

CSU Sheep Day 20.08.2010

Pregnancy toxaemia of sheep
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What's pregnancy toxaemia?

- It is twin/triplet lamb disease
- It is a disease of late pregnancy not lactation
- You can sometimes cure early cases with vytrate drench concentrate, ketol, ceton, cortisone injections etc
- It's a disease related to management or
- Secondary to a debilitating disease like foot abscess
- A disease that usually qualifies for \$50.00 plus GST to the farmer (plus the vet gets paid) for the NTSEP.

What's not pregnancy toxaemia

- It is not milk fever/grass tetany which can also occur in late pregnant ewes especially on crop
- Injections of calcium and magnesium don't fix pregnancy toxaemia whereas the response with milk fever and grass tetany can be miraculous
- There are many other brain conditions that give similar symptoms like PE (quite a common disease) and FSE (chronic pulpy kidney)

What causes pregnancy toxaemia?

- Sheep need glucose for their brain function and to transfer energy to the foetus.
- Glucose is mainly synthesised in the liver from the products of digestion (e.g. propionate)
- If the rapidly growing foetus uses more glucose than the sheep's energy intake can provide the brain is starved of glucose and starts to slow down.
- If body fat reserves are utilised too much for energy ketones increase.
- In goats if glucose levels drop too far the goat aborts the kids and survives.

Symptoms

- Separate from mob e.g. don't come to feed
- Blindness
- Blunder into fences
- Unaware of people, dogs etc
- Lap water?
- Often constipated
- Later get very drowsy
- Tremors, convulsions and abnormal postures
- Death with a fatty liver, fat breakdown, twins
- DD: PEM, FSE, lead poisoning, exotic disease (NTSEP)

Sheep feed allowances for pregnancy and lactation (Managing Drought Oct 06)

	Factor	Minimum crude protein %
Dry ewe	1.0	6
Ewe flock to last month of pregnancy	1.0	6
Ewe flock in the last month of pregnancy	1.7 **	8
Ewe flock - first month of lactation	2.5	12

- Assumes 70-80% single bearing and 20-30% twin bearing ewes.
- ** feeding levels should be gradually increased to this allowance from 6 weeks before lambing

Recommendations re pasture availability from "Pasture PIC" Kondinin Group

KONDININ		PASTURE	PASTURE
		30% LEGUME	70% LEGUME
DRY SHEEP		>0.4 DM t/ha	>0.3 DM t/ha
PREGNANT	MID	>0.5	> 0.4
	LAST MONTH	>0.9	> 0.8
LACTATING	SINGLES	>1.1	>0.9
	TWINS	>2.1	>1.3

Recommendations re pasture availability for last month of pregnancy

- Prograze:
- 700 Kg DM/ha if 75% digestibility.
- 1200 Kg Dm/ha if 685 digestibility

PasturePIC Photo Standards Reference

Grass

0.9 t/ha

Bareground/residue 30%

Grass 70%

Grass height 4 cm

Pasture PIC

PasturePIC Photo Standards Reference

Legume Grass Mix

0.9 t/ha

Bareground/residue 25%

Legume 25%

Grass 50%

Grass height 3 cm

Pasture PIC

Types of pregnancy toxaemia

- Primary pregnancy toxaemia
- Fat ewe pregnancy toxaemia
- Secondary pregnancy toxaemia
- Starvation pregnancy toxaemia

Primary pregnancy toxaemia

- Falling plane of nutrition in the last 6 weeks of pregnancy &/or short period of fasting. E.g. crutching
- Often occurs with autumn lambing or this year in winter where the only feed was dry black grass and witchgrass (hairy panic) over sparse green pick.
- Reduced supplementary feed (grain) intake with persistent bad weather
- Stress e.g. trucking

Primary pregnancy toxaemia (continued)

- Early treatment may work, but concentrate on prevention
- Lupins are a great way to increase energy intake quickly and safely and then slowly change to cereal grain.
- Most cases have some paddock feed and 230-340 grams grain per head per day ($\frac{1}{2}$ - $\frac{3}{4}$ lb) usually adequate to stop problem.
- Can grain supplement every second day, don't go to every third day.
- Hay usually not energy dense enough

Secondary pregnancy toxaemia

- Foot abscess the scourge of late winter lambing
- Ewe is in pain, reluctant to move and feed.
- Difficult to assess if the ewe is just in pain or has developed pregnancy toxaemia.
- Treat abscess plus pregnancy toxaemia
- Variable results from inducing lambing with cortisone to get the weight off the ewe and reduce the drain on the blood glucose.

Fat ewe pregnancy toxaemia

- Over fat ewes in late pregnancy can have a voluntary drop in feed intake associated with poor weather (and grain feeding/poisoning).
- Rumen compressed by abdominal fat, twin lambs
- Often seen with flocks with prolonged lambings where supplementary feed to the early lambers allows the late lambers to get over fat during early pregnancy and have huge lambs as well.
- Management issue
- Can sometimes get them over it with treatment

Starvation pregnancy toxaemia

- Ewes in poor condition with prolonged drought or mismanagement
- They are an animal welfare issue which fortunately we very rarely see in this district.

Conclusion re pregnancy toxaemia

- Most cases I see in this area relate to:
 1. An error of judgment in assessing paddock feed (easy enough to do even for experts) or
 2. Supplementing with average quality hay when grain is needed
 3. Foot abscess
 4. Very fat ewes
- ANY QUESTIONS