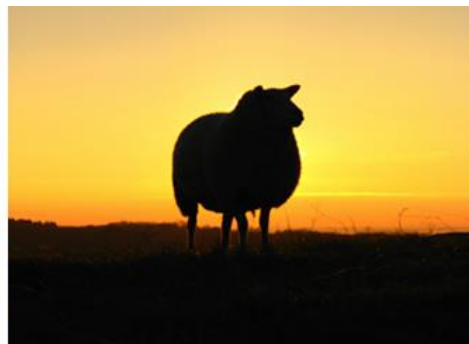


Health and Disease Control in Sheep to Improve Production Efficiency



Newlands Farm, Darvel
14th October 2017



“Five Freedoms”

- 1. Freedom from Hunger and Thirst - by ready access to fresh water and a diet to maintain full health and vigour.
- 2. Freedom from Discomfort - by providing an appropriate environment including shelter and a comfortable resting area.
- 3. Freedom from Pain, Injury or Disease - by prevention or rapid diagnosis and treatment.
- 4. Freedom to Express Normal Behaviour - by providing sufficient space, proper facilities and company of the animal's own kind (IF appropriate).
- 5. Freedom from Fear and Distress - by ensuring conditions and treatment which avoid mental suffering.

Wellness Checklist

- Body condition
- Teeth – i.e. is it broken mouthed?
- Feet
- Fleece
- Skin, eyes, nose, ears, mouth
- Behaviour (at feeding, in field)
- Exercise tolerance

Biosecurity

- What is it?
- Buying in – checking animals, quarantine
- Prophylactic treatments
- Fencing - contact
- Visitors
- Wildlife
- Mixing different types of animals – goats, camelids

Diseases

- Bacterial infections
- Viruses
- Parasites (internal and external)
- Fungus
- Nutritional/metabolic
- Poisons

Happy Feet?



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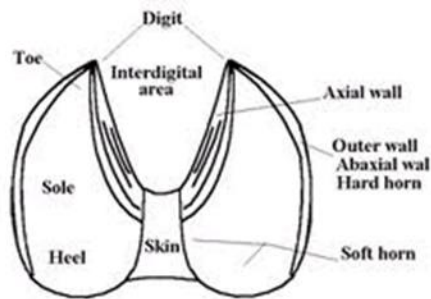
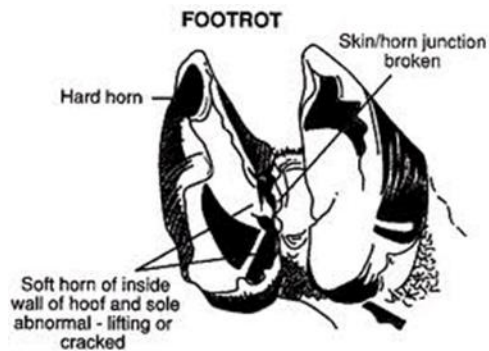


Figure 1. Parts of a sheep's foot



Foot rot



Footrot in Sheep

- severe welfare implications, bacterial infection
- bacteria like warm, damp conditions
- Scottish summers, straw bedding, muddy gates
- Can BUY IT IN
- Vaccinate and treat if a problem is present
- symptoms - slight to severe lameness
- paring feet and regular foot bathing
- Zinc Sulphate/ Formalin
- bacteria inactive after 10 days on pasture
- utilise fresh pasture after treatment



Fleece and skin/eyes/ears

/muzzle



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- Orf



- Zoonotic – A “Zoonosis” is a disease that can affect both people and animals.
- Orf is a zoonosis, as is ringworm, some causes of abortion in sheep, and other infections



Orf

- viral infection - all sheep
- scabby lesions around nose, mouth, udder
- or genitals
- prevention difficult - scrape
- Vaccine prevention – 9 months
- Treatment - rarely practical
- pain, grossly mis-shapen teats, inability to graze/eat/suckle



Sheep Scab

- parasitic mite
- **MUST BE REPORTED**
- serious welfare implications
- irritation on skin - rubbing of fleece
- broken skin - lesions - bacterial infections
- death
- treatment & prevention
 - dip
- injections
- Important not to buy this in! Look at sheep closely



Other skin problems

- Rain scald
- Flies and maggots in the summer
- Lice
- Ringworm
- Skin infections i.e. dermatitis or abscesses
- Ticks – Louping ill



Disease prevention

- Quarantine/isolation facilities – where will you keep them?
- Disease-free sources
- Health schemes
- Preventative treatments
- Vaccinations
- Lambing facilities - adequate shelter and bedding
- Hygiene, both generally and at lambing time

Programme Clostridial disease

Covexin, Heptavac P

Initially to ewes/lambs/gimmers for breeding

- 2 vaccinations)
- 3-4 weeks apart) September/Oct
- 2cc admin subcutaneously

Booster dose

- 3 - 4 weeks pre-lambing
- 2cc subcutaneous

a) boosts immunity of ewes

b) passes immunity to lamb

- passive immunity remains > 12 weeks

Pasteurellosis (Pasteurella)

- pneumonia like symptoms
- usually fatal
- excess fluid from mouth & nose
- treatment - limited

Prevention – as with clostridial vaccine

- passive immunity to lamb via colostrum only effective
3-4 weeks max
- *if pasteurella a problem booster doses early
- Heptovac P+ = clostridia + pasteurella
- Covexin 10 = clostridia
- Ovipast = pasteurella only
- Ovivac (P+) = 5 clostridial +p

Worm Control in Sheep

Symptoms

scours)
non thriving) primary
weight loss)

poor wool growth)
bone changes) secondary
poor f.c.e.)



Worm Control in Sheep cont

- prevention/treatment
- - Anthelmintics – Group 1 -Benzimidazoles - white
- - Group 2 - Levamisole – yellow
- Group 3 – Macrocyclic lactones – clear
- Group 4 – Amino Acetonitrile Derivatives - Orange
- Group 5 – Multi-actives - purple
- Different brand names may contain the same type of wormer!
- Different families of wormer may be best for different jobs or times of year

Clean Grazing System

- annually → sheep / cattle / sheep
- grass (new) after silage
- How are you going to use your land?
- Worming regime – plan it for treatment AND prevention of contamination of your grazing

Fluke

- Is a type of liver worm
- It is not treated by normal wormers
- Different products at different times of year to kill different ages of fluke

Fluke

- Lambs
 - Sudden death in the autumn
 - Scouring
 - Thin or smaller than others
-
- Ewes
 - Scouring any time
 - Thinner than others
 - White gums or inside eyelids
 - Swollen under the jaw sometimes



Listeriosis

- mainly ewes in pregnancy
- bacterial infection of brain
- bacteria ingested from - big bale silage (soil)
mouldy silage
- one droopy ear
- animal circling
- head to one side
- death
- no treatment - try antibiotics



Nutritional and metabolic diseases

- These are diseases caused by problems with nutrition
- Minerals, vitamins, energy

Nutritional deficiency

- Cobalt deficiency – “Pine”
- Lamb does not thrive well
- May need to dress pasture or administer cobalt supplements

Copper Deficiency

- Cu deficiency after birth
- poor doing lambs
- Cu needle capsules effective
- BUT
- Never supplement sheep with copper unless your vet says it is necessary
- And
- Never use cow feed for sheep – copper poisoning

LAMBING SICKNESS And TWIN LAMB DISEASE



- Seen most often in late pregnancy
- low calcium or low energy in the diet, or both
- triggered by stress (feeding/transport)
- death 6 - 12 hours
- Calcium Borogluconate - under skin - sudden response if early
- If it is pregnancy toxaemia (twin lamb disease) - glucose replacement therapy, propylene glycol (ketol)
- A quick response is essential for either condition

Twin lamb disease

- Symptoms
- apparent blindness
- drowsiness
- nervous symptoms
- acetone breath smell
- down → coma → death
- If one ewe showing symptoms - check others twice / day
- linked to overfat ewes early in pregnancy → condition score to monitor
- feed molasses → energy and give the treatment (Ketol)

Abortion of Ewes

- Two main causes:
- 1. Enzootic Abortion ewes (EAE)
- Chlamydophila bacteria
- “abortion storms” > 25% ewe flock
- aborted lambs or weak early lambs
- transmittable to humans - N.B pregnant ladies are especially at risk
 - - miscarriage in women
 - - severe flu like symptoms in others
- Abortion investigation in sheep – If no cause found this is a GOOD THING!

Abortion - EAE cont

- isolate aborted ewes immediately
- Send the foetus AND placenta for examination
- buy only EAE accredited stock
- vaccinate **pre**-mating (*Enzovac*)

Abortion of Ewes cont

- 2. Toxoplasmosis
- parasitic infection → abortion
- parasite - mice → cats → urine/faeces in feed piles → feed to sheep → abortion
- Vaccine available x 1 - *toxovac* - also once sheep infected, immunity created - infect or vaccinate pre-tupping
- Transmittable to man - flu like symptoms. Foetal deformities in pregnant ladies – CARE with cat litter
- hygiene
- feed monensin sodium (vet prescribed) - feed throughout pregnancy (milligrams / day)

Cost of prevention

- Toxovac - £4.32/head one-off cost
- Enzovac - £2.31/head

Other Cases of Abortion

- Listeria 2%
- Salmonella 3%
- Campylobacter 9%
- “Other causes” 10%

- affects unborn lamb
- copper deficiency in ewe diet during pregnancy
- brain affected → spine → lack co-ordination
- once seen - too late - 1st week → 10 weeks
- ensure Cu in diet of ewes pre & during pregnancy

Watery Mouth (*Colibacillosis*)

- bowel infection of new born lambs
- build-up of bacteria during lambing
- especially indoor
- signs - lambs tucked up - pain
- - excess salivation → death
- prevent oral antibiotics at lambing
- cleanliness
- vaccine to ewes
- cure - difficult - antibiotics



Health planning summary

- Grazing management and sources of feed
- Buying in and treatment/quarantine
- Isolation facilities and fencing boundaries
- Storage of medicines
- Worming, fluke and vaccination plans
- Shelter, feeding and watering equipment
- Handling facilities

More practical!

