ANIMAL SCIENCE FACTS

PUBLICATION NUMBER
ANS 00-606MG

Extension Animal Husbandry
Department of Animal Science

BASIC MEAT GOAT FACTS

Jean-Marie Luginbuhl
Extension Meat Goat Specialist

Reproductive Aspects

Female

Age of puberty	7-10 months
○ Breeding weight	60-75% of adult weight
Estrous cycle	
- Length	18-22 days
- Duration	12-36 hours
- Signs	Tail wagging, mounting, bleating
Ovulation	12 to 36 hrs from onset of standing heat
○ Gestation length	146-155 days
○ Breeding season	August-January
○ Seasonal anestrous	February-July
○ Buck effect on estrous	Positive

Male

○ Age of puberty	4-8 months
○ Breeding age	8-10 months
○ Breeding season	All year
○ Breeding ratio	1 buck : 20 to 30 does

Physiological Data

○ Temperature	101.7-104.5 F
○ Heart rate	70-80/minute
○ Respiration rate	12-15/minute
○ Ruminal movements	1-1.5 /minute

Rules for Goat Health

- Provide proper housing
- Practice good sanitation
- Provide adequate nutrition
- Provide clean water
- Observe how much feed (hay, minerals, concentrate) is left over
- Observe your animals daily
- Observe the feces of your animals

Reviewed by: Michael J. Yoder and Roger L. McCraw, Department of Animal Science, North Carolina State University

North Carolina
Cooperative Extension Service
NORTH CAROLINA STATE UNIVERSITY
COLLEGE OF AGRICULTURE & LIFE SCIENCES

- Clean pastures and exercise lots
- Become familiar with the common diseases
- Investigate the source of strange smells
- Use your veterinarian for diagnosis

A Healthy Goat

- Eats well
- Chews its cud
- Has a shiny coat
- Has strong legs and feet
- Is sociable
- Has bright and clear eyes

Signs of Illness

- Off feed, off water
- No sign of cud chewing
- Standing apart from group
- Rough hair coat
- Abnormal temperature
- Heavy mucous in nose and mouth

Diarrhea
Runny eyes
Limping
Hair falling out
Swelling on any part of body
Pale mucosa of eyes and mouth

Purchased Animals

Upon arrival on farm

- ***Isolate animals for a month***
- Vaccinate
- Deworm
- Test for certain diseases (check with your veterinarian)
- Coccidiosis control program
- Identification tag
- Other

Herd Health Practices

Vaccination program

If possible always weigh animals prior to vaccination to 1) calculate and inject the correct dosage of the vaccine and 2) assess body condition

Enterotoxemia and tetanus - *Clostridium perfringens* types C, D + Tetanus Toxoid in one vaccine

- Adult males - Once a year
- Breeding females - Once a year (4 to 6 weeks before kidding) or twice a year:
  - 4 to 6 wk before breeding, then 4 to 6 wk before kidding

Kids - Week 8, then booster on week 12

Deworming program

If possible, always weigh animals prior to deworming to **1)** calculate and inject or drench the correct dosage of the dewormer and **2)** assess body condition. Underdosing of goats because of failure to weigh the animals or because of underestimating their live weight is a very common but costly mistake because this may lead to faster parasite resistance to dewormers. Therefore, determine the dose according to the heaviest animal in the group. On the other hand, overdosing of certain dewormers can cause health problems. If deworming animals before kidding, make sure that the dewormer used is safe for pregnant does.

Adults -2 to 3 weeks prior to breeding
-Avoid early pregnancy (first 20 to 60 days)
-2 to 3 weeks prior to kidding or at kidding
-According to climate and worm loads
-***Strategic deworming***: aimed at worms that are dormant in the goat during the winter. Deworm with **fenbendazole** (Panacur or Safeguard), **albendazole** (Valbazen), **oxfendazole** (Synanthic) or **ivermectin** (Ivomec). Winter deworming prior to the spring grass flush has proven effective in controlling worm burdens during the warm weather transmission season. **Oxfendazole** should **NOT** be used in pregnant goats.

Kids -Day 30
-Day 60
-According to climate and worm loads
-***Strategic deworming***

During periods of warm and wet weather, it is advisable to take fecal samples **immediately prior to deworming, and again 10 days after deworming,** to determine fecal egg counts **and the effectiveness of the dewormer**

Coccidiosis control
Coccidiosis usually strikes young animals during periods of stress such as weaning. Level of control depends on the level of infestation

- **At weaning**
  - Coccidiostat drench and/or
  - Coccidiostat in water tank (4 ounces in 25 gallons of water)
- **At other times** *(if necessary)*
  - Mineral with Bovatec
  - Decoquinate in feed

Kid Health Practice

- At birth
  - Dip navel in iodine
  - Kids should ingest 10% of their live weight in colostrum during first 12 to 24 hours of life.
  - Colostrum should be ingested or bottle-fed (in case of weak kids) as soon as kids have a suckling reflex. In cases of extremely weak kids, they should be tube-fed. It is very important to make sure that the tube is inserted into the esophagus (you should be able to see the tube go down as it is inserted).The producer must be certain that all newborn kids get colostrum soon after birth (within the first hour after birth, and certainly within the first 6 hours) because the percentage of antibodies found in colostrum decreases rapidly after parturition.

Castration

- Elastrator (method of choice: bloodless, less pain)
  The question is: why castrate if you will sell your buck kids for meat at 4 to 5 months of age? However, if not castrated, buck kids should be separated from doe kids at weaning, otherwise some unplanned breeding may occur.

Flushing

Feeding strategy to increase ovulation rate

- Starting **3-4 weeks before the breeding season, and throughout the breeding season**, increase the plane of nutrition of does to be bred. Overly conditioned and fat does will not respond to flushing.
  - Switch does to high quality pasture or

- Supplement does with1/2 lb cracked corn or 1/2 lb whole cottonseed/head/day

After Breeding

To insure proper embryo development

- During the **first month of pregnancy**
  - Keep the plane of nutrition similar to that of flushing period

Important Production Traits

- Adaptability
  - Ability to survive in given environment
  - Ability to reproduce in given environment
  - Is a lowly heritable trait

- Growth rate
  - Pre-weaning gain
  - Post-weaning gain

Reproduction
- Conception rate
- Kidding or prolificacy rate
- Non-seasonality

Carcass characteristics
- Dressing percent
- Lean:fat:bone
- Muscle distribution

Body Condition Score

- To monitor and fine tune nutrition program
- To "head off" parasite problem
- Visual evaluation is not adequate, has to touch and feel animal
- Areas to be monitored
  - Tail head
  - Pins
  - Edge of loin
  - Back bone
  - Ribs
  - Hocks
  - Shoulder
  - Longissimus dorsi

- Scale
  - Thin 1 to 3
  - Moderate 4 to 6
  - Fat 7 to 9

- Recommendations
  - End of pregnancy 5 to 6
  - Start of breeding season 5 to 6
  - Animals should never have a body condition score of 1 to 3
  - Pregnant does should not have a body condition score of 7 or above toward the end of pregnancy because of the risk of pregnancy toxemia
  - A body condition score of 5 to 6 at kidding should not drop off too quickly during early lactation

Fencing

Perimeter Fence

- **Smooth electrified wire**
  - At least 42 inches tall
    - 6 to 8 inches near the ground
    - 8 to 12 inches at the top strands
    - Example (inches from the ground): 6 - 14 - 22 - 32 - 42 - (52)

Perimeter Fence

- **Woven wire (6" X 6")**

- Effective
- Costs at least twice as much as 5 strands of smooth electrified wire
- Horned goats can get caught
- Place an electric wire offset about 9 inches from the woven wire fence and about 12 to 15 inches from the ground
- Reduces control of forage growth at fence line

◦ **Woven wire (6" X 12")**
- Effective
- Cheaper
- Horned goats usually do not get caught

Interior Fences
◦ Two to three strands of wires (braided or tape) with tread-in posts
◦ Electronet

Grazing Management

In a pasture situation, goats are "top down" grazers. They start to eat seedheads or the top of the canopy and progressively take the forage down. This behavior results in uniform grazing. Goats do not like to graze close to the ground. Grazing goats have been observed to **1)** select grass over clover, **2)** prefer browse over herbaceous plants, **3)** graze along fence lines before grazing the center of a pasture, **4)** refuse to graze forage that has been trampled and soiled. These observations have been put to use in the grazing management of goats: it is preferable to give them a daily allowance of forage and to move the fence accordingly rather than to let them roam freely in a large pasture. This type of management, called control grazing, was developed in Europe and is implemented very successfully in New Zealand and numerous other parts of the world. Control grazing results in better animal performance, higher stocking rates, and increased pasture productivity.

So, You Want to Get in The Goat Business

Are you really, really ready?

◦ Are your fences, pens, chutes goat proof
◦ Is your grazing land adequate
◦ Do you have sufficient supplemental feed on hand
◦ Is your predator controller in place
◦ In your medicine cabinet, do you have
- Dewormers
- Vaccines
- Iodine
- Antibiotic ointment
- Insecticidal powder
- Thermometer
- Stomach tube
- Hoof trimmers

◦ Do you know the address and phone number of your county extension office?
◦ Do you the names of your county extension livestock, forage, and 4-H agents?
◦ Have you discussed your new venture with your local veterinarian?
◦ Have you alerted your next door neighbors to the possibility of excessive noises, exotic odors, sexual activity during the breeding season, animals getting out, and allayed their fears of the spreading of diseases?