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

December 2015

Previous disease reports can be seen on the RuVASA website www.ruvasa.co.za

Click on Disease Reports

The following practices and laboratories (113) submitted reports during December 2015:

Mpumalanga (14)
Balfour – Dr. Louis van Jaarsveld
Bethal – Dr. Hardus Pieters
Delmas – Dr. Johan Jooste
Ermelo – Drs. Potgieter and Steinberg
Grootvlei – Dr. Neels van Wyk
Karino (Nelspruit) – Dr. Silke Pfitzer
Lydenburg – Drs. Trümpelmann and Steyn
Nelspruit – Dr. Albertus Coetzee
Nelspruit – Dr. André Beytell
Middelburg – Drs. Fourie and Erasmus
Piet Retief - Drs. Niebuhr and Weber
Standerton – Dr. Kobie Kroon
Standerton – Drs. Nel, Van den Berg, Van der Merwe and Geral
Volksrust – Drs. Watson and Solomon

Gauteng (4)
Bapsfontein – Drs. Engelbrecht, Olivier and Ribbens
Bronkhorstspruit – Drs. De Bruin, De Bruin, Rudolph and Slabber
Krugersdorp - Drs. Jeffery, Van Eeden and Walker
Pretoria – Dr. Hanneke Pienaar

Limpopo (6)
Lephalale (Ellisras) – Dr. Brigitte Luck
Makhado – Dr. Freddie Harris
Mokopane (Potgietersrus) - Dr. Henk Visser
Polokwane (Pietersburg) – Drs. Watson, Viljoen, Jansen Van Vuuren, Van Rooyen, Snyman and Cremona
Tzaneen – Drs. Cordier and Du Toit

Vaalwater - Dr. Hampie van Staden

North West (8)
Brits – Drs. Boshoff and Coertze
Christiana - Dr. Pieter Nel
Klerksdorp – Drs. Coetzee and Venter
Leeudoringstad - Dr. Ian Jonker
Rustenburg – Drs. Gaigher, Grobler, Sparks, Van Edom, Van Rooyen, Goosen and Van Rensburg
Stella - Dr. Magdaleen Vosser
Ventersdorp/ Koster – Drs. Marais and Benadé
Vryburg – Dr. Jurie Kritzinger

Free State (20)
Bethlehem – Drs. Strydom and Strydom
Bloemfontein – Dr. Stephan Wessels
Bothaville – Dr. Johann Blaauw
Bultfotin – Dr.Santjie Pieterse
Clocolan – Dr. Liezel Wasserman
Dewetsdorp – Dr. Marike Badenhorst
Ficksburg – Drs.Kotze and Coetzer
Frankfort - Drs. Lessing, Cilliers and Janse van Rensburg
Harrismith - Drs.Thirion, Pretorius and Nel
Hoopstad - Dr. Kobus Pretorius
Kroonstad – Drs. Daffue, Eksteen, Van Zyl and Van der Walt
Ladybrand/Excelsior - Drs. De Vos and Nel
Memel – Drs. Nixon and Nixon
Parys – Drs. Wessels and Wessels
Phillipolis – Dr. Stephan Vermeulen
Reitz - Dr. Murray Smith
Viljoenskroon - Dr. Johan Kahts
Villiers – Drs. Hattingh and Hauptfleisch
Vrede – Drs. Myburgh and Bester-Cloete
Wesselsbron –Dr. Johan Jacobs

KwaZulu-Natal (18)
Bergville - Dr. Ariena Shepherd
Bergville – Dr. Jubie Muller
Camperdown – Dr. Anthony van Tonder
Dundee - Dr. Tony Grace
Dundee – Drs. Marais and Fynn
Eshowe – Drs. Pryke and Hoffman
Estcourt – Drs.Turner, Tedder, Taylor, Tratschler, Van Rooyen and Alwar
Greytown – Dr. Mike Caldicott
Howick – Drs. Hughes, Lund, Gordon, Allison and Taylor
Ingogo – Dr. Trish Oglesby

Mooi River - Drs. Fowler, Hartley, Waterman and Mallet
Mtubatuba – Dr. Trever Viljoen
Newcastle – Dr. Barry Rafferty
Pietermaritzburg – Dr. Rick Mapham
Pietermaritzburg – Dr. Phillip Kretzmann
Pongola – Dr. Heinz Kohrs
Underberg – Dr. Pete Dommett
Vryheid – Drs.Theron and Theron

Eastern Cape (13)
Adelaide – Dr. Steve Cockcroft
Alexandria - Drs. Olivier and Dreyer
Aliwal North/Zastron – Drs. Troskie and Strauss
Bathurst – Dr. Jane Pistorius
Graaff- Reinet - Dr. Roland Larson
Humansdorp - Drs. Van Niekerk, Jansen Van Vuuren, Barker and Kotze
Jeffreys Bay – Drs. Hoek, Lategan and McFarlane
Kareedouw- Dr. Marten Bootsma
Middelburg, Steynsburg, Barkly East – Drs. Van Rooyen and Viljoen
Port Alfred – Dr. Leon de Bruyn
Queenstown - Drs. Du Preez, Godley, Klopper, Jansen van Vuuren, De Klerk and Catherine
Stutterheim - Dr. Dave Waterman
Uitenhage – Drs. Mulder and Krüger

Western Cape (17)
Beaufort West - Drs. Pienaar and Grobler
Ceres – Drs. Pieterse, Wium, Freeman, De Villiers and Scheepers
Darling – Drs. Van der Merwe, Adam and Senekal
George - Drs. Strydom, Truter and Pettifer
Heidelberg – Dr. Albert van Zyl
Malmesbury – Dr. Otto Kriek
Malmesbury – Dr. Markus Fourie
Malmesbury - Drs. Bosman and Groenewald
Moorreesburg – Dr. William van Zyl
Oudtshoorn – Dr. Glen Carlisle
Oudtshoorn – Dr. Adriaan Olivier
Piketberg – Dr. André van der Merwe
Plettenberg Bay – Dr. André Reitz
Riversdale – Drs. Du Plessis, Taylor and De Bruyn
Stellenbosch – Dr. Alfred Kidd
Swellendam – Drs. Malan and Venter
Vredenburg - Dr. Izak Rust

Northern Cape (6)

Calvinia – Dr. Bertus Nel
Jan Kempdorp – Dr. Jan Brand
Kathu – Dr. Jan Vorster
Kimberley – Drs. Van Heerden and Swart
Kimberley – Dr. Trudie Prinsloo
Upington – Drs. Vorster and Visser

Feedlots (2)
Drs. Morris and Du Preez
Dr. Andy Hentzen

Laboratory reports (5)
Dr. Mark Chimes - Deltamune laboratory
Dr. Marijke Henton - Idexx SA Johannesburg
Dr. Liza du Plessis – Idexx SA Onderstepoort
Dr. Alan Fisher – Queenstown Provincial laboratory
Dr. Rick Last – Vetdiagnostix, Pietermaritzburg

Summary of disease report for December 2015

113 Reports from veterinary practices and laboratories were received (Mpumalanga (MP) 14; Gauteng (G) 4; Limpopo (L) 6; North West (NW) 18; Free State (FS) 20; KwaZulu-Natal (KZN) 18; Eastern Cape (EC) 13; Western Cape (WC) 17; Northern Cape (NC) 6; Feedlots (FL) 2 and Laboratories (Lab) 5).

Drought situation.

The main issue of about every report, except from some coastal areas, is the drought. Animals are dying due to lack of grazing, protein and energy deficiencies, suffering from heat stress, eating poisonous plants due to lack of food, having calving problems and low fertility. Reports are received of animals stuck in mud searching for water and food.

In spite of the dry conditions parasites are still with us and are taking their toll. Veterinarians warn their clients that if some rain fall these parasites will take their toll as the resistance of animals to diseases and parasites are very poor due to poor essential nutrient intake.

As animals die in the veld the risk of botulism is also increasing. The bacteria causing botulism grows in carcass material such as bones where the botulism toxin is deposited. The cattle and small stock develop pica and will chew on these bones which will cause their death.

Consult your veterinarian on the prevention of diseases when animals are fed in a kraal situation.

This comment by one of our colleagues is probably the feeling in many farmer's and rural veterinarian's minds:

We are experiencing an extremely severe drought situation in the Northern Cape (Kimberley, Ulco, Griekwastad, and Warrenton where I had personally been during the last month on farm visits). Farmers all say this is the worst drought that they have ever experienced. One of the older farmers (87 born on the farm with a clear memory) confirms this. They have rainfall records for the farm going back about 150 years.

Large old trees are dying. His son told me that they have already lost 30 cows and one of his neighbours 50 cows due to the drought. Most farmers do not talk about their losses.

Severe heat waves follow each other on a regular basis … at present we do not have daily temperatures under 34°C in Kimberley, they are mostly 38° to 40 °C plus. I can only say that the situation is DESPERATE. I do not want to go out to farms…it breaks my heart!

Some areas received good rainfall in January and we are thankful for every drop of rain that falls!

HOU MOED!!

2016 – Livestock production during drought - guidelines

HO de Waal
dewaalho@ufs.ac.za

In large parts of the central interior available grazing material is scare on veld (natural pasture). Prospects for improvement of the poor grazing conditions in the remaining part of summer and winter are not favourable. In addition to current poor grazing conditions, low levels of water in the soil during spring and early summer will also have a negative effect on veld production and livestock. Crops are already affected negatively and therefore crop residues which are usually used as livestock feed will also not be readily available.

The current prevailing situation is not good, but can be managed and the following guidelines may help to prevent mortalities and reduce financial losses:

- Ensure that cash flow is maintained judiciously.
- Safeguard the core breeding livestock. Income must be generated again by these females after the drought.
- Where still possible, provide strategic supplementary feeding on veld.
- Reduce the number of livestock that are dependent on feed sources on the farm by selling surplus animal or by temporary removing them from the veld – to a kraal or planted pasture.
- Restrict movement of livestock by confining them to small paddocks with shade trees or other protection from the elements. This provides better control over the quantities of feed provided daily to the animals.
- Ensure that all animals have freely access to clean drinking water.
- Separate the stronger and weaker animals to reduce competition at the feed troughs.
- Prevent thin livestock, especially cattle becoming too emaciated because of poor feeding conditions and lie down.
- Do not feed animals *ad lib*. over a long period. Ration the feed according to the required production levels, for example survival or maintenance (maintain body mass) or lactation.
- Do not waste feed by throwing it on the ground – use appropriate feed troughs or conveyor belts.
- Provide the rationed feeds every second or third day. Most animals will receive enough feed. It will also reduce competition at the feed troughs.
- What can be fed? The basis for ruminants is roughage, be it on the veld or in the trough. Coarsely

ground roughage is always better utilised (less waste) than in the long form. The energy content can be increased with an appropriate source (e.g. ground maize) and balanced with an appropriate crude protein source. The intake of minerals is then balanced according to the requirements of the animals.

- Feed pellets are merely convenient (transport, handling, less waste) but coarsely ground roughage and properly balanced(discussed above) can adequately meet the requirements of animals.
- Restrict the daily intake of salt (NaCl) for sheep to 5-10 g and cattle to 50-60 g.

Core herds/flocks

- Herds/flocks must be grouped according to age and production status. Determine pregnancy in cattle as soon as possible after the current mating season. With sheep and goats, females can be scanned to determine if they carry twins/triplets to adjust their nutrition level.
- In addition to pregnancy, the condition of teeth must also be assessed, especially for older cows and ewes/does. Pregnant cows must still be able to graze until the next calving and specifically be able to wean the unborn calf. Females with worn teeth can still complete their production in a kraal, but this will have a price tag.
- Create an inventory of all available veld and other feed sources. This information is needed to determine the number of animals that can be maintained until after well into the next summer.
- Reduce the number of animals dependent on the feed sources by marketing surplus animals or remove them temporarily from the veld. Note the reproduction record and weaning mass of the progeny of females. In each age class the less productive animals must be culled.
- The principle of “cutting-your-losses” applies and all expenses must be weighed and discounted against expected income over the short to medium term. Caution to sell younger breeding animals at a premium because they are in good condition and pregnant.
- Seek veterinary advice regarding any changes in the internal and external parasite control.

General

The situation of farmers differ – seek professional advice for assistance with strategic planning. When grazing material on veld is scare licks will not help – often too much supplementary feeding is provided under such conditions on veld. Determine timely when to remove animals from veld and feed them strategically in small paddocks. Plant material may still be available along roads and can be cut and baled. The cladodes of spineless cactus pears can also be used as a good feed source – whole cladodes for cattle and coarsely chopped for sheep and goats. During droughts we cannot be too choosy about the quality of feed sources which can mean the difference between life and death of livestock. If poor quality roughage such as veld grass hay or crop residues or cactus pear cladodes are available, animal nutritionists can use it as basis to formulate diets to meet the minimum requirements of livestock.

The ruminant

The plant material selected during drought on poor and dry veld contains little crude protein. The digestive system of ruminants and the symbiosis with microbes in the reticulo-rumen offer opportunity to supplement crude protein with a non-protein nitrogen (NPN) source such as feed grade urea. The microbes in the reticulo-rumen break cellulose (fibre) down and produce new nutrients (volatile fatty acids and microbial protein). The complex four compartment “stomach” develop gradually from the suckling phase (basically still monogastric) to that of a physiological mature ruminant. In younger calves and lambs/kids the reticulo-rumen is still in the process of developing. Therefore, it is better to use natural and higher quality protein sources instead of NPN; bypass protein may also be supplied strategically.

Supplementary feeding (licks)

It is important to address some critical questions regarding a supplementary feeding programme:

- What is the aim with the supplementation? Must protein, energy, a combination of protein and energy, or minerals be supplemented? Should animals gain in condition or must dry animals maintain mass (maintenance) or must lactation be supported? Animals in different production phases thus require specific types and quantities of strategic supplementary feeding.
- How can the aim be achieved best? Have the less productive animals been removed to make all grazing available for the remaining livestock? This option is still not used to the best advantage and can make a great contribution to improve the efficacy and also lower the cost of supplementary feeding to the remaining animals.
- Can it be ascertained whether the aim has been reached? Most well-intended programmes to improve animal performance fail in this regard, because the recommended level of supplementation is seldom achieved. Intake of supplementary feeding varies and is affected by feeding space (number of animals/troughs), access to troughs (dominance between animals), level of supplementation and how often the troughs are filled.
- Unless the provision of supplementary feeding is managed, some animals will consume too much while others ingest too little to benefit at all.
- Do not feed animals aimlessly on veld.
- A range of products are available; seek advice from a professional animal nutritionist regarding the options and products to be considered.
- Animals may lose body mass in moderation (10-15%), but then it must take place over a relatively long period and under control of judicious nutrition management.

Veld fires

- Runaway veld fires or accidental fires can change the current precarious drought situation into a real crisis. An area where veld has burnt is practically in a disaster drought situation.
- Make effective fire breaks, especially along roads, around dwellings and ash dumps. Roads are not good fire breaks because the road surface is smooth and embers are easily blown over it by strong wind. Fire also spread easily through culverts.
- Veld fires suppress grass production for about two seasons. Therefore, veld must rest at least one growing season after an accidental fire and at least one growing season before a planned burning of the veld.

In closing

Production and reproduction of cattle are usually affected by drought and the get ill easier; the extent will depend on the severity of the drought conditions. Lactating cows, late pregnant heifers and weaners are the most vulnerable because of higher nutrient requirements. A good understanding of these factors is needed for a cost effective management strategy to mitigate the effects of drought on animal production, reproduction and health. The following general aspects of management may be considered for beef cattle:

- Determine pregnancy of cows and heifers as soon as possible (8 weeks for cows and 6 weeks for heifers) after the bulls have been removed. Non-pregnant animals are identified for culling and the stage of pregnancy (early, mid and late conception) relative to mating determined.
- This information and body condition can be used to identify cows that may benefit from early weaning and/or strategic supplementation as well as those to be sold. Informed decision making create opportunity to lessen the effects of a drought.
- Sheep/goat production can benefit from early weaning of lamb/kids – the ewes/does can be fed at lower maintenance levels and lambs/kids finished in a feedlot.
- Animal health starts at the mouth; good nutrition is the basis of healthy animals and production. Changes in management may require adjustments in the programme for the prevention of diseases (inoculation). Remember, inoculation is a simple action (an injection), while creating immunity is a more complex process in animals which requires protein (amino acids in the diet)

to produce the antibodies. During droughts and dry seasons the protein content of veld is generally low. Timely inoculation may be considered to ensure the development of better immunity.

- Drastic changes in management such as restricting animals in kraals increases stress and susceptibility for diseases. The incidence of opportunistic diseases may increase and require inoculation which is usually required. Specific local conditions and circumstances will dictate any changes in inoculation as well as external and internal parasite control programmes. Discuss any possible changes in the animal health and disease control programme with your veterinarian.
- Vitamin status must be evaluated and supplemented.

We wish you success with the livestock enterprise.

Prof. HO de Waal
Pr. Sci. Nat., Anim. Sci. [401721/83]
Department of Animal, Wildlife and Grassland Sciences (70)
University of the Free State
PO Box 339
Bloemfontein
South Africa

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	x	
Resistant roundworms	x	x			x				
Wireworm	x	x	x		x	x	x	x	
Brown stomach-worm						x	x	x	
Large-mouthed bowelworm									
Nodularworm	x								
Lungworm									
Eyeworm					x				
Parafilaria			x			x			
Tapeworms	x	x			x	x	x		
Liver fluke	x	x			x	x	x	x	
Conical fluke	x				x	x	x	x	
Cysticercosis (measles)	x				x				
Schistosomiasis (bilharzia)									
Coccidiosis	x	x		x	x	x	x	x	

The first rains have fallen in some areas after the severe drought and parasites especially wireworm will cause havoc in 2-3 week's time! Be on the alert for signs indicating internal parasite infestation: anaemia, bottle jaw, weight loss and diarrhoea. Animals under stress are more susceptible to parasites.

Discuss control and preventative measures with 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	x	x	x	
Resistant blue ticks	x				x	x		x	
Heartwater ticks	x	x	x			x	x		
Brown ear-ticks	x	x	x		x	x			
Bont-legged ticks	x	x	x	x	x	x			x
Red-legged ticks	x	x		x	x	x			
Paralysis ticks					x				
Biting lice	x				x	x			x
Sucking lice					x	x			
Itch mites									
Sheep scab	x				x				
Mange mites			x						
Nuisance flies	x		x		x	x		x	
Midges				x		x		x	
Blowflies	x		x		x	x		x	
Screw-worm	x		x			x	x		
Nasal bot	x	x			x	x			

Reports of an increase in tick numbers were received. As many animals are in poor condition, bloodloss due to blue ticks taking in blood meals could result in serious losses.

Be aware of wounds that are caused by ticks with long mouth parts (bont and bont legged-ticks) as the screw-worm fly lays its eggs in these wounds leading to myiasis (screw-worm larvae in wounds) and even deaths.

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	x	x	
Anaplasmosis	x			x	x	x	x	x	
Heartwater		x	x			x	x		
Lumpy skin disease	x	x	x	x				x	
Corridor disease									

Numerous reports were received through the year of susceptible animals that are introduced into red water and heartwater areas without having been protected through vaccination or chemical measures.

An outbreak of **anaplasmosis** where more than 61 cows died occurred in the Lowveld of Mpumalanga. Another outbreak occurred in the Western Cape where 49 animals contracted the

disease and 8 died. Vaccines are available to control most of these tick transmitted diseases. **Discuss preventative measures with your veterinarian.**

The following tick toxicoses were reported by practices in the provinces:

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

Sweating sickness is caused by the toxin secreted by the bont-legged tick. They like to attach in the tail switch and therefore this area should be treated as well.

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	x		x		x	
Ephemeral fever (Three day stiff sickness)		x	x		x	x		x	
Blue tongue					x	x	x	x	
Rift Valley Fever									
Wesselsbron									

In the past Rift Valley Fever outbreaks were seen after good rains following a drought period. Do not neglect vaccinating animals!

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		
Vibriosis					x				
Pizzle disease					x				x

New cases of **trichomonosis** are reported every month and this disease is out of hand. This month it was reported that the disease was brought into the herd by buying in bulls. Make sure that bulls are bought from farms where you are certain that there is no venereal diseases and bulls for sale were sufficiently tested by the veterinarian of the seller.

Cattle study groups should discuss preventative and control measures with their veterinarians. Farmers are losing millions of Rand due to this disease! **Be sure to test bulls regularly for these diseases**.

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

Bacterial diseases

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

Bacterial diseases	MP	G	L	NW	FS	KZN	EC	WC	NC
Blackquarter	x		x		x	x	x		
Botulism	x			x	x				x
Pulpy kidney	x		x	x	x	x	x	x	
Lamb dysentery									
Swelled head		x	x		x				
Red gut (cattle)					x	x	x	x	
Blood gut (sheep)	x				x		x		
Tetanus						x		x	
Salmonellosis		x		x	x	x			
Bovine brucellosis			x	x	x	x			
Ovine brucellosis					x			x	x
Actinobacillus seminis									
Bovine tuberculosis						x			
Johne's								x	
Leptospirosis									
Listeriosis							x		
Pseudomonas					x				
Fusibacterium necrophorum						x			
Septicaemia					x				
E. coli	x		x	x	x	x	x	x	
Enzootic abortion						x			
Lumpy wool									
Uterine gangrene									
Wooden tongue									

A few comments on bacterial diseases:

Many animals have died due to the drought and carcases may be lying in the veldt. Make sure that animals were vaccinated aginst botulism and that booster vaccinations are given if needed.

Smallstock are given additional concentrates and feed during the drought, make sure that animals are vaccinated against pulpy kidney.

E. coli outbreaks are reported every month. Dr. Marijke Henton, Bacteriologist answered a question on Vra vir Faffa which is very informative:

http://landbou.com/kundiges/vra-vir-faffa/e-coli-in-diere/

Update your vaccination programme and order vaccines and booster doses in advance!

To control and eradicate brucellosis is a top priority for all of us!

Viral diseases

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

Viral diseases	MP	G	L	NW	FS	KZN	EC	WC	NC
BMC (snotsiekte)	x		x		X			x	x
Rabies						x			
BVD			x						
IBR			x			x		x	
BRSV									
PI3									
Rotavirus / Coronavirus					X				
Enzootic bovine leucosis (EBL)				x	X	x	x	x	
Sheep leucosis									
Jaagsiekte				x	X				
Orf	x	x			X	x	x	x	
Warts	x	x	x	x	X	x	x	x	

Enzootic Bovine Leukosis (EBL) is wide spread in dairy cattle. It was reported that 17 heifers tested positive for EBL during routine blood tests for export purposes. This disease depresses the immunity of animals and is spread with blood. Ask your veterinarian to tell you more about this disease.

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

Discuss vaccination programmes with your veterinarian.

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						

Toxicities

The following toxicities were reported by practices in the provinces:

Toxicities	MP	G	L	NW	FS	KZN	EC	WC	NC
Cardiac glycoside		x				x		x	
Gifblaar				x					
Gousiekte		x							
***Cestrum* (ink berry)**					X		x		
Tulip	x				X				
***Cynanchum* (bobbejaantou)**									
Facial eczema		x					x	x	
Lantana	x		x	x		x			
Prussic acid				x	X	x			
Senecio									

Cotula nigellifolia **(stagger wood)**						x			
Geeldikkop (duwweltjies)				x	X				
Vermeersiekte									
Hertia pallens									
Solanum incanum **(maldronksiekte)**									
Gomphocarpus (Asclepias) fruticosus **(milkweed)**								x	
Kikuyu									
Ryegrass									
Ganskweek									
Lusern									
Mycotoxicosis								x	
Diplodiosis									
Lupins									
Harpuisbos					X				
Syringa berries									
Kraalbos									
Crotolaria									
Radish									
Bracken fern									
Water contamination						x			
Nitrate									
Urea				x				x	
Snake bite					X	x			
Blue green algae						x			
Copper						x			
Selenium									
Zinc									
Fluoride									
Lead									
Paraquat									
Phosamine									
Pyrethroid									
Amitraz									
Levamizole									
Tilmicosin									
Monensin						x			

With the present dry conditions in many parts of the country the only green vegetation that is available may be toxic e.g. tulip, gifblaar, gousiekte, slangkop, ink berries,vermeerbos, duwweltjies and Lantana. http://landbou.com/kundiges/vra-vir-faffa/gif-en-geaktiveerde-houtskool/

Always be alert to prevent losses due to toxicities. Carefully read labels and packet inserts before using drugs!

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	x
Protein	x	x	x	x	X	x	x	x	x
Phosphate	x	x		x	X	x			
Calcium				x		x			

The severe drought comes with serious nutritional deficiencies. It is now the time to plan for the winter that lies ahead!

Micro-nutritional deficiencies

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

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

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.

With the drought and lack of proper grazing mineral deficiencies will increase.

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	
Stillbirths					x	x			
Abscesses	x	x	x		x	x	x	x	
Intestinal ulcers	x								
Bladder stones	x				x				
Blindness	x				x	x		x	x
Bloat		x			x	x	x	x	x
Blood gut (sheep)									
Blue udder					x	x	x	x	
Diarrhoea	x	x	x	x	x	x		x	
Epididymitis								x	

Eye cancer					x	x			
Eye infections	x	x		x	x	x	x	x	
Joint ill	x			x		x	x		x
Lameness/foot problems	x			x	x	x	x	x	
Lung infection	x		x		x	x	x	x	x
Mastitis	x	x		x	x	x	x	x	
Navel ill				x		x			
Red gut (sheep, torsion of gut)									
Rectal prolaps									
Trauma				x	x	x		x	
Plastic bags (ingestion)									
Downer	x	x		x	x	x			

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

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 abomasums						x			
Ketosis					x				
Milk fever		x			x	x		x	

There is an increase in the reporting of acidosis. Many farmers are feeding their animals due to the drought. Make sure that you adapt animals to feed containing concentrates.

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

Reproductive diseases

Reproductive diseases	MP	G	L	NW	FS	KZN	EC	WC	NC
Dystocia (difficult births)	x	x	x	x	x	x	x	x	x
Endometritis					x	x		x	
Metritis	x				x	x	x	x	
Poor conception	x	x			x	x		x	
Retained afterbirth	x	x	x	x	x	x		x	
Sheath prolapsed					x			x	
Uterine prolapsed	x	x			x	x	x	x	x
Vaginal prolapsed	x				x	x		x	x

The drought and heat experienced play a huge role in fertility. Fertility of animals is one of the most important factors determining the success of farming. Discuss all issues with your veterinarian.

Environmental conditions

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

Other conditions: predators (FS, KZN); theft , sabotage (FS,KZN) and trauma (G, FS, WC

Comment:

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.

Practices that had nothing to report

Adelaide- Dr. Steve Cockcroft
Delmas – Dr. Johan Jooste
Jan Kempdorp – Dr. Jan Brand
Karino (Nelspruit) – Dr. Silke Pfitzer
Krugersdorp – Dr. Ryan Jeffery, Van Eeden and Walker
Malmesbury – Dr. Markus Fourie
Stutterheim – Dr. Dave Waterman
Vryburg – Dr. Jurie Kritzinger

Ostriches

Western Cape

Oudtshoorn – Ostrimed

Condition	Comments
Intestinal roundworms	
Tapeworms	1
Bont-legged ticks	3 High number of ticks which leads to down grading at abattoir due to export regulations.
Midges	2
Enterotoxaemia (Red gut)	3 High temperatures lead to intermittend feed intake. During cooler periods birds overeat and develop clostridial enterotoxaemia. Strategic treatment with antibiotics assists. Vaccination helps.
Diarrhoea	3 Soil pica, high heat triggers opportunistic bacterial

	infections. Heat triggers Clostridium due to overflow of nutrients into the hind gut fermenting system.
Opthalmia	2
Sinusitis	3 Dusty environment due to high temperatures and dry environment. Wind every afternoon. Dust bowl effect. Together with challenges on nutrients and stress. Opens door for *Mycoplasma* infections.
Selenium and Vit E deficiencies	3 High temperatures, rations high in energy and fat place high demand on minerals and antioxidants. Develop classical white muscle disease with acutre heart failure. Supplementation gives rapid response to recovery.
Micro-element deficiencies	2
Protein/energy deficiencies plus high emperatures	Heat leads to over intake of water, flushing of nutrients, wet urinated areas lead to soil pica. Reduced feed intake, all contribute to diarrhoea – sand irritation and fecal bacteria. Insufficient nutrient intake, stress on immune system and growth. Opportunistic bacteria or other infections, chronic low grade *C. perfringens* infection. Gut damage.
Heat stroke	1

Equines

Mpumalanga

Lydenburg – Lydenburg Dierespreekkamer
Opthalmia - 1

Limpopo

Makhado – Blouberg
Africn horsesickness – 3 cases

Mokopane – Dr. Henk Visser
Midges – 1
African Horse Sickness – 2

Free-State

Bethlehem – Bethlehem Animal Hospital
Red legged- tick -1
Navell ill – 1
Joint ill – 1
Colic – 1 due to dry grass intake

Ladybrand/Excelsior
Bont legged-tick - 2

Memel – Memel Veterinary Clinic
Nuisance flies – 3

KwaZulu-Natal

Underberg – Dr. Peter Dommett

Middelburg and West Nile virus in weanling and 18 month old horses

Eastern Cape

Humansdorp – Humansdorp Veterinary Clinic
Equine encephalosis virus – 2
Port Alfred

Port Alfred - Port Alfred Veterinary clinic
Arthropod hypersensitivity – 3 cases in Bathurst
Biliary – 2 cases in Fish River area
Diarrhoea – 3 foals with Salmonella diarrhoea and septicaemia in Bathurst

Game

Mpumalanga

Ermelo – Môregloed veterinêre spreekkamer
Peervormige maagslak -1

Lydenburg – Lydenburg Dierespreekkamer
Wireworm – 3

Nelspruit – West Acres Animal Hospital
Salmonella – 1 Buffalo. Suspect salmonellosis based on pathology. Grazing very limited and game is fed with hay and fruit from neighbouring farms. The bull was in a fight, developed ruminal acidosis with possibly secondary salmonellosis. Confirmed histopathologically but no cultures done.

Standerton – Standerton Dierehospitaal
Drought -3

Limpopo

Polokwane – Pietersburg Veterinary Clinic
Bont legged-ticks – 3
Caccidiosis – 1
Trauma - 1

Limpopo

Mokopane – Dr. Henk Visser
Heartwater tick – 3
Brown ear-tick – 3
Bont legged-tick – 1
Blowflies - 1
Screw-worm – 1

Polokwane – Pietersburg Veterinary Clinic
Bont legged-ticks – 3
Caccidiosis – 1
Trauma - 1

North West

Klerksdorp – Buffeldoorndierekliniek
Vomiton - 2 adult lions very sick and vomiting, antibiotic and steroid treatment was effective
Deaths – Lion cub, few days old not eating very poor, didn't survive
Lameness - Lameness, don't think its mineral related, possible injury
Abandoned – Impala lamb, few days old found in field abandoned, dehydrated. treatment and milk was effective.

Free-State

Bethlehem – Bethlehem Animal Hospital
Peestersiekte – 1
Diarrhoea - 1

KwaZulu-Natal

Pongola - Pongola animal clinic
Protein deficiency – 3
Energy deficiency – 3
Drought – 3
Traumatic pericarditis (wire protruding heart sack) – 1

Tugela Veterinary clinic
Metritis – 1
Retained afterbirth - 1

Eastern Cape

Humansdorp – Humansdorp Veterinary Clinic
Interdigital abscess – 1 Sable
Port Alfred – Port Alfred Veterinary Clinic
Diarrhoea – 1 Buffalo calf in Alexandria

Northern Cape

Upington – Dr. Ian Vorster
Drought – Springbuck -3, unable to stand and die.
Coccidiosis – 2, 16 young buffalo from Eastern Cape in boma. One died before treatment, one died 14 days later, rest recovered with treatment (toltrazuril in feed).

Monthly report on Livestock and Wildlife isolations for December 2015 from IDEXX Laboratories supplied by dr. Marijke Henton (marijke-henton@idexxsa.net)

Farm animals

Trueperella pyogenes caused endometritis [together with *Histophilus somni*] in a cow, an abortion, an abscess together with the anaerobe, *Porphyromonas*, and a lung abscess together with *Streptococcus suis. Streptococcus suis* is a pathogen of pigs and man, and it can cause sporadic cases of pneumonia in ruminants. It also caused a bovine abscess.

E. coli was the cause of enteritis in 7 calves, a lamb and two cases of bovine mastitis. It was probably only secondary in the second mastitis case, as *Streptococcus dysgalactiae* and the anaerobe, *Porphyromonas* were also isolated from the milk.

Mannheimia haemolytica was isolated from respiratory disease in feedlot cattle.

Lymph node abscessation in a goat was caused by *Corynebacterium pseudotuberculosis*, but a liver abscess in a sheep was due to a combination of *Trueperella pyogenes* and *Porphyromonas*.

Blue udder was caused by *Mannheimia haemolytica* on three farms. In the last case *Pasteurella multocida* was also present in the same sample.

Horses

A combination of *Klebsiella pneumoniae* and *Streptococcus zooepidemicus* caused endometritis in a mare, and pneumonia in a foal. Another case of endometritis was caused by *E. coli*, and *E. coli* also caused cystitis in another horse.

A septicaemic foal yielded a combination of *Streptococcus dysgalactiae [equisimilis*] and *Salmonella enterica* [Group I].

A nasal discharge was caused by *Pasteurella caballi, Mycoplasma* and *Porphyromonas.*

Actinomyces caused arthritis and an abscess, combined with *Streptococcus zooepidemicus*.

Wildlife

Streptococcus suis caused pneumonia in a Golden Wildebees [see comment above]. *Trueperella pyogenes* and two anaerobes, *Prevotella* and *Porphyromonas* were isolated from a septicaemic roan. *Trueperella pyogenes* was also isolated from pyoderma in a Red Hartebees, and *Streptococcus zooepidemicus* from pyoderma in a tiger.

Feedlot report received from Dr. Shaun Morris and Dr. Eben du Preez for December 2015 (edupreez1@telkomsa.net)

Sheep feedlots

The drought in large parts of South Africa caused serious problems with which feedlots had to deal. Sheep in poor condition transported to feedlots often died in transit. Often sheep arrived severely dehydrated and in poor condition. Such sheep reacted poorly to vaccinations and this led to higher incidences of pneumonia, diarrhoea and eventual deaths.

Many of these sheep had atrophy of the intestinal tract and in spite of receiving good nutrition, the sheep were not able to utilize the nutrients, they lost condition and eventually died.

Wireworm infestations and orf (vuilbek) infections were seen.

Cases of liver damage, most probably caused by toxic plants, occurred. Such sheep usually responded well to the feed ration initially but later died due to pneumonia.

Many eye infections occurred. Dust, vitamin A deficiency and flies contributed to these infections.

Cases of blood gut and salmonellosis were seen.

A few cases of blowfly attacks were seen.

Cattle feedlots

Numerous losses occurred in especially C-gradecattle that were in poor condition. Trace mineral deficiencies and poor nutritional conditions were a general problem.

A fair percentage of cattle arriving from severe drought areas did not perform and did not pick up weight in spite of good nutrition and gradual adaptation. Such animals had atrophy of their intestinal tract due to energy and protein deficiencies and did not have the ability to utilize the nutrients in the ration.

Numerous cases of lameness occurred, usually due to trauma and animals playing and riding on each other.

Many eye infections occurred. Dust, vitamin A deficiency and flies contributed to these infections.

Dust conditions also contributed to pneumonia.

Heat stress caused mortalities and depressed immunity which again resulted in cases of pneumonia.

Deaths due to bloat and red gut usually occurred after strong winds blew and heat disturbed feeding patterns of cattle.

Blackquarter, tick transmitted diseases, bovine malignant catahrral fever (snotsiekte) and lumpy skin disease were reported and caused losses.

Numerous cases of warts and ringworm were seen.

Bont legged-ticks were present on many calves during backgrounding and a few sweating sickness cases were reported.

Blue and red -legged ticks were generally seen but numbers were less than the previous year.

Monthly Feedlot report for December 2015 from Dr. Andy Hentzen (andyvet@mweb.co.za)

Nothing to report for the month

Monthly report for December 2015 from Dr R D Last (BVSc; M.Med.Vet(Path); MRCVS)

Specialist Veterinary Pathologist, Vetdiagnostix - Veterinary Pathology Services

Contributors

- Mr Butch Bosch
- Ms Ntando Magoso
- Mrs Beverley Williams
- Ms Nicole Gengan
- Dr Rick Last

LIVESTOCK DISEASE SURVEILANCE			
LIVESTOCK SPECIES	**DISEASE AGENT**	**NO. CASES**	**LOCATION**
Bovine, Calves	Listeriosis	1	Humansdorp, E. Cape
Buffalo, Cow	Tuberculosis (*Mycobacterium bovis*)	1	Hluhluwe, KZN
Bovine, Calf	Calf paratyphoid	1	Howick, KZN

Monthly report for December 2015 from Queenstown Provincial Veterinary Laboratory as supplied by Dr. A.D. Fisher (alan.fisher@drdar.gov.za)

Condition	Area	Comments and Specie
Intestinal roundworms		O 3
Liver fluke		O,C 2
Conical fluke		B 2
Coccidiosis		O 3
Heartwater	Cofimvaba	O 1
Vibriosis	Queenstown; Cathcart	3 positive bulls
Trichomonosis	Cathcart	2 positive bulls
Swelled head (*Clostridium novyi)*	Cathcart	B 2
Chlamydophila	Cofimvaba	O 1
Rabies	Mthatha, Tsolo	B, Canine
Protein deficiency		B,O 3
Energy deficiency		B,O 3
Lungs		O 1 *Mannheimia hamolytica*

B – bovine; O – ovine; C – caprine; P – pigs; G – game

1 = one case; 2 = 2 to 9 cases; 3 = more than 10 cases

Monthly report for December 2015 from IDEXX laboratories (Onderstepoort) supplied by dr. Liza du Plessis

Disease or condition	Specie and numbers
Heartwater	C 1
Theileriosis	G 1
Bovine malignant catarrh	B 1

Abortion	B,G 1
Lameness	G 1
Capture myopathy	G 1
Protein/Energy deficiency	G 1
Hypernatraemia	G 2

B – bovine; O – ovine; C – caprine; P – pigs; G – game

1 = one case; 2 = 2 to 9 cases; 3 = more than 10 cases

Monthly report for December 2015 from Deltamune laboratory Oudtshoorn as supplied by Dr. Mark Chimes (mark@deltamune.co.za)

Disease condition	Specie
Trichomonosis	B 3 Queenstown and Somerset East
Vibriosis	B 3 Queenstown and Somerset East

B – bovine; 3 = more than 10 cases