

# agriculture, forestry & fisheries

Department:

Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA

# Animal Disease Reporting Manual

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Introduction

This manual describes the procedure for disease reporting by provincial

veterinary services to the Directorate of Animal Health of the Department of

Agriculture, Forestry and Fisheries. It only describes the requirements for

disease information at a national level. It is preferable that each provincial

veterinary service determine their own level of required information, as the

amount of detail required by the national directorate is not sufficient for state

vet area or provincial activities. Each provincial veterinary service must decide

on the amount of information to be collected and where the bulk of the

information is to be kept (e.g. at the state vet office or at a central point in the

province). Details like the name of the owner and the number animals of non-

affected species are not required for national disease reporting, but might be

required at a state vet area or provincial level.

This document is a working document and will be constantly updated,

especially the reporting codes, as new species are constantly affected and

municipal boundaries change. For comments, requests for new codes or the

most recent version of this document, please contact:

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5 April 2016

### **Disease reporting in South Africa**

#### Purpose of disease reporting

Reasons for disease reporting are:

#### 1. Proof of freedom

South Africa has to prove to its trading partners that it has the ability to pick up outbreaks or the presence of animal diseases. The best method to do this is by having a proper passive surveillance system in the country. Passive surveillance is when the farmer picks up that there is something wrong with his animals and notifies an animal health technician, state veterinarian or private vet. These occurrences must be recorded because it gives a good indication of the level of passive surveillance in a country. It is therefore imperative that outbreaks of diseases, especially controlled diseases, be recorded and reported to a central point.

#### 2. <u>Detection of outbreaks of important diseases</u>

It is also of extreme importance for South Africa as a country to pick up outbreaks of certain diseases to enable a response to these outbreaks. Some reasons for this might be to:

- Prevent the spread of the disease
- Institute control programs
- Eradication of a disease
- Warn neighbouring farmers/trade partners/neighbouring countries
- Prevent the spread/occurrence of a disease in humans, e.g. rabies
- Decrease the economic impact of a disease
- Prevent spread of diseases to trading partners

#### 3. <u>Disease control</u>

The veterinary services of a province or the country will only be able to institute control measures for a disease if they know where the disease is present, what the prevalence is and who is affected by the outbreak. This is where disease reporting can play an important role. It is impossible for a county to institute an active surveillance (bleed animals to test for the disease) for each and every disease and it is also impossible to have control

programs that cover all animals in a country. Disease reporting enables a country to focus control efforts for certain diseases in certain areas and specific animals.

#### **Monthly reporting**

#### Procedure

The procedure for disease reporting will differ for each provincial veterinary service. The basic principles and information required at a national level will be described here. This must be used as a guideline for provinces to structure their respective disease reporting systems to ensure that the requirements at a national level are met.

In each state vet area the state vet responsible for the area must compile a monthly report on the diseases that occurred in his area. The diseases to be reported on and the information required by the national directorate are described below. The animal health technicians of the area must also inform the state vet of outbreaks of diseases where the involvement of the state vet was not necessary. It important to note that ALL outbreaks must be included, including outbreaks already reported on emergency reporting (SR1). The state vet is responsible for the correctness of the report and must make sure that all the details are correct, including the geographical coordinates. These reports can be filled in by hand, but electronic reports are preferred, as the capturing of electronic reports are easier. Microsoft Office Excel spread sheets are recommended. In the unlikely event that no animal disease outbreaks and no vaccinations were administered, the state vet must submit a nil report, indicating that no outbreaks occurred and that no vaccinations took place.

Each state vet area must submit a monthly report to a central point in the province before the 15<sup>th</sup> of the month following the reporting month. This central point must be appointed by the provincial director and the contact details of this central point must be communicated to the national Subdirectorate of Epidemiology. The central point must check the reports for correctness and make sure that all state vet areas in the province has

submitted a report. The central point must collate the data, record it in a provincial database and compile a provincial report. This report must then be authorised by the provincial director and submitted to the national Subdirectorate of Epidemiology before the end of the month following the month being reported on. Reports must be sent to:

• Email: Epidemiology@daff.gov.za / HannesP@daff.gov.za

Fax: 012 319 7470 (electronic reports are preferred)

The provincial director can authorise the central point to submit the provincial report directly, but it is advisable that the provincial director then also be notified of the occurrence of outbreaks in the province, with a summary.

#### <u>Diseases</u>

The Animal Diseases Act (35 of 1984) requires that all occurrences of controlled and notifiable diseases be reported to the national directorate. These diseases are listed below. For other diseases not listed below and vaccinations, the national directorate requests provinces to include them in monthly reports for OIE reporting purposes and to serve as indication of the presence and prevalence of these diseases. Some diseases that are not controlled can still have trade implications.

## Controlled Animal Diseases (in terms of the Animal Diseases Act, 1984 (Act 35 of 1984))

- Any animal disease or infectious agent that is not known to occur in South Africa
- African horse sickness (AHS)
- African swine fever (ASF)
- Anthrax
- Aujeszky's disease
- Bacterial kidney disease (in fish)
- Bovine contagious pleuropneumonia (CBPP)
- Bovine spongiform encephalopathy (BSE)
- Brucellosis (in all animal species)
- Classical swine fever (CSF)
- Contagious equine metritis (CEM)
- Contagious haemopoeitic necrosis (in fish)
- Contagious pancreatic necrosis (in fish)
- Corridor or Buffalo disease (Theilerioses)
- Dourine
- East coast fever

- Equine infectious anaemia (EIA)
- Equine influenza (EI)
- Equine viral arteritis (EVA)
- Foot and mouth disease (FMD)
- Glanders
- Haemorrhagic septicaemia (in fish)
- Johne's disease (in sheep, cattle and goats)
- Nagana (Trypanosomiasis)
- Newcastle disease
- Notifiable avian influenza (NAI)
- Porcine reproductive and respiratory syndrome (PRRS)
- Psittacosis
- Rabies
- Rinderpest
- Salmonella Enteriditis
- Salmonella Gallinarum (Fowl typhoid)
- Salmonella Pullorum (Bacillary white diarrhoea)
- Scrapie
- Sheep scab
- Skin conditions in sheep
- Swine vesicular disease
- Tuberculosis (in all animal species)

## Notifiable Animal Diseases (in terms of the Animal Diseases Act, Act 35 of 1984)

- Bovine malignant catarrhal fever (Snotsiekte)
- Bluetongue
- Lumpy skin disease
- Rift valley fever
- Strangles
- Swine erysipelas

#### **OIE Listed diseases (2015)**

The OIE requires member countries to report on all OIE diseases listed in Table 1. The Animal Diseases Act (No 35 of 1984) only requires reporting on Controlled and Notifiable diseases. Where provincial veterinary services diagnose non-notifiable diseases listed in Table 1 (for example bovine anaplasmosis and bovine babesiosis), it would be appreciated if these disease can also be included in the monthly disease reports.

Table 1

Table I	
Multiple species diseases, infections and	Cattle diseases and infections
infestations	
	Bovine anaplasmosis
Anthrax	Bovine babesiosis
Bluetongue	Bovine genital campylobacteriosis
Brucellosis (Brucella abortus)	Bovine spongiform encephalopathy
Brucellosis (Brucella melitensis)	Bovine tuberculosis
Brucellosis (Brucella suis)	Bovine viral diarrhoea
Crimean Congo haemorrhagic fever	Enzootic bovine leukosis
Epizootic haemorrhagic disease	Haemorrhagic septicaemia
Equine encephalomyelitis (Eastern)	Infectious bovine
Foot and mouth disease	rhinotracheitis/infectious pustular vulvovaginitis
Heartwater	Infection with <i>Mycoplasma</i>
Infection with Aujeszky's disease virus	mycoides subsp. mycoidesSC (Contagious bovine
Infection with Echinococcus granulosus	pleuropneumonia)
Infection with Echinococcus grandosus	Lumpy skin disease
Infection with rabies virus	Theileriosis
Infection with Rift Valley fever virus	Trichomonosis
Infection with rinderpest virus	Trypanosomosis (tsetse-transmitted)
Infection with Trichinella spp.	
Japanese encephalitis	
New world screwworm (Cochliomyia	
hominivorax)	
Old world screwworm (Chrysomya bezziana)	
Paratuberculosis	
Q fever	
Surra (Trypanosoma evansi)	
Tularemia	
West Nile fever	
Sheep and goat diseases and infections	Equine diseases and infections
Caprine arthritis/encephalitis	Contagious equine metritis
Contagious agalactia	Dourine
Contagious caprine pleuropneumonia	Equine encephalomyelitis (Western)
Infection with Chlamydophila	Equine infectious anaemia
abortus (Enzootic abortion of ewes, ovine	Equine influenza
chlamydiosis)	Equine piroplasmosis
Infection with peste des petits ruminants virus	Glanders
Maedi-visna	Infection with African horse sickness virus
Nairobi sheep disease	Infection with equid herpesvirus-1 (EHV-1)
Ovine epididymitis (Brucella ovis)	Infection with equine arteritis virus
Salmonellosis (S. abortusovis)	Venezuelan equine encephalomyelitis
Scrapie	
Sheep pox and goat pox	
	Avien diseases and infections
Swine diseases and infections	Avian diseases and infections
African swine fever	Avian chlamydiosis
Infection with classical swine fever virus	Avian infectious bronchitis
	Avian infectious laryngotracheitis

Porcine cysticercosis Porcine reproductive and respiratory syndrome Transmissible gastroenteritis	Avian mycoplasmosis (Mycoplasma gallisepticum) Avian mycoplasmosis (Mycoplasma synoviae) Duck virus hepatitis Fowl typhoid Infection with avian influenza viruses infection with influenza A viruses of high pathogenicity in birds other than poultry including wild birds Infection with Newcastle disease virus Infectious bursal disease (Gumboro disease) Pullorum disease Turkey rhinotracheitis
Lagomorph diseases and infections  Myxomatosis Rabbit haemorrhagic disease	Bee diseases, infections and infestations Infection of honey bees with Melissococcus plutonius(European foulbrood) Infection of honey bees with Paenibacillus larvae(American foulbrood) Infestation of honey bees with Acarapis woodi Infestation of honey bees with Tropilaelaps spp. Infestation of honey bees with Varroa spp. (Varroosis) Infestation with Aethina tumida (Small hive beetle).
Other diseases and infections Camelpox Leishmaniosis	
Fish diseases  Epizootic haematopoietic necrosis Infection with Aphanomyces invadans(epizootic ulcerative syndrome) Infection with Gyrodactylus salaris Infection with HPR-deleted or HPR0 infectious salmon anaemia virus Infection with salmonid alphavirus Infectious haematopoietic necrosis Koi herpesvirus disease Red sea bream iridoviral disease Spring viraemia of carp Viral haemorrhagic septicaemia	Mollusc diseases Infection with abalone herpesvirus Infection with Bonamia exitiosa Infection with Bonamia ostreae Infection with Marteilia refringens Infection with Perkinsus marinus Infection with Perkinsus olseni Infection with Xenohaliotis californiensis
Crustacean diseases	Amphibians
Crayfish plague (Aphanomyces astaci) Infection with Yellowhead virus Infectious hypodermal and haematopoietic necrosis Infectious myonecrosis Necrotising hepatopancreatitis Taura syndrome White spot disease White tail disease	Infection with Batrachochytrium dendrobatidis Infection with ranavirus

#### <u>Information to be supplied</u>

The information that should be gathered for each outbreak should be determined by each province. This document will only describe the minimum data required by the national Directorate of Animal Health and the format in which it should be reported to the Sub-directorate Epidemiology.

The monthly report form must please be completed properly. The fields that need to be completed are the following:

#### **MONTH:**

The month for which reporting is taking place is entered in the format YYYYMM in the field provided for it. It is recommended that the full date of the outbreak be recorded at state vet area level.

## PROVINCIAL CODE, STATE VETERINARY AREA CODE, LOCAL MUNICIPALITY (DISTRICT) CODE, DISEASE CODE AND SPECIES CODE:

The provincial code, state veterinary area code, local municipality (district) code, disease code and specie code can be obtained from the lists of the codes included in this manual and are entered in the respective fields provided.

#### **FARM ID** (Farm Identification):

This is the field where the registered number and/or name of a farm is entered. Please note that farmers tend to give their farms names that does not always correspond to the registered farm name.

#### **GEOGRAPHICAL LOCATION:**

The geographical location of a farm or property must be given in degrees, minutes and seconds EAST and degrees, minutes and seconds SOUTH and not vice versa.

Please distinguish between **degrees**, **minutes and seconds** (which is each part of 60, i.e. minutes cannot be above 59) and **decimal degrees** (which is a fraction). If a province decides to rather use decimal degrees, due to easier

integration with GIS software, it must be clearly indicated in reports and the province must make sure that officials know the difference between the two scales and know how to set their GPS devices to indicate the correct scale. Proper use of GPS devices should also be encouraged (e.g. wait for the device to gain accuracy etc.) As a standard agriculture in South Africa uses the WGS1984 geographical projection and all GPS devices and GIS software should be set to this projection.

State Veterinary and Provincial Veterinary offices where GPS devices are not available or unreliable are advised to obtain 1:50 000 maps of their respective areas from the Government printer or enquire at any regional office of the Surveyor General. The geographical coordinates can be read with some accuracy from these maps.

#### NUMBER OF SUSCEPTIBLE ANIMALS:

This is an indication of the number of animals of the affected species in the affected epidemiological unit. This will vary between diseases and situations, but a good rule of thumb is to ask "How many animals are at risk of contracting this disease directly from the affected animal?" It will usually be the number of animals on the farm. It is important to note that the animals affected by the outbreak should be included i.e. the number of animals on the farm before the disease entered the farm.

OIE description: Susceptible animals include those known or estimated (when possible) to be present at the outbreak at the beginning of the period covered by the report.

#### NUMBER OF OUTBREAKS:

The occurrence or not of a disease per geographic location is entered in this field. Please note that if more than one outbreak of the same disease on a farm occurs at the same time, and the State Veterinarian is sure that the two occurrences of the disease is not part of the same outbreak, the second outbreak must be entered as a separate outbreak (with the other details concerning the outbreak) on a new line on the report form.

If, for instance, an outbreak of a disease like tuberculosis or brucellosis occurs on a farm and follow-up tests are done on the same herd with new cases found with subsequent tests, it is not every time reported as a new outbreak, as the outbreak is still continuing - it is only reported as an outbreak when it is initially diagnosed and not with each subsequent test. Only the cases that are found with subsequent tests are reported monthly - the outbreaks field is left blank.

It therefore means that only the figures "0" or "1" can be entered into this field: "0" indicating that an outbreak of the disease has occurred and has been reported previously, but that the outbreak is still continuing and further cases have occurred. A "1" will indicate that it is a new outbreak of the disease that is being reported for the first time.

#### NUMBER OF CASES:

The total number of diseased animals for the disease reported is entered into this field: all the animals clinically affected plus that have died as a result of the disease.

#### **NUMBER DEAD:**

The total number of diseased animals that died naturally as a result of being affected by the disease reported is entered into this field.

#### **NUMBER KILLED AND/OR SLAUGHTERED:**

The total number of animals destroyed (killed without salvage for human consumption) plus the total number of animals slaughtered (killed with salvage for human consumption) is entered into this field.

#### **NUMBER TREATED:**

The total number of animals treated for a specific disease (where applicable) is entered into this field.

#### **NUMBER VACCINATED:**

The total number of animals vaccinated for a specific disease (where applicable) is entered into this field.

#### **COMMENTS:**

This field is used to give any additional information to describe or identify the outbreak. This field is not required, but should be used to supply important information.

#### **Emergency reporting**

#### **Procedure**

All outbreaks or suspected outbreaks of diseases that might warrant an emergency response (listed below) must be reported on the correct form (included at the end of this document) within 24 hours of detection. Animal owners and animal health technicians must notify the state vet of the area immediately. The state vet must complete an emergency reporting form (SR1) and send it to the provincial director. The provincial director must notify the national Director for Animal Health immediately and send the form to the national Sub-directorate Epidemiology. In case any of the above mentioned people is not available, the higher up structure must be notified (for example if the state vet cannot get hold of the provincial director he/she must notify the national office directly).

#### Contact details

- Email: <u>HannesP@daff.gov.za</u> / <u>Epidemiology@daff.gov.za</u> / <u>GrietjieDK@daff.gov.za</u> / <u>SandraDAC@daff.gov.za</u>
- Fax: 012 319 7470 / 012 329 7218
- Telephone: 012 319 7456 / 012 319 7606 / 012 319 7412

#### Diseases

- Any outbreak or suspected outbreak of:
  - Foot and mouth disease
  - African swine fever
  - Avian Influenza (Highly Pathogenic and Low Pathogenic)
  - Anthrax (outside the endemic areas)
  - Any disease that has already been eradicated in South Africa;
  - Any disease that never occurred in South Africa.
  - Any disease that requires immediate notification to the OIE
- Outbreaks of
  - African horse sickness,
  - Anthrax
  - Newcastle disease

- Rift Valley fever
- Rabies
- Abnormal occurrences of any disease (more than normal, where it does not normally occur, in a species where it does not normally occur, etc.)

#### Information to be supplied

All the information required for monthly reporting as well as:

- Suspected date of the start of the event
- Name and contact details of the owner
- Name, contact details and signature of the state vet
- Description of laboratory tests requested, results (if available) and the name of the laboratory
- Epidemiological description of the outbreak, including clinical signs, where the disease is suspected to come from and how it was detected.
- Description of the current situation, e.g. has quarantine been applied, are animals still dying etc.

It is recommended that the SR1 form included in this document be used for emergency reporting.

#### Other reporting

For surveys and certain diseases separate reporting forms may exist. This will change from time to time depending on the surveillance activities conducted in South Africa. For more details please contact the Sub-directorate Epidemiology.

#### **Disease Codes List**

This document contains the codes for animal disease reporting to the Department of Agriculture, Forestry and Fisheries - Directorate of Animal Health. It is a working document and is updated on a continuous basis as new diseases and new species are reported and as names of State Vet Areas and Local Municipalities change.

Please contact the DAH – Epidemiology if a code for the species or disease that you want to report is not contained in this document or if you suspect your document might be outdated.

This document is not for public distribution and should be considered as a guide for South African Veterinary Services.

Disease names from the OIE and scientific names of organisms from the Infectious Diseases of Livestock (2<sup>nd</sup> Edition) (Coetzer & Tustin 2004) was used. Species scientific names from the Mammals of the Southern African Subregion (2<sup>nd</sup> Edition) (Skinner & Smithers 1990) was used.

State Vet Area extent, names and codes are determined by the various provincial veterinary services and the Demarcation Board determine the names of Local Municipalities.

This document contains the updated codes for the 2011 local municipality demarcations and should be used for all disease reports from **1 October 2011**.

A copy of the most recent version of this document will be available on the Directorate: Animal Health's website. (<a href="www.daff.gov.za">www.daff.gov.za</a>)

For more information please contact Dr. Hannes Pienaar (HannesP@daff.gov.za / 012 319 7606)

## **Animal Disease reporting codes:**

## 1) Province Codes

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Province Name	PROVINCE CODE		
Central Government	00		
Mpumalanga	01		
Gauteng	02		
Limpopo	03		
North West Province	04		
Free State	05		
KwaZulu-Natal	06		
Eastern Cape Province	07		
Western Cape Province	08		
Northern Cape Province	09		

## 2) State Veterinary Area Codes

State Vet Area	State Vet Code	Province
Kruger National Park	001	00
Mkhondo/Pixley Ka Seme	101	01
Mbombela/Mjindi	102	01
Thaba Chweu	103	01
Lekwa/Dipaleseng	104	01
Msukaligwa/Gowan Mbeki	105	01
Albert Luthuli	106	01
Emalahleni/Victor Khanye	107	01
Dr J S Moroka/Thembisile	108	01
Nkomazi	109	01
Emakhazeni/Steve Tshwete	110	01
Bushbuckridge	111	01
Orpen	112	01
Pretoria State Vet	201	02
Germiston State Vet	202	02
Randfontein State Vet	203	02
Lephalale	301	03
Bela-Bela	302	03
Mogalakwena	303	03
Blouberg	304	03
Aganang	305	03
Polokwane	307	03
Lepele-Nkumpi	308	03
Musina	309	03
Makhado	310	03
Thulamela	311	03
Greater Giyani	312	03
Greater Tzaneen	313	03
Ba-Phalaborwa	314	03
Maruleng	316	03

Mutolo	318	02
Mutale Greater Tubatse	318	03 03
Groblersdal	320	03
	321	03
Makhuduthamaga Thaharimhi		
Thabazimbi	322	03
Ephraim Mogale	323	03
Fetakgomo	324	03
Modimolle	325	03
Mookgopong	326	03
Molemole	327	03
Greater Letaba	328	03
Moretele	401	04
Madibeng	402	04
Rustenburg	403	04
Moses Kotane	404	04
Kgetleng River	405	04
Ramotshere Moiloa	406	04
Mahikeng	407	04
Ratlou	408	04
Ditsobotla	409	04
Tswaing	410	04
Ventersdorp	411	04
Tlokwe City	412	04
City of Matlosana	413	04
Maquassi Hills	414	04
Mamusa	415	04
Lekwa-Teemane	416	04
Kagisano	417	04
Naledi	418	04
Molopo	420	04
Greater Taung	421	04
Fauressmith	501	05
Smithfield	502	05
Bloemfontein	503	05
Welkom	504	05
Hoopstad	505	05
Bethlehem	506	05
Harrismith / Qwaqwa	507	05
Kroonstad	508	05
Sasolburg	509	05
Ladybrand	510	05
Umgungundlovu	601	06
eThekwini	603	06
Ilembe	604	06
Sisonke	605	06
Zululand	607	06
Umkhanyakude	610	06
Uthukela	612	06
Ugu	613	06
Uthungulu	614	06
Umzinyathi	617	06
Amajuba	618	06
Mt Fletcher	701	07

Mt Ayliff	702	07
Qumbu	703	07
Lusikisiki	704	07
Port St Johns	705	07
Mthatha	706	07
Dutywa	707	07
Elliot	708	07
Barkley East	709	07
Aliwal North	710	07
Queenstown	711	07
Butterworth	712	07
Stutterheim	713	07
East London	714	07
Grahamstown	715	07
Middelburg	716	07
Graaf Reinet	717	07
Port Elizabeth	718	07
Peddie	719	07
Fort Beaufort	722	07
Cofimvaba	723	07
Engcobo	724	07
Mbizana	725	07
Lady Frere	726	07
Maluti	728	07
SV Boland	801	80
SV George	802	80
SV Swellendam	803	80
SV Malmesbury	804	08
SV Vredendal	805	80
SV Beaufort West	806	08
SV Oudtshoorn	807	08
SV Worcester	808	08
Kimberley	901	09
De Aar	902	09
Kuruman	903	09
Springbok	904	09
Calvinia	905	09
Upington	906	09
Mothibistad	907	09

## 3) Local Municipality Codes (Previously called the District Codes)

Local Municipality	Province	Local Municipality Code	State Vet Code
Kruger National Park	Central Government	001	001
Steve Tshwete	Mpumalanga	101	110
Emalahleni	Mpumalanga	102	107
Emakhazeni	Mpumalanga	103	110
Delmas	Mpumalanga	104	107
Mkhondo	Mpumalanga	111	101
Pixley ka Seme	Mpumalanga	112	101
Umjindi	Mpumalanga	122	102
Mbombela	Mpumalanga	123	102
Thaba Chweu	Mpumalanga	131	103
Bushbuckridge	Mpumalanga	134	111/112
Lekwa	Mpumalanga	141	104
Dipaleseng	Mpumalanga	142	104
Msukaligwa	Mpumalanga	151	105
Govan Mbeki	Mpumalanga	152	105
Albert Luthuli	Mpumalanga	161	106
Thembisile	Mpumalanga	171	108
Dr JS Moroka	Mpumalanga	181	108
Nkomazi	Mpumalanga	191	109
Merafong City	Gauteng	209	203
City of Johannesburg	Gauteng	216	202
Mogale City	Gauteng	219	203
Lesedi	Gauteng	221	202
City of Tshwane	Gauteng	224	201
Randfontein	Gauteng	225	203
Emfuleni	Gauteng	231	202
Midvaal	Gauteng	232	202
Westonaria	Gauteng	238	203
Ekurhuleni	Gauteng	250	202
Greater Giyani	Limpopo	331	312
Greater Letaba	Limpopo	332	328
Greater Tzaneen	Limpopo	333	313
Ba-Phalaborwa	Limpopo	334	314
Musina	Limpopo	341	309
Mutale	Limpopo	342	318
Thulamela	Limpopo	343	311
Makhado	Limpopo	344	310
Blouberg	Limpopo	351	304
Aganang	Limpopo	352	305
Molemole	Limpopo	353	327

	T-		
Polokwane	Limpopo	354	307
Lepele-Nkumpi	Limpopo	355	308
Thabazimbi	Limpopo	361	322
Lephalale	Limpopo	362	301
Mookgopong	Limpopo	364	326
Modimolle	Limpopo	365	325
Bela-Bela	Limpopo	366	302
Mogalakwena	Limpopo	367	303
Ephraim Mogale	Limpopo	368	323
Makhuduthamaga	Limpopo	369	321
Fetakgomo	Limpopo	370	324
Greater Tubatse	Limpopo	371	319
Elias Motsoaledi	Limpopo	372	320
Maruleng	Limpopo	373	316
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Ventersdorp	North West	401	411
Tlokwe City Council	North West	402	412
City of Matlosana	North West	403	413
Maquassi Hills	North West	404	414
Moretele	North West	471	401
Local Municipality of Madibeng	North West	472	402
Rustenburg	North West	473	403
Kgetlengrivier	North West	474	405
Moses Kotane	North West	475	404
Ratlou	North West	481	408
Tswaing	North West	482	410
Mafikeng	North West	483	407
Ditsobotla	North West		409
Ramotshere Moiloa	North West	484	406
		485	418
Naledi	North West	492	415
Mamusa	North West	493	
Greater Taung	North West	494	421
Kagisano & Molopo	North West	495	420/417
Lekwa-Teemane	North West	496	416
	F 01.1	504	508
Moqhaka	Free State	501	
Ngwathe	Free State	503	508
Metsimaholo	Free State	504	509
Mafube	Free State	505	509
Letsemeng	Free State	561	501
Kopanong	Free State	562	501/502
Mohokare	Free State	563	502
Naledi	Free State	571	503
Mangaung	Free State	572	503
Mantsopa	Free State	573	510
Masilonyana	Free State	581	504
Tokologo	Free State	582	505
Tswelopele	Free State	583	505

Matjhabeng	Free State	584	504
Nala	Free State	585	505
Setsoto	Free State	591	506
Dihlabeng	Free State	592	506
Nketoana	Free State	593	506
Maluti a Phofung	Free State	594	507
Phumelela	Free State	595	507
Vulamehlo	KwaZulu-Natal	601	613
Umdoni	KwaZulu-Natal	602	613
Umzumbe	KwaZulu-Natal	603	613
UMuziwabantu	KwaZulu-Natal	604	613
Ezingoleni	KwaZulu-Natal	605	613
Hibiscus Coast	KwaZulu-Natal	606	613
uMshwathi	KwaZulu-Natal	607	601
uMngeni	KwaZulu-Natal	608	601
Mpofana	KwaZulu-Natal	609	601
Impendle	KwaZulu-Natal	610	601
The Msunduzi	KwaZulu-Natal	611	601
Mkhambathini	KwaZulu-Natal	612	601
Richmond	KwaZulu-Natal	613	601
Emnambithi/Ladysmith	KwaZulu-Natal	614	612
Indaka	KwaZulu-Natal	615	612
Umtshezi	KwaZulu-Natal	616	612
Okhahlamba	KwaZulu-Natal	617	612
Imbabazane	KwaZulu-Natal	618	612
Endumeni	KwaZulu-Natal	619	617
Nqutu	KwaZulu-Natal	620	617
Msinga	KwaZulu-Natal	622	617
Umvoti	KwaZulu-Natal	623	617
Newcastle	KwaZulu-Natal	624	618
Emadlangeni	KwaZulu-Natal	625	618
Dannhauser	KwaZulu-Natal	626	618
eDumbe	KwaZulu-Natal	627	607
UPhongolo	KwaZulu-Natal	628	607
Abaqulusi	KwaZulu-Natal	629	607
Nongoma	KwaZulu-Natal	630	607
Ulundi	KwaZulu-Natal	631	607
Umhlabuyalingana	KwaZulu-Natal	632	610
Jozini	KwaZulu-Natal	633	610
The Big 5 False Bay	KwaZulu-Natal	634	610
Hlabisa	KwaZulu-Natal	635	610
Mtubatuba	KwaZulu-Natal	636	610
Mfolozi	KwaZulu-Natal	637	614
uMhlathuze	KwaZulu-Natal	638	614
Ntambanana	KwaZulu-Natal	639	614
uMlalazi	KwaZulu-Natal	640	614
Mthonjaneni	KwaZulu-Natal	641	614
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Nkandla	KwaZulu-Natal	642	614
Mandeni	KwaZulu-Natal	643	604
KwaDukuza	KwaZulu-Natal	644	604
Ndwedwe	KwaZulu-Natal	645	604
Maphumulo	KwaZulu-Natal	646	604
Ingwe	KwaZulu-Natal	647	605
Kwa Sani	KwaZulu-Natal	648	605
Greater Kokstad	KwaZulu-Natal	650	605
Ubuhlebezwe	KwaZulu-Natal	651	605
Umzimkhulu	KwaZulu-Natal	652	605
Ethekwini	KwaZulu-Natal	672	603
LUICKWIII	TWaZala Watai	012	
Camdeboo	Eastern Cape	701	717
Blue Crane Route	Eastern Cape	702	715
Ikwezi	Eastern Cape	703	717
Makana	Eastern Cape	704	715
Ndlambe	Eastern Cape	705	715
Sundays River Valley	Eastern Cape	706	718
Baviaans	Eastern Cape	707	717
Kouga	Eastern Cape	708	718
Kou-Kamma	Eastern Cape	709	718
Nelson Mandela Bay	Eastern Cape	711	718
Mbhashe	Eastern Cape	721	707
Mnquma	Eastern Cape	722	712
Great Kei	Eastern Cape	723	714
Amahlathi	Eastern Cape	724	713
Buffalo City	Eastern Cape	725	714
Ngqushwa	Eastern Cape	726	719
Nkonkobe	Eastern Cape	727	722
Nxuba	Eastern Cape	728	722
Inxuba Yethemba	Eastern Cape	731	716
Tsolwana	Eastern Cape	732	716
Inkwanca	Eastern Cape	733	711
Lukanji	Eastern Cape	734	711
Intsika Yethu	Eastern Cape	735	723
Emalahleni	Eastern Cape	736	726
Engcobo	Eastern Cape	737	724
Sakhisizwe	Eastern Cape	738	738
Elundini	Eastern Cape	741	701
Senqu	Eastern Cape	742	709
Maletswai	Eastern Cape	743	710
Gariep	Eastern Cape	744	710
Matatiele	Eastern Cape	749	728
Mbizana	Eastern Cape	751	725
Ntabankulu	Eastern Cape	752	725
Ngquza Hill	Eastern Cape	753	704
Port St Johns	Eastern Cape	754	705
Nyandeni	Eastern Cape	755	705
,		7.00	

Mhlontlo	Eastern Cape	756	703
King Sabata Dalindyebo	Eastern Cape	757	706
Umzimvubu	Eastern Cape	760	702
	·		
City of Cape Town	Western Cape	801	801/804
Cape Agulhas	Western Cape	802	803
Theewaterskloof	Western Cape	803	803
Beaufort West	Western Cape	805	806
Cederberg	Western Cape	807	805
George	Western Cape	808	802
Overstrand	Western Cape	810	803
Saldanha Bay	Western Cape	811	804
Knysna	Western Cape	814	802
Kannaland	Western Cape	815	802
Laingsburg	Western Cape	816	806
Swartland	Western Cape	817	804
Mossel Bay	Western Cape	819	802
Oudtshoorn	Western Cape	821	802
Drakenstein	Western Cape	822	801
Bergrivier	Western Cape	823	804
Hessequa	Western Cape	824	802/803
Langeberg	Western Cape	825	803
Stellenbosch	Western Cape	828	801
Swellendam	Western Cape	831	803
Witzenberg	Western Cape	832	804
Matzikama	Western Cape	836	805
Breede Valley	Western Cape	839	803
Prince Albert	Western Cape	847	806
Bitou	Western Cape	850	802
Moshaweng	Northern Cape	951	907
Ga-Segonyana	Northern Cape	952	903
Gamagara	Northern Cape	953	903
Richtersveld	Northern Cape	961	904
Nama Khoi	Northern Cape	962	904
Kamiesberg	Northern Cape	964	904
Hantam	Northern Cape	965	905
Karoo-Hoogland	Northern Cape	966	905
Khâi-Ma	Northern Cape	967	904
Ubuntu	Northern Cape	971	902
Umsobomvu	Northern Cape	972	902
Emthanjeni	Northern Cape	973	902
Kareeberg	Northern Cape	974	902
Renosterberg	Northern Cape	975	902
Thembelihle	Northern Cape	976	902
Siyathemba	Northern Cape	977	902
Siyancuma	Northern Cape	978	902
Mier	Northern Cape	981	906

Kai !Garib	Northern Cape	982	906
//Khara Hais	Northern Cape	983	906
!Kheis	Northern Cape	984	906
Tsantsabane	Northern Cape	985	903
Kgatelopele	Northern Cape	986	903
Sol Plaatjie	Northern Cape	991	901
Dikgatlong	Northern Cape	992	901
Magareng	Northern Cape	993	901
Phokwane	Northern Cape	994	901

## 4) Disease Codes

Diseas ecode	Disease name	Organism	Abbreviati on
A010	Foot-And-Mouth Disease		FMD
A011	FMD - Virus O		FMD O
A012	FMD - Virus A		FMD A
A013	FMD - Virus C		FMD C
A014	FMD - Virus SAT 1		FMD SAT-1
A015	FMD - Virus SAT 2		FMD SAT-2
A016	FMD - Virus SAT 3		FMD SAT-3
A017	FMD - Virus Asia 1		FMD
A018	FMD - Virus not typed		FMD
A020	Vesicular stomatitis		VS
A021	VS - Virus indiana		VS
A022	VS - Virus New Jersey		VS
A023	VS - Virus not typed		VS
A030	Swine vesicular disease		
A040	Rinderpest		
A050	Peste des petits ruminants		PPR
A060	Contagious bovine	Mycoplasma mycoides subsp.	СВРР
	pleuropneumonia	mycoides	
A070	Lumpy skin disease		LSD
A080	Rift Valley fever		RVF
A081	Wesselsbron disease		
A090	Bluetongue		BT
A100	Sheep pox and goat pox		
A110	African horse sickness		AHS
A111	Equine encephalosis virus		EEV
A120	African swine fever		ASF
A130	Hog cholera (Classical swine fever)		CSF
A150	Avian Influenza: Highly Pathogenic: All HP, H5 And H7 / Fowl Plague		HPAI
A151	Avian Influenza: H6		Al
A152	Avian Influenza: Low Pathogenic : Other		LPAI
A153	Avian Influenza: Non-Pathogenic		
A154	Avian Influenza: Low Pathogenic: H5 or H7		LPAI
A160	Newcastle disease		NCD
B051	Anthrax	Bacillis anthracis	
B052	Aujeszky's disease		
B053	Echinococcosis/hydatidosis	E. granulosis / E. multilocularis	
B055	Heartwater	Ehrlichia (Cowdria) ruminantium	
B056	Leptospirosis	Leptospira spp.	
B057	Q fever	Coxiella burnetii	

B058	Rabies		
B059	Paratuberculosis (Johne's	Mycobacterium avium subsp.	
	disease)	maratuberculosis	
B060	New world screw worm	Cochliomyia hominivorax	
B061	Old world screwworm	Chrysomya bezziana	
B070	Trypanosomoses (Nagana)	Trypanosoma spp.	
B071	Salmonella enteritidis	Salmonella enteritidis	
B101	Anaplasmosis	Anaplasma marginale	
B102	Babesiosis (redwater)	Babesia bovis / Babesia bigemina	
B103	Bovine brucellosis	Brucella abortus	CA
B104	Bovine genital campylobacteriosis	Campylobacter fetus subsp. meneralis	
B105	Bovine tuberculosis	Mycobacterium bovis	ТВ
X105	Human tuberculosis	Mycobacterium tuberculosis	
B106	Cysticercosis	Cysticercus bovis	
B107	Dermatophilosis	Dermatophilus congolensis	
B108	Enzootic bovine leukosis		EBL
B109	Haemorrhagic septicaemia	Pasteurella multocida	
B110	Infectious bovine rhinotracheitis (IBR/IPV)		IBR/IPV
B111	Theileriosis (East coast fever)	Theileria parva parva	ECF
B112	Trichomonosis	Tritrichomonas foetus	
B113	Trypanosomiasis (excluding Nagana, Dourine and Surra)	Trypanosoma spp.	
B114	Bovine malignant catarrhal fever		BMC
B115	Bovine spongiform encephalopathy (bse)		BSE
B130	Benign theileriosis	Theileria taurotragi /mutans/velifera/buffeli	
B131	Corridor disease	Theileria parva lawrencei	
B151	Brucella ovis infection (ovine epididymitis)	Brucella ovis	
B152	Caprine and ovine brucellosis	Brucella mellitensis	
B153	Caprine arthritis/encephalitis		
B154	Contagious agalactia	Mycoplasma agalactiae	
B155	Contagious caprine	Mycoplasma capricolum subsp.	
טוט	pleuropneumonia	capripneumoniae	
B156	Enzootic abortion of ewes	Clamidia	
	(Clamidia)		1
B157	Pulmonary adenomatosis (Jaagsiekte)		
B158	Nairobi sheep disease		
B159	Salmonellosis	Salmonella abortus ovis	
B160	Scrapie		
B161	Maedi-visna		
B170	Sheep scab	Psoroptes ovis	
B201	Contagious equine metritis	Taylorella equigenitalis	CEM
B202	Dourine	Trypanosoma equiperdum	
B203	Epizootic lymphangitis	Histoplasma capsulatum var. farciminosum	

B204	Equine encephalomyelitis		
B204 B205	Equine encephalomyents  Equine infectious anaemia		EIA
B205 B206	Equine influenza (Virus type a)		LIA
	Equine babesiosis (Equine		
B207	piroplasmosis)	Babesia equi / Babesia caballi	
B208	Equine rhinopneumonitis		
B209	Glanders	Burkholderia mallei	
B210	Horsepox		
B211	Infectious arteritis of horses		
B212	Japanese encephalitis		
B213	Horse mange		
B215	Surra	Trypanosoma evansi	
D016	Venezuelan equine	7.	
B216	encephalomyelitis		
B217	West Nile fever		WNF
B251	Atrophic rhinitis	Pasteurella multocida/Bordetella	
	•	bronchiseptica	
B252	Cysticercosis	Cysticercus cellulosae	
B253	Porcine brucellosis	Brucella suis	
B254	Transmissible gastroenteritis of pigs		TGE
B255	Trichinellosis	Trichinella spp.	
B256	Enterovirus encephalomyelitis		
B257	Porcine reproductive and		PRRS
DZ31	respiratory syndrome		PRRS
B270	Porcine pleuropneumonia	Actinobacillus (Haemophilus) pleuropneumoniae	
B301	Avian infectious bronchitis		
B302	Avian infectious laryngotracheitis		
B303	Avian tuberculosis		
B304	Duck virus hepatitis		
B305	Duck virus enteritis (Duck plague)		
B306	Fowl cholera		
B307	Fowl pox		
B308	Fowl typhoid	Salmonella gallinarum	
B309	Gumboro disease (Infectious bursal disease)		
B310	Marek's disease		
B311	Mycoplasmosis	Mycoplasma gallicepticum	
B312	Psittacosis and ornithosis (Chlamydiosis)	y 1 0	
B313	Pullorum disease	Salmonella pullorum	
B314	Pigeon paramixo virus	,	
B351	Myxomatosis		
B352	Tularaemia		
B353	Viral haemorrhagic disease of rabbits		
B401	Viral haemorrhagic septicaemia		VHS
B404	Spring viraemia of carp		SVC

B405	Infectious haematopoietic necrosis		IHN
B408	Bacterial kidney disease		
	(Renibacteriosis)		E. D.
B413	Epizootic haematopoietic necrosis		EHN
B415	Oncorhynchus maso virus disease		OMV
B416	Epizootic ulcerative syndrome		EUS
B420	Infectious pancreatic necrosis		
B421	Koi Herpes Virus		
B431	Bonamiosis		
B432	Haplosporidiosis		
B433	Perkinsosis		
B434	Marteiliosis		
B435	Iridovirosis		
B436	Mikrocytosis	Mikrocytos mackini	
B451	Acariasis of bees		
B452	American foul brood		
B453	European foul brood		
B454	Nosematosis of bees		
B455	Varroasis		
B501	Leishmaniosis	Leishmania spp.	
C610	Besnoitiosis / Elephant skin disease	Besnoitia besnoiti	
C611	Listeriosis	Listeria monocytogenes	
C612	Toxoplasmosis	Toxoplasma gondii	
C613	Melioidosis	Burkholderia pseudomallei	
C614	Blackleg (Sponssiekte)	Clostridium chauvoei	
C615	Botulism	Clostridium botulinum	
C616	Other clostridial infections	Clostridium spp.	
C617	Other pasteurellosis	Pasteurella spp.	
C618	Actinomycosis / Lumpy jaw	Actinomyces bovis	
C619	Intestinal salmonella infections	Salmonella spp.	
C620	Coccidiosis		
C621	Distomatosis (liver fluke)		
C622	Filariasis / Parafilariasis		
C630	Mastitis		
C652	Mucosal disease/bovine viral diarrhoea		BVD
C653	Vibrionic dysentery		
C654	Warble infestation		
C701	Contagious pustular dermatitis		
C702	Foot-rot		
C703	Contagious ophthalmia	Moraxella ovis	
C704	Enterotoxaemia (pulpy kidney)		
C705	Caseous lymphadenitis	Corynebacterium pseudotuberculosis	
C706	Sheep mange		
C720	Goat mange		
C751	Equine coital exanthema		

	T		
C752	Ulcerative lymphangitis		
C753	Strangles	Streptococcus pyogenes	
C754	Salmonellosis	Salmonella abortus equi	
C755	Actinobacillosis / Wooden tongue	Actinobacillus ligniersii	
C801	Swine Erysipelas / Diamond skin disease	Erysipelothrix rhusiopathiae	
C851	Infectious coryza		
C853	Avian encephalomyelitis		
C854	Avian spirochaetosis		
C855	Avian salmonellosis (excluding B308 and B313)	Salmonella spp.	
C856	Avian leukosis		
C900	Bovine ephemeral fever / Three day stiffness		
C901	Mycoplasma bovis	Mycoplasma bovis	
C902	Bovine papilloma		
C921	Canine distemper (use this code for 5in1 vaccination)		
C922	Canine babesioses	Babesia canis	
C923	Canine brucellosis	Brucella canis	
C924	Canine heartworm	Dirofilaria immitis	
C925	Sarcoptic Mange	Sarcoptes scabiei	
C926	Feline panleukopenia (use this code for 3in1 vaccination)		
X105	Human Tuberculosis	Mycobacterium tuberculosis	

## **5) Species Codes**

Species Code	Species Name	Scientific Name
010	Bovine	Bos taurus / Bos indicus
011	Ovine	Ovis aries
012	Caprine	Capra hircus
013	Equine	Equus caballus
X13	Donkey	Equus africanus asinus
014	Suis	Sus scofra
015	Avian	
016	Canine	Canis familiaris
017	Feline	Felis catus
018	Camel	Camelus dromedarius / Camelus bactrianus
019	Caprine and Ovine	bactriarius
031	Fau	
032	Ostrich	Struthio camelus
033	Nile crocodile	Crocodylus niloticus
034	Bats	Orocodylas filloticas
117	Chacma Baboon	Papio ursinus
119	Vervet Monkey	Cercopithecus aethiops
128	Rabbit (Non-Indigenous)	Oryctolagus cuniculus
135	Springhaas	Pedetes capensis
140	Cape Ground Squirrel	Xerus inauris
145	Tree Squirrel	Paraxerus cepapi
146	Grey Squirrel	Sciurus carolinensis
147	Greater Canerat	Thryonomys swinderianus
183	House rat	Rattus rattus
244	Aardwolf	Proteles cristatus
245	Brown Hyaena	Hyaena brunnea
246	Spotted Hyaena	Crocuta crocuta
247	Cheetah	Acinonyx jubatus
248	Leopard	Panthera pardus
249	Lion	Panthera leo
250	Caracal	Felis caracal
251	African Wild Cat	Felis lybica
252	Small Spotted Cat	Felis nigripes
253	Serval	Felis serval
255	Bat-Eared Fox	Otocyon megalotis
256	Wild Dog	Lycaon pictus
257	Cape Fox	Vulpes chama
258	Side-Striped Jackal	Canis adustus
259	Black-Backed Jackal	Canis mesomelas
260	Cape Clawless Otter	Aonyx capensis
262	Honey Badger	Mellivora capensis
263	African Weasel	Poecilogale albinucha
264	Striped Polecat	Ictonyx striatus
266	African Civet	Civettictis civetta
267	Small-Spotted Genet	Genetta genetta
268	Large-Spotted Genet	Genetta tigrina
269	Suricate	Suricata suricatta

070		D ' ' ' ' '
270	Selous' Mongoose	Paracynictis selousi
272	Yellow Mongoose	Cynictis penicillata
273	Large Grey Mongoose	Herpestes ichneumon
274	Slender Mongoose	Galerella sanguinea
275	Small Grey Mongoose	Galerella pulverulenta
277	White-Tailed Mongoose	Ichneumia albicauda
278	Water Mongoose	Atilax paludinosis
279	Banded Mongoose	Mungos mungo
280	Dwarf Mongoose	Helogale parvula
288	Aardvark	Orycteropus afer
289	African Elephant	Loxodonta africana
290	Rock Dassie	Procavia capensis
295	White Rhinoceros	Ceratotheruim simum
296	Black Rhinoceros	Diceros bicornis
297	Cape Mountain Zebra	Equus zebra
298	Zebra	Equus burchellii
299	Bushpig	Potamochoerus porcus
300	Warthog	Phacochoerus aethiopicus
302	Hippopotamus	Hippopotamus amphibius
303	Giraffe	Giraffa camelopardalis
305	Black Wildebeest	Connochaetes gnou
306	Blue Wildebeest	Connochaetes taurinus
307	Lichtenstein's	Sigmoceros lichtensteinii
	Hartebeest	G.g
308	Red Hartebeest	Alcelaphus buselaphus
309	Blesbok/Blesbok	Damaliscus dorcas
310	Tsessebe	Damaliscus lunatus
313	Common Duiker	Sylvicapra grimmia
314	Springbok	Antidorcas marsupialis
318	Steenbok	Raphicerus campestris
322	Impala	Aepyceros melampus
324	Grey Rhebok	Pelea capreolus
325	Roan	Hippotragus equinus
326	Sable	Hippotragus niger
327	Gemsbok	Oryx gazella
328	African Buffalo	Syncerus caffer
329	Kudu	Tragelaphus strepsiceros
331	Nyala	Tragelaphus angasii
332	Bushbuck	Tragelaphus scriptus
333	Eland	Taurotragus oryx
335	Mountain Reedbuck	Redunca fulvorufula
336	Waterbuck	Kobus ellipsiprymnus
FBV	Bovidae	Nobus Gilipsipi yitii lus
FCA	Canidae	
FEL	Elephantidae	
FFE	Felidae	
FGI	Giraffidae	
FHI	Hippopotamidae	
FHR	Hyracoidea	
FHY	7	
	Hyaenidae	
FMU FPM	Mustelidae Primates	
FPR	Protelidae	

FRD	Rodentia	
FRH	Rhinocerotidae	
FVV	Viverridae	
HOM	Man	
X01	Fallow Deer	Dama dama
X02	Reindeer	
X03	Llama	Lama glama
X04	Alpacha	Lama pacos
X05	Ibex (Capra Spp.)	Capra ibex
X06	Water Buffalo	Bubalus bubalis
X07	Indian Elephant	Elephas maximus indicus