MARKET LAMB AND GOAT NUTRITION

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GAME PLAN

- Purchase date & show date = time on feed
- Purchase weight & show weight = total gain
  Frame size/growth potential – show weight
- Gain – lbs/day

  Lambs – ½ to ¾ lb/day

  Goats – ¼ to ½ lb/day
- Feed requirement – light, moderate, heavy

NUTRIENTS

- Water
- Protein
- Energy – fats & carbohydrates
- Minerals
- Vitamins

WATER

- Most critical of all nutrients
- Primary roles – maintenance of body temperature, transport of nutrients and waste, establishment of an appropriate medium for the many chemical reactions that must take place

WATER (cont.)

- Makes up more than 70% of lean tissue
- Regulates feed consumption
- 1-1.5 gallons for each 4 lb of DM consumed
- Clean, fresh water a must!

PROTEIN

- Primary constituent of animal body
- Primary roles – body tissue maintenance, provides for carriers of other nutrients, and is a major component of meat, milk, and fiber
- Quantity more important than quality
- Young, fast growing animals require more protein

PROTEIN (cont.)

- Blood, feather, fish, poultry by-products, and meat meals – 50 to 90%
- Soybean, cottonseed, sunflower, linseed, and peanut meals – 35 to 50%
- Legume hays – 15 to 25%
- Grains – 8 to 13%

- Urea – non-protein nitrogen

PROTEIN (cont.)

- Protein in excess of requirement is used as energy
- Using protein as an energy source is very expensive

ENERGY (carbohydrates & fats)

- Most common limiting nutrient
- Necessary for efficient nutrient utilization. Inadequate energy reduces growth and causes weight loss
- Grains and protein supplements are high in energy while hays are intermediate

MINERALS – MACRO

- Sodium, chlorine, calcium, phosphorus, magnesium, potassium, and sulfur
- Salt (sodium and chlorine) can be fed free choice or ½ to 1 percent of ration
- 2:1 calcium to phosphorus ratio
- Urinary calculi caused by rations high in phosphorus in relation to calcium

MINERALS – MACRO (cont.)

- 10 to15 lb ammonium chloride per ton of feed helps prevent urinary calculi

- Roughages – high Ca, low P
- Grains – low Ca, intermediate P
- Protein supplements – intermediate Ca, high P

MINERALS - MICRO

- Iodine, copper, iron, manganese, zinc, molybdenum, cobalt, selenium, and flouride
- Copper levels above 11 ppm can be toxic to sheep
- Goats can tolerate more copper than sheep

VITAMINS

- Dietary vitamins A, D, and E
- Microorganisms synthesize B-vitamins, C, and K
- Dietary sources of B-vitamins and vitamin K are required by young before the rumen becomes functional

“MAGIC” RATION

- No such thing as a “Magic” ration

- Commercially prepared ration
- Mix your own
- County ration mixed and sold by local feed store

- Key – find a balanced ration, learn how to feed it, learn how animals respond to it

COMPLETE FEEDS

- Complete balanced diet – protein, energy, minerals, vitamins, fiber
- Fresh and palatable; minimal dust/fine particles
- Goats - ≤ ¼” pellet; Lambs - textured
- Typically 14-16% crude protein; no urea

COMPLETE FEEDS (cont.)

- Fiber – 10 to 15%
- Fat – 2.5 to 3%
- Ca:P ratio $\geq$ 2:1
- P content 0.38 to 0.45%

COMPLETE FEEDS (cont.)

- Urinary acidifier (0.5%)
- Coccidiostat
- Fed at 1.5 to 4.0% of body weight

MANAGEMENT AND FEEDING

- Getting started on feed and water
- Self fed (ad libitum) vs. hand fed
  Individual feeding stalls
- Feeding hay
- Feeding regularly (2X/day, at the same time each day)

MANAGEMENT AND FEEDING

- Weigh regularly
- Goats – pecking order

  Lambs – breed differences
- Exercise

MANAGEMENT AND FEEDING

- The feeding program will dictate how your animals will develop and mature
- A good feeding program cannot make up for a lack of superior genetics, but it will allow your animal to reach their genetic potential
- A poor feeding program can cause an animal with great genetic potential to be wasted.