

Sheep Nutrition

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3. Feeding during suckling period

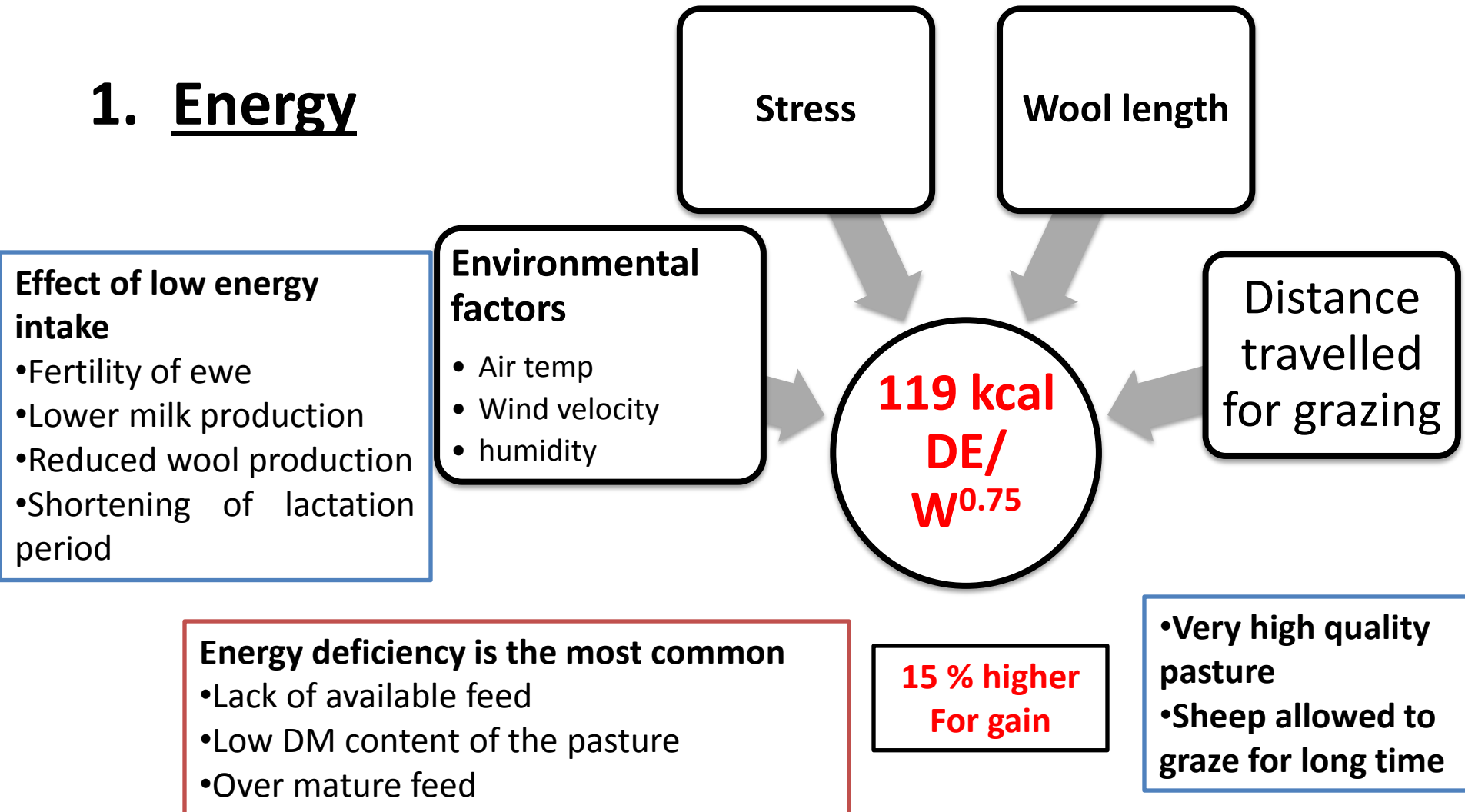
III. Feeding of rams

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I. Maintenance needs

1. Energy



I. Maintenance needs

2. Protein

- The quantity of protein or nitrogen for mature sheep is more important than the quality
- Certain amino acids may be limiting as methionine for microbial protein and wool growth
- Cysteine can replace methionine for wool growth
- Lysine and threonine are the next limiting AA in microbial protein
- Digestible protein can be calculated:

$$Y = 0.929A - 3.48$$

Y..... Digestible protein

A..... Crude protein of the diet

- Diet containing 10% CP is sufficient for wool production
- Sheep weighting 30 kg needs daily
 - 400 g TDN
 - 40 G DP

I. Maintenance needs

3. Minerals

- Trace mineralized source is offered to sheep as free choice
- Zn is important to avoid testicular degeneration for rams
- S should be added specially when NPN is used as source of N
- S should be present in the diet of ewe in the ration 10:1 (N:S)
- Addition of CU and CO is required in areas where soil is deficient in these elements and when soil is rich in inorganic sulfate and molybdenum.
- Iodized salts should be used in areas where goiter is more prevalent specially for pregnant ewes

I. Maintenance needs

4. Vitamins

- Sheep doesn't need Vit A if carotene content of the forage was more than 1.5 mg/kg
- Vit D obtained from forage and sun rays activate Vit D
- Vit E is required to prevent white muscle disease
- Vit B complex group is synthesized in the rumen and also vit K



II. Requirements for ewe flock

- The ewe fed in flock because

- It is practically impossible to feed all ewes individually
- The bulks of the ewe's energy and protein requirements provided mostly from grazing
- The feed requirements of all the ewes in a flock at one time are similar

1. Feeding during resting period
2. Feeding during gestation period
3. Feeding during suckling period

ewe crazy.



1. Feeding during resting period

- During this period, the requirements of the ewe is low
- The non producing ewe can be used as scavengers to maintain the flock
- Periodical weighing of the flock
 - Maintaining their weight or gaining 200-300 g daily.....grazing is sufficient
 - Loosing weight Additional supplementation of concentrate mixture is required
- After mating, ewes can be maintained on pasture

1. Feeding during resting period

Flushing:

Def: it is the practice of increasing the feed intake of the ewe

Aim: *weight gaining

*stimulation of ovum production
(increasing the numbers of twins)

Time: *At the later stage of resting period
before breeding season)

*This will increase 10-20% lamb born



1. Feeding during resting period

Methods: *Allow the ewe to graze excellent pasture
*or feeding about 200-300g concentrate mixture /head/day

Factors affecting flushing:

- *Mature ewes respond better to flushing than yearlings
- *Ewes that are already in good body condition (BCS > 3) usually do not respond well to flushing
- *Flushing has more effect early in the breeding season. Flushing may also be beneficial late in the breeding season

2. Feeding during gestation period

A. Early-to-mid gestation

- Early to mid gestation is a critical period in the ewe's production cycle because placental development occurs from day 30 to day 90 of gestation

B. Late gestation

- Good nutrition during late gestation will help to ensure a successful lambing season
- Knowing how much to feed ewes during late gestation can be difficult because it depends upon the number of fetuses the ewe is carrying

2. Feeding during gestation period

- Underfeeding will result in the birth of small lambs
- Overfeeding can result in oversized fetuses. Big lambs increase lambing problems and have a higher mortality rate
- Because the foetus is growing so rapidly inside the ewe, there is little room available for the digestive system of the sheep
- Special feeding care during last 6 weeks of gestation will increase
 - the number of lambs
 - Ewe milk yield
 - Growth rate of lambs



2. Feeding during gestation period

- **Steaming up**
- **Def:** feeding extra feed to meet heavy demands of the fast growing fetus
- **Time:** last 6 weeks of gestation
- **Method :** providing extra concentrates (200-300g/head/day)
- If there is a history of pregnancy disease in the flock, feeding of 100 g molasses could be helpful

Rations for Pregnant Ewes up to 6 Wk Before Lambing

	Ration No.			
Feed	1	2	3	4
	lb (kg)	lb (kg)	lb (kg)	lb (kg)
	Ration No.			
Feed	1	2	3	4
	lb (kg)	lb (kg)	lb (kg)	lb (kg)
Legume hay, such as alfalfa, clover, or lespedeza	3–4.5 (1.36–2.04)	1.5–2 (0.68–0.91)	—	—
Corn or sorghum silage	—	4–5 (1.81–2.27)	—	—
Legume grass, low-moisture silage (50%)	—	—	6–8 (2.72–3.63)	—
Cottonseed, soybean, linseed, or peanut meal (90%); limestone (10%)	—	—	—	0.25 (0.112)
Minerals ^a	ad lib	ad lib	ad lib	ad lib
^a Mineral mix: 2 parts dicalcium phosphate to 1 part trace mineralized salt				

3. Feeding during suckling period

- Ewe suckling twins produces 25-50% more milk than ewe suckling single
- Usually 2 to 3 times greater during lactation than during maintenance
- Milk production:
 - *Peaks early (2 to 3 wks after lambing) and then declines.
 - *Ewes produce 3 to 6 + lb milk daily.
 - *Milk provides essentially all the lamb's nutritional needs during the first mo. and a significant proportion during the first 2 mo
- Mixture of grains and wheat bran (250-500g) should be provided in the proportion of 2:1 (grain:bran) with hay 1-2kg/d
- The grain mixture should contain 16-18% CP
- ewe can consume up to 4% of BW DM

III. Feeding of rams

- Maintained on the same feeding system of ewes
- Provide extra grain mixture (200-500g/head/day) before breeding season
- The concentrate mixture composed of crushed grains 2 parts, wheat bran 1 part and salt



IV. Feeding of lambs

- The most critical need for the lamb is to receive colostrum (at least 50-100 ml)
- If the ewe well fed during the gestation period, then milk yield will be sufficient to meet the full requirements of the lambs
- For the first several weeks of life, all a lamb needs for nourishment is its mother's milk
- Lambs will start to nibble on solid food soon after birth
- A ewe's milk production peaks between 3 and 4 weeks of lactation
- By the time lambs are 4 to 6 weeks old, they may be obtaining as much as 50 percent of their nutrient intake from sources other than their mother's milk.



IV. Feeding of lambs

Creep feeding

- Creep feeding is a means of supplying extra nutrition, usually grain, to nursing lambs
- It is especially beneficial for lambs managed in intensive production systems in which early weaning is practiced
- Creep feeding is advantageous for flocks which have a lot of multiple births or in flocks where milk production is a limiting factor.

IV. Feeding of lambs

- Creep feeding is usually of less value for lambs that will be developed on pasture in the spring and summer
- Lambs should be started on creep feed between 1 and 2 weeks of age, though they will not eat significant amounts of feed until they are three to four weeks old
- Providing early access to creep feed gets lambs in the habit of eating dry feed and helps stimulate development of their rumens. It helps with early weaning.

IV. Feeding of lambs

Creep ration

- The creep ration does not need to be complex or expensive
- At a young age lambs prefer feeds that are finely ground and have a small particle size
- The creep ration contains 35% ground corn, 35% crushed barley, 20% wheat bran and 10% linseed meal or CSM
- The creep ration should contain 18 to 20 percent crude protein
- the creep feed should contain a 2:1 calcium to phosphorus ratio
- The creep feed should contain a coccidiostat to prevent coccidiosis

IV. Feeding of lambs

- Creep-fed lambs are commonly weaned early (< 90 days) and placed on high concentrate diets for finishing
- rations, if self-fed, should contain no more than 25 %roughage (ground hay) and could contain as little as 10 %

Feeding of goat

Feeding of goat

Feeding habits of goat:

