Fact sheet

Lamb and sheep nutrition following emergencies – best practice in the immediate/short-term

MEAT & LIVESTOCK AUSTRALIA

This fact sheet provides best practice information for lamb and sheep producers when they need to transition pasture-fed lambs and sheep to a diet of hay and grain in an emergency situation. Producers are advised to also seek professional advice from a vet or animal nutritionist as the requirements of individual animals vary according to their age and weight.

How to introduce lambs and sheep to new feed

Ration formulation is complex but in principle, **livestock should be introduced to new feed gradually** – particularly high starch grains such as wheat, triticale and barley – to avoid developing metabolic issues such as acidosis, which can lead to lameness, loss of appetite and death[1].

Whole grains should be gradually introduced to sheep and lambs over the following periods[2]:

- Oats: 3-5 days
- Lupins: 3-5 days
- Beans: 5 days
- Peas: 14 days
- Barley, triticale, rye, sorghum and wheat: 14 days.

High quality roughage should also be provided during the introduction period. Effective fibre (roughage such as hay, silage or straw) should make up a minimum of 10% of the total ration[1].

Where cereal grain constitutes less than 60% of the diet, 7-14 days should be allowed for livestock to adapt to the ration[2].

Where high starch grains constitute more than or equal to 60% of the diet or when feeding grain based pellets, introduction to this ration should be conducted over 14-21 days[2].

Sheep and lambs being introduced to **hay-based pellets** should have high quality, palatable roughage available as often as possible for the first seven days of introduction, except in the case of total mixed rations where the grain content is increased gradually and roughage is incorporated[1].

Livestock may need **vitamin and mineral supplements** when moved to a grain-based ration. Producers should contact their vet or nutritionist to ensure livestock have the correct supplements[3].

Sheep exposed to new feeds often exhibit neophobia, or a cautious sampling or rejection of the feed that is not related to palatability. Neophobia is characterised by a period of low feed intake, followed by increased consumption leading to a relatively stable level of intake[4].

What to feed

Feed should be highly palatable to encourage intake. Table 1 provides indicative nutritive values for different categories of lambs and sheep.

Table 1: Energy and protein requirements for sheep of body weight of 60kg ewe[5]

Livestock class	Energy required	Protein required
Dry sheep	9.5	6%
Pregnant ewes, last month (higher range = later in pregnancy)		
• Single	12.2–14.6	8%
• Twins	13.9–17	8%
Lactating ewes (use higher range for peak lactation = 10–40 days)		
• Singles (100%)	14.4–23.8	10%
• Twins (200%)	16.5–30.5	10%

Please note that energy demand increases exponenially during lactation.

Table 2: Energy and protein requirements for weaned lambs[5]

Livestock class	Energy required	Protein required
Weaned lambs*		
• Merino 20kg	4.5–7.4 depending on desired rate of gain	10–12%
• Cross-bred 30–40kg	7.4–11.1 depending on desired rate of gain	10–12%

* Figures calculated from DSE ratings in Prograze

How much to feed

Animals fed grains on a daily basis will perform much better than those fed irregularly, as this will increase the risk of developing acidosis.

[1] *National Procedures and Guidelines for Intensive Sheep and Lamb Feeding Systems*. MLA publication, January 2020. [2] *Best practice for production feeding of lambs*. MLA publication, October 2010. [3] *Production feeding for lamb growth: A guide for producers*. MLA publication, January 2020. [4] Bowman, J. G. P., & Sowell, B. F. (1997). Delivery method and supplement consumption by grazing ruminants: a review. *Journal of Animal Science*, 75(2), 543-550. [5] evergraze.com.au. Energy figures from Lifetimewool (lifetimewool.com.au) and protein figures from Prograze manual (MLA and NSW Deparment of Primary Industries).

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