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TASMANIA

26 July 2024

Animal health costs: What's important. What's not.

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JCU: Ready today for tomorrow

Come see me if you or family members wish to study vet science.

What to talk about

1. How much we spend on animal health.
2. How we make animal health spending decisions.
3. The Formal Approach.
4. Suggested “middle road” approach.
5. Examples - prime lambs.
6. Key points.

The question is

How do we avoid this without excessive spending?

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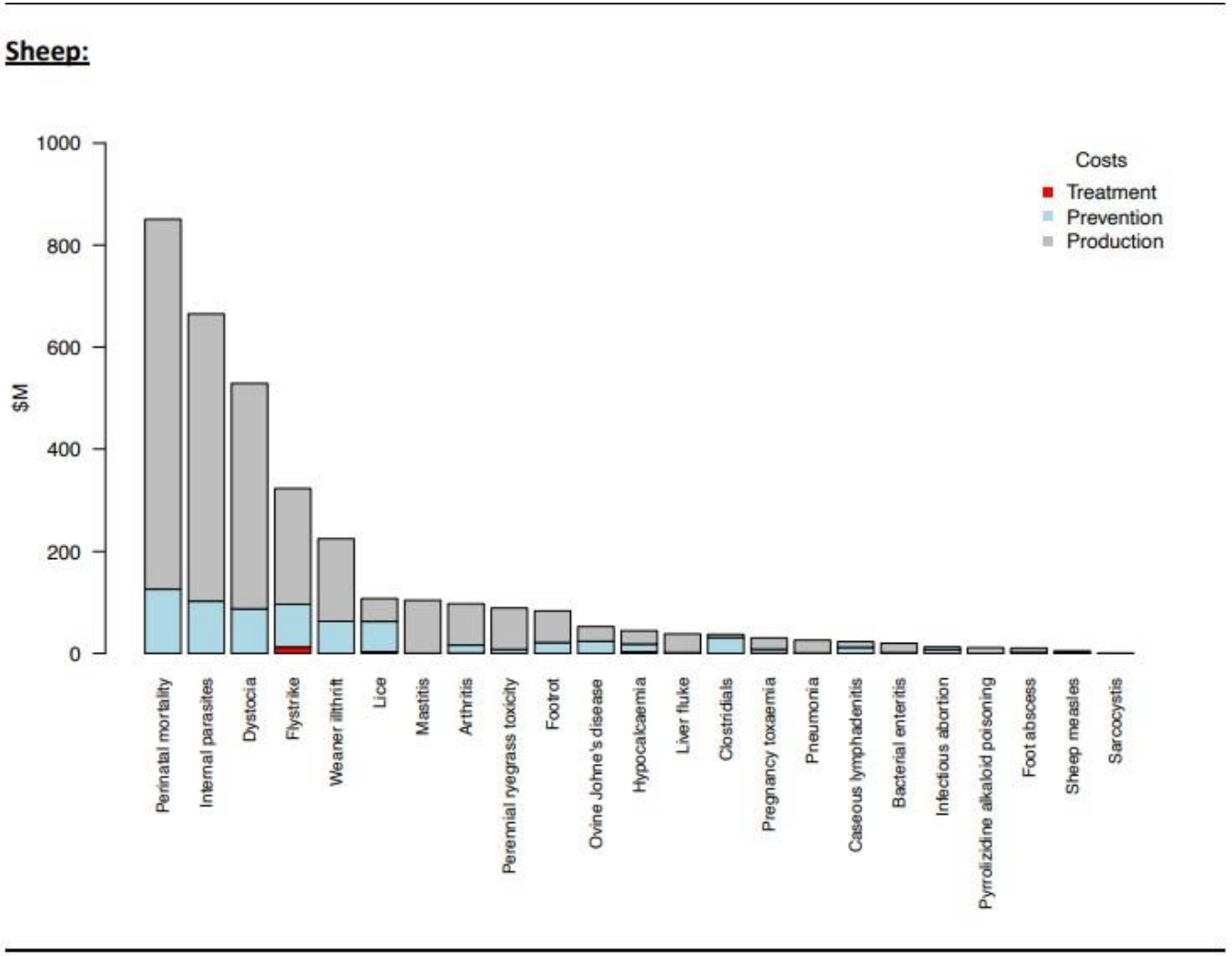
MLA 2022 Endemic Diseases List

Things to note:

1. Production losses >>> than treatment or prevention. Don't skimp.
2. Many issues best managed through management and nutrition.



Scenario: 3200 ewes buy, replacements, 5120 DSE MWSR; weaned/sold 140%; **VARIABLE COSTS/DSE**

Stock purchases (25% ewes and 1% rams)	$33.59/DSE
Pasture, fertilizer and supp feed:	$13.10/DSE
Shearing/crutching	$9.00/DSE
Marketing, levies, transport: meat and wool;	$9.84/DSE
Lamb marking, tags, analgesia.	$2.89/DSE
Animal health vaccs, drench, fly, one offs	$5.53/DSE

	$73.95/DSE

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How we make animal health spending decisions

1. Fixed in the calendar and the psyche, e.g.:
   - always pre-lamb drench with Mox LA
   - always treat for lice, just in case.
2. Universal or generally accepted recommendation; must do. Vets spread this heresy:
   - 5 in 1 for ewes pre-lambing
   - drench all cows once a year.
3. Throw everything at them. Can't hurt! Cover all bases/do the right thing/force of persuasion:
   - many trace element supplements.
4. Magic potions: zinc, Vit ADE.

The trouble is

- While individual costs are small, cumulatively they may be substantial.
- $1/hd on the variable costs is inconsequential, but 10K over the flock is a term's school fees, a holiday or less pressure on interest payments.
- Therefore:
  1. No point setting rabbit traps if there are no rabbits. Is the issue real, or at least the risk real.
  2. "Just because we have a product, we do not have to use it." (Sackett). Make it pay.

  It's recognized that one-on-one advice offers more opportunities to be precise than general extension. Just don't confuse them.

The formal approach: partial budget +/- risk

Format of partial budget:

A: Additional income (e.g. wool cut with footrot eradication)

B: Costs no longer incurred (e.g. routine footrot control costs)

C: Additional costs: (e.g. cost of eradication)

D: Income lost: (e.g. nil with this example)

PB = (A+B)-(C+D). Must be positive to be in the ball game.

Can the refine the budgeting process if needed.

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A middle ground approach: the four questions

Question 1: Is the disease risk so profound (effect of disease, animal welfare) that it's a no-brainer?

Question 2: Can we view the problem as a risk management proposition (including owners/managers attitude to risk)? Must always have fallback position.

Question 3: Is there a dose limiting response/marginal return question to be answered.

Question 4: I've forgotten.

Question 4: Is this a case of the red Ferrari syndrome?

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Animal health expenditure

- **Vaccines:** 5 in 1, Gudair; Campyvax; Erysipelas, Barbervax
- **Drenches:** scour worms v BP; fluke; multi-actives v singles; LA; new drenches
- **Ectoparasiticides:** fly and lice treatments
- **Macro-elements:** Ca, Mg, magic bullets and formulations
- **Trace elements:** injectable, oral, pasture based
- **Analgesia:** topical (Trisolfen), local injectable (Numnuts), systemic NSAIDs (Metacam)
- **One offs and special considerations:** antibiotics for footrot; feedlot pneumonia.

What, if anything is a no-brainer and why

1. Analgesia and anaesthesia. Social licence and the right thing to do.
2. OJD for ewe replacements.
3. Cases of foot abscess must be treated with antibiotics and NSAIDs.
4. Virulent footrot must be controlled (rare in meat sheep).

IMO, everything else should be up for discussion, but as we go through we can site examples of farm specific situations making things “must-do”.

Vaccines

1. **5 in 1:**
   - essential for all lambs marking weaning and every 4months while on irrigation
   - 8 in 1??
   - Ewes??
2. **Campyvax:** vital for drought-lotting and supp feeding. Probably should be used for all controlled grazing situations. NZ evidence.
3. **Barbervax:** should be using to prevent drench resistance *if there is evidence of Haemonchus (Barbers Pole).*
4. **Eryspieals:** only with good evidence of the infection causing a problem. Threshhold approximately 1-2%.
5. **Cattle respiratory vaccines**. No evidence they work. Owning a Red Ferrari syndrome.

Anthelmintics

We absolutely must use these but use IPM to reduce reliance on drenches and use risk management to reduce the number of drenches i.e., we are managing the risk of resistance and worm burdens. Currently, there is only 1 drench (derqantel/Startect) with no reported resistance. Therefore:

- IPM: seed harvesting; hay making; spring grazing with cattle. Look after new sowings. Barbers Pole an IPM nightmare (Barbers Pole needs autumn focused IPM).
- Lamb drenches: multi-actives more resistance resistant than rotation. Should be using derqantel and Zolvix. Should we be doing WEC or drenching by the calendar.
- Pre-lamb drench. Use risk management to decisions on whether needed and avoid reliance on moxidectin LA.

Ectoparasiticides

Lice: rabbit trap theory. Treat for lice if PL out of merino ewes or if high risk to neighbours with Merinos. Fluralaner (Flexolt) offers possibility of long-wool eradication.

Flies: *This (IMO) is a must-do risk management problem. Emerging resistance to the triazine IGR's (Clik and Vetrazin) means that:*

1. Move away from routine Tx of ewes. Use the Flyboss tools to make season by season decisions.
2. Possibly extra crutching or change of shearing (and the little boy next door might fly to the moon).
3. Avoid same chemical group twice in the one season (so, vetrazin followed by Ivermectin).
4. New developments.

Macro-elements: Ca and Mg

This should be managed as a risk contingent on pasture type. Risk is increasing as we use more winter cereals and short rotation rye grass. Note also increased cloud cover.

- Perennial clover-grass pastures rarely need Ca supplements.
- Green winter cereals and grass dominant pastures must have Ca supplements. Can be as simple or complex as you like.
- Grain supplements must always be spiked with Ca.
- Beware of excess supplementation when not necessary. Transition diet theory.
- While there are theoretical reasons to use various forms of Ca/Mg supplementation, simple works very well (Ca/MgO/salt). Vit D supplements??

Trace elements and vitamins

- Fertile paddock for over supplementation and unnecessary supplementation. The former runs risk of toxicity. Latter often pushes boundaries of theory over observation.
- Marginal deficiency/response much more common than classic signs of disease.
- Generally, direct animal supplementation is best method. Ensures every animal gets supp. Reduces risk of toxicity. Reduces wastage. Exception may be Cu in fertilizer for the very deficient areas, and with the right soil type. Solve the tax problem.
- Beware of hyper-supplementation based on theory (e.g., high doses of TE's and Vit A to prevent redgut). Beware of magic pelleted additives (particularly if contents are unknown). Do not use cattle products for sheep.
- Vitamin supplements (ADE) rarely of any value in Tasmania because of availability in green feed.

Trace elements and vitamins cont.

- **Se:** risk of marginal status increasing as we move to irrigated finishing. Simple soln. is mineralized drenches. Vaccine Se adequate for lamb marking but not heavier animals.
- **Cu:** quite possible on grasses and cereals. Almost unknown on legumes (risk of toxicity). Direct supplementation best.
- **Co/B12:** have never seen marginal blood test result. Properly measured (published) growth responses (or any other benefit) also very rare. Vaccine, mineralized drenches.
- **Vit A and E:** not necessary.
- **Vit D:** may help manage increasing risk of hypocalcaemia, but dose in the ADE injection is very small.

Magic potions

These seem to do the rounds like inflation cycles or in response to specific problems.

- Zinc: cures everything inc. FMD.
- Iodine: promoted for preventing foot abscess (Donald Trump, bleach and Covid).
- MgO and $MgSO_4$ promoted to prevent ryegrass staggers.
- Mycofix. Works but by the time it's used the animals have detoxified.

Your own little disease nest

These are animal health diseases that affect your flock but are not regional or seasonal across the area. They may fly under the radar for extension material. These conditions are ones that lend themselves to a budgeting +/- risk assessment approach to figure out how much you can/should spend. Some examples:

- **Footrot**: devastating if you have a hot strain. Almost inconsequential, and often ineradicable if you have a non-virulent strain.
- **Septic arthritis:** before money is spent on vaccine need to be sure that firstly Erysipelas is the cause of the arthritis, and secondly that number are sufficient to justify vaccine.
- **Campyvax:** if there is no history of campylobacter abortion, or if you have had a recent outbreak, you can do 1 of 3 things:
    1. Seek information on what response is likely if you continue vaccination.
    2. See whether you have a high likelihood of a repeat abortion storm, and can you mitigate those risks.
    3. Vaccinate at-risk groups (e.g. ewe lambs) and/or go to less frequent vaccination.

Top three take home messages

1. Very few animal health options are sacred. Keep an open mind on what is and is not necessary/profitable to treat or prevent.
2. Aid your decision making by using the “4 questions” approach.
3. Get **independent advice**, particularly when considering large animal health expenditure, on the likely benefits and likelihood of success.

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Tools, resources & training

1. Coopers Animal Health: Footrot Control and Eradication.

2. Govt of South Australia, GRDC: Farm Gross Margin and Enterprise Planning Guide 2022.

3. MLA 2022: Endemic Disease Priority List

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