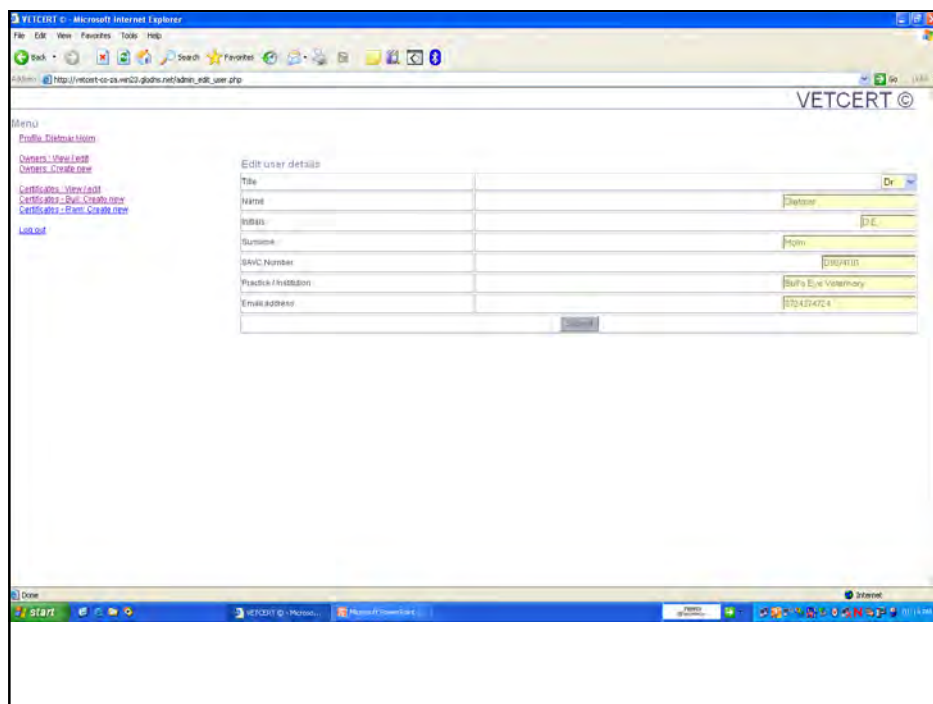
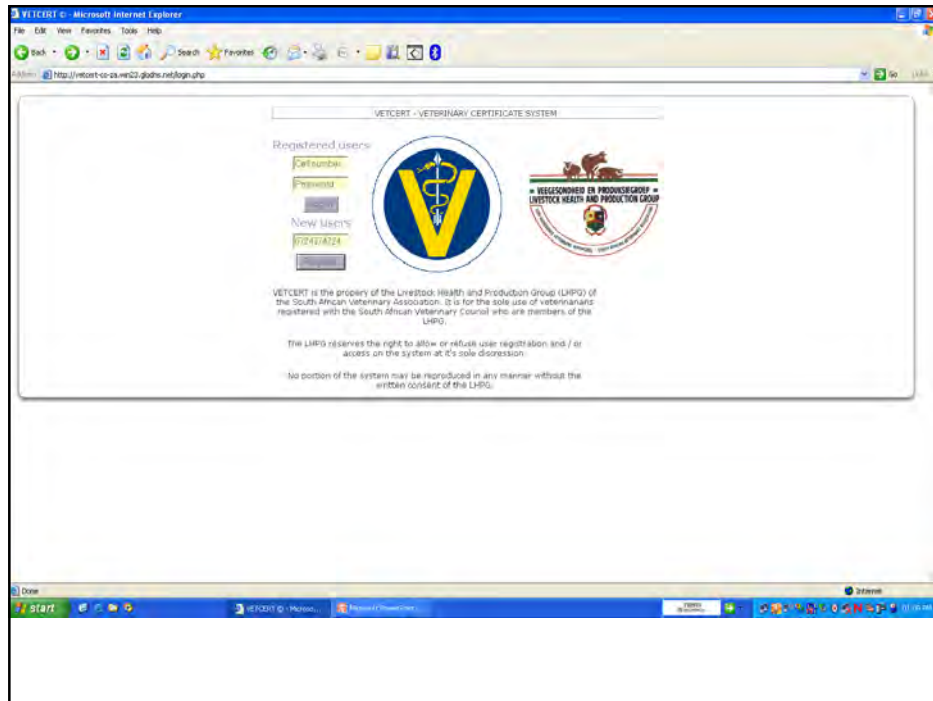


Electronic Bull Certification system (Vetcert)

Dr Dietmar Holm



VETCERT ©

Menu
[Profile](#) [Dashboard](#)
[Owner: View](#) [Add](#)
[Owner: Create](#) [List](#)
[Certificates: View](#) [Add](#)
[Certificates: Edit](#) [Create](#) [List](#)
[Certificates: Edit](#) [Create](#) [List](#)
[Logout](#)

Create owner

Name:

Initials:

Surname:

*Business name (Company/CC etc. if applicable):

Residential / business address / farm:

Province:

Area / City / Town:

Phone number:

Fax number:

Email address:

*Note: If business name is omitted, title, initials and surname will appear on certificates

VETCERT ©

Menu
[Profile](#) [Dashboard](#)
[Owner: View](#) [Add](#)
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[Certificates: Edit](#) [Create](#) [List](#)
[Logout](#)

Edit member:

Name:

Initials:

Surname:

*Business name (Company/CC etc. if applicable):

Residential address / farm:

Province:

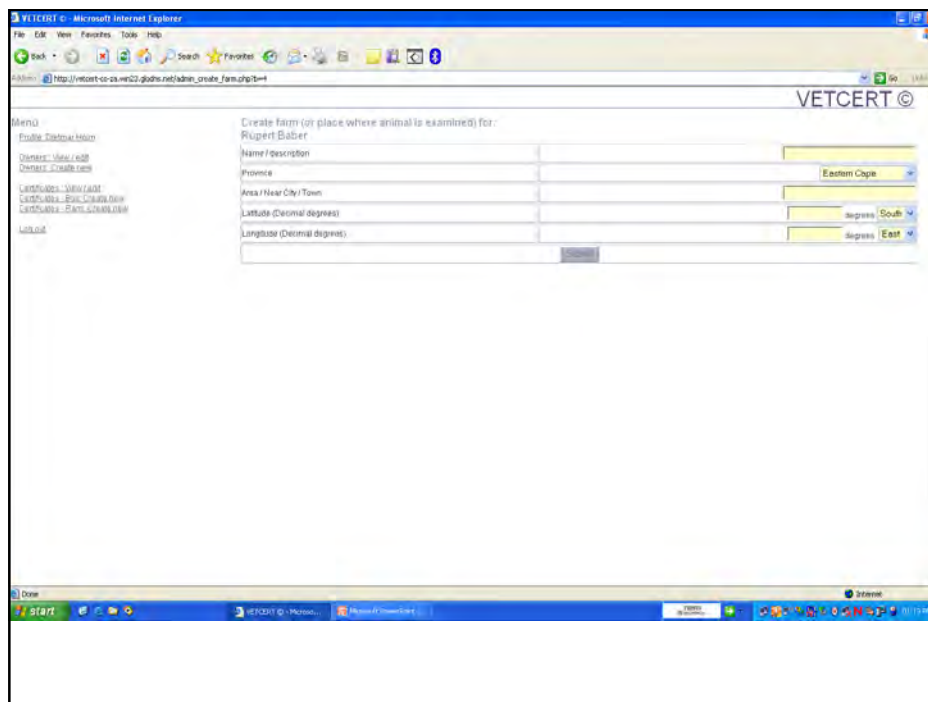
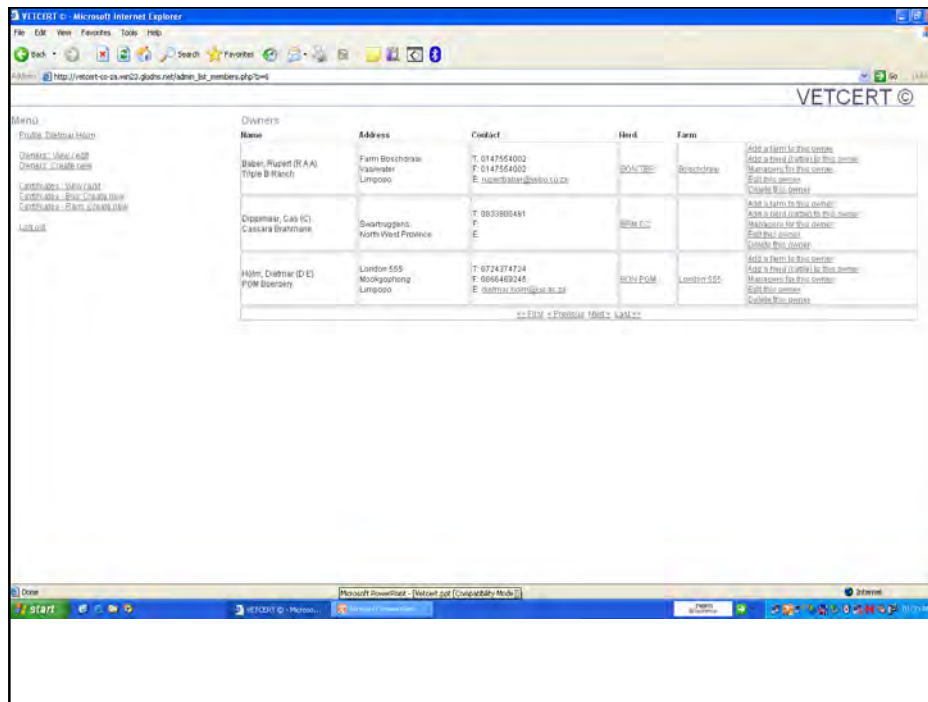
Area / City / Town:

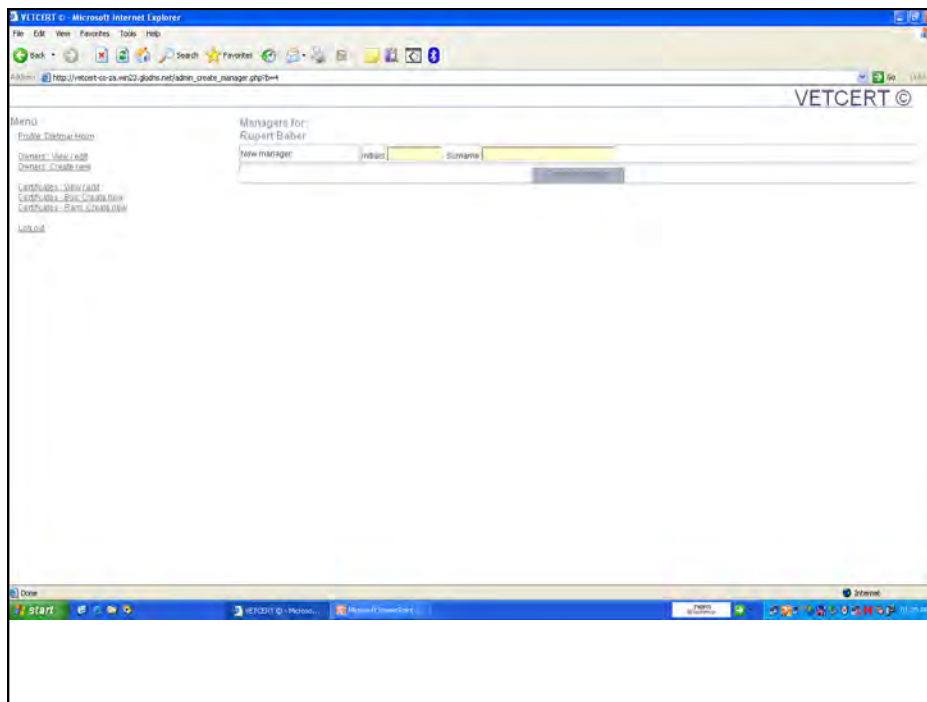
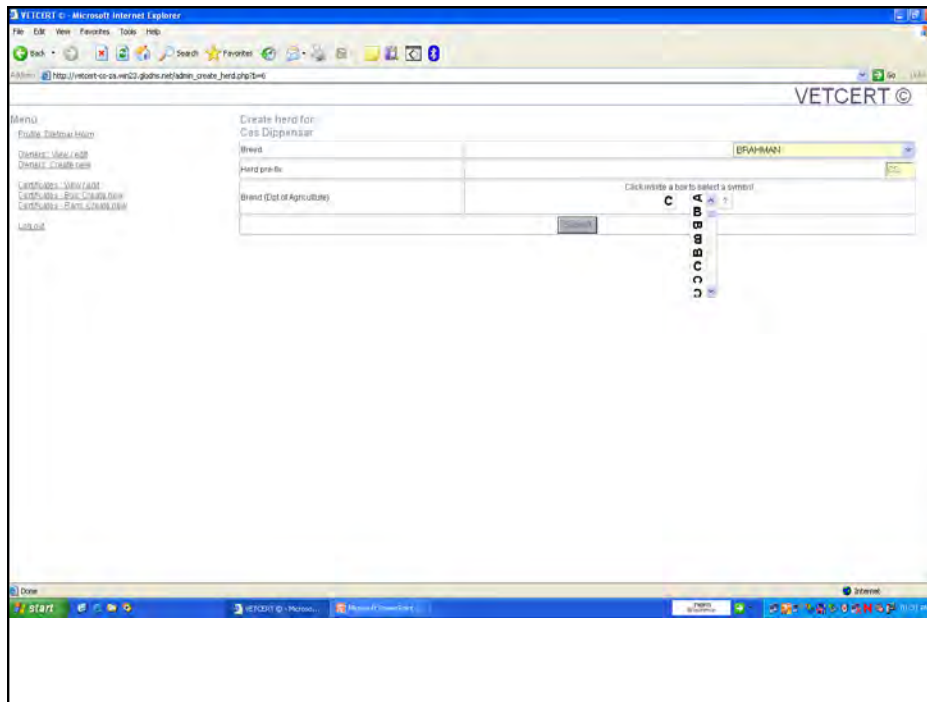
Phone number:

Fax number:

Email address:

*Note: If business name is omitted, title, initials and surname will appear on certificates





VETCERT © Microsoft Internet Explorer

Address: http://vetcert.co.za/m23/globe.net/admin_create_certificate_bull.php

Menu
[Public Dashboard](#)
[Owners_View_List](#)
[Owners_Create_List](#)
[Certificates_View_List](#)
[Certificates_Bull_Create_New](#)
[Certificates_Bull_Create_New](#)
[Logout](#)

Create a new certificate: Bull

Date of examination: (ddmmyyyy)
 Purpose:
 Registered veterinarian:
 Owner of animal:
 Text requested by:
 Location of animal:
 Breed:
 Herd:

Identification of animal

Date of birth: Month: If omitted, will assume 12 Year: 20
 Animal serial number:
 Animal identification number:
 Brand visible on animal (Dpt of Agriculture): Tick if visible

Examinations and tests

General clinical examination	Done <input checked="" type="checkbox"/>	
Detailed clinical examination	Done <input type="checkbox"/> Not done <input type="checkbox"/>	<input type="text"/>
Exam of reproductive system	Done <input checked="" type="checkbox"/>	
Collection and evaluation of semen	Done <input checked="" type="checkbox"/>	
Brucellosis (CA)	Done <input type="checkbox"/> Not done <input type="checkbox"/>	<input type="text"/>
Tuberculosis (TB) (skin test)	Done <input type="checkbox"/> Not done <input type="checkbox"/>	<input type="text"/>
Trichomonas (Sheath washed / scraping)	Done <input type="checkbox"/> Not done <input type="checkbox"/>	<input type="text"/>
Canine/Warfarinosis (Sheath washed / spraying)	Done <input type="checkbox"/> Not done <input type="checkbox"/>	Number of tests: <input type="text"/>

VETCERT © Microsoft Internet Explorer

Address: http://vetcert.co.za/m23/globe.net/admin_create_certificate_bull.php

Menu
[Public Dashboard](#)
[Owners_View_List](#)
[Owners_Create_List](#)
[Certificates_View_List](#)
[Certificates_Bull_Create_New](#)
[Certificates_Bull_Create_New](#)
[Logout](#)

Create a new certificate: Bull

Date of examination: (ddmmyyyy)
 Purpose:
 Registered veterinarian:
 Owner of animal:
 Text requested by:
 Other party if not owner or manager:
 Location of animal:
 Location of animal if not on owner's property:
 Breed:
 Herd:

Identification of animal

Date of birth: Month: If omitted, will assume 12 Year: 20
 Animal serial number:
 Animal identification number:
 Tattoo visible on animal: Tick if visible
 Brand visible on animal (Herd ID): Tick if visible
 Brand visible on animal (Dpt of Agriculture): Tick if visible

Examinations and tests

General clinical examination	Done <input checked="" type="checkbox"/>	
Detailed clinical examination	Done <input type="checkbox"/> Not done <input type="checkbox"/>	<input type="text"/>
Exam of reproductive system	Done <input checked="" type="checkbox"/>	
Collection and evaluation of semen	Done <input checked="" type="checkbox"/>	
Brucellosis (CA)	Done <input type="checkbox"/> Not done <input type="checkbox"/>	<input type="text"/>

VETCERT © - Microsoft Internet Explorer

Address: http://vetcert.co.za/ve23/gbdu.net/index_create_certificate_full.php

Brand visible on animal (Dept of Agriculture) **CC** Tick if visible

Examinations and tests

General clinical examination	Done <input checked="" type="checkbox"/>	
Detailed clinical examination	Done <input type="checkbox"/> Not done <input type="checkbox"/>	
Exam of reproductive system	Done <input checked="" type="checkbox"/>	
Collection and evaluation of semen	Done <input checked="" type="checkbox"/>	
Brucellosis (CA)	Done <input checked="" type="checkbox"/> Not done <input type="checkbox"/>	
Tuberculosis (TB) (skin test)	Done <input checked="" type="checkbox"/> Not done <input type="checkbox"/>	
Tetichomonos (Sheath washed / scraping)	Done <input checked="" type="checkbox"/> Not done <input type="checkbox"/>	Number of tests: <input type="text"/>
Campylobacteriosis (Sheath washed / scraping)	Done <input checked="" type="checkbox"/> Not done <input type="checkbox"/>	Number of tests: <input type="text"/>
Eropicotic Bovine Leucosis Virus (Blood test)	Done <input type="checkbox"/> Not done <input type="checkbox"/>	
Bovine Viral Diarrhoea (BVD) antigen test	Done <input type="checkbox"/> Not done <input type="checkbox"/>	
Mating ability	Done <input type="checkbox"/> Not done <input type="checkbox"/>	
Scrotal circumference (SC)	Done <input checked="" type="checkbox"/> Not done <input type="checkbox"/>	Millimeters: <input type="text"/>

Additional remarks

Other tests

Other remarks

Done

VETCERT © - Microsoft Internet Explorer

Address: http://vetcert.co.za/ve23/gbdu.net/index_create_certificate_full.php?i=0

Menu

- Home - Dashboard
- Reports - Veterinarian
- Reports - Clients
- Certificates - View all
- Certificates - Bulk Create/Import
- Certificates - View - Create new
- Logout

Create a new certificate: Bull

Date of examination: Date: 24/02/11 (ddmmyyyy)

Purpose: To be sold / own use

Registered veterinarian: Dr D E Holm (D09/4101)

Owner of animal: Oppenaar, C (Oscar Brahmans)

Text requested by: C Oppenaar

Other party if not owner or manager:

Location of animal:

Location of animal if not on owner's property:

Herd:

Herd:

Identification of animal

Date of birth: Month: If omitted, will assume 12, Year 20

Animal serial number:

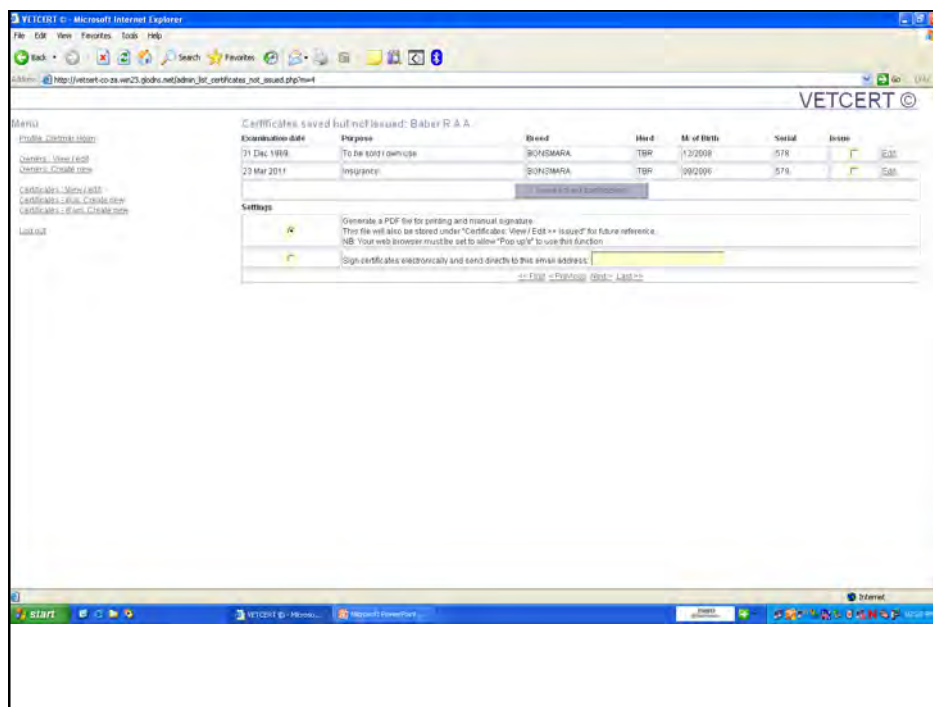
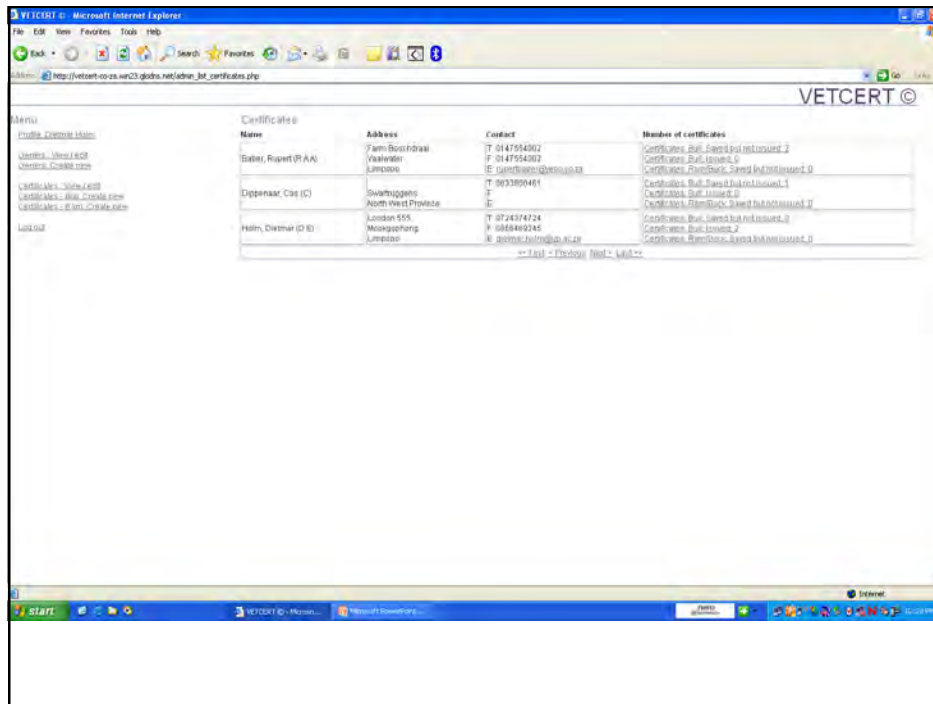
Animal identification number:

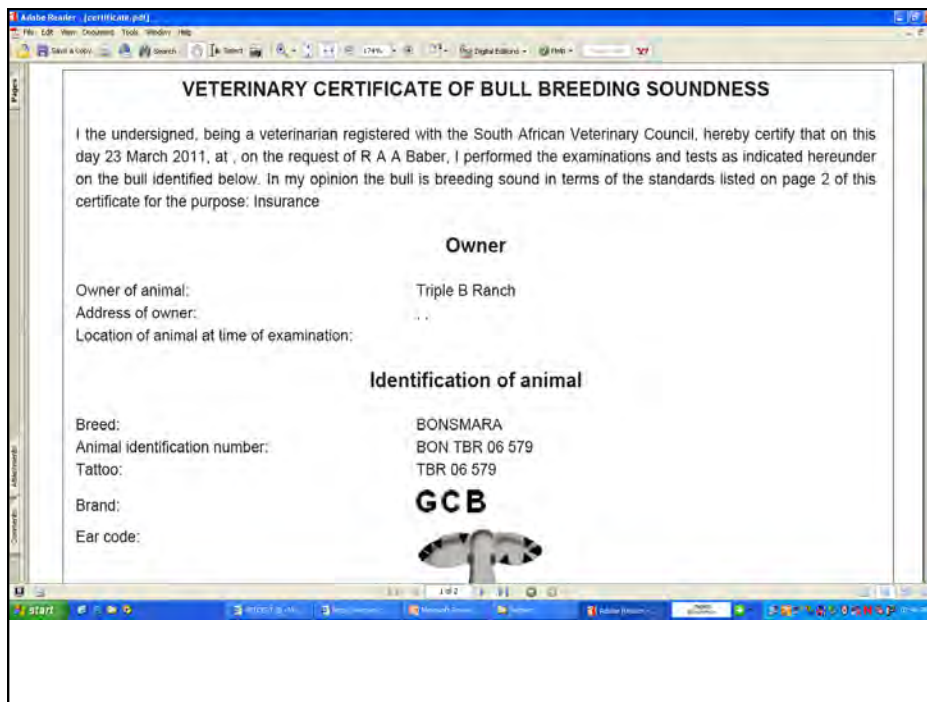
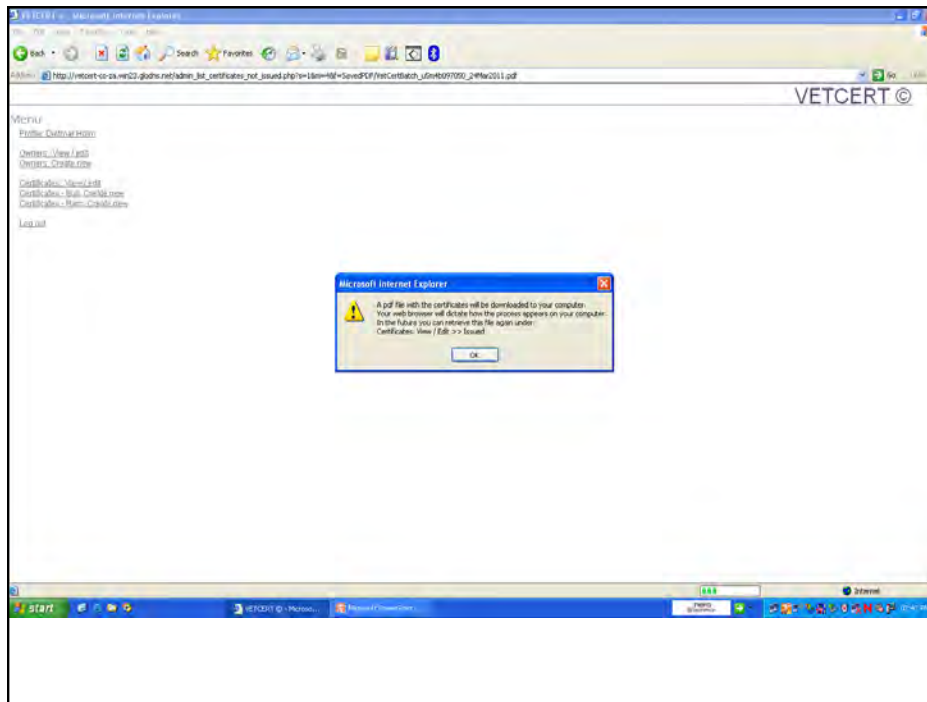
Brand visible on animal (Dept of Agriculture) Tick if visible

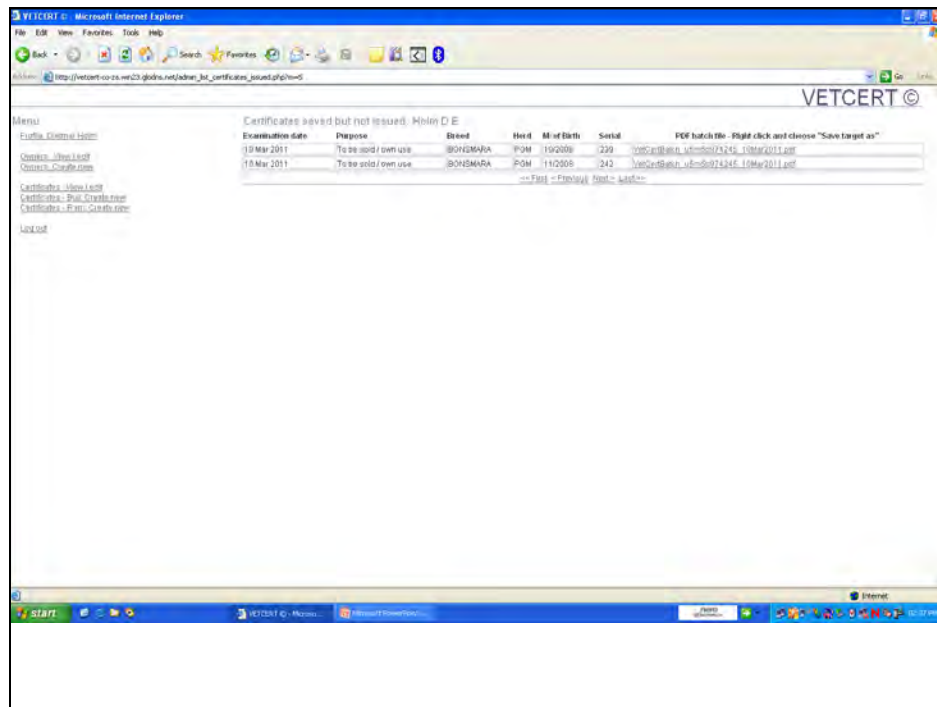
Examinations and tests

General clinical examination	Done <input checked="" type="checkbox"/>	
Detailed clinical examination	Done <input type="checkbox"/> Not done <input type="checkbox"/>	
Exam of reproductive system	Done <input checked="" type="checkbox"/>	
Collection and evaluation of semen	Done <input checked="" type="checkbox"/>	
Brucellosis (CA)	Done <input checked="" type="checkbox"/> Not done <input type="checkbox"/>	
Tuberculosis (TB) (skin test)	Done <input checked="" type="checkbox"/> Not done <input type="checkbox"/>	

Done









Clostridial Diseases in Sheep and Cattle


Dr Dudley Gradwell



Clostridial Diseases in Sheep and Cattle



9th September 2011
Dudley Gradwell






Clostridia

- Clostridia - anaerobic bacteria
- Produce most dangerous biological toxins

LD 50 (sp/ml)

1000	Mygale spider or cholera
100	Cobra
10	Pseudomonas aeruginosa
1	Alpha toxin <i>Cl. perfringens</i>
0,1	Diphtheria
0,01	Tetanus
0,001	Botulism







Clostridia

Three groups

- Nervous**
Botulism
Tetanus
- Muscles**
Quarter evil
Malignant oedema
- Intestinal canal**
Redgut
Bloodgut
P.K.







Myositis

Gas gangrene, Muscle necrosis, Malignant oedema, Quarter evil


- *Clostridium chauvoei* – “True” sponssiekte
- *Clostridium perfringens* type A, B, D
- *Clostridium septicum*
- *Clostridium novyi* type A, B
- *Clostridium sordellii* ????



Myositis




Cl. chauvoei + *Cl. perfringens*
+ *Cl. septicum*




Gangrenous mastitis: *Cl. perfringens* type A




Black's disease: *Cl. novyi*




Myositis - True sponssiekte



Black muscle: dead tissue



Sponssiekte: Heart



Black muscle: dead tissue

Myositis - True sponssiekte

3) Blood stream

2) Intestinal canal

4) Muscle tissues

1) Intake of spores of *Cl. chauvoei*

5) Bruising of muscle tissue leading to anaerobic conditions

Myositis - True sponssiekte

- Organism
 - *Cl. Chauvoei*
- Clinical signs
 - Animal dead in veld
 - High temperature
 - Inappetance
 - Lamé, swelling and crepitation of one or more legs
 - Sudden death especially if internal organs affected

Myositis - Sponssiekte

Gas gangrene, Muscle necrosis, Malignant oedema, Quarter evil...

Myositis - Sponssiekte

1) Deep wounds
injections, horns, castration...
 Caiving
 Skin erosions
 Operation wounds

2) Muscle tissues

Small deep wound causes anaerobic conditions

Myositis - Sponssiekte

- Organisms
 - *Clostridium perfringens* type A,B, D
 - *Clostridium chauvoei*
 - *Clostridium septicum*
 - *Clostridium novyi* type A, B
 - Mixed infections
- Clinical signs
 - Animal dead in veld
 - High temperature
 - Inappetance.
 - Lamé, swelling and crepitation of one or more legs

Typical mixed infection


Myositis

Conclusion

- Diagnosis (based on symptoms and necropsy) between true Sponssiekte and other types of gas gangrene is impossible
- In the case of mixed infections, it is even more difficult to differentiate

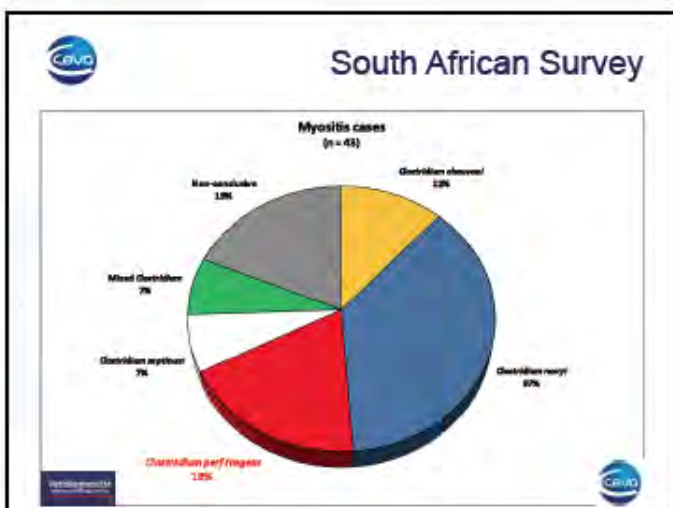
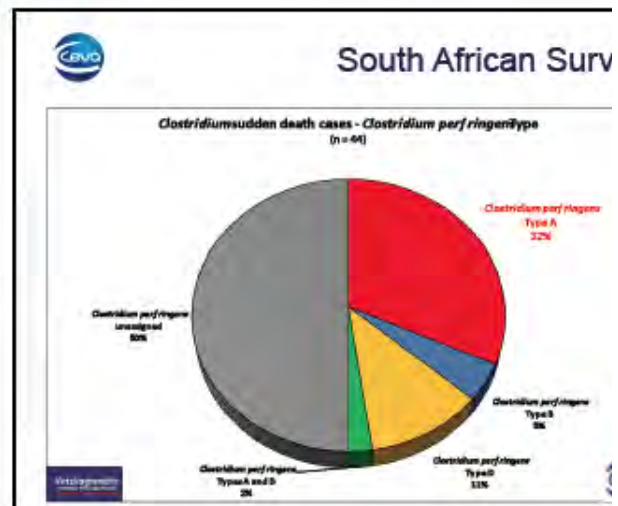
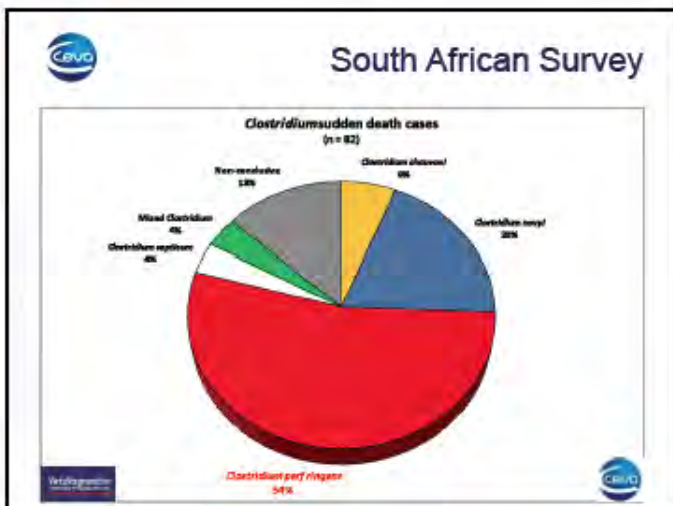
Myositis

- *Cl. sordellii* is always present in animals
- *Cl. sordellii* grows easily and is often grown from sick and dead animals
- *Cl. sordellii* is pathogenic for humans
- All *Cl. sordellii* strains isolated in Europe do not have the gene to produce lethal toxin
- IP or IM injection of *Cl. sordellii* from cattle do not produce lesions in lab animals




South African Survey

- Ruminants
- Samples collected by veterinarians
- Analysis done by Dr. Rick Last and VetDiagnostix team
- Tests
 - FAT and other staining on impression smears
 - Histopathology
 - Cultures (charcoal swab, tissue, pedema fluid)
 - ELISA typing (*Cl. perfringens* / *Cl. novyi*)
- On going survey, 100 + samples to date



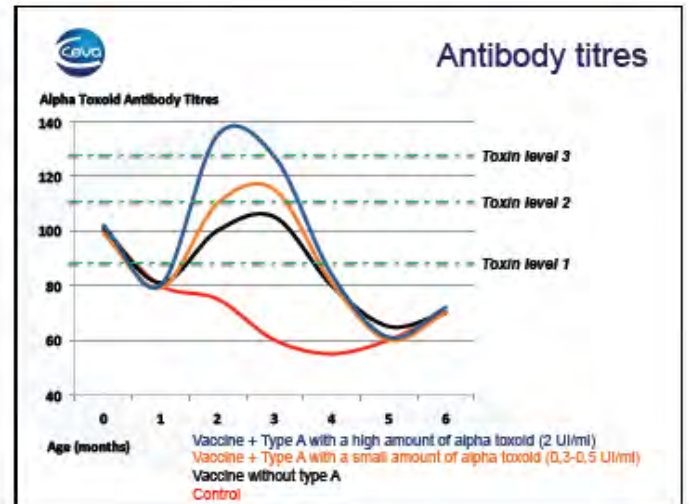
Coglav

Composition	Concentration
<i>Cl. perfringens</i> type A, C and D:	
Alpha toxoid	2 IU/ml
Beta toxoid	10 IU/ml
Epsilon toxoid	5 IU/ml
<i>Cl. septicum</i> toxoid	2.5 IU/ml
<i>Cl. novyi</i> type B toxoid	3.5 IU/ml
<i>Cl. fetani</i> toxoid	2.5 IU/ml
<i>Cl. chauvoei</i>	90% protection in guinea pigs
Aluminium hydroxide	0.6 – 0.8%



Toxin production

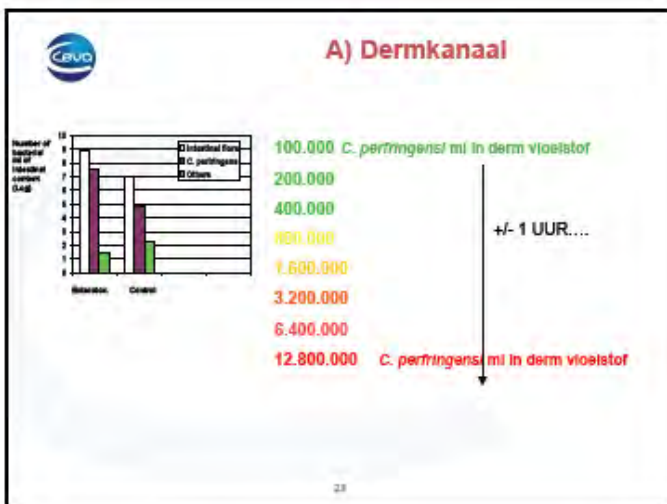
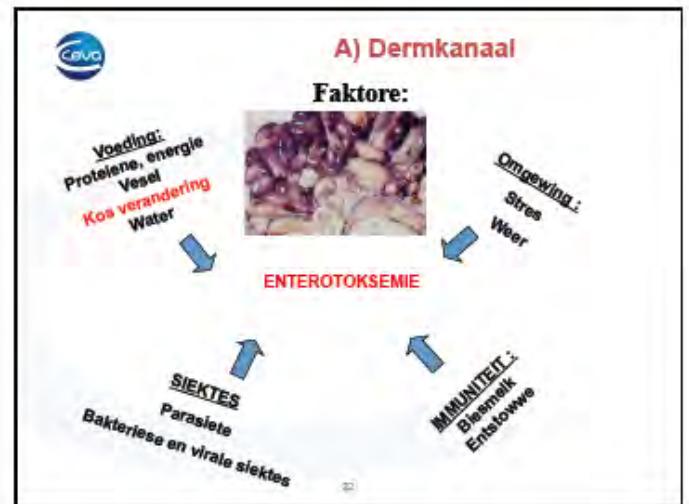
<i>Clostridium perfringens</i>	Type A	Type B	Type C	Type D
Alpha (α)	++++	+	+	+
Beta (β)	-	+++	+++	-
Epsilon (ε)	-	++	-	+++

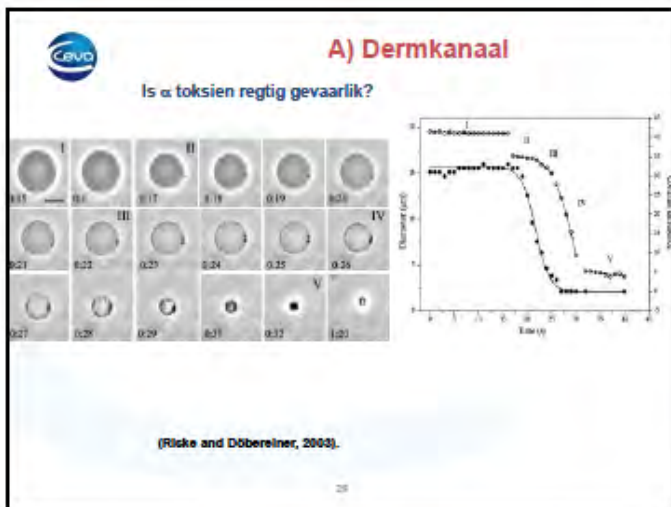
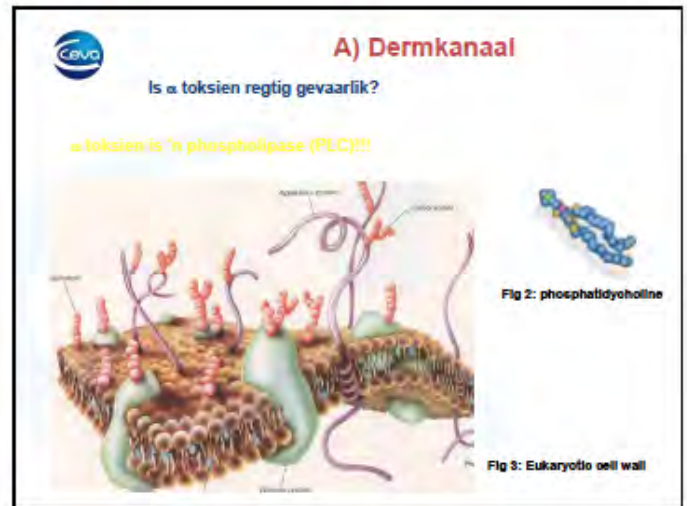
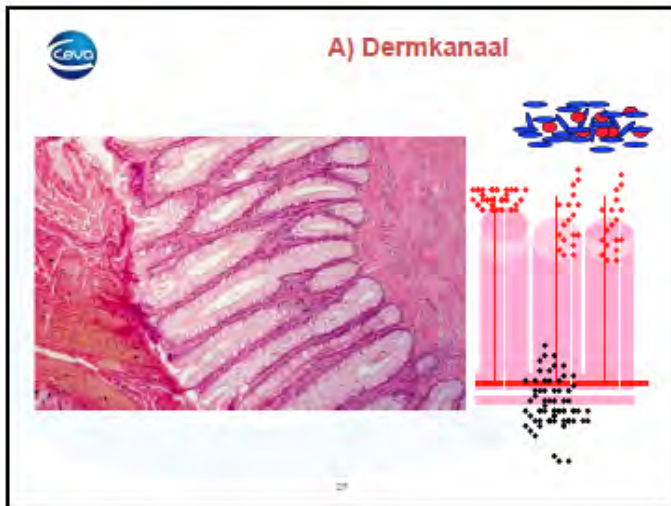
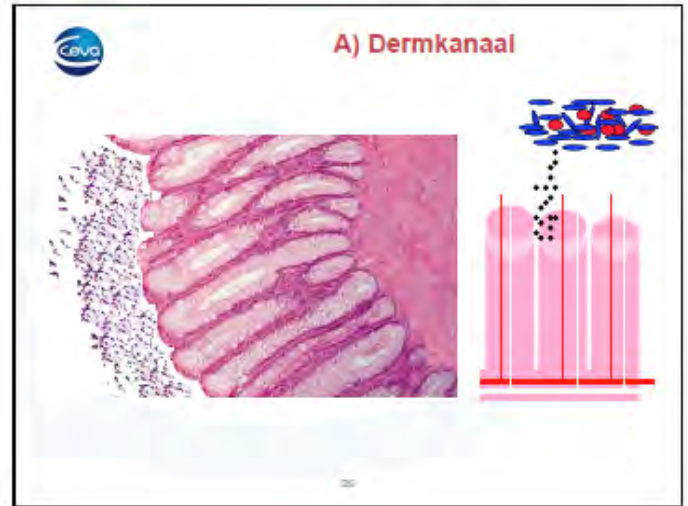
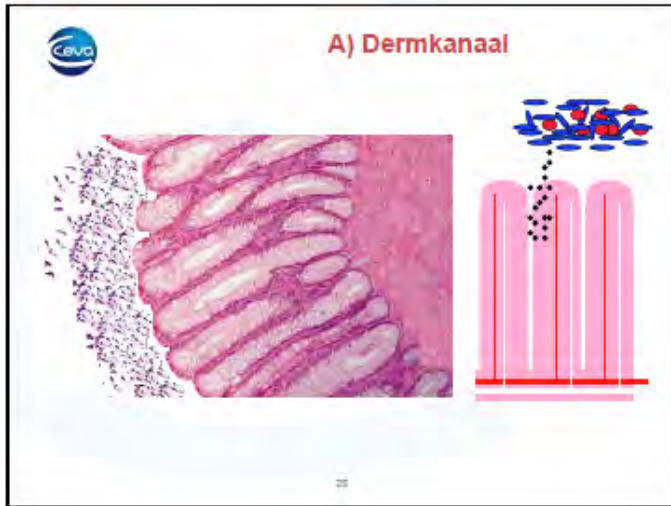


4. Dermkanaal

Clostridium perfringens tipe A, B of D

- A) Rooierd/Bloedderm
- B) Kalf diarree: Soos *E.coli*
- D) Bloednier





Toxin production

<i>Clostridium perfringens</i>	Type A	Type B	Type C	Type D
Alpha (α)	++++	+	+	+
Beta (β)	-	+++	+++	-
Epsilon (ϵ)	-	++	-	+++

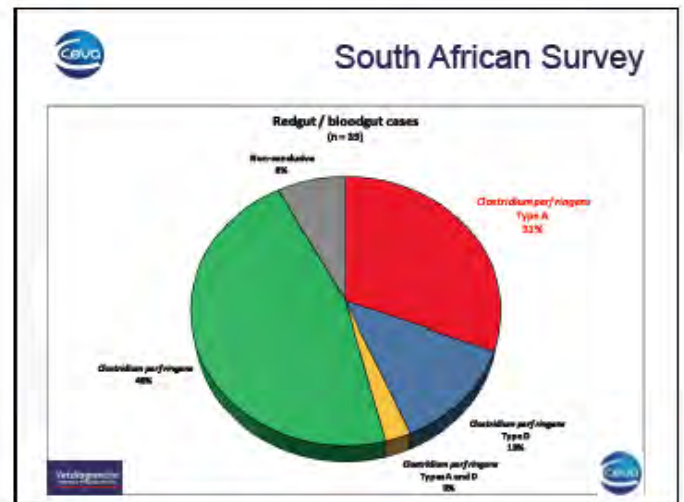
 **A) Dermkanaal**


**Suid Afrikaanse opname in skape
2009/2010**

✓ α toksien veroorsaak 50% vrektes van ons
sogenaamde "bloednier" in skape

✓ Speel α toksien 'n rol in ons kalf diaree ??


33



 **B) Clostridiale diaree in kalfies**

Organismes in 71 diaree kalfies:

Organisme	Frekwensie N= 71
Patogeniese <i>E. coli</i>	51%
<i>Salmonella</i> sp.	0
α toksin vanaf <i>C. perfringens</i>	10%
<i>Cryptosporidium parvum</i>	32%
Rotavirus	27%
Coronavirus	15%
BVD	3%

 **Thank you for your attention**

Any questions ????????

