



Meat Goats and Hair Sheep

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Why Small Ruminants?

- Added income
 - Requires management and marketing knowledge.
- Brush and weed control
 - Not all brush or weeds re consumed!
 - Sheep and goats will eat grass!
- Lifestyle
- Agricultural tax evaluation
 - Agricultural evaluation of property in Texas requires a minimum of 5 animal units (5 cows or 30 sheep or goats).
 - They don't have to breed, you can run stocker goats or sheep to graze/browse and gain weight before selling.
- Any number of goats or sheep can be used to create additional income.
 - Evaluate your and local expertise in management and marketing.
 - They don't have to breed, you run stocker goats or sheep to graze/browse and gain weight before selling.
- Before beginning any new enterprise, create a budget based on current costs and future returns to evaluate profitability!
- Caution: Meat goats and deer eat the same browse!

Fencing

- Barbed wire – additional strands should be added.
- Net wire – use wire with larger openings to prevent horns being caught.
- Electric fence – goats need to be trained, need fairly high voltage.
- Fences need to be tight and no gaps between fence and ground.
- Good fences make good neighbors and reduce predator losses.



Housing, Pens and Chutes

- Housing - protection from cold and rain (woody area or shed)
- Pens - fences at least 4' high
- Crowding pen - enough for 4-10 goats.
- Chute - 10' long, 12 inches wide and 4' high (solid or semi-solid sides).
- Head gates and squeeze chute - might be useful for larger sized herds.



Predators and Predator Control

- Predators include neighbor's dogs as well as coyotes and include lethal and nonlethal techniques. Black headed vultures increasing.
- Lethal means include traps, snares, shooting and poisoning.
- Nonlethal include guard animals, fencing, herding, and penning (with or without lights).
- Kidding in protected traps and night penning can be effective for smaller herds.



Goat Breeds

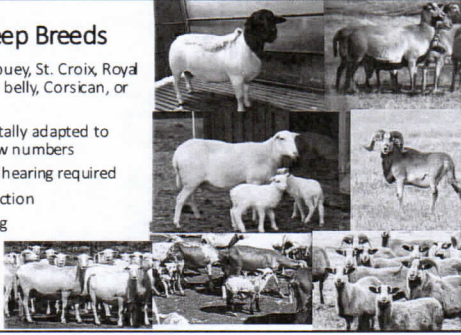
- Spanish - hardy, slower growing, foraging and maternal ability, lighter muscled, flighty
- Dairy - several breeds, Nubian is the best meat breed, high nutritional requirements
- Angora - not adapted to cold climates, not as prolific, produce mohair (must be clipped)
- Boer - expensive, rapid growing, gentle, meaty, large size, crosses well with other breeds
- Kiko - expensive, large framed, high twinning rate
- Tennessee Stiff Legged (mytonic) and Tennessee Meat Goats - grow more slowly and smaller sized



Oklahoma State University Goat Breeds
<http://afs.okstate.edu/breeds/goats>

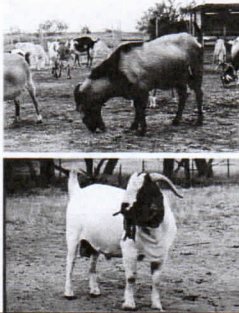
Hair Sheep Breeds

- Dorper, Pelibuey, St. Croix, Royal White, Black belly, Corsican, or Barbado
- Environmentally adapted to Texas but low numbers
- Little or no shearing required
- Lamb production
- Horn hunting



Selection

- Purchase breeding stock (purebred or commercial) from a reputable breeder.
- Production records should include age, reproduction (pregnancy and twinning), weaning weight, and health.
- Individual selection should include legs, hooves, udders, teats and teeth.
- Performance Tested Bucks and Rams have documented growth performance.
- Consider crossing native or dairy breeds with Boer goats to improve reproduction and performance.



Feeds and Nutrition

- Goats and sheep are ruminants but as small ruminants they require higher levels of protein and energy than larger ones (like cows).
- Forages should be the base diet, good grazing management is needed for adequate nutrition and reducing parasite infestations
- Supplemental feed should be fed in troughs, never on the ground to reduce parasite infestations.
- They have smaller rumens than cows and require higher protein and energy



Grazing Management

- Knowledge of goat and sheep diet preferences is important
- Browse (leaves and stems of woody plants) consumption is high throughout the year (45-75%) but more grass (20-45%) is consumed in the Spring and Fall
- Forbs (weeds) represent 5-10% of the diet.



Stocking Rates

- Metabolically, 6-7 mature goats or sheep equal 1 Animal Unit
- Differences in plant types in pastures or ranges will affect stocking rates so they should be flexible especially with good grazing management.
- In mixed brush in the average carrying capacity is 1-2 acres per small ruminant but that will vary across Texas.
 - Maybe as many as 4-5 per acre in Central Texas



Reproduction

- Goats and sheep are seasonally polyestrous with estrus cycles every 20-21 days from August to January.
- Males and females reach puberty at 5-9 months depending on breed.
- Typical breeding ratio is 1:20-25
- Estrus (heat) last 24-36 hours with ovulation of 1-3 eggs
- Gestation length is 148-150 days and it is possible to have 3 kiddings or lambings every two years.
- Twins are common but difficult births are rare.
- Thin does and ewes respond to "flushing". All respond to the sight, sound, or scent of a male.



Pregnancy Detection

- Transabdominal and transrectal ultrasound (20 d) 90-99%
 - TAU - Sound emitted when pregnant
 - TAU and TRU - creates an image for sizing, aging, sexing, and number on a screen or iPhone
- Milk progesterone (lactating goats) 80% bred, 90% open at 20 days
 - Alerty's IDEXX
- BioPryn (100%)
 - 2cc blood in red top tube, sent to a lab
 - 30 d post breeding, \$6.00
 - <https://biopryn.com/biopryn-sheepgoat/>



Health Issues, Parasites, and Diseases

- Internal parasites (stomach worms) cause significant production losses. Not many products labelled – used off label.
- Egg counts can be variable but useful.
- FAMACA scoring system in sheep used to determine when and what to treat reducing resistance in Haemonchus.
- External parasites include lice, horn flies, mange, and ringworm.
- Diseases can include overeating disease, caseous lymphadenitis, sore mouth, and tetanus (vaccinations).
- Stressed young animals can contract coccidiosis
- Forage disorders can include acidosis (grain overload), impaction, choke, bloat (on legumes), grass tetany (Mg mineral), and poisonous plants.

Tips for using FAMACHA©

- Check at appropriate intervals; varies by season, animals, and risk of infection/reinfection.
- No half scores, use paler score
- Be consistent
- Learn your animals
- Don't ignore other symptoms and factors.
- Test for anthelmintic resistance.
- Replace card, as necessary.



Marketing

- Live animals (kids, lambs, and culls) can be sold through livestock commission companies at weaning
 - Graded on Selection 1, 2, or 3
 - Based on muscling and condition
- Processed goats or lambs and goat/lamb meat (cabrito or chevon) can be sold directly to consumers off farm or farmers markets
- Ethnic groups/holidays
 - Easter/July4th/Christmas
 - Jewish (Passover/Hanukah)
 - Hispanic American (Cinco de Mayo/Diez y Seis)
 - Muslim Holy Days (several)
- Direct sales require marketing skill and knowledge https://www.ams.usda.gov/mnreports/ams_2014.pdf



Meat Goat Selection and Carcass Evaluation

- Selection score based on conformation 1, 2, and 3
 - 1 Superior meat type – thick rear leg, rounded back, moderately thick shoulder
 - 2 Average – slightly thick rear leg, slightly full or flat back, slightly thick to slightly thin shoulder
 - 3 Inferior – narrow throughout
- https://suagcenter.com/portals/communications/publications/publications_catalog/crops_livestock/goats/meat-goat-selection-carcass-evaluation-and-fabrication

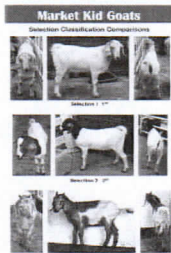


Figure 2a. Monthly Weighted Average and Seasonal Price Index for All Kids at San Angelo, TX Auction.

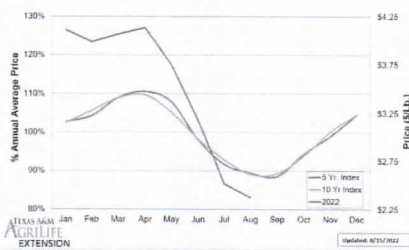
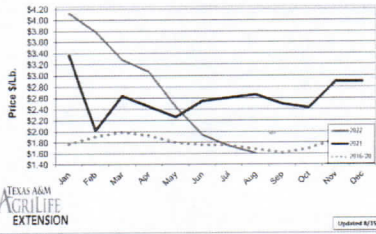
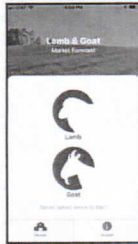


Figure 5. Monthly Weighted Average Feeder Lamb Prices at San Angelo, TX Auction.



Lamb & Goat Market Forecast App

- The app does not forecast price, but rather estimates the marginal revenue per head that a producer can expect from keeping and feeding the animals for another month or more.
- It is assumed that lambs will gain 15 pounds and kid goats will gain 10 pounds per month.
- Market data from Producers Livestock Auction Co. in San Angelo, TX dating back to 2010 is used to calculate the change in the perhead value based on month and weight gain.
- The app then applies a cost incurred for adding the additional weight (Cost of Gain). In general, cost of gain while on pasture can range \$0.10 to \$0.25 per pound, while the cost of gain in a feedlot can range from \$0.75 to \$1.00 per pound.



<https://sanangelo.tamu.edu/>



Meat Goat and Sheep Resources

Universities

- Texas A&M Research and Extension Center San Angelo
<https://sanangelo.tamu.edu/>
- Prairie View A&M International Goat Research Center
<https://www.pvam.edu/cahs/carc/jprc/>
- Langston University (OK)
<https://www.langston.edu/about-goat-research-center>
- Maryland Small Ruminant Page
<https://www.sheepandgoat.com/>

Publications

- ATTRA Meat Goats: Sustainable Production
<https://attra.net/attra.org/product/meat-goats-sustainable-production/>
- Meat Goat Management (MSU)
<https://extension.msstate.edu/publications/publications/meat-goat-management>

Organizations

- American Boer Goat Association
<http://abga.org/>
- American Dairy Goat Association
<http://adga.org/>
- American Angora Goat Breeders Assn.
<http://www.aagba.org/>
- Spanish Goat Association
<http://www.spanishcats.org/>
