

Ovine Johne's disease (OJD): the not-so-hidden costs

factsheet



Photo: Catriona Nicholls

What a waste: Culling early, before wastage has gone too far (middle carcass), can prevent significant impacts on carcass weights, quality and income.

Background information

A recent delivery of mixed age ewes and wether to Tasmanian Quality Meats (TQM) from the Fingal Valley highlights the hidden costs along the supply chain of OJD — to producer, processor and livestock agent.

- 278 mixed age ewes and wethers.
- OJD status for this property is unknown. No OJD vaccine used on the property to date.
- Sheep bought by TQM 'over the hooks' (producer is paid for carcass weight and skin value, processor is paid for runners {intestines}, agent is paid commission based on carcass weight).
- 217 sheep (Group A) were drafted off because skin quality was visibly better than remaining 61 sheep (Group B).
- Sheep were processed on 21 November 2011 — prices determined on that date.
- There was no shortage of feed on the property for these sheep leading up to processing.

A local case study

Findings following slaughter

Group A summary

- Total number of sheep with OJD lesions detected after slaughter = 49 (22%).
- 38% had a fat score of 1 (ideal fat score is 2–3). Lower fat score may be attributed to chronic disease such as OJD.
- 'Boning out percentage' (% of carcass that is meat compared to bone) was **64%**. Processor is happy with this boning out rate — the time spent boning out is the same for light or heavy sheep.
- 60 poor-quality 'runners' (intestines) were condemned from the lighter sheep. This is a loss to the processor of \$282.00. Runners are valued at \$4.70 each.
- In addition to OJD there were 11 sheep with cheesy gland (CLA) diagnosed after slaughter. Extra trimming is required and is a cost to the producer in lost carcass weight (average trim 0.75 kg x 11 x \$3.00 = \$24.75).

Group B summary

- Total number of sheep with OJD lesions detected after slaughter = 61 (100%).
- 100% had a fat score of 1 (ideally fat score is 2–3).
- 'Boning out percentage' was **49%**. Processor is NOT happy with this boning out rate.
- All 61 sheep had poor quality 'runners' (intestines), which were condemned (total loss: 61 x \$4.70 = \$286.70).
- Skin value for Group B was half that of Group A (\$11.10/skin compared with \$22.55/skin). OJD affects skin quality.

Summary

Number of sheep	Carcase weight (dressed weight) (kg)	Price (\$/kg)	Average carcase value (\$/head)	Skin value (\$/skin)	Total value (\$/hd)	Total value (\$)	Total potential value* (\$)	Total cost of OJD (\$)
Group A — 217 mixed age ewes and wethers selected on good skin quality								
1	Less than 12	nil	nil	nil	nil	nil	88.55	88.55
20	12–16kg (av 14)	2.60	36.40	22.55	58.95	1179.00	1771.00	592.00
196	>16kg (av 21)	3.00	63.00	22.55	85.55	16,767.80	17355.80	588.00
Total Group A						17,946.80	19,215.35	1268.55
Group B — 61 mixed age ewes and wethers with poor skin quality								
2	<12kg	nil	nil	nil	nil	nil	177.10	177.10
39	12–16kg (av 14)	2.60	36.40	11.10	47.50	1852.50	3453.45	1600.95
20	>16kg (av 20)	3.00	60.00	11.10	71.10	1422.00	1771.00	349.00
Total Group B						3274.50	5401.55	2127.05
Group A + Group B						21,221.30	24,616.90	3395.60

Note: Total potential value assumes an average carcase weight of 20kg @ \$3/kg and a skin value of \$22.55/skin.

- The producer was unaware that OJD was present in his flock.
- This group of sheep was heavily infected with OJD, as found at slaughter.
- **Total loss to producer was \$3395.60 over 278 sheep (\$1268.55 from Group A and \$2127.05 from Group B) — \$12.21 per head.**
- The processor lost money on condemned runners and processing underweight carcasses. The livestock agent (assuming 5% commission based on carcase weight) lost \$87.00 for Group A and \$106.05 for Group B.
- OJD would be having a further financial impact these animals and others in the flock through reduced wool quality (reduced staple strength), reduced greasy fleece weight, lambing percentages, reduced growth rates of young lambs, and increased sheep and lamb deaths.
- Costs to the producer to manage OJD will be greater when clinical signs of OJD are present in the flock and contamination of soil and water has occurred.
- Cost of vaccine \$2.20/head. Total cost to vaccinate this Group A and B as lambs would have been about \$611.00 plus labour cost.
- After OJD is established in flock, control requires more than vaccination. Culling and pasture management strategies will need to be implemented also.
- **OJD costs the producer, the processor and the livestock agent — everyone loses!**



Photo: Rowena Bell, DPIPWE

Cutting the losses: The four-year-old ewe (at left) was worth nothing at slaughter, while the seven-year-old ewe (at right) from the same flock is worth \$85. Monitor your flock and cull early to minimise the impact on returns.

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