veedienste**

Beef: 2

**Poisonings (Plant) and Fungal****Cardiac glycoside poisoning**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average				3.0 (1)		1.0 (1)		2.0 (1)	

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef						1.0 (1)			
Sheep				3.0 (1)				2.0 (1)	

**North West****Brits, Zodiac Dierekliniek**

Sheep: 3

Feedlot all affected some deaths postmortem and histopath indicates Ionophore toxicity

**Kwazulu-Natal****Estcourt, Estcourt Vet Clinic**

Beef: 1

**Western Cape****Beaufort West, Beaufort West State Vet**

Sheep: 2

Many reports received as a result of the drought, mainly due to Witstorm.



Cestrum									
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average					1.7 (3)				
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
Beef					1.5 (2)				
Sheep					2.0 (1)				

Cynanchum poisoning									<a href="#">^</a>
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average								1.0 (1)	
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
Dairy								1.0 (1)	
Western Cape									
Riversdale, Riversdal Dierekliniek									



Dairy: 1

## Geeldikkop/Dikoor



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	3.0 (1)								

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Sheep 3.0 (1)

### Mpumalanga

Lydenburg, Longtom Dierekliniek

Sheep: 3

## Gifblaar



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average		2.0 (1)	1.0 (1)						

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef 2.0 (1) 1.0 (1)

### Gauteng

Bronkhorstspuit, Kerkstraat Dierekliniek

Beef: 2

### Limpopo

Makhado, Blouberg Dierekliniek

Beef: 1



Lantana									^
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	3.0 (1)		3.0 (1)			2.3 (3)			
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
Beef	3.0 (1)		3.0 (1)			2.3 (3)			
Mpumalanga									
Piet Retief, Pets Vet Hospital									
Beef: 3									
Limpopo									
Makhado, Blouberg Dierekliniek									
Beef: 3									
Twelve cases									
Kwazulu-Natal									
Bergville, Bergville Veterinary Clinic									
Beef: 2									
Estcourt, Estcourt Vet Clinic									
Beef: 3									
Vryheid, Vryheid Privaat Veeartse									
Beef: 2									
Prussic acid poisoning									^
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape







Beef						3.0 (1)			
Eastern Cape									
Stutterheim, Stutterheim Veterinary Clinic									
Beef: 3									
Chronic liver poisoning. Poisoning due to drought. Cattle dying sporadically.									
Tulip Poisoning									
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	2.0 (5)	2.0 (2)			1.8 (13)	2.7 (6)	1.0 (1)	1.3 (3)	
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
Beef	2.0 (4)	2.0 (2)			1.9 (9)	2.7 (6)	1.0 (1)	1.3 (3)	
Dairy					1.0 (1)				
Sheep	2.0 (1)				1.7 (3)				
Mpumalanga									
Hendrina, Mooiplaas Veterinêre Dienste									
Beef: 2, Sheep: 2									
Lydenburg, Longtom Dierekliniek									
Beef: 2									
Middelburg, Neil Fourie Veeartsenydienste									
Beef: 2									
Standerton, Econovet									
Beef: 2									
Gauteng									



**Bronkhorstspuit, Kerkstraat Dierekliniek**

Beef: 3

**Nigel, Nigel Diere Spreekkamer**

Beef: 1

**Free State****Bethlehem, Bethlehem Animal Hospital**

Beef: 1

**Clocolan, Clocolan Dierekliniek**

Beef: 3, Dairy: 1

**Memel, Memel Veterinary Clinic**

Beef: 2

**Oranjeville, Grasveld Kuddegeseondheid**

Beef: 2, Sheep: 2

**Reitz, Riemland Dierehospitaal**

Beef: 2

**Villiers, Wilgepoort Veedienste**

Beef: 3, Sheep: 2

**Vrede, Saulshoek Dieregesondheid.**

Beef: 1

**Vrede, Vrede Dierehospitaal**

Beef: 1

**Wesselsbron, Wesselsbron Dierekliniek**

Sheep: 1

**Winburg, Winburg Dierekliniek**

Beef: 2

**Kwazulu-Natal****Bergville, Bergville Veterinary Clinic**



Beef: 3									
Dundee, Endumeni Herd health									
Beef: 3									
Estcourt, Estcourt Vet Clinic									
Beef: 2									
Mooi River, Mooirivier Vet Clinic									
Beef: 3									
Newcastle, Ncanduvet Newcastle									
Beef: 3									
Vryheid, Vryheid Privaat Veeartse									
Beef: 2									
Eastern Cape									
Witelsbos, Witelsbos Veterinary Consulting Rooms									
Beef: 1									
Western Cape									
Riversdale, Riversdal Dierekliniek									
Beef: 1									
Stellenbosch, Stellenbosch Animal Hospital									
Beef: 1									
Swellendam, Swellendam Dierehospitaal									
Beef: 2									
Mycotoxycosis									<a href="#">^</a>
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average					2.0 (1)			2.5 (2)	



Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

**Beef** 2.0 (1)

**Dairy** 2.5 (2)

## Free State

### Kroonstad, Dr. Theo Kotze Senekal

Beef: 2

Mycotoxins om maize fields and silage bunkers

## Western Cape

### Darling, Tygerberg Dierehospitaal Darling

Dairy: 2

### Malmesbury, Dr Otto Kriek

Dairy: 3

Last silage of previous season always poses a challenge when mouldy. A few deaths occurred and abortions

## Diplodiosis



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
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**Average** 1.0 (1)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

**Beef** 1.0 (1)

## Free State

### Oranjeville, Grasveld Kuddegeseondheid

Beef: 1

## Other





PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average		2.0 (1)						2.0 (2)	2.0 (1)
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
Dairy		2.0 (1)							
Sheep								2.0 (2)	2.0 (1)
Gauteng									
Nigel, Welgelegen Dierekliniek									
Dairy: 2									
Calves with red urine - could not come to a diagnosis a diagnosis									
Western Cape									
Beaufort West, Beaufort West State Vet									
Sheep: 1									
Eucalyptus leaves- 30 died									
Moorreesburg, Korhaanrug Dieregesondheid									
Sheep: 3									
Chinkerenchees									
Northern Cape									
De Aar, De Aar Veterinary Clinic									
Sheep: 2									
"Misbek", plantpoisoning									
Poisonings									
Urea Poisoning									^



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.0 (1)				1.0 (3)	1.0 (1)	2.0 (1)		3.0 (1)
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
Beef	1.0 (1)				1.0 (2)	1.0 (1)			
Sheep					1.0 (1)		2.0 (1)		3.0 (1)
Mpumalanga									
Grootvlei, Grootvlei Dierekliniek									
Beef: 1									
Free State									
Clocolan, Clocolan Dierekliniek									
Beef: 1									
Hoopstad, Kameeldoring Dierekliniek									
Beef: 1									
Kroonstad, Kroonstad Dierehospitaal									
Sheep: 1									
Kwazulu-Natal									
Mooi River, Mooirivier Vet Clinic									
Beef: 1									
Eastern Cape									
Graaff-Reinet, Graaff Reinet Veterinary Clinic									
Sheep: 2									
Northern Cape									
Postmasburg, Postmasburg Dierekliniek									
Sheep: 3									



## Snake Bite

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
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Average	1.0 (1)								
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Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef	1.0 (1)								
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### Mpumalanga

Lydenburg, Longtom Direkliniek

Beef: 1

## Other

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
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Average					3.0 (1)				
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Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Sheep					3.0 (1)				
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### Free State

Frankfort, Frankfort Direkliniek

Sheep: 3

Prussic acid

## Macro Nutritional Problems

### Energy deficiency



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.0 (2)	1.0 (1)	2.2 (5)	2.0 (3)	2.7 (13)	2.3 (4)	2.8 (4)		3.0 (1)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef	1.0 (1)	1.0 (1)	2.5 (2)	2.0 (3)	2.7 (7)	2.3 (4)	3.0 (1)		
Sheep	1.0 (1)		2.0 (2)		2.7 (6)		2.5 (2)		
Goat			2.0 (1)				3.0 (1)		3.0 (1)

#### Mpumalanga

##### Balfour, Balfour Dierekliniek

Beef: 1, Sheep: 1

#### Gauteng

##### Pretoria, Onderstepoort Academic Hospital and Production Animal Clinic

Beef: 1

Protein, energy malabsorption (PEM)

#### Limpopo

##### Makhado, Blouberg Dierekliniek

Beef: 3

Shortage of food

##### Mokopane, Bundu Veterinary Services

Sheep: 2

##### Polokwane, Pietersburg Veterinary Clinic

Beef: 2, Sheep: 2, Goat: 2

#### North West

##### Christiana, Christiana Dierehospitaal



Beef: 1

**Klerksdorp, Klerksdorp Dierehospitaal**

Beef: 2

**Vryburg, Molopo Dierekliniek**

Beef: 3

**Free State**

**Clocolan, Clocolan Dierekliniek**

Beef: 3, Sheep: 3

**Hoopstad, Hoopstad Dierekliniek**

Beef: 3, Sheep: 3

**Kroonstad, Kroonstad Dierehospitaal**

Sheep: 2

**Memel, Memel Veterinary Clinic**

Beef: 3

**Viljoenskroon, Viljoenskroon Dierekliniek**

Beef: 3, Sheep: 3

**Villiers, Wilgepoort Veedienste**

Beef: 3, Sheep: 3

**Vrede, Saulshoek Dieregesondheid.**

Beef: 2

**Warden, Warden Dierekliniek**

Sheep: 2

**Winburg, Winburg Dierekliniek**

Beef: 2

**Kwazulu-Natal**

**Camperdown, Camperdown Vet Clinic**

Beef: 2



**Dundee, Endumeni Herd health**

Beef: 2

**Mooi River, Mooirivier Vet Clinic**

Beef: 2

**Vryheid, Vryheid Privaat Veeartse**

Beef: 3

**Eastern Cape****Aliwal North, Hertzogbrug Dierekliniek**

Sheep: 2

**Steynsburg, Steynsburg Dierehospitaal**

Beef: 3, Sheep: 3, Goat: 3

**Northern Cape****Postmasburg, Postmasburg Dierekliniek**

Goat: 3

**Protein deficiency**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
<b>Average</b>	2.0 (1)	3.0 (1)	2.2 (5)	2.0 (3)	2.6 (13)	2.5 (4)	2.6 (5)	2.0 (1)	3.0 (2)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

<b>Beef</b>	2.0 (1)		2.5 (2)	2.0 (3)	2.5 (8)	2.5 (4)	3.0 (1)		3.0 (1)
<b>Dairy</b>								2.0 (1)	
<b>Sheep</b>		3.0 (1)	2.0 (2)		2.8 (5)		2.5 (2)		
<b>Goat</b>			2.0 (1)				2.5 (2)		3.0 (1)



<b>Mpumalanga</b>
<b>Lydenburg, Longtom Dierekliniek</b>
Beef: 2
<b>Gauteng</b>
<b>Bapsfontein, Bapsfontein Dierehospitaal</b>
Sheep: 3
<b>Limpopo</b>
<b>Makhado, Blouberg Dierekliniek</b>
Beef: 3
Shortage of food
<b>Mokopane, Bundu Veterinary Services</b>
Sheep: 2
<b>Polokwane, Pietersburg Veterinary Clinic</b>
Beef: 2, Sheep: 2, Goat: 2
<b>North West</b>
<b>Christiana, Christiana Dierehospitaal</b>
Beef: 1
<b>Klerksdorp, Klerksdorp Dierehospitaal</b>
Beef: 2
<b>Vryburg, Molopo Dierekliniek</b>
Beef: 3
<b>Free State</b>
<b>Bethlehem, Bethlehem Animal Hospital</b>
Beef: 2, Sheep: 3
<b>Clocolan, Clocolan Dierekliniek</b>
Beef: 3, Sheep: 3
<b>Ficksburg, Oosvrystaat Diere Produkte</b>



Beef: 2
Communal farmers
Sheep: 2
<b>Hoopstad, Hoopstad Dierekliniek</b>
Beef: 3, Sheep: 3
<b>Memel, Memel Veterinary Clinic</b>
Beef: 3
<b>Villiers, Wilgepoort Veedienste</b>
Beef: 2, Sheep: 3
<b>Vrede, Saulshoek Dieregesondheid.</b>
Beef: 3
<b>Winburg, Winburg Dierekliniek</b>
Beef: 2
<b>Kwazulu-Natal</b>
<b>Camperdown, Camperdown Vet Clinic</b>
Beef: 2
<b>Eshowe, Eshowe Veterinary Hospital</b>
Beef: 3
Protein deficiency in 100 Nguni cattle. Poor management after farms taken over by government.
<b>Estcourt, Estcourt Vet Clinic</b>
Beef: 3
<b>Mooi River, Mooirivier Vet Clinic</b>
Beef: 2
<b>Eastern Cape</b>
<b>Aliwal North, Hertzogbrug Dierekliniek</b>
Sheep: 2
<b>Graaff-Reinet, Graaff Reinet Veterinary Clinic</b>



Goat: 2

Deficiency in through flow protein in Angoras

## Steynsburg, Steynsburg Dierehospitaal

Beef: 3, Sheep: 3, Goat: 3

## Western Cape

**Darling, Tygerberg Dierehospitaal Darling**

Dairy: 2

## Northern Cape

## Postmasburg, Postmasburg Dierekliniek

Beef: 3, Goat: 3

## Phosphate deficiency

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.0 (1)	3.0 (1)	1.0 (1)	2.5 (4)	2.3 (3)			2.0 (1)	2.3 (3)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

<b>Beef</b>	1.0 (1)		1.0 (1)	2.3 (3)	2.5 (2)		2.0 (2)
<b>Dairy</b>							2.0 (1)
<b>Sheep</b>		3.0 (1)		3.0 (1)	2.0 (1)		3.0 (1)

**Mpumalanga**

**Balfour, Balfour Diereklínik**

Beef: 1

Gauteng

## Bapsfontein, Bapsfontein Dierehospitaal

Sheep: 3



Limpopo									
Polokwane, Pietersburg Veterinary Clinic									
Beef: 1									
North West									
Christiana, Christiana Dierehospitaal									
Beef: 3, Sheep: 3									
Vryburg, Molopo Dierekliniek									
Beef: 2									
Vryburg, Vryburg Dierehospitaal									
Beef: 2									
Free State									
Hoopstad, Hoopstad Dierekliniek									
Beef: 3									
Villiers, Wilgepoort Veedienste									
Beef: 2, Sheep: 2									
Western Cape									
Darling, Tygerberg Dierehospitaal Darling									
Dairy: 2									
Northern Cape									
Kuruman, Kuruman Dierekliniek									
Beef: 2									
Postmasburg, Postmasburg Dierekliniek									
Beef: 2, Sheep: 3									
Calcium deficiency									<a href="#">^</a>
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape







Dairy: 2

**Oudtshoorn, Ostrimed**

Sheep: 1

**Worcester, Durban Straat Dierekliniek Worcester**

Beef: 1

## Micro Nutritional Problems

### Copper deficiency



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average		3.0 (1)							

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

**Sheep** 3.0 (1)

### Gauteng

**Bapsfontein, Bapsfontein Dierehospitaal**

Sheep: 3

### Zinc deficiency



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average		2.0 (1)							

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

**Goat** 2.0 (1)



## Gauteng

Pretoria, Onderstepoort Academic Hospital and Production Animal Clinic

Goat: 2

Mineral deficiency - 3 goats

## Selenium deficiency ⬆

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average		2.0 (1)		3.0 (1)	3.0 (1)	2.0 (1)			3.0 (1)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

<b>Beef</b>				3.0 (1)	2.0 (1)	
<b>Sheep</b>		2.0 (1)		3.0 (1)		3.0 (1)

## Gauteng

## Pretoria, Anima Veterinary Consulting Rooms

Sheep: 2

## North West

**Christiana, Christiana Dierhospitaal**

Sheep: 3

## Free State

Villiers, Wilgepoort Veedienste

Beef: 3

## Kwazulu-Natal

## Dundee, Endumeni Herd health

Beef: 2

## Northern Cape



**Upington, Upington Veeartsenykliniek**

Sheep: 3

White muscle disease in, 2 to 6-week old lambs with mothers in feedlot.

**Vitamin A deficiency**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.0 (1)			3.0 (2)	2.4 (5)		3.0 (1)	1.0 (2)	2.0 (2)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef				3.0 (1)	2.5 (2)		3.0 (1)		
Sheep	1.0 (1)			3.0 (1)	2.3 (3)			1.0 (1)	2.0 (1)
Goat								1.0 (1)	2.0 (1)

**Mpumalanga****Balfour, Balfour Dierekliniek**

Sheep: 1

**North West****Christiana, Christiana Dierehospitaal**

Beef: 3, Sheep: 3

**Free State****Hoopstad, Hoopstad Dierekliniek**

Beef: 3, Sheep: 3

**Oranjeville, Grasveld Kuddegeseondheid**

Beef: 2, Sheep: 3

**Villiers, Wilgepoort Veedienste**

Sheep: 1







**Villiers, Wilgepoort Veedienste**

Beef: 2, Sheep: 2

**Kwazulu-Natal****Camperdown, Camperdown Vet Clinic**

Goat: 1

**Multi-factorial Disease Conditions****Abortions**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	2.2 (5)	2.3 (3)		2.8 (4)	2.3 (12)	1.8 (6)	2.5 (2)	1.7 (7)	2.0 (1)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef	2.3 (3)	2.0 (1)		2.7 (3)	2.2 (10)	1.8 (5)		2.0 (2)	
Dairy								2.0 (3)	
Sheep	2.0 (1)	2.5 (2)		3.0 (1)	3.0 (2)		3.0 (1)	1.0 (2)	2.0 (1)
Goat	2.0 (1)					2.0 (1)	2.0 (1)		

**Mpumalanga****Balfour, Balfour Dierekliniek**

Beef: 2

**Ermelo, Môregloed Veterinêre Spreekkamer**

Beef: 3

**Grootvlei, Grootvlei Dierekliniek**

Beef: 2



**Lydenburg, Longtom Dierekliniek**

Sheep: 2

Leptospirosis, late abortions, poor lambs, died within hours

**Nelspruit, Nelspruit Animal Hospital**

Goat: 2

**Gauteng****Bapsfontein, Bapsfontein Dierehospitaal**

Sheep: 3

**Bronkhorstspuit, Kerkstraat Dierekliniek**

Beef: 2

**Pretoria, Anima Veterinary Consulting Rooms**

Sheep: 2

**North West****Christiana, Christiana Dierehospitaal**

Beef: 3, Sheep: 3

**Klerksdorp, Klerksdorp Dierehospitaal**

Beef: 2

**Vryburg, Vryburg Dierehospitaal**

Beef: 3

**Free State****Bloemfontein, Dr Stephan Wessels**

Beef: 1

**Bloemfontein, University Free State**

Beef: 1

**Bultfontein, Greylingrust Dieresprekkamer**

Beef: 2

**Clocolan, Clocolan Dierekliniek**



Beef: 2

**Excelsior, Weltevrede Dierekliniek**

Beef: 2

**Hertzogville, Hertzogville Dierekliniek**

Beef: 3

Two herds with abortions - unknown causes

**Hoopstad, Hoopstad Dierekliniek**

Beef: 3, Sheep: 3

**Kroonstad, Kroonstad Dierehospitaal**

Beef: 3

**Villiers, Wilgepoort Veedienste**

Beef: 3, Sheep: 3

**Winburg, Winburg Dierekliniek**

Beef: 2

**Kwazulu-Natal**

**Bergville, Bergville Veterinary Clinic**

Beef: 2

**Dundee, Endumeni Herd health**

Beef: 1

**Estcourt, Estcourt Vet Clinic**

Beef: 2, Goat: 2

**Mooi River, Mooirivier Vet Clinic**

Beef: 2

**Vryheid, Vryheid Privaat Veeartse**

Beef: 2

**Eastern Cape**

**Graaff-Reinet, Camdeboo Veterinary Clinic**



Goat: 2									
Steynsburg, Steynsburg Dierehospitaal									
Sheep: 3									
Western Cape									
Malmesbury, Dr Otto Kriek									
Beef: 3									
Oudtshoorn, Ostrimed									
Sheep: 1									
Riversdale, Riversdal Dierekliniek									
Dairy: 2									
Stellenbosch, Stellenbosch Animal Hospital									
Beef: 1, Dairy: 1, Sheep: 1									
Swellendam, Swellendam Dierehospitaal									
Dairy: 3									
Northern Cape									
Kuruman, Kuruman Dierekliniek									
Sheep: 2									
Stillbirths									<a href="#">^</a>
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	2.0 (2)		1.0 (1)	2.0 (1)	2.5 (6)		1.0 (1)	1.0 (1)	
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
Beef	2.0 (1)		1.0 (1)	2.0 (1)	2.5 (4)			1.0 (1)	
Sheep	2.0 (1)				2.5 (2)				



Goat

1.0 (1)

## **Mpumalanga**

### **Lydenburg, Longtom Dierekliniek**

Beef: 2, Sheep: 2

## **Limpopo**

### **Mokopane, Bundu Veterinary Services**

Beef: 1

## **North West**

### **Vryburg, Vryburg Dierehospitaal**

Beef: 2

## **Free State**

### **Dewetsdorp, Platkop Dierekliniek**

Beef: 2

### **Hoopstad, Hoopstad Dierekliniek**

Beef: 3, Sheep: 3

### **Villiers, Wilgepoort Veedienste**

Beef: 2, Sheep: 2

### **Warden, Warden Dierekliniek**

Beef: 3

## **Eastern Cape**

### **Graaff-Reinet, Camdeboo Veterinary Clinic**

Goat: 1

## **Western Cape**

### **Riversdale, Riversdal Dierekliniek**

Beef: 1

**Abscesses**





PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.5 (4)	2.0 (4)	1.0 (3)	2.3 (3)	2.0 (8)	2.5 (2)		1.8 (8)	2.0 (1)

Beef	1.0 (1)			2.0 (2)	1.8 (5)	2.0 (1)		2.0 (1)	
Dairy					2.0 (1)			1.7 (3)	
Sheep	1.5 (2)	2.0 (4)	1.0 (1)	3.0 (1)	2.5 (2)	3.0 (1)		2.0 (3)	
Goat	2.0 (1)		1.0 (2)					1.0 (1)	2.0 (1)

## Balfour, Balfour Dierkliniek

Beef: 1

## Lydenburg, Longtom Dierекliniek

Sheep: 2

## Malelane, Malelane Dierekliniek

Sheep: 1

*Corynebacterium* abscesses seen in one flock

**Nelspruit, Nelspruit Animal Hospital**

Goat: 2

## Caseous lymphadenitis

## Gauteng

## Bapsfontein, Bapsfontein Dierhospitaal

Sheep: 2

## Bronkhorstspruit, Kerkstraat Dierkliniek

Sheep: 2

### Pretoria, Anima Veterinary Consulting Rooms



Sheep: 3

**Pretoria, Onderstepoort Academic Hospital and Production Animal Clinic**

Sheep: 1

**Limpopo**

**Hoedspruit, Aardvark veterinary services**

Goat: 1

*Corynebacterium ovis* (CLA)

**Polokwane, Pietersburg Veterinary Clinic**

Sheep: 1, Goat: 1

**North West**

**Christiana, Christiana Dierehospitaal**

Beef: 3, Sheep: 3

**Schweizer-Reneke, Buffeldoorn Dierekliniek SR**

Beef: 1

Abscess in bull - 30 liter drained

**Free State**

**Bloemfontein, University Free State**

Dairy: 2

**Bultfontein, Greylingrust Dierespreekkamer**

Beef: 1

**Hoopstad, Hoopstad Dierekliniek**

Beef: 3, Sheep: 3

**Kroonstad, Kroonstad Dierehospitaal**

Beef: 2

**Villiers, Wilgepoort Veedienste**

Beef: 1, Sheep: 2

**Winburg, Winburg Dierekliniek**



Beef: 2	
<b>Kwazulu-Natal</b>	
<b>Estcourt, Estcourt Vet Clinic</b>	
Sheep: 3	
<b>Mooi River, Mooirivier Vet Clinic</b>	
Beef: 2	
<b>Western Cape</b>	
<b>Beaufort West, Beaufort Dierekliniek</b>	
Sheep: 3, Goat: 1	
<b>Ceres, Ceres Veterinary Hospital</b>	
Sheep: 1	
Lamb with abscess on brisket	
<b>Malmesbury, Dr Otto Kriek</b>	
Dairy: 2	
<b>Moorreesburg, Korhaanrug Dieregesondheid</b>	
Sheep: 2	
<b>Paarl, Paarl Dierehospitaal;</b>	
Beef: 2	
<b>Riversdale, Riversdal Dierekliniek</b>	
Dairy: 2	
<b>Stellenbosch, Stellenbosch Animal Hospital</b>	
Dairy: 1	
<b>Northern Cape</b>	
<b>Kuruman, Kuruman Dierekliniek</b>	
Goat: 2	
<b>Bladder stones</b>	<a href="#">^</a>



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average			1.0 (1)	1.0 (1)	1.5 (6)	2.0 (1)		2.0 (1)	
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
Beef				1.0 (1)	2.0 (1)				
Sheep					1.4 (5)			2.0 (1)	
Goat			1.0 (1)			2.0 (1)			
Limpopo									
Mokopane, Bundu Veterinary Services									
Goat: 1									
North West									
Vryburg, Vryburg Dierehospitaal									
Beef: 1									
Free State									
Hoopstad, Hoopstad Dierekliniek									
Sheep: 1									
Kroonstad, Kroonstad Dierehospitaal									
Sheep: 1									
Reitz, Riemland Dierehospitaal									
Sheep: 1									
Villiers, Wilgepoort Veedienste									
Beef: 2, Sheep: 2									
Vrede, Vrede Dierehospitaal									
Sheep: 2									
Kwazulu-Natal									



**Camperdown, Camperdown Vet Clinic**

Goat: 2

**Western Cape****Stellenbosch, Stellenbosch Animal Hospital**

Sheep: 2

**Blindness**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.0 (1)				2.2 (5)		1.0 (1)		2.0 (2)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef	1.0 (1)				2.0 (2)				
Sheep					2.3 (3)		1.0 (1)		2.0 (1)
Goat									2.0 (1)

**Mpumalanga****Ermelo, Môregloed Veterinêre Spreekkamer**

Beef: 1

**Free State****Bultfontein, Greylingrust Dieresprekkamer**

Sheep: 3

**Hoopstad, Hoopstad Dierekliniek**

Beef: 3, Sheep: 3

**Villiers, Wilgepoort Veedienste**

Beef: 1, Sheep: 1

**Eastern Cape**



**Graaff-Reinet, Camdeboo Veterinary Clinic**

Sheep: 1

**Northern Cape****Kuruman, Kuruman Dierekliniek**

Sheep: 2, Goat: 2

**Bloat**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.5 (2)			2.0 (2)	2.0 (8)	1.5 (2)		3.0 (1)	

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef	1.0 (1)			2.0 (1)	2.3 (3)	1.5 (2)		3.0 (1)	
Dairy	2.0 (1)				1.0 (1)				
Sheep					2.0 (4)				
Goat				2.0 (1)					

**Mpumalanga****Grootvlei, Grootvlei Dierekliniek**

Beef: 1

**Lydenburg, Longtom Dierekliniek**

Dairy: 2

**North West****Brits, Brits Dierekliniek**

Goat: 2

**Vryburg, Vryburg Dierehospitaal**

Beef: 2



Free State									
Bethlehem, Bethlehem Animal Hospital									
Sheep: 1									
Bloemfontein, University Free State									
Dairy: 1									
Excelsior, Weltevrede Dierekliniek									
Sheep: 2									
Villiers, Wilgepoort Veedienste									
Beef: 2, Sheep: 3									
Warden, Warden Dierekliniek									
Beef: 2, Sheep: 2									
Winburg, Winburg Dierekliniek									
Beef: 3									
Kwazulu-Natal									
Dundee, Endumeni Herd health									
Beef: 2									
Pietermaritzburg, Veterinary House Hospital									
Beef: 1									
Western Cape									
Moorreesburg, Korhaanrug Dieregesondheid									
Beef: 3									
Red gut (torsion sheep and goats)									^
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average					2.0 (1)			3.0 (1)	



Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

<b>Sheep</b>					2.0 (1)				3.0 (1)
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## Free State

**Oranjeville, Grasveld Kuddegeseondheid**

Sheep: 2

## Western Cape

**Heidelberg (WC), Heidelberg Dierekliniek**

Sheep: 3

## Blue udder

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
<b>Average</b>	1.3 (4)			2.0 (1)	1.5 (8)		1.5 (2)	1.3 (4)	1.0 (1)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

<b>Dairy</b>	1.0 (1)				1.0 (1)				
<b>Sheep</b>	1.5 (2)			2.0 (1)	1.7 (6)			1.3 (3)	
<b>Goat</b>	1.0 (1)				1.0 (1)		1.5 (2)	1.0 (1)	1.0 (1)

## Mpumalanga

**Grootvlei, Grootvlei Dierekliniek**

Dairy: 1, Sheep: 1

**Lydenburg, Longtom Dierekliniek**

Sheep: 2

**Nelspruit, Nelspruit Animal Hospital**

Goat: 1



<b>North West</b>
<b>Vryburg, Vryburg Dierehospitaal</b>
Sheep: 2
<b>Free State</b>
<b>Bultfontein, Greylingrust Dieresprekkamer</b>
Sheep: 2
<b>Dewetsdorp, Platkop Dierekliniek</b>
Goat: 1
<b>Hoopstad, Hoopstad Dierekliniek</b>
Sheep: 1
<b>Kroonstad, Kroonstad Dierehospitaal</b>
Dairy: 1, Sheep: 1
<b>Oranjeville, Grasveld Kuddegondheid</b>
Sheep: 2
<b>Reitz, Riemland Dierehospitaal</b>
Sheep: 2
<b>Warden, Warden Dierekliniek</b>
Sheep: 2
<b>Eastern Cape</b>
<b>Graaff-Reinet, Camdeboo Veterinary Clinic</b>
Goat: 1
<b>Graaff-Reinet, Graaff Reinet Veterinary Clinic</b>
Goat: 2
<b>Western Cape</b>
<b>Beaufort West, Beaufort Dierekliniek</b>
Sheep: 1, Goat: 1
<b>Heidelberg (WC), Heidelberg Dierekliniek</b>



Sheep: 2

#### Stellenbosch, Stellenbosch Animal Hospital

Sheep: 1

#### Northern Cape

#### Kuruman, Kuruman Dierekliniek

Goat: 1

### Diarrhoea



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	2.0 (8)	2.0 (3)		3.0 (2)	2.2 (5)	2.0 (6)		2.7 (3)	3.0 (3)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef	2.3 (4)	1.5 (2)		3.0 (1)	2.3 (3)	2.0 (5)			
Dairy	2.0 (1)				1.0 (1)	2.0 (1)		3.0 (1)	
Sheep	1.7 (3)	3.0 (1)		3.0 (1)	3.0 (1)			3.0 (1)	3.0 (1)
Goat								2.0 (1)	3.0 (2)

#### Mpumalanga

#### Balfour, Balfour Dierekliniek

Beef: 2, Sheep: 2

#### Ermelo, Môregloed Veterinêre Spreekkamer

Dairy: 2

#### Grootvlei, Grootvlei Dierekliniek

Beef: 2

#### Hendrina, Mooiplaas Veterinêre Dienste

Beef: 3, Sheep: 1



**Lydenburg, Longtom Dierekliniek**

Beef: 2, Sheep: 2

**Gauteng****Bapsfontein, Bapsfontein Dierehospitaal**

Beef: 2, Sheep: 3

**Nigel, Nigel Diere Spreekkamer**

Beef: 1

**North West****Christiana, Christiana Dierehospitaal**

Beef: 3, Sheep: 3

**Free State****Bloemfontein, University Free State**

Dairy: 1

**Hoopstad, Hoopstad Dierekliniek**

Beef: 3, Sheep: 3

**Villiers, Wilgepoort Veedienste**

Beef: 2

**Winburg, Winburg Dierekliniek**

Beef: 2

**Kwazulu-Natal****Bergville, Bergville Veterinary Clinic**

Beef: 3

**Dundee, Endumeni Herd health**

Beef: 2

**Eshowe, Eshowe Veterinary Hospital**

Dairy: 2

Dairy calves and cows with severe haemorrhagic diarrhoea, suspect viral cause, no parasites found.



**Mooi River, Mooirivier Vet Clinic**

Beef: 2

**Newcastle, Ncanduvet Newcastle**

Beef: 1

**Pietermaritzburg, Veterinary House Hospital**

Beef: 2

**Western Cape****Beaufort West, Beaufort Dierekliniek**

Goat: 2

**Darling, Tygerberg Dierehospitaal Darling**

Dairy: 3

Calves

**Oudtshoorn, Ostrimed**

Sheep: 3

Lambs

**Northern Cape****Kuruman, Kuruman Dierekliniek**

Sheep: 3, Goat: 3

**Postmasburg, Postmasburg Dierekliniek**

Goat: 3

**Epididymitis**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average		1.0 (1)			1.8 (4)	2.0 (1)		2.0 (1)	

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported



<b>Gauteng</b>
<b>Pretoria, Anima Veterinary Consulting Rooms</b>
Sheep: 1
<b>Free State</b>
<b>Clocolan, Clocolan Dierekliniek</b>
Sheep: 2
<b>Kroonstad, Kroonstad Dierehospitaal</b>
Sheep: 1
<b>Oranjeville, Grasveld Kuddegesondheid</b>
Sheep: 2
<b>Villiers, Wilgepoort Veedienste</b>
Sheep: 2
<b>Kwazulu-Natal</b>
<b>Dundee, Endumeni Herd health</b>
Sheep: 2
<b>Western Cape</b>
<b>Beaufort West, Beaufort Dierekliniek</b>
Sheep: 2

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Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported



<b>Beef</b>				1.0 (1)	2.0 (1)				
<b>Dairy</b>	2.0 (1)								
<b>Sheep</b>				2.0 (1)			3.0 (1)		2.0 (1)

### **Mpumalanga**

#### **Lydenburg, Longtom Dierekliniek**

Dairy: 2

### **Free State**

#### **Villiers, Wilgepoort Veedienste**

Beef: 1, Sheep: 2

### **Kwazulu-Natal**

#### **Bergville, Bergville Veterinary Clinic**

Beef: 2

### **Eastern Cape**

#### **Steynsburg, Steynsburg Dierehospitaal**

Sheep: 3

### **Northern Cape**

#### **Kimberley, Staatsveeartse Groep NC**

Sheep: 2

Kimberley Area Dohne Merino

## **Eye infections**

<b>PROVINCE</b>	<b>Mpumalanga</b>	<b>Gauteng</b>	<b>Limpopo</b>	<b>North West</b>	<b>Free State</b>	<b>Kwazulu-Natal</b>	<b>Eastern Cape</b>	<b>Western Cape</b>	<b>Northern Cape</b>
<b>Average</b>	1.7 (3)	2.0 (2)		3.0 (2)	1.9 (11)	1.9 (7)		1.5 (4)	

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported



<b>Beef</b>	1.5 (2)		3.0 (2)	1.8 (5)	2.0 (4)	1.0 (2)
<b>Dairy</b>					2.0 (1)	2.0 (1)
<b>Sheep</b>	2.0 (1)	2.0 (1)		2.0 (6)		2.0 (1)
<b>Goat</b>		2.0 (1)			1.5 (2)	

## **Mpumalanga**

### **Ermelo, Môregloed Veterinêre Spreekkamer**

Beef: 1

### **Lydenburg, Longtom Dierekliniek**

Beef: 2, Sheep: 2

## **Gauteng**

### **Pretoria, Anima Veterinary Consulting Rooms**

Sheep: 2

### **Pretoria, Onderstepoort Academic Hospital and Production Animal Clinic**

Goat: 2

## **North West**

### **Christiana, Christiana Dierehospitaal**

Beef: 3

### **Leeudoringstad, Leeudoringstad Dierekliniek**

Beef: 3

## **Free State**

### **Bethlehem, Bethlehem Animal Hospital**

Beef: 1, Sheep: 1

### **Bloemfontein, University Free State**

Sheep: 1

### **Bultfontein, Greylingrust Diersprekkamer**

Sheep: 3

### **Hoopstad, Hoopstad Dierekliniek**



Beef: 3, Sheep: 3

**Viljoenskroon, Viljoenskroon Dierekliniek**

Sheep: 2

**Villiers, Wilgepoort Veedienste**

Beef: 1, Sheep: 2

**Wesselsbron, Wesselsbron Dierekliniek**

Beef: 2

**Winburg, Winburg Dierekliniek**

Beef: 2

**Kwazulu-Natal**

**Bergville, Bergville Veterinary Clinic**

Beef: 2

**Camperdown, Camperdown Vet Clinic**

Goat: 1

**Estcourt, Estcourt Vet Clinic**

Dairy: 2

**Mooi River, Mooirivier Vet Clinic**

Beef: 2

**Mtubatuba, Mtubatuba Animal Clinic**

Beef: 2, Goat: 2

**Vryheid, Vryheid Privaat Veeartse**

Beef: 2

**Western Cape**

**Moorreesburg, Korhaanrug Dieregesondheid**

Sheep: 2

**Riversdale, Riversdal Dierekliniek**

Beef: 1, Dairy: 2



**Stellenbosch, Stellenbosch Animal Hospital**

Beef: 1

**Joint Ill**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.0 (1)			2.0 (2)	1.3 (3)	1.0 (2)	1.0 (1)		3.0 (1)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef	1.0 (1)			2.0 (1)	2.0 (1)	1.0 (1)			
Sheep				2.0 (1)	1.0 (2)	1.0 (1)	1.0 (1)		3.0 (1)

**Mpumalanga****Balfour, Balfour Dierekliniek**

Beef: 1

**North West****Brits, Brits Dierekliniek**

Sheep: 2

**Klerksdorp, Klerksdorp Dierehospitaal**

Beef: 2

**Free State****Warden, Warden Dierekliniek**

Sheep: 1

**Wesselsbron, Wesselsbron Dierekliniek**

Sheep: 1

**Winburg, Winburg Dierekliniek**

Beef: 2



**Kwazulu-Natal****Camperdown, Camperdown Vet Clinic**

Sheep: 1

**Estcourt, Estcourt Vet Clinic**

Beef: 1

**Eastern Cape****Graaff-Reinet, Camdeboo Veterinary Clinic**

Sheep: 1

**Northern Cape****Upington, Upington Veeartsenykliniek**

Sheep: 3

Lambs in a feedlot with mothers

**Lameness/Foot Problems**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.8 (5)	2.0 (1)	1.0 (1)	3.0 (2)	2.3 (6)	1.3 (3)	1.0 (1)	2.0 (2)	2.0 (1)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef	1.8 (4)	2.0 (1)	1.0 (1)	3.0 (1)	2.7 (3)	1.0 (1)			2.0 (1)
Dairy					2.0 (1)			1.0 (1)	
Sheep	2.0 (1)			3.0 (1)	2.0 (2)	2.0 (1)	1.0 (1)	3.0 (1)	
Goat						1.0 (1)			

**Mpumalanga****Balfour, Balfour Dierekliniek**

Beef: 2, Sheep: 2



**Ermelo, Môregloed Veterinêre Spreekkamer**

Beef: 1

**Grootvlei, Grootvlei Dierekliniek**

Beef: 2

**Lydenburg, Longtom Dierekliniek**

Beef: 2

**Gauteng****Pretoria, Onderstepoort Academic Hospital and Production Animal Clinic**

Beef: 2

Three cases, lameness

**Limpopo****Mokopane, Bundu Veterinary Services**

Beef: 1

**North West****Christiana, Christiana Dierehospitaal**

Beef: 3, Sheep: 3

**Free State****Bloemfontein, University Free State**

Sheep: 1

**Bultfontein, Greylingrust Dierespreekkamer**

Beef: 2

**Kroonstad, Kroonstad Dierehospitaal**

Dairy: 2

**Villiers, Wilgepoort Veedienste**

Beef: 3, Sheep: 3

**Winburg, Winburg Dierekliniek**

Beef: 3



<b>Kwazulu-Natal</b>									
<b>Estcourt, Estcourt Vet Clinic</b>									
Sheep: 2, Goat: 1									
<b>Pongola, Pongola Animal Clinic</b>									
Beef: 1									
<b>Eastern Cape</b>									
<b>Uitenhage, Uitenhage Dierehospitaal</b>									
Sheep: 1									
<b>Western Cape</b>									
<b>Malmesbury, Dr Otto Kriek</b>									
Dairy: 1									
<b>Moorreesburg, Korhaanrug Dieregesondheid</b>									
Sheep: 3									
Foot rot									
<b>Northern Cape</b>									
<b>Kuruman, Kuruman Dierekliniek</b>									
Beef: 2									
<b>Lung infection</b>									<a href="#">^</a>
<b>PROVINCE</b>	<b>Mpumalanga</b>	<b>Gauteng</b>	<b>Limpopo</b>	<b>North West</b>	<b>Free State</b>	<b>Kwazulu-Natal</b>	<b>Eastern Cape</b>	<b>Western Cape</b>	<b>Northern Cape</b>
<b>Average</b>	2.3 (8)	1.8 (6)	1.8 (4)	2.7 (7)	2.4 (19)	1.9 (7)	1.0 (3)	1.8 (6)	1.8 (4)
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
<b>Beef</b>	2.4 (5)	1.7 (3)	1.5 (2)	2.8 (4)	2.4 (11)	1.8 (5)		1.3 (3)	1.0 (1)



<b>Dairy</b>		1.0 (1)			1.0 (1)	3.0 (1)		2.5 (2)	
<b>Sheep</b>	2.0 (2)	2.5 (2)	2.0 (1)	2.7 (3)	2.5 (6)	1.0 (1)	1.0 (2)	2.0 (1)	2.0 (2)
<b>Goat</b>	2.0 (1)		2.0 (1)		3.0 (1)		1.0 (1)		2.0 (1)

## **Mpumalanga**

### **Balfour, Balfour Dierekliniek**

Beef: 2

### **Bethal, Bethal Dierekliniek**

Beef: 2

### **Grootvlei, Grootvlei Dierekliniek**

Beef: 3

### **Lydenburg, Longtom Dierekliniek**

Beef: 2, Sheep: 2, Goat: 2

### **Piet Retief, Pets Vet Hospital**

Sheep: 2

Dosing Pneumonia

### **Volksrust, Cape Cross Volksrust Dierehospitaal**

Beef: 3

Bovine respiratory disease in communal weaner calves

## **Gauteng**

### **Bapsfontein, Bapsfontein Dierehospitaal**

Beef: 3, Sheep: 2

### **Bronkhorstspuit, Kerkstraat Dierekliniek**

Dairy: 1

### **Nigel, Nigel Diere Spreekkamer**

Beef: 1

### **Pretoria, Anima Veterinary Consulting Rooms**

Sheep: 3



**Pretoria, Onderstepoort Academic Hospital and Production Animal Clinic**

Beef: 1

**Limpopo****Polokwane, Pietersburg Veterinary Clinic**

Beef: 1, Sheep: 2, Goat: 2

**Thabazimbi, Bejane Veterinary Services**

Beef: 2

**North West****Christiana, Christiana Dierehospitaal**

Beef: 3, Sheep: 3

**Klerksdorp, Klerksdorp Dierehospitaal**

Beef: 2, Sheep: 2

**Schweizer-Reneke, Buffeldoorn Dierekliniek SR**

Beef: 3, Sheep: 3

**Vryburg, Vryburg Dierehospitaal**

Beef: 3

**Free State****Bethlehem, Bethlehem Animal Hospital**

Beef: 2

**Bloemfontein, Dr Stephan Wessels**

Beef: 3, Sheep: 3

**Bloemfontein, University Free State**

Dairy: 1

**Bultfontein, Greylingrust Dieresprekkamer**

Sheep: 2

**Clocolan, Clocolan Dierekliniek**

Beef: 2, Sheep: 2



**Hertzogville, Hertzogville Dierekliniek**

Beef: 3

Three feedlots with pneumonia

**Hoopstad, Hoopstad Dierekliniek**

Beef: 3, Sheep: 3

**Reitz, Riemland Dierehospitaal**

Beef: 2, Sheep: 2

**Viljoenskroon, Viljoenskroon Dierekliniek**

Beef: 3, Sheep: 3

**Villiers, Wilgepoort Veedienste**

Beef: 3, Goat: 3

**Vrede, Vrede Dierehospitaal**

Beef: 2

**Wesselsbron, Wesselsbron Dierekliniek**

Beef: 1

**Winburg, Winburg Dierekliniek**

Beef: 2

**Kwazulu-Natal****Bergville, Bergville Veterinary Clinic**

Beef: 2

**Camperdown, Camperdown Vet Clinic**

Sheep: 1

**Estcourt, Estcourt Vet Clinic**

Beef: 3, Dairy: 3

**Mooi River, Mooirivier Vet Clinic**

Beef: 1

**Mtubatuba, Mtubatuba Animal Clinic**



Beef: 2

**Newcastle, Ncanduvet Newcastle**

Beef: 1

**Eastern Cape**

**Graaff-Reinet, Camdeboo Veterinary Clinic**

Sheep: 1, Goat: 1

**Witelsbos, Witelsbos Veterinary Consulting Rooms**

Sheep: 1

**Western Cape**

**Beaufort West, Beaufort Dierekliniek**

Sheep: 2

**Darling, Tygerberg Dierehospitaal Darling**

Dairy: 3

Calves

**Malmesbury, Dr Otto Kriek**

Dairy: 2

**Moorreesburg, Korhaanrug Dieregesondheid**

Beef: 1

**Paarl, Paarl Dierehospitaal;**

Beef: 2

**Riversdale, Riversdal Dierekliniek**

Beef: 1

**Northern Cape**

**Kimberley, Kimberley Dierekliniek**

Sheep: 2

**Kuruman, Kuruman Dierekliniek**

Sheep: 2, Goat: 2



**Upington, Bultstraat vet clinic**

Beef: 1

3-month-old bull calf born with constriction of the larynx and secondary pneumonia

**Mastitis in general**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.7 (3)	1.0 (2)		3.0 (2)	2.0 (10)	1.3 (3)		2.3 (7)	

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef	2.0 (1)			3.0 (1)	2.3 (3)	1.0 (2)			
Dairy	2.0 (1)				1.8 (4)	2.0 (1)		2.5 (6)	
Sheep		1.0 (2)		3.0 (1)	2.0 (3)				
Goat	1.0 (1)							1.0 (1)	

**Mpumalanga****Balfour, Balfour Dierekliniek**

Dairy: 2

**Lydenburg, Longtom Dierekliniek**

Beef: 2

**Nelspruit, Nelspruit Animal Hospital**

Goat: 1

**Gauteng****Bapsfontein, Bapsfontein Dierehospitaal**

Sheep: 1

**Pretoria, Onderstepoort Academic Hospital and Production Animal Clinic**



Sheep: 1

## **North West**

### **Christiana, Christiana Dierehospitaal**

Beef: 3, Sheep: 3

## **Free State**

### **Bloemfontein, Dr Stephan Wessels**

Beef: 3

### **Bloemfontein, University Free State**

Dairy: 2

### **Clocolan, Clocolan Dierekliniek**

Dairy: 2, Sheep: 2

### **Kroonstad, Kroonstad Dierehospitaal**

Dairy: 1, Sheep: 2

### **Parys, Parys Dierehospitaal**

Dairy: 2

### **Villiers, Wilgepoort Veedienste**

Beef: 2, Sheep: 2

### **Winburg, Winburg Dierekliniek**

Beef: 2

## **Kwazulu-Natal**

### **Mooi River, Mooirivier Vet Clinic**

Dairy: 2

### **Mtubatuba, Mtubatuba Animal Clinic**

Beef: 1

### **Pongola, Pongola Animal Clinic**

Beef: 1

## **Western Cape**



**Caledon, Caledon Dierekliniek**

Dairy: 3, Goat: 1

**Darling, Tygerberg Dierehospitaal Darling**

Dairy: 2

**George, George Animal Hospital**

Dairy: 3

**Malmesbury, Dr Otto Kriek**

Dairy: 2

**Riversdale, Riversdal Dierekliniek**

Dairy: 2

**Swellendam, Swellendam Dierehospitaal**

Dairy: 3

**Navel III**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.0 (2)				1.5 (2)	1.5 (2)	3.0 (1)	1.0 (1)	

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef	1.0 (2)				2.0 (1)	1.5 (2)			
Dairy								1.0 (1)	
Sheep					1.0 (1)		3.0 (1)		

**Mpumalanga****Balfour, Balfour Dierekliniek**

Beef: 1

**Lydenburg, Longtom Dierekliniek**



Beef: 1									
Free State									
Villiers, Wilgepoort Veedienste									
Sheep: 1									
Winburg, Winburg Dierekliniek									
Beef: 2									
Kwazulu-Natal									
Mtubatuba, Mtubatuba Animal Clinic									
Beef: 1									
Pietermaritzburg, Veterinary House Hospital									
Beef: 2									
Eastern Cape									
Steynsburg, Steynsburg Dierehospitaal									
Sheep: 3									
Western Cape									
Stellenbosch, Stellenbosch Animal Hospital									
Dairy: 1									
Red gut (Torsion of the Gut) Sheep									<a href="#">^</a>
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average		1.0 (1)							
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
Sheep		1.0 (1)							
Gauteng									
Nigel, Nigel Diere Spreekkamer									



Sheep: 1

## Trauma



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.0 (2)			1.0 (1)		1.3 (3)		1.5 (2)	2.0 (1)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef	1.0 (1)			1.0 (1)		2.0 (1)			2.0 (1)
Dairy								1.0 (1)	
Sheep	1.0 (1)					1.0 (2)		2.0 (1)	

### Mpumalanga

#### Balfour, Balfour Dierekliniek

Sheep: 1

#### Hendrina, Mooiplaas Veterinere Dienste

Beef: 1

### North West

#### Schweizer-Reneke, Buffeldoorn Dierekliniek SR

Beef: 1

Bull-leg injury in crush pen

### Kwazulu-Natal

#### Camperdown, Camperdown Vet Clinic

Sheep: 1

#### Eshowe, Eshowe Veterinary Hospital

Beef: 2

6 Cattle injured due to horns -transport, crush pen, etc



**Mooi River, Mooirivier Vet Clinic**

Sheep: 1

**Western Cape****Ceres, Ceres Veterinary Hospital**

Sheep: 2

Sheep deaths due to trauma with dosing

**Malmesbury, Dr Otto Kriek**

Dairy: 1

**Northern Cape****Kimberley, Kimberley Dierekliniek**

Beef: 2

Bruising at abattoir

**Downer**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.5 (2)	1.0 (1)	1.0 (3)	1.7 (3)	2.1 (11)	1.7 (3)		1.0 (1)	2.0 (1)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef	1.0 (1)	1.0 (1)	1.0 (1)	2.0 (2)	2.0 (7)	1.7 (3)		1.0 (1)	2.0 (1)
Dairy	2.0 (1)				1.0 (1)				
Sheep			1.0 (1)	1.0 (1)	2.7 (3)				
Goat			1.0 (1)						

**Mpumalanga****Grootvlei, Grootvlei Dierekliniek**



Beef: 1

**Lydenburg, Longtom Dierekliniek**

Dairy: 2

**Gauteng**

**Pretoria, Onderstepoort Academic Hospital and Production Animal Clinic**

Beef: 1

**Limpopo**

**Polokwane, Pietersburg Veterinary Clinic**

Beef: 1, Sheep: 1, Goat: 1

**North West**

**Brits, Zodiac Dierekliniek**

Sheep: 1

**Schweizer-Reneke, Buffeldoorn Dierekliniek SR**

Beef: 2

Calving injury, sciatic nerve

**Vryburg, Vryburg Dierehospitaal**

Beef: 2

**Free State**

**Bethlehem, Bethlehem Animal Hospital**

Beef: 1

**Bloemfontein, University Free State**

Dairy: 1

**Clocolan, Clocolan Dierekliniek**

Beef: 3, Sheep: 3

**Dewetsdorp, Platkop Dierekliniek**

Beef: 2

**Kroonstad, Kroonstad Dierehospitaal**



Beef: 1, Sheep: 2

**Villiers, Wilgepoort Veedienste**

Beef: 3, Sheep: 3

**Warden, Warden Dierekliniek**

Beef: 3

**Wesselsbron, Wesselsbron Dierekliniek**

Beef: 1

**Kwazulu-Natal**

**Bergville, Bergville Veterinary Clinic**

Beef: 3

**Camperdown, Camperdown Vet Clinic**

Beef: 1

**Pietermaritzburg, Veterinary House Hospital**

Beef: 1

**Western Cape**

**Riversdale, Riversdal Dierekliniek**

Beef: 1

**Northern Cape**

**Kuruman, Kuruman Dierekliniek**

Beef: 2

Other									<a href="#">^</a>
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average		1.0 (1)			1.0 (1)	1.0 (1)			1.0 (1)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported



<b>Beef</b>		1.0 (1)				1.0 (1)			
<b>Dairy</b>					1.0 (1)				
<b>Sheep</b>									1.0 (1)
<b>Gauteng</b>									
<b>Pretoria, Onderstepoort Academic Hospital and Production Animal Clinic</b>									
Beef: 1									
Vagal indigestion 1; umbilical hernia 1									
<b>Free State</b>									
<b>Bloemfontein, University Free State</b>									
Dairy: 1									
<b>Kwazulu-Natal</b>									
<b>Camperdown, Camperdown Vet Clinic</b>									
Beef: 1									
Rumen stasis									
<b>Northern Cape</b>									
<b>Kimberley, Kimberley Dierekliniek</b>									
Sheep: 1									
Rectal prolaps									
<b>Vestubular syndrome (Middle ear infection)</b>									<a href="#">^</a>
<b>PROVINCE</b>	<b>Mpumalanga</b>	<b>Gauteng</b>	<b>Limpopo</b>	<b>North West</b>	<b>Free State</b>	<b>Kwazulu-Natal</b>	<b>Eastern Cape</b>	<b>Western Cape</b>	<b>Northern Cape</b>
<b>Average</b>	2.0 (1)				1.0 (1)				
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
<b>Beef</b>	2.0 (1)				1.0 (1)				







**Kimberley, Kimberley Dierekliniek**

Beef: 1

Abattoir

**Yellow cascades at abattoir**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average					2.0 (2)			1.7 (3)	

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef					2.0 (1)			2.0 (1)	
Dairy					2.0 (1)				
Sheep								1.5 (2)	

**Free State****Bloemfontein, University Free State**

Dairy: 2

**Kroonstad, Kroonstad Dierehospitaal**

Beef: 2

**Western Cape****George, George Animal Hospital**

Sheep: 2

**Paarl, Paarl Dierehospitaal;**

Beef: 2, Sheep: 1

**Metabolic Diseases****Acidosis**



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.5 (2)		2.0 (1)		2.3 (16)	1.0 (3)		2.0 (2)	3.0 (1)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef					2.3 (7)				3.0 (1)
Sheep	2.0 (1)				2.3 (9)	1.0 (2)		2.0 (2)	
Goat	1.0 (1)		2.0 (1)			1.0 (1)			

#### Mpumalanga

##### Nelspruit, Nelspruit Animal Hospital

Goat: 1

##### Piet Retief, Pets Vet Hospital

Sheep: 2

#### Limpopo

##### Mokopane, Bundu Veterinary Services

Goat: 2

#### Free State

##### Bethlehem, Bethlehem Animal Hospital

Beef: 2, Sheep: 2

##### Bloemfontein, University Free State

Sheep: 3

##### Hoopstad, Hoopstad Dierekliniek

Beef: 3

##### Hoopstad, Kameeldoring Dierekliniek

Beef: 1



**Kroonstad, Kroonstad Dierehospitaal**

Sheep: 1

**Oranjeville, Grasveld Kuddegeseondheid**

Beef: 2, Sheep: 2

**Reitz, Riemland Dierehospitaal**

Sheep: 2

**Villiers, Wilgepoort Veedienste**

Beef: 3, Sheep: 3

**Vrede, Vrede Dierehospitaal**

Sheep: 3

**Warden, Warden Dierekliniek**

Beef: 2

**Wesselsbron, Wesselsbron Dierekliniek**

Sheep: 2

**Winburg, Winburg Dierekliniek**

Beef: 3, Sheep: 3

**Kwazulu-Natal****Camperdown, Camperdown Vet Clinic**

Sheep: 1

**Estcourt, Estcourt Vet Clinic**

Sheep: 1, Goat: 1

**Western Cape****Beaufort West, Beaufort Dierekliniek**

Sheep: 3

**Stellenbosch, Stellenbosch Animal Hospital**

Sheep: 1

**Northern Cape**



**Kuruman, Kuruman Dierekliniek**

Beef: 3

**Displaced abomasum**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average		1.0 (1)				2.0 (1)			

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Dairy		1.0 (1)				2.0 (1)			
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**Gauteng****Bronkhorstspuit, Kerkstraat Dierekliniek**

Dairy: 1

**Kwazulu-Natal****Dundee, Endumeni Herd health**

Dairy: 2

**Ketosis**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average		1.0 (2)		1.0 (1)	1.9 (10)	2.0 (1)	1.5 (2)	3.0 (1)	

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef		1.0 (1)			2.0 (1)				
Dairy					2.0 (1)				



Sheep	1.0 (1)	1.0 (1)	1.9 (8)	2.0 (1)	1.5 (2)	3.0 (1)
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## Gauteng

### Bronkhorstspuit, Kerkstraat Dierekliniek

Beef: 1, Sheep: 1

## North West

### Brits, Zodiac Dierekliniek

Sheep: 1

## Free State

### Bloemfontein, University Free State

Dairy: 2

### Dewetsdorp, Platkop Dierekliniek

Beef: 2

### Excelsior, Weltevrede Dierekliniek

Sheep: 2

### Hoopstad, Hoopstad Dierekliniek

Sheep: 3

### Hoopstad, Kameeldoring Dierekliniek

Sheep: 1

### Kroonstad, Kroonstad Dierehospitaal

Sheep: 1

### Reitz, Riemland Dierehospitaal

Sheep: 2

### Villiers, Wilgepoort Veedienste

Sheep: 2

### Warden, Warden Dierekliniek

Sheep: 2

### Winburg, Winburg Dierekliniek











<b>Dairy</b>			2.0 (1)		1.0 (1)	2.0 (2)		1.4 (5)	
<b>Sheep</b>	1.3 (4)	2.0 (3)	1.0 (2)	2.5 (2)	2.5 (8)	3.0 (1)	1.7 (3)	1.5 (4)	1.0 (1)
<b>Goat</b>		1.0 (2)	1.0 (1)	1.0 (1)	2.0 (1)		2.0 (1)	2.0 (1)	2.0 (1)

## **Mpumalanga**

### **Balfour, Balfour Dierekliniek**

Beef: 1, Sheep: 1

### **Bethal, Bethal Dierekliniek**

Beef: 2, Sheep: 2

### **Ermelo, Môregloed Veterinêre Spreekkamer**

Beef: 1, Sheep: 1

### **Grootvlei, Grootvlei Dierekliniek**

Beef: 3, Sheep: 1

### **Hendrina, Mooiplaas Veterinere Dienste**

Beef: 2

### **Lydenburg, Longtom Dierekliniek**

Beef: 2

### **Middelburg, Neil Fourie Veeartsenydienste**

Beef: 2

### **Piet Retief, Pets Vet Hospital**

Beef: 1

### **Volksrust, Cape Cross Volksrust Dierehospitaal**

Beef: 2

Four cases

## **Gauteng**

### **Bapsfontein, Bapsfontein Dierehospitaal**

Sheep: 3, Goat: 1

### **Bronkhorstspuit, Kerkstraat Dierekliniek**



Beef: 2

**Krugersdorp, Veearts Netwerk**

Beef: 2

**Nigel, Nigel Diere Spreekkamer**

Beef: 1, Sheep: 1

**Pretoria, Onderstepoort Academic Hospital and Production Animal Clinic**

Beef: 1, Sheep: 2, Goat: 1

**Limpopo**

**Modimolle, Kranskop Dierekliniek**

Sheep: 1

Dorper ewe, joined too early

**Mokopane, Bundu Veterinary Services**

Dairy: 2

**Polokwane, Pietersburg Veterinary Clinic**

Beef: 1, Sheep: 1, Goat: 1

**North West**

**Brits, Zodiac Dierekliniek**

Goat: 1

**Christiana, Christiana Dierehospitaal**

Beef: 3, Sheep: 3

**Klerksdorp, Klerksdorp Dierehospitaal**

Beef: 2, Sheep: 2

**Leeudoringstad, Leeudoringstad Dierekliniek**

Beef: 2

**Schweizer-Reneke, Buffeldoorn Dierekliniek SR**

Beef: 1

Cesaerean



**Stella, Stella Dierekliniek**

Beef: 3

**Vryburg, Molopo Dierekliniek**

Beef: 2

**Free State****Bethlehem, Bethlehem Animal Hospital**

Beef: 1, Sheep: 2

**Bloemfontein, Dr Stephan Wessels**

Beef: 2

**Bloemfontein, University Free State**

Beef: 1, Dairy: 1

**Bultfontein, Greylingrust Dieresprekkamer**

Beef: 2

**Clocolan, Clocolan Dierekliniek**

Beef: 3, Sheep: 2

**Dewetsdorp, Platkop Dierekliniek**

Beef: 3

**Excelsior, Weltevrede Dierekliniek**

Beef: 1

**Ficksburg, Oosvrystaat Diere Produkte**

Beef: 1

**Hertzogville, Hertzogville Dierekliniek**

Beef: 2

Two caesars

**Hoopstad, Hoopstad Dierekliniek**

Beef: 2, Sheep: 3

**Hoopstad, Kameeldoring Dierekliniek**



Beef: 2

**Kroonstad, Kroonstad Dierehospitaal**

Beef: 3, Sheep: 3

**Memel, Memel Veterinary Clinic**

Beef: 3, Sheep: 2

**Oranjeville, Grasveld Kuddegeseondheid**

Beef: 2, Sheep: 2

**Parys, Parys Dierehospitaal**

Beef: 2, Goat: 2

**Reitz, Riemland Dierehospitaal**

Beef: 2

**Villiers, Wilgepoort Veedienste**

Beef: 3, Sheep: 3

**Vrede, Vrede Dierehospitaal**

Beef: 3

Two caesareans

**Warden, Warden Dierekliniek**

Beef: 3, Sheep: 3

**Wesselsbron, Wesselsbron Dierekliniek**

Beef: 1

**Winburg, Winburg Dierekliniek**

Beef: 3

**Kwazulu-Natal**

**Bergville, Bergville Veterinary Clinic**

Beef: 2

**Dundee, Endumeni Herd health**

Beef: 3, Dairy: 2



**Estcourt, Estcourt Vet Clinic**

Beef: 2, Dairy: 2

**Mooi River, Mooirivier Vet Clinic**

Beef: 3

**Newcastle, Ncanduvet Newcastle**

Beef: 3, Sheep: 3

**Pietermaritzburg, Veterinary House Hospital**

Beef: 3

**Vryheid, Vryheid Privaat Veeartse**

Beef: 2

**Eastern Cape****Aliwal North, Hertzogbrug Dierekliniek**

Beef: 2, Sheep: 1

**Graaff-Reinet, Camdeboo Veterinary Clinic**

Sheep: 2

**Graaff-Reinet, Graaff Reinet Veterinary Clinic**

Sheep: 2, Goat: 2

**Uitenhage, Uitenhage Dierhospitaal**

Beef: 1

**Western Cape****Beaufort West, Beaufort Dierekliniek**

Beef: 1

Severe case of hydrops in old Drakensberger cow

Sheep: 2, Goat: 2

**Caledon, Caledon Dierekliniek**

Dairy: 1

**Darling, Tygerberg Dierhospitaal Darling**



Dairy: 2									
Malmesbury, Dr Otto Kriek									
Dairy: 1									
Malmesbury, Groenkloof Dierekliniek									
Sheep: 1									
Oudtshoorn, Ostrimed									
Sheep: 1									
Stellenbosch, Stellenbosch Animal Hospital									
Beef: 2, Dairy: 1									
Swellendam, Swellendam Dierehospitaal									
Dairy: 2									
Vredenburg, Vredenburg Dierehospitaal									
Beef: 2, Sheep: 2									
Northern Cape									
Kimberley, Kimberley Dierekliniek									
Beef: 2, Sheep: 1									
Postmasburg, Postmasburg Dierekliniek									
Goat: 2									
Endometritis									<a href="#">^</a>
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average					1.8 (4)			3.0 (3)	
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
Beef					1.5 (2)				
Dairy					2.0 (1)			3.0 (3)	



Sheep					2.0 (1)				
Free State									
Kroonstad, Kroonstad Dierehospitaal									
Dairy: 2									
Villiers, Wilgepoort Veedienste									
Beef: 1, Sheep: 2									
Warden, Warden Dierekliniek									
Beef: 2									
Western Cape									
Caledon, Caledon Dierekliniek									
Dairy: 3									
Riversdale, Riversdal Dierekliniek									
Dairy: 3									
Swellendam, Swellendam Dierehospitaal									
Dairy: 3									
Metritis									^
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.3 (3)			3.0 (2)	1.7 (3)	2.0 (2)		2.5 (4)	2.0 (1)
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
Beef	1.3 (3)			3.0 (1)	2.0 (1)	2.0 (2)		2.0 (1)	
Dairy					2.0 (1)			2.7 (3)	
Sheep				3.0 (1)	1.0 (1)				2.0 (1)
Mpumalanga									



**Balfour, Balfour Dierekliniek**

Beef: 1

**Grootvlei, Grootvlei Dierekliniek**

Beef: 1

**Lydenburg, Longtom Dierekliniek**

Beef: 2

**North West****Christiana, Christiana Dierehospitaal**

Beef: 3, Sheep: 3

**Free State****Parys, Parys Dierehospitaal**

Dairy: 2

**Villiers, Wilgepoort Veedienste**

Beef: 2, Sheep: 1

**Kwazulu-Natal****Dundee, Endumeni Herd health**

Beef: 1

**Mooi River, Mooirivier Vet Clinic**

Beef: 3

**Western Cape****Caledon, Caledon Dierekliniek**

Dairy: 3

**Darling, Tygerberg Dierehospitaal Darling**

Dairy: 2

**Riversdale, Riversdal Dierekliniek**

Beef: 2

**Swellendam, Swellendam Dierehospitaal**



Dairy: 3

## Northern Cape

**Kuruman, Kuruman Dierekliniek**

Sheep: 2

## Poor conception



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.0 (1)			1.0 (1)	2.3 (11)	1.8 (4)	3.0 (2)	2.0 (1)	

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef	1.0 (1)			1.0 (1)	2.3 (7)	1.8 (4)	3.0 (1)		
Dairy					2.0 (1)			2.0 (1)	
Sheep					2.3 (3)		3.0 (1)		

## Mpumalanga

**Nelspruit, Nelspruit Animal Hospital**

Beef: 1

## North West

**Christiana, Christiana Dierehospitaal**

Beef: 1

## Free State

**Bethlehem, Bethlehem Animal Hospital**

Beef: 1

**Clocolan, Clocolan Dierekliniek**

Beef: 2, Sheep: 1

**Hoopstad, Kameeldoring Dierekliniek**



Beef: 3	
<b>Kroonstad, Kroonstad Dierehospitaal</b>	
Beef: 1	
<b>Parys, Parys Dierehospitaal</b>	
Dairy: 2	
<b>Viljoenskroon, Viljoenskroon Dierekliniek</b>	
Beef: 3, Sheep: 3	
<b>Villiers, Wilgepoort Veedienste</b>	
Beef: 3, Sheep: 3	
<b>Winburg, Winburg Dierekliniek</b>	
Beef: 3	
<b>Kwazulu-Natal</b>	
<b>Bergville, Bergville Veterinary Clinic</b>	
Beef: 1	
<b>Dundee, Endumeni Herd health</b>	
Beef: 2	
<b>Mooi River, Mooirivier Vet Clinic</b>	
Beef: 2	
<b>Vryheid, Vryheid Privaat Veeartse</b>	
Beef: 2	
<b>Eastern Cape</b>	
<b>Steynsburg, Steynsburg Dierehospitaal</b>	
Beef: 3, Sheep: 3	
<b>Western Cape</b>	
<b>Swellendam, Swellendam Dierehospitaal</b>	
Dairy: 2	
<b>Retained afterbirth</b>	



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.3 (3)	1.0 (2)	1.0 (1)	1.5 (2)	1.7 (11)	2.0 (3)		2.0 (1)	2.0 (1)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef	1.3 (3)	1.0 (2)	1.0 (1)	1.5 (2)	1.8 (10)	2.0 (3)			
Dairy								2.0 (1)	
Sheep					1.0 (1)				
Goat									2.0 (1)

#### Mpumalanga

##### Balfour, Balfour Dierekliniek

Beef: 1

##### Grootvlei, Grootvlei Dierekliniek

Beef: 1

##### Lydenburg, Longtom Dierekliniek

Beef: 2

#### Gauteng

##### Bapsfontein, Bapsfontein Dierehospitaal

Beef: 1

##### Nigel, Nigel Dier Spreekkamer

Beef: 1

#### Limpopo

##### Modimolle, Kranskop Dierekliniek

Beef: 1



<b>North West</b>
<b>Christiana, Christiana Dierehospitaal</b>
Beef: 2
<b>Klerksdorp, Klerksdorp Dierehospitaal</b>
Beef: 1
<b>Free State</b>
<b>Bloemfontein, Dr Stephan Wessels</b>
Beef: 1
<b>Bultfontein, Greylingrust Dierespreekkamer</b>
Beef: 2
<b>Ficksburg, Oosvrystaat Diere Produkte</b>
Beef: 1
<b>Kroonstad, Kroonstad Dierehospitaal</b>
Beef: 2
<b>Memel, Memel Veterinary Clinic</b>
Beef: 1
<b>Villiers, Wilgepoort Veedienste</b>
Beef: 3, Sheep: 1
<b>Vrede, Saulshoek Dieregesondheid.</b>
Beef: 2
<b>Warden, Warden Dierekliniek</b>
Beef: 2
<b>Wesselsbron, Wesselsbron Dierekliniek</b>
Beef: 2
<b>Winburg, Winburg Dierekliniek</b>
Beef: 2
<b>Kwazulu-Natal</b>



### Bergville, Bergville Veterinary Clinic

Beef: 3

**Mooi River, Mooirivier Vet Clinic**

Beef: 1

**Pietermaritzburg, Veterinary House Hospital**

Beef: 2

## Western Cape

**Malmesbury, Dr Otto Kriek**

Dairy: 2

## Northern Cape

**Postmasburg, Postmasburg Dierekliniek**

Goat: 2

## Sheath Prolaps



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average			1.0 (1)	1.0 (1)	1.8 (4)	1.5 (2)			

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef		1.0 (1)	1.0 (1)	1.8 (4)	1.5 (2)
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## Limpopo

### Mokopane, Bundu Veterinary Services

Beef: 1

## North West

**Vryburg, Vryburg Dierehospitaal**

Beef: 1

## Free State



**Clocolan, Clocolan Dierekliniek**

Beef: 2

**Hoopstad, Hoopstad Dierekliniek**

Beef: 2

**Villiers, Wilgepoort Veedienste**

Beef: 1

**Winburg, Winburg Dierekliniek**

Beef: 2

**Kwazulu-Natal****Bergville, Bergville Veterinary Clinic**

Beef: 2

**Mtubatuba, Mtubatuba Animal Clinic**

Beef: 1

**Uterus prolaps**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.5 (4)	1.0 (2)	1.0 (1)	1.5 (2)	2.0 (20)	1.7 (3)		1.6 (5)	1.7 (3)

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef	1.5 (4)	1.0 (2)	1.0 (1)	2.0 (1)	2.1 (13)	1.7 (3)			
Dairy								1.5 (2)	
Sheep				1.0 (1)	1.7 (7)			1.7 (3)	1.7 (3)

**Mpumalanga****Grootvlei, Grootvlei Dierekliniek**



Beef: 2

**Hendrina, Mooiplaas Veterinêre Dienste**

Beef: 1

**Piet Retief, Pets Vet Hospital**

Beef: 1

**Volksrust, Cape Cross Volksrust Dierehospitaal**

Beef: 2

**Gauteng**

**Bronkhorstspuit, Kerkstraat Dierekliniek**

Beef: 1

**Nigel, Nigel Diere Spreekkamer**

Beef: 1

**Limpopo**

**Polokwane, Pietersburg Veterinary Clinic**

Beef: 1

**North West**

**Brits, Zodiac Dierekliniek**

Sheep: 1

**Vryburg, Molopo Dierekliniek**

Beef: 2

**Free State**

**Bultfontein, Greylingrust Dieresprekkamer**

Sheep: 2

**Clocolan, Clocolan Dierekliniek**

Beef: 3, Sheep: 1

**Hertzogville, Hertzogville Dierekliniek**

Beef: 1



**Hoopstad, Hoopstad Dierekliniek**

Beef: 3, Sheep: 3

**Hoopstad, Kameeldoring Dierekliniek**

Beef: 2

**Kroonstad, Kroonstad Dierehospitaal**

Beef: 2

**Memel, Memel Veterinary Clinic**

Beef: 2

**Oranjeville, Grasveld Kuddegesondheid**

Beef: 2, Sheep: 1

**Reitz, Riemland Dierehospitaal**

Beef: 2

**Villiers, Wilgepoort Veedienste**

Beef: 2, Sheep: 2

**Vrede, Saulshoek Dieregesondheid.**

Beef: 1, Sheep: 1

**Vrede, Vrede Dierehospitaal**

Beef: 2

**Warden, Warden Dierekliniek**

Beef: 3, Sheep: 2

**Winburg, Winburg Dierekliniek**

Beef: 2

**Kwazulu-Natal****Bergville, Bergville Veterinary Clinic**

Beef: 2

**Dundee, Endumeni Herd health**

Beef: 1



## Beef: 2

## Beaufort West, Beaufort Dierekliniek

Sheep: 1

Sheep: 2

Dairy: 2, Sheep: 2

## Dairy: 1

## Kimberley, Kimberley Dierkliniek

Sheep: 1

Sheep: 2

Sheep: 2



Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported



<b>Beef</b>	1.8 (5)	1.0 (2)	1.0 (1)	1.5 (2)	1.9 (15)	1.8 (4)	1.0 (1)		
<b>Sheep</b>	1.0 (2)	2.0 (1)		3.0 (1)	2.0 (10)			1.3 (3)	2.0 (1)
<b>Goat</b>		1.0 (1)						1.0 (1)	

## **Mpumalanga**

### **Bethal, Bethal Dierekliniek**

Sheep: 1

### **Ermelo, Môregloed Veterinêre Spreekkamer**

Beef: 1

### **Grootvlei, Grootvlei Dierekliniek**

Beef: 2, Sheep: 1

### **Hendrina, Mooiplaas Veterinere Dienste**

Beef: 1

### **Middelburg, Neil Fourie Veeartsenydienste**

Beef: 3

### **Volksrust, Cape Cross Volksrust Dierehospitaal**

Beef: 2

## **Gauteng**

### **Bronkhorstspuit, Kerkstraat Dierekliniek**

Beef: 1

### **Pretoria, Onderstepoort Academic Hospital and Production Animal Clinic**

Beef: 1, Sheep: 2

Three cases

Goat: 1

## **Limpopo**

### **Polokwane, Pietersburg Veterinary Clinic**



Beef: 1

### **North West**

#### **Brits, Zodiac Dierekliniek**

Beef: 1

#### **Leeudoringstad, Leeudoringstad Dierekliniek**

Sheep: 3

Short tails, too fat

#### **Vryburg, Vryburg Dierhospitaal**

Beef: 2

### **Free State**

#### **Bethlehem, Bethlehem Animal Hospital**

Beef: 2

#### **Bothaville, Bothaville Dierekliniek**

Beef: 1, Sheep: 2

Two ewes

#### **Clocolan, Clocolan Dierekliniek**

Beef: 3

#### **Dewetsdorp, Platkop Dierekliniek**

Beef: 1

#### **Excelsior, Weltevrede Dierekliniek**

Beef: 2

#### **Ficksburg, Oosvrystaat Dier Produkte**

Beef: 1

#### **Hertzogville, Hertzogville Dierekliniek**

Beef: 2

#### **Hoopstad, Hoopstad Dierekliniek**

Beef: 3, Sheep: 3



**Hoopstad, Kameeldoring Dierekliniek**

Sheep: 2

**Kroonstad, Kroonstad Dierehospitaal**

Sheep: 2

**Memel, Memel Veterinary Clinic**

Beef: 2, Sheep: 2

**Oranjeville, Grasveld Kuddegeseondheid**

Beef: 2, Sheep: 2

**Philippolis, Rowelsfontein veearts Spreekkamer**

Sheep: 1

**Reitz, Riemland Dierehospitaal**

Beef: 2

**Villiers, Wilgepoort Veedienste**

Beef: 2, Sheep: 3

**Vrede, Saulshoek Diereseondheid.**

Beef: 1

**Warden, Warden Dierekliniek**

Beef: 3, Sheep: 2

**Wesselsbron, Wesselsbron Dierekliniek**

Sheep: 1

**Winburg, Winburg Dierekliniek**

Beef: 2

**Kwazulu-Natal****Bergville, Bergville Veterinary Clinic**

Beef: 2

**Dundee, Endumeni Herd health**

Beef: 1



Mtubatuba, Mtubatuba Animal Clinic									
Beef: 1									
Pietermaritzburg, Veterinary House Hospital									
Beef: 3									
Eastern Cape									
Graaff-Reinet, Camdeboo Veterinary Clinic									
Beef: 1									
Western Cape									
Heidelberg (WC), Heidelberg Dierekliniek									
Sheep: 2									
Malmesbury, Groenkloof Dierekliniek									
Sheep: 1									
Riversdale, Riversdal Dierekliniek									
Goat: 1									
Stellenbosch, Stellenbosch Animal Hospital									
Sheep: 1									
Northern Cape									
Kuruman, Kuruman Dierekliniek									
Sheep: 2									
Climatical Cause									
Cold exposure									^
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average					2.3 (4)	1.0 (1)	1.0 (1)	2.0 (1)	



Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

<b>Beef</b>		3.0 (1)		
<b>Dairy</b>			1.0 (1)	
<b>Sheep</b>		2.0 (3)		2.0 (1)
<b>Goat</b>			1.0 (1)	
<b>Free State</b>				
<b>Oranjeville, Grasveld Kuddegeseondheid</b>				
Sheep: 2				
<b>Villiers, Wilgepoort Veedienste</b>				
Sheep: 2				
<b>Wesselsbron, Wesselsbron Direklinik</b>				
Sheep: 2				
<b>Winburg, Winburg Direklinik</b>				
Beef: 3				
<b>Kwazulu-Natal</b>				
<b>Camperdown, Camperdown Vet Clinic</b>				
Dairy: 1				
<b>Eastern Cape</b>				
<b>Graaff-Reinet, Camdeboo Veterinary Clinic</b>				
Goat: 1				
<b>Western Cape</b>				
<b>Heidelberg (WC), Heidelberg Direklinik</b>				
Sheep: 2				
<b>Drought</b>				<a href="#">^</a>



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average					2.0 (2)				
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
Dairy					2.0 (1)				
Sheep					2.0 (1)				
Free State									
Villiers, Wilgepoort Veedienste									
Dairy: 2, Sheep: 2									
Lightning									<a href="#">^</a>
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average					1.0 (1)				
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
Beef					1.0 (1)				
Free State									
Warden, Warden Dierekliniek									
Beef: 1									
Frozen to death									<a href="#">^</a>
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape



<b>Average</b>		2.0 (1)	2.0 (4)	3.0 (1)	2.0 (1)
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported					
<b>Beef</b>		2.0 (1)	2.0 (2)		
<b>Sheep</b>			2.0 (2)	3.0 (1)	2.0 (1)
<b>North West</b>					
<b>Vryburg, Molopo Dierekliniek</b>					
Beef: 2					
<b>Free State</b>					
<b>Clocolan, Clocolan Dierekliniek</b>					
Sheep: 2					
<b>Villiers, Wilgepoort Veedienste</b>					
Sheep: 2					
<b>Vrede, Vrede Dierehospitaal</b>					
Beef: 2					
Calves					
<b>Winburg, Winburg Dierekliniek</b>					
Beef: 2					
<b>Eastern Cape</b>					
<b>Steynsburg, Steynsburg Dierehospitaal</b>					
Sheep: 3					
<b>Western Cape</b>					
<b>Heidelberg (WC), Heidelberg Dierekliniek</b>					
Sheep: 2					
<b>Non specific diseases</b>					



Dermatoparaxis (Vrotvel)									^
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average					1.0 (1)				2.0 (1)
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
Sheep					1.0 (1)				2.0 (1)
Free State									
Villiers, Wilgepoort Veedienste									
Sheep: 1									
Northern Cape									
Kuruman, Kuruman Dierekliniek									
Sheep: 2									

Genetic disorders									^
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average					1.3 (3)				
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
Beef					1.3 (3)				
Free State									
Dewetsdorp, Platkop Dierekliniek									
Beef: 1									
Warden, Warden Dierekliniek									



Beef: 1

## Winburg, Winburg Dierekliniek

Beef: 2

Preditors									<a href="#">^</a>
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average					2.1 (9)				

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef	2.0 (4)
Sheep	2.2 (5)

Free State

## Clocolan, Clocolan Dierekliniek

Beef: 2, Sheep: 3

**Hoopstad, Kameeldoring Dierekliniek**

Sheep: 1

## Oranjeville, Grasveld Kuddegesondheid

Beef: 2, Sheep: 3

## Philippolis, Rowelsfontein veearts Spreekkamer

Sheep: 2

**Villiers, Wilgepoort Veedienste**

Beef: 2, Sheep: 2

Winburg, Winburg Dierekliniek

Beef: 2

Sabotage/Theft	^
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PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	2.0 (1)				2.7 (9)				
Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported									
Beef	2.0 (1)				2.6 (5)				
Sheep					2.8 (4)				
<b>Mpumalanga</b>									
<b>Nelspruit, Nelspruit Animal Hospital</b>									
Beef: 2									
<b>Free State</b>									
<b>Clocolan, Clocolan Dierekliniek</b>									
Beef: 3, Sheep: 3									
<b>Oranjeville, Grasveld Kuddegeseondheid</b>									
Beef: 2, Sheep: 3									
<b>Villiers, Wilgepoort Veedienste</b>									
Beef: 3, Sheep: 3									
<b>Warden, Warden Dierekliniek</b>									
Beef: 2, Sheep: 2									
<b>Winburg, Winburg Dierekliniek</b>									
Beef: 3									
<b>Trauma</b>									<a href="#">^</a>
PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average		1.0 (1)	1.0 (1)		2.0 (1)			1.0 (1)	



Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

<b>Beef</b>		1.0 (1)	1.0 (1)			1.0 (1)
<b>Sheep</b>				2.0 (1)		

## Gauteng

### Pretoria, Onderstepoort Academic Hospital and Production Animal Clinic

Beef: 1

Fractures

## Limpopo

### Mokopane, Bundu Veterinary Services

Beef: 1

## Free State

### Wesselsbron, Wesselsbron Dierekliniek

Sheep: 2

## Western Cape

### Paarl, Paarl Dierehospitaal;

Beef: 1

## Veld fires



PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
<b>Average</b>		1.0 (1)				2.0 (1)			

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

<b>Beef</b>		1.0 (1)				2.0 (1)
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## Gauteng



**Nigel, Nigel Diere Spreekkamer**

Beef: 1

**Kwazulu-Natal****Dundee, Endumeni Herd health**

Beef: 2

**Other**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average			1.0 (1)						

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef			1.0 (1)						
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**Limpopo****Mokopane, Bundu Veterinary Services**

Beef: 1

**Traumatic Reticulo-pericarditis**

PROVINCE	Mpumalanga	Gauteng	Limpopo	North West	Free State	Kwazulu-Natal	Eastern Cape	Western Cape	Northern Cape
Average	1.0 (2)			1.0 (2)	1.0 (5)	1.0 (2)			

Level of importance scale: 1 = one case, 2 = more than one case but less than ten and 3 = more than 10 cases reported

Beef	1.0 (2)			1.0 (1)	1.0 (5)	1.0 (2)			
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Dairy				1.0 (1)					
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**Mpumalanga**



**Grootvlei, Grootvlei Dierekliniek**

Beef: 1

**Hendrina, Mooiplaas Veterinere Dienste**

Beef: 1

**North West****Vryburg, Vryburg Dierhospitaal**

Beef: 1, Dairy: 1

**Free State****Clocolan, Clocolan Dierekliniek**

Beef: 1

**Kroonstad, Kroonstad Dierhospitaal**

Beef: 1

**Villiers, Wilgepoort Veedienste**

Beef: 1

**Warden, Warden Dierekliniek**

Beef: 1

**Wesselsbron, Wesselsbron Dierekliniek**

Beef: 1

**Kwazulu-Natal****Dundee, Endumeni Herd health**

Beef: 1

**Newcastle, Ncanduvet Newcastle**

Beef: 1