

CLASS 19. CARE AND MANAGEMENT OF RAM, EWE AND LAMB-NUTRITION- FEEDS AND FODDER FOR SMALL RUMINANTS.

Nutrition – small ruminants

Uniqueness

Goat : Browsing – selective feeding of

1. Tender twigs and leaves – not available for other species.
2. Wider feed acceptability.
3. High crude fibre digestibility
4. Consuming more dry matter / unit body weight
5. High convertibility : 45-71% , cow : 38%
6. Capable of thriving on bushes, shrubs, herbs, tree foliage and tree leaves.
7. Highly prehensile tongue and mobile upper lip.
8. Small in size – split feeding is essential
9. Faster passage and fermentation rate
10. To certain extent withstand toxic alkaloids

Sheep : Grazing – better thrive -on stubble after harvest

1. Highly resistant- water deprivation .
2. Bifid upper lip.
3. Consideration for fleece.

Model Concentrate Mixture

	Young	Grower	Adult
Maize	60	30	36
GNC	20	30	21
Fishmeal	10	-	-
Molasses	-	7	-
Bran	7	30	40
Mineral Mixture	2	2	2
Salt	1	1	1

Feeding schedule

upto 3 months : Milk Conc roughage.

3-6 months	:	50 – 100g	adlib
6-1year	:	100 – 150 g	adlib
Adult	:	200 – 250 gm	adlib
Lactating	:	250 – 300 gm	adlib
Pregnant	:	300 – 350 gm	adlib
Breedable male	:	250 – 300 gm	adlib

General considerations

1. Protein feeding during pre-ruminant stage

2. Tree fodder

- a) Emergency fodder
- b) Rich in calcium
- c) Low in fibre when compare to grasses.
- d) Rich in tannin

3. Pasture : Poor in quality

Mixture of legumes and non legumes best.

Rich in nutrients

High voluntary intake

Enrichment of soil

Carrying capacity :

1/unprotected pasture

2-5/protected pasture

40/ cultivated pasture

Rotational grazing

Young ones :

1. Colostrum feeding

2. Milk feeding

3. Milk replacer

4. Creep mixture

Protein rich concentrate from 2nd week of life upto 3 months of age, with restricted suckling for better growth and early maturity and marketing.

4 – 5 times a day

60-80 gm gain / day – smaller breed

100 – 140 gm gain / day – larger breed.

Composition :

Maize : 60%

GNC : 20%

Fishmeal : 10% DCP : 18%

Wheat Bran : 7% TDN : 70-80%

Mineral Mixture : 2%

Salt : 1%

Antibiotics

Vitamin mixture : 25 gm

Extra feeding for early weaned, orphaned, and mates of multiple litters.

Fattening young ones:

Concentrate : Roughage ratio varies with market need

Lean carcass : 30-40% roughage

fatty carcass : 20 – 25 % roughage

Replacement stocks :

For early maturity, good quality roughage and concentrate

250 – 400 gm with 10-12% DcP and 65-70% TDN.

Breedable females :

Flushing :

Natural flushing

Extra feeding just before breeding season – body weight

Over feeding

early onset of breeding activities

fatty deposition	synchronized.
Poor breeding	Increased ovulation rate
effective in poorly fed animals	
	Increased conception
	Multiple birth
	Better weaning .

Management of breedable males.

1. Selection
2. Breeding allowed at the age of 18months.
25-30 females / male initially – 40-60 / Matured male
Females / beyond 2 years of age.
3. Criss crossing of age groups for better breeding
4. Extra males during synchronization
5. Controlled access to females
 - a) Flock mating
 - b) Pen mating
 - c) Hand mating
6. Exercise in paddocks / range land other wise – slow breeding.
7. Teaser maintenance
8. Marking of male's brisket and breast.
9. Changing of individual once in 2 year to avoid inbreeding.
10. Culling – Poor breeder, Extra feeding, infertile, deformed, aged.

Extra breeding just before and during breeding season.

1. Avoiding adipose tissue deposition.
2. Periodical grooming
3. Periodical evaluation of semen.
4. Protection against parasitic infestation and infectious diseases.
5. Disbudding.

Management of female stock

1. Selection 2. Breeding : Regular.

Oestrus Signs : 18 – 21 days : 30 –40 hrs.

Tail wagging

Mucous discharge

Frequent urination

Swollen vulva

Bleating.

Mating : at second day of oestrous

1. Breeding performed – to receive young ones in favourable season

2. Mating by 14 –15 months of age & once in 8 months .

Flushing –

Repeat Breeder.

1. Synchronization of oestrus– Telescoping .

2. Artificial Insemination

3. Embryo transfer technology.

Pregnant females : 148 ± 3 days.

Isolation – diagnosed by $2\frac{1}{2}$ - 3 months of age.

Quality feeding

Exercise

Pregnant Animals : During last $\frac{1}{3}^{\text{rd}}$ period 70-80% of growth of foetus so better care is needed.

Good quality legumes and concentrate to support foetal growth.

To make up loss in previous lactation

To maintain reserve for ensuing lactation.

To meet their own growth.

Poor feeding – Low birth weight – poor survivability

Pregnancy toxaemia

Lactating ones. – low voluntary intake – not sufficient

So reserve during pregnancy created – to meet out peak lactation.

Male – Extra feeding just 40 days prior to breeding season to maintain better libido and fertility.

fattiness should be avoided.

Parturient animals.

1. Based on breeding records.
2. Udder engorgement
3. Relaxed perinium
4. Isolation - fussy in nature
5. Care during prolonged time - Dystocia - Due to disproportionate mating
6. Avoid too much handling to avoid abandoning
7. Watch for shedding of placenta and avoid placenta eating.
8. Provide laxative diet – roughage during peripartum to avoid udder stress.
9. Lactating females: Special Nutrition : Avoiding buck odour

Hoof trimming, Weaning, proper udder care.

Culling : Poor breeder, poor mothers, irregular breeders, aged beyond 7 years of age.

Management of young ones.

1. Starts in pregnancy itself
 - a) By extra feeding b) deworming and vaccination
2. Birth in clean environment
3. Cleaning of mucous from all over the body -induce licking by dams.
4. Care of Navel cord – to avoid naval ill and joint ill.
5. Resuscitation for breathing
6. Colostrum feeding with in 15 – 30 minutes.
7. Weighing and identification
8. Fostering : milk feeding for individuals of large litter, orphaned young ones -early weaned.

weak Young ones

I 1/6th Birth weight

II 1/8th Birth weight

III 1/10th Birth weight

Concentrate and roughage from 2nd week onwards.

1. Well ventilated shed.
2. Isolation during early stage along with dam for better growth and to avoid licking each other
3. During winter – heat supplementation
4. Creep ration : high quality concentrate containing animal protein sources.
5. High Quality concentrate containing animal protein sources.
6. Periodical weighing and culling.
7. Periodical deworming, vaccination and deticking.
8. Separation of sexes by 3 months of age.
9. Castration of marketable male kids.
10. Disbudding – sometimes.
11. Marketing by 6-9 months of age.
12. Exercise
13. Docking of lambs – to avoid blow fly infestation.

Creep ration

Grains	: 60%
GNC	: 15 %
Fishmeal	: 7%
Bras	: 15%
Mineral Mixture	: 2%
Salt	: 1 %

Antibiotics vitamins.