



Local Land  
Services  
Northern Tablelands

# Diseases of Livestock Associated with Spring/Summer Pasture

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Northern Tablelands Local Land Services

*Northern Tablelands Pasture Group - September 16<sup>th</sup> 2021*

# A few basic thoughts.....

- Animals eat all sorts of plants + weeds + **soil**
- Plants have different needs from animals
- Plant composition - varies with age
- Rumen microbes need time to adapt = 10-14d
- Plants metabolism - varies with weather
- Pasture = food + parasites, poisons, infections, snakes
- K induces mineral imbalance
- Sunlight / weather
- Change is biggest threat



# Disease groups

- infectious disease
  - deficiency disease
  - heredity disease
  - physiological disease
  - poisons
- 
- Causal organism
- 
- Endemic diseases
    - on a property
    - in a region
    - in Australia
- 
- Exotic diseases
    - from overseas
    - Transboundary diseases
- 
- Zoonoses



# Holistic Epidemiology

Bacteria, Virus, Rickettsia  
Moulds and fungi, Prions,  
Parasites, Toxins  
**Life cycle + incubation period**

Population

Agent

**Plant + Animal**  
Species, Breed-Age-Sex  
Resistance  
(natural or acquired)  
Nutritional status

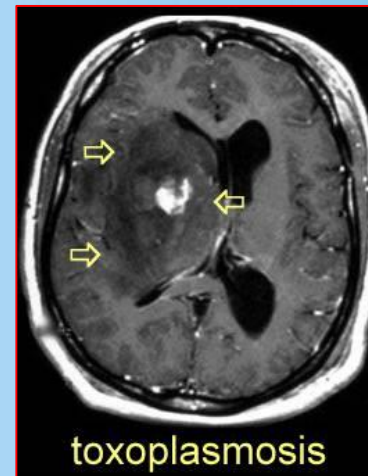
**RISK  
MANAGEMENT**

Environment

**National + Local**  
Soil, Hygiene, Carriers,  
Pests, Boundaries,  
Livestock Movement,  
Treatments, Quarantine

# Grouping based on - Cause

- Digestion Upsets
- Gut diseases
- Plant poisons
- Metabolic diseases
- Pasture issues
- Water
- Fungi
- Parasites / flies
- Other diseases





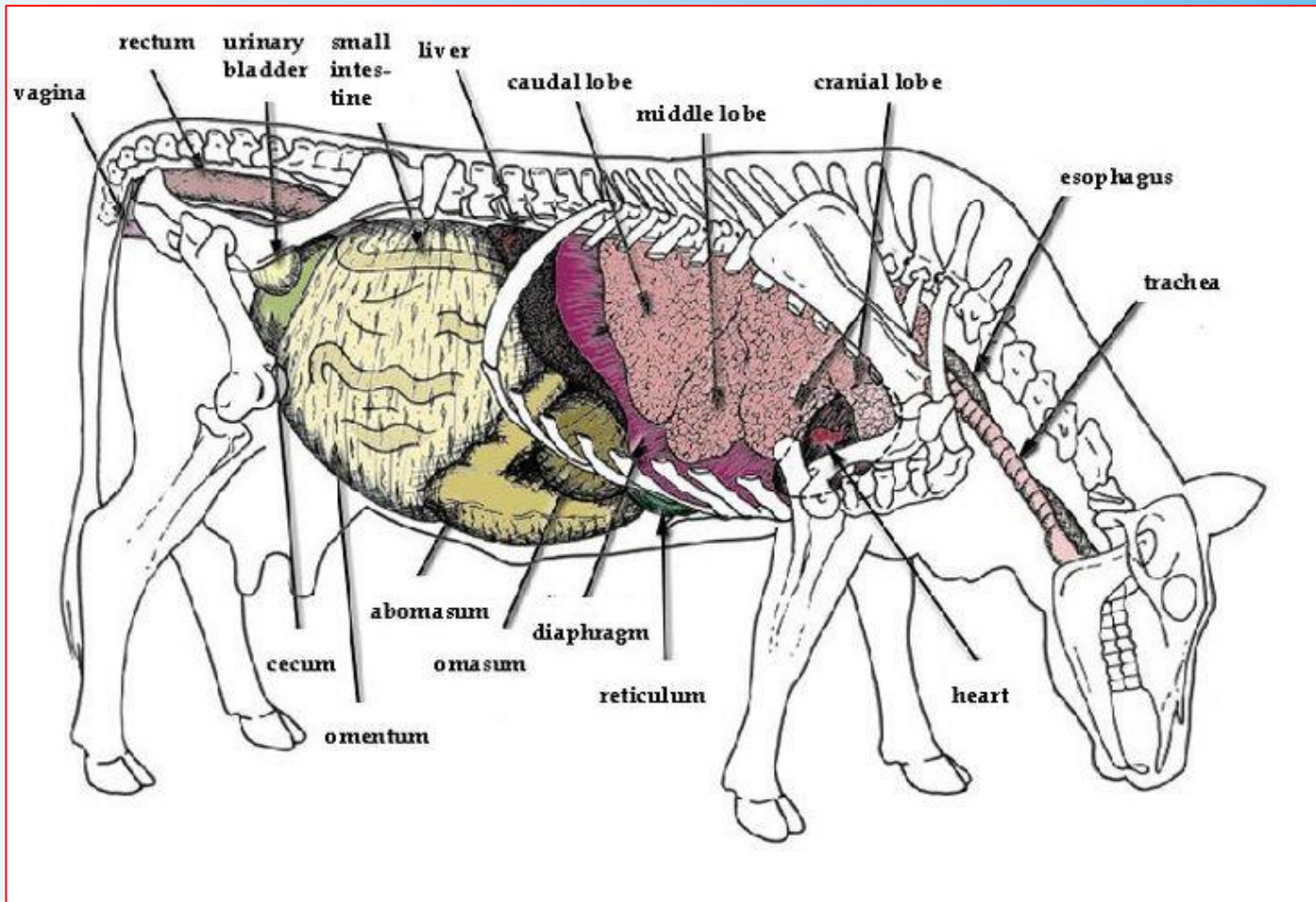
# Syndromes seen by Producers



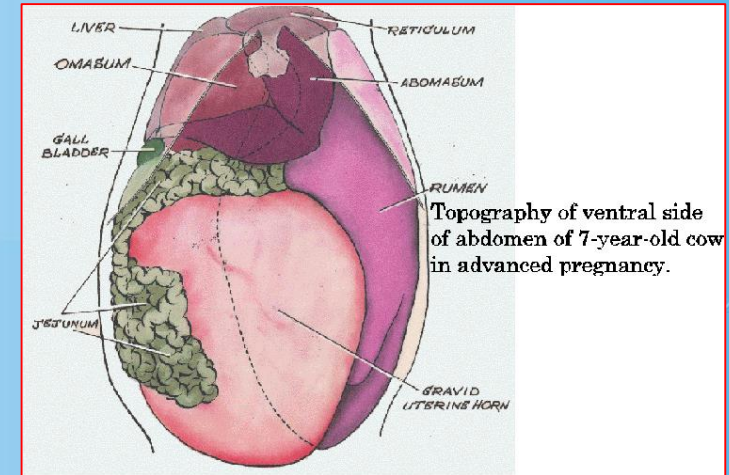
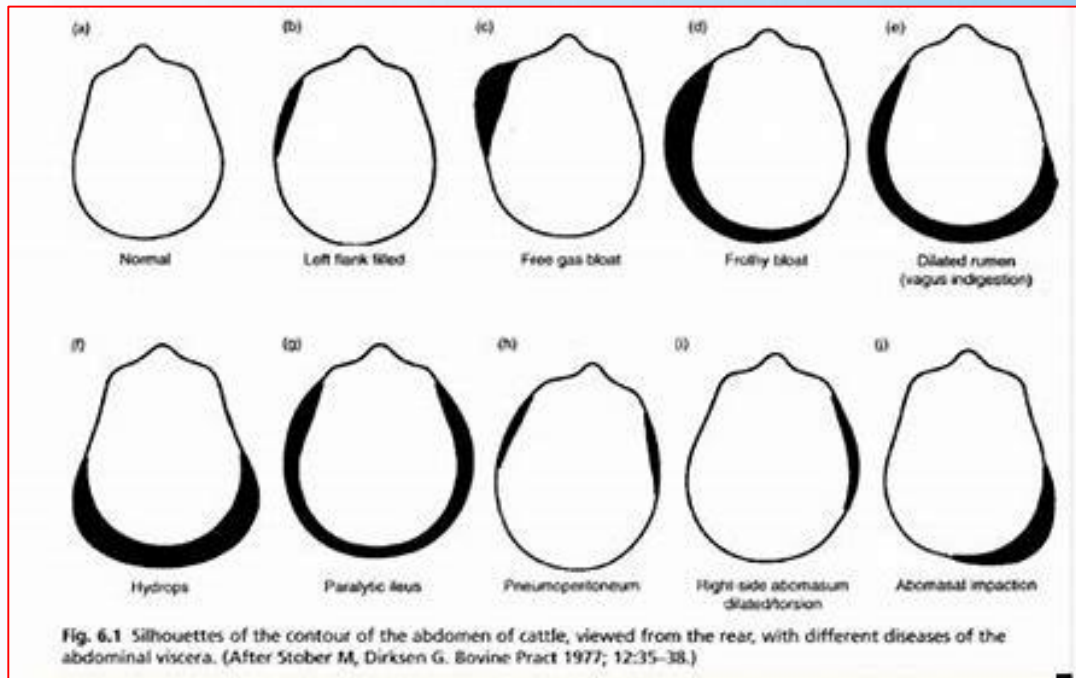
- **Faecal abnormality** – Diarrhoea / constipation
- **Bloat** – abnormal abdomen shape
- **Death** – sudden / slow
- **Nervous disease** – tetanus, twitching, posture
- **Skin disease** – red, sore, lumps, scabs
- **Ill-thrift** – poor production
- **Reproduction** – lambing, calving, cleansing
- **Lameness** – foot, leg, CNS
- **Respiratory** – coughs, discharges
- **Eyes** – red, yellow, weeping, cancer
- **Lumps** – abscess, growth, urine,



# Basic Anatomy

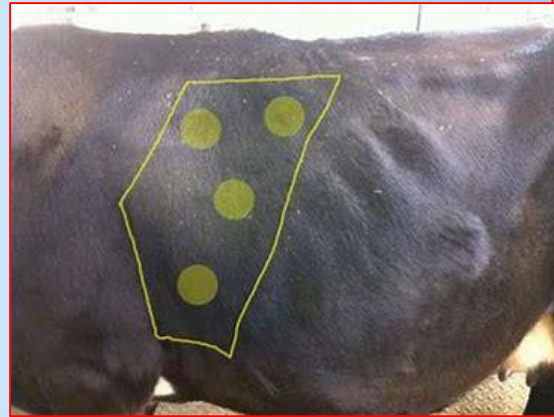


# Anatomy – Belly shape



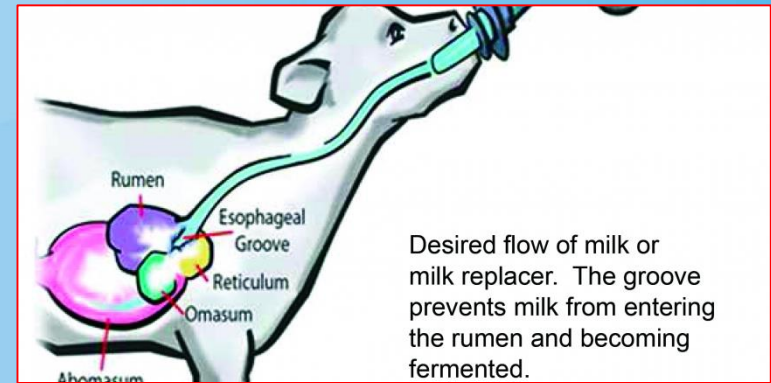
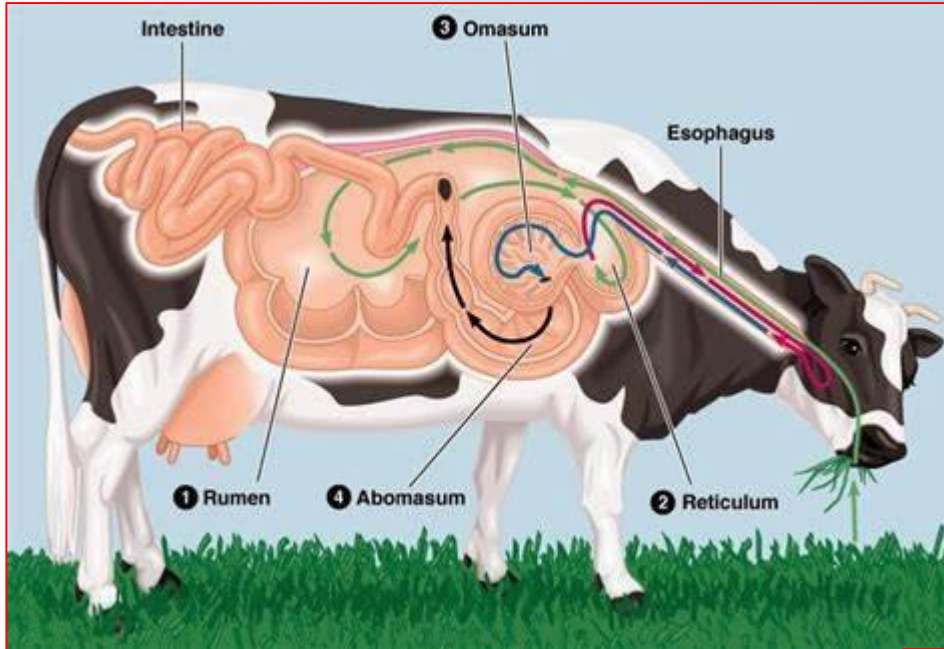


# Temperature.....

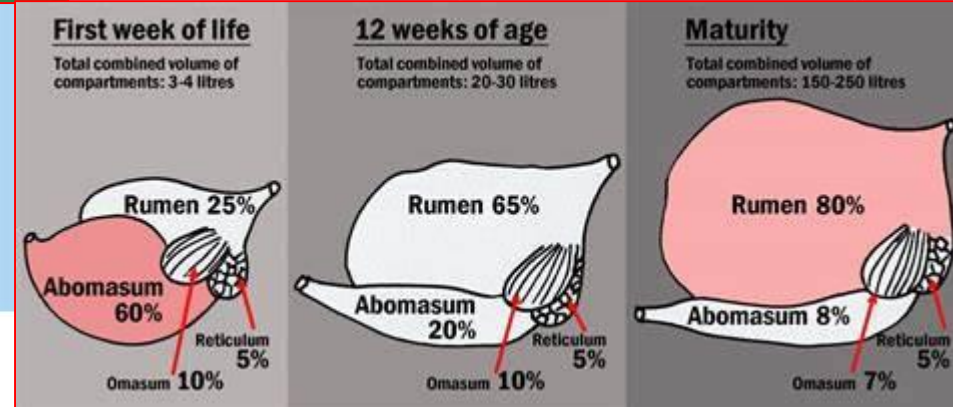
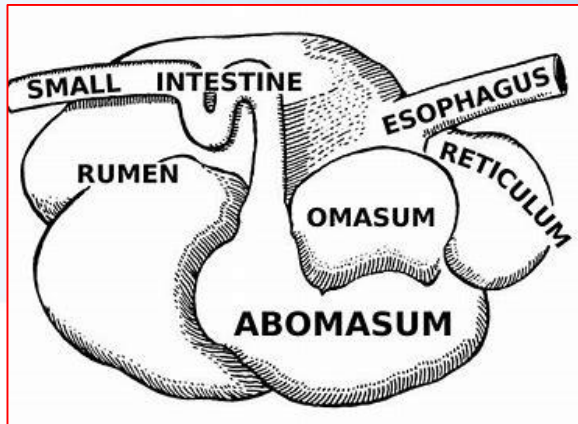


Animal	Body Temperature (°C)	Pulse (beats per minute)	Respiration (breaths per minute)
Sheep	38.9	75 (60 – 120)	16 (12 – 20)
Cattle	38.6	70 (40 – 100)	31 (27 – 40)
Goat	39.3	90 (70 – 135)	19
Horse	37.8	44 (23 -70)	12 (11 – 14)
Alpaca	39.5	75 (60-90)	25 (20 – 30)

# Digestion Cattle, Sheep and Goats

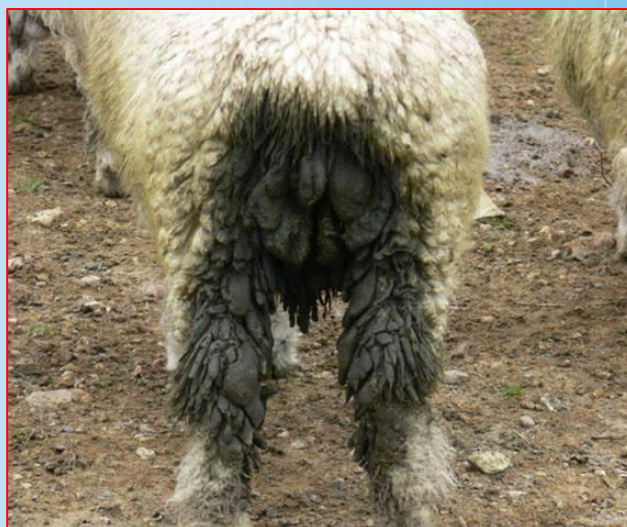
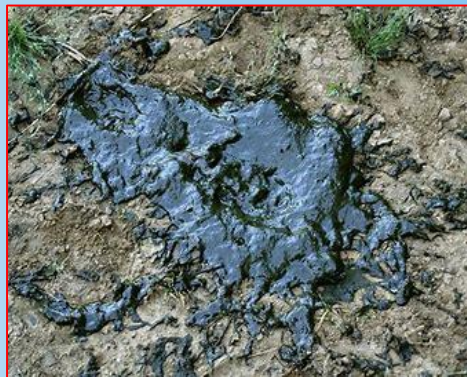


Desired flow of milk or milk replacer. The groove prevents milk from entering the rumen and becoming fermented.





# Faeces



# How Do Diseases Spread

- Carried by:
  - Livestock.
    - Alive, dead, blood, meat, discharges, dung
  - People – boots, clothes hands, breath. **Hygiene**
  - Vehicles – tyres, chassis, dirt
  - Feed and water.
    - Toxins, weeds, algae, parasites, ???
  - Feral animals – toxoplasma, hydatid, brucellosis, leptospirosis
  - On the wind – FMD, pneumonia
  - Vectors – HPAI, Bluetongue, Akabane





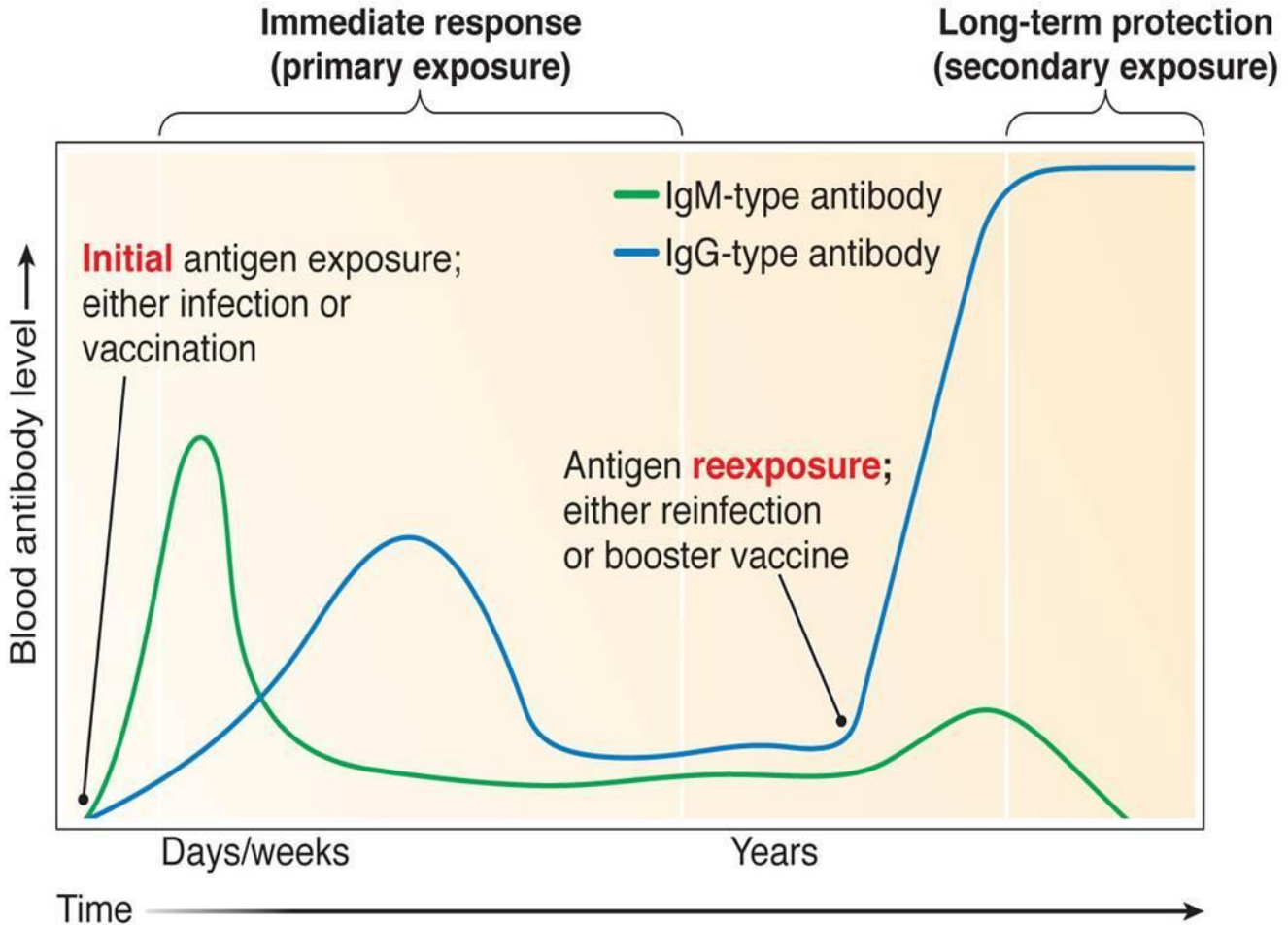


# Preventive Medicine

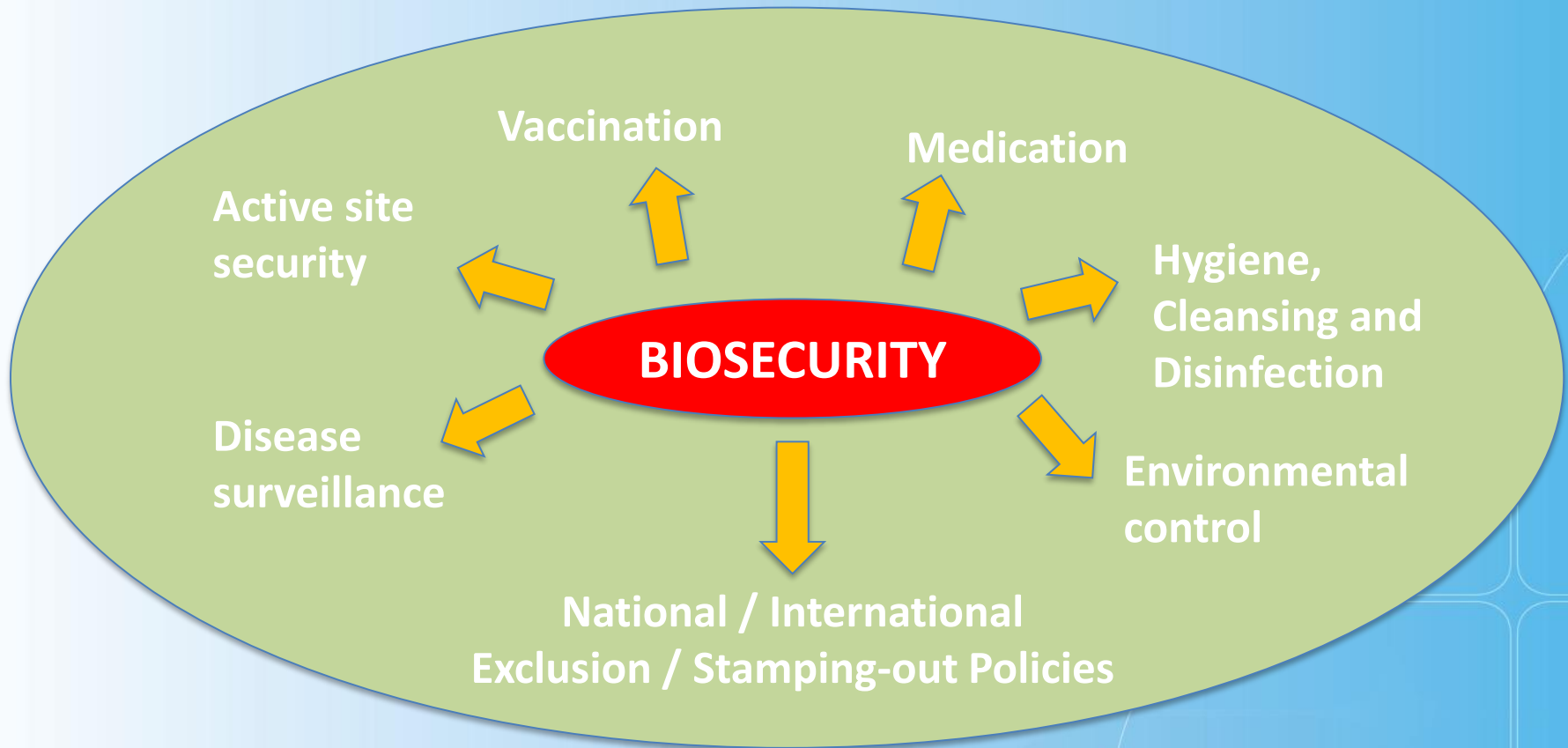
- **Applied Science** – measure weight, blood
- **Property protection** – quarantine, health cert
- **Vaccine** – 5-in-1 v 8-in-1 v 7-in-1
  - pesti, vibrio, lepto, et al
- **Minerals** – Rock Salt = NaCl - 365d per year
  - Lime =  $\text{CaCO}_3$  + Causmag = MgO
  - Selenium
- **Water** – dirt, minerals + algae
- **Pasture Inspection** – nitrates, endophytes, *Hypericum*, etc
- **Nutrition** – preg tox, energy v bulk, urea supplements
- **Parasite** – DIY egg counts
- **Fly control** – holistic, chemical
- **PME**

# The body responds to Antigens with Immunity.....

## Natural + Acquired



# ON-FARM BIOSECURITY





# Nigel Brown Contact Details

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- Diagnostic advice
- Prevention advice
- Training – worm egg, basic veterinary skills
- Presentations for groups etc