

BASIC MEAT GOAT PRODUCTION

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QUESTIONS WELCOME AT ANY TIME



WHY MEAT GOATS?

- Education

- I NEVER GOT TO KNOW A GOAT THAT DIDN'T
- TEACH ME SOMETHING.

WHY MEAT GOATS?

- Chevon, cabrito, or goat meat is the most popular meat in the world.
 - Digests easily
 - Tastes good
 - Low in fat
 - Small, can be consumed before preservation is needed.
 - Valuable by-products – milk, fiber (cashmere and mohair) leather and pack and cart work.

WAY MEAT GOATS?

Goat Meat is NOT the world's most consumed.

The world wide demand is not met.

The U.S. market is not met. (only about 50%)

U.S. market imports 1.5 million pounds/week

Changing demographics increase demand.

(Middle Eastern, Asian, African, Latin American, Philippines, Caribbean and others).

Is the market met here?

WHY GOAT MEAT?

- Goat meat is often sold on the hoof.
 - To ethnic groups that do their own religious slaughter
 - To 4H and FFA groups in every state on the mainland
 - As breeding stock (usually double the price)
 - To families for holidays and parties.

WHY GOAT MEAT?

- Many countries, states or regions have dedicated slaughter houses or adapt beef packing plants to smaller goats and sheep.
 - Kill – hang carcass, cut, wrap chill or freeze.
 - Combine by products into more marketable lots.
 - Hides, mohair, cashmere and trimmings for sausage, stew packages.
 - We are back to the slaughter house and a graziers association.

MEAT GOAT BREEDS

- Four basic breeds.
 - New Zealand Kiko – cross bred from feral, Saanen and Nubian goats to produce offspring that are meaty, grow fast under rugged conditions.
 - Spanish Meat Goat - bred from early New England settlers goats that made their way to the SW where they crossed with Mexican goats that came from Spain. Today a rather small rugged meat goat adapted to doing well on sparse rugged range.

MEAT GOAT BREEDS

- South African Boer – a large and heavy cross of Bantu feral goats, Dutch crosses and Nubian goats to produce a horned, very meaty goat. Given a high plane of nutrition, Boer goats and Boer crosses can produce outstanding carcasses.
- Tennessee Meat Goat a myotonic goat that sometimes will fall over when startled. This goat was selected for large size and meat production. The constant stiffening and relaxing of muscles may result in heavier rear leg muscles, tender meat, and high meat to bone ratio.

BOER GOAT



NEW ZEALAND KIKO



SPANISH MEAT GOAT



GOALS

- Today, if you owned 15 to 20 fat, market ready meat goats:
- What would you like to do with them?
- What would you be able to do with them?
- What would have to do with them?

Requirements for Production

- Acreage
- Acreage needed depends on:
 - Production system
 - Available feed supply
 - Herd size
 - Minimum acreage needed

MEAT GOATS ON MAUI





Production System

- Extensive:
 - Open range, perimeter fence (or not), herdsman and/or dogs.
- Intensive:
 - Cross fenced, temporary electric fence, usually rotational, guard dogs.
- Dry lot:
 - fed from a bag or stored bulk feed or cut and carry.

Available feed supply

- Quantity:
- Quantity per animal unit
- Proper stocking rate
- Establish improved pastures
- Plant forage trees and other crops
- Soil and water conservation

Available Feed Supply

- Quality of forage on offer:
- Overall nutrient adequacy
- Improved pastures
- Supplements
- Dry matter content

Dry Matter Requirements

- Dry matter on offer per AU varies with:
 - Plant moisture/rain
 - Plant Species
 - Stocking rate

Each mature meat goat on pasture/range needs about 2.8% of body weight in DM. A 100 lb. animal would need 2.8 lb of DM or at 85% moisture about 19 lb of forage/browse.

Water Requirements

- The goat is stingy with water.
- Still the grazing meat goat needs to drink about 6 gal/water/day which varies with humidity
- Healthy goat manure has little moisture
- 20 lbs of forage at 25% DM = ~15 lbs water or ~ 2 gallons.
- Tropical dry weather increases need
- Lactating does need more

TIME / LABOR REQUIREMENTS

- Production System:
 - Extensive system
 - Intensive grazing system
 - Herd size
 - Year round kidding system
 - Seasonal kidding system
 - Procedures like vaccination, worming, castration and hoof work-

CAPITAL REQUIREMENTS

- Improve an existing system
- Introduction into new systems
- Increase herd size
- Improve breeding stock

CONTAINMENT and PROTECTION

- Hog wire
- Electric
- A combination of fencing
- Guard dogs
- Full time goatherds
- All of the above

GOOD DOG



RESULTS OF BAD DOG





MARKETING

- No established system for distribution
 - Live goats, (sale barns) goat meat, (slaughter, cut, inspect) other products, (leather, fiber).
 - Individual marketing schemes depend on reputation, continuity of supply and quality.
 - Prices vary
 - Quality grades do not apply.

PRODUCTION TIME LINES

- Gestation can take 155 days. Average is 5 months.
- Market kids from 40 to 90 pounds or 4 to six months of age.
- Growth rate to market is influenced by breed, feeding management, herd health (parasites) management and weather

SELECTION CRITERIA FOR MEAT GOAT PRODUCTION

- Reproductive Efficiency
- Survivability
- Growth Rate
- Feed Efficiency

REPRODUCTIVE EFFICIENCY

- Give birth to two live kids at least three times in two years.
- Wean at least two kids each year
- Processes involved are length of breeding season, ability to flush, survival, management, climate, overall conditions.
- Reproduction efficiency the most important factor related to profit.

SURVIVABILITY

- The number of kids a doe raises not the number she produces is what pays. Kid survival then is of utmost importance.
- Losses occur during three distinct periods.: at birth, from birth to weaning, from weaning to maturity or breeding.
- The most critical stage is birth to weaning.

Survivability Factors

- Birth weight- singles-twins-triplet
- First time kidding
- Mothering ability
- Disease
- Parasites
- Predators

GROWTH RATE

- Environmental factors include:
- Age of the doe (3-5 yr old produce more milk)
- Sex of kids (males weigh heavier)
- Singles weigh more at birth-grow faster but lighter twins my produce more pounds marketed.
- Feed on offer is a major factor.
- Parasites.

GROWTH RATE

- Genetics
- Types and breeds. (brush goat, meat goat, dairy type)
- Cross breeding and selection for faster growth must not compromise reproductive efficiency and kid survivability.
- Selection should favor genetic potential to obtain maximum response to a high plane of nutrition.

FEED EFFICIENCY

- Island meat goat production cannot afford dry lot or feed lot systems.
- Island producers must control disease, parasites, manage harsh weather conditions (sun and wind protection) to make maximum use of range conditions.
- Goats that do well fed from a bag usually do not do well on range.
- Select goats for the range that will give maximum return by “feeding themselves”.

BREEDING MANAGEMENT CALENDER

- Year 1
- Late September/Early November
- 1. Group breeding does. 2. Introduce buck nearby. 3. Flush (extra feed). 4. Deworm breeding animals. (facilities?)
- Mid-late October
- 1. Increase feed for buck. 2. Put buck with does. 3. Record breeding/exposure dates.
- Mid-late December.
- Remove buck . (Two heat cycles over 42-62 days)

BREEDING MANAGEMENT CALENDAR

- Mid February-end of March
- Increase plane of nutrition of does during last six weeks of gestation. (late fetal growth rate, 70% of fetus[es])
- Prepare for kidding. (housing, creep feed, medicine).

BREEDING MANAGEMENT CALENDAR

- End of March early April
- Kidding begins.
- Dip navels if possible, make certain kids get colostrum.
- Castrate if market demands it or your market is for more mature goats.
- Increase feed to does.

BREEDING MANAGEMENT CALENDER

Start Kids on creep feed.

Solid high protein feed. (cut and carry to creep feeder)

The early stimulation of the rumen is
VERY IMPORTANT;

Quicker development of the rumen

Quicken growth rates (= money) of kids.

CREEP FEEDER



BREEDING MANAGEMENT CALENDER

- April – May
 - Weigh Kids at 30 days, deworm and vaccinate.
- Late May – Early June
 - Wean kids (leave kids, move mothers)
 - Weigh kids. Select breeders.
 - Reduce supplementation to hasten “drying up” and to prepare does for rebreeding.

BREEDING MANAGEMENT CALENDER

- Select BEST females.
 - Number of offspring, growth rate of kids, conformation of kids, number weaned and weaning weight of kids.
 - CULL open does, repeat breeders, old does (teeth)
 - Prepare does for rebreeding – flushing, introduce male near by etc.

BREEDING MANAGEMENT CALENDER

- New breeding season begins.
- Use a superior buck.
 - Size, growth rate, size of testes, libido, conformation.
 - Usually a 1:20 doe ratio is adequate for a superior buck.
 - You selected your best does. (50% of genetics)
 - Do not skimp on the other 50% (the buck)

FEEDING GUIDELINES

- Feeding the doe. (Five distinct periods)
- Before breeding
- After breeding and 1st month of pregnancy
- The 2nd and 3rd months of pregnancy
- The last six weeks of pregnancy (70% of fetal growth, fetal fluids etc., mammary tissue)

FEEDING GUIDELINES

- Feeding the doe
- Lactation
- Milk production is influenced by age, breed, body condition, nutrition during pregnancy and plane of nutrition during lactation.
- Grass alone cannot meet energy requirements for heavy milking does..
- Under nutrition and/or adequate water can cause reduced milk production, low kid growth and excessive weight loss for the doe.

FEEDING GUIDELINES

- Feeding the young kid
- Get rumen functioning as early as possible.
- Introduce creep (solid) feed as early as possible.
- Supplement weaned kids for faster growth with a sharp eye on economics.

FEEDING GUIDELINES

- Feeding breeding buck
- Good pasture will maintain a buck when he is not breeding
- Increase plane of nutrition just before and during breeding season.
- Manage parasites
- Avoid excessive weight gain when buck is inactive

GOAT HERD HEALTH PROGRAM

- Dry Does
 - Thirty days before kidding, vaccinate for tetanus and Clostridium perfringens C & D (overeating disease.)
 - Worming as indicated by fecal exam, usually every three months.
 - Check all warning signs – especially hoofs

OVER GROWN HOOF



OVERGROWN HOOF



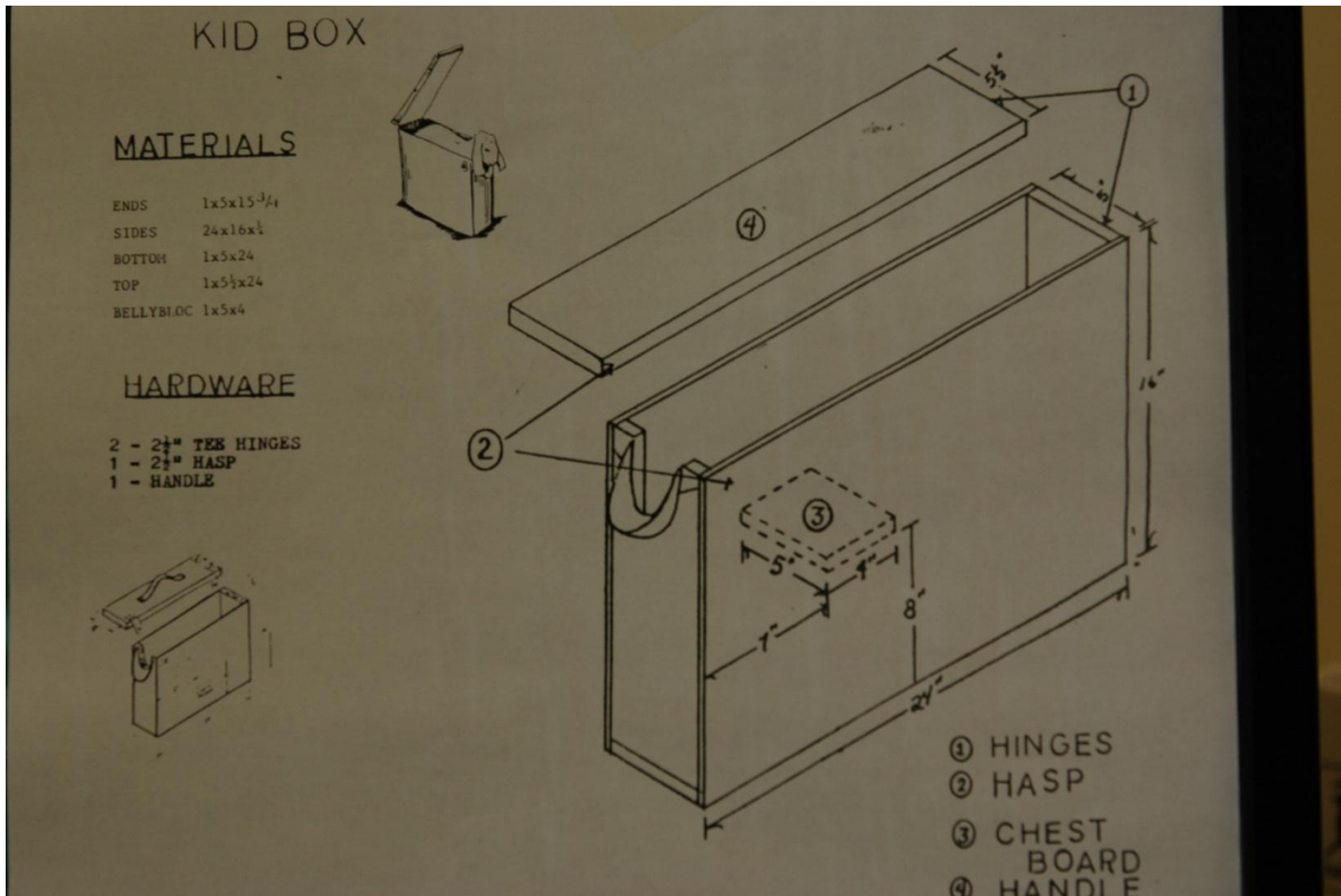
GOAT HERD HEALTH PROGRAM

- Freshening Does
 - Wash udder and hindquarters immediately after kidding
 - If placenta is retained more than 24 hrs, it should be removed. Treatment with oxytocin or intrauterine antibiotics may be indicated.
 - Does should be wormed at or shortly after kidding. VERY IMPORTANT

Goat herd health program

- Kids
 - At birth, tie off umbilical cord, and dip in iodine
Make sure kids get at least two ounces of colostrum. May be hand fed.
 - Disbud and castrate at 3 days to two weeks.
 - Vaccinate at 3 and 5 weeks for tetanus and clostridium perfringens.
 - Deworm at weaning. Check fecal sample at 3-4 weeks and check for coccidiosis.

KID BOX FOR REMOVING HORNS



GOAT HERD HEALTH PROGRAM

- Bucks
 - Annual tetanus and *Clostridium perfringens* vaccination.
 - Examine for genital abnormalities before breeding.
 - Deworming as indicated by routine fecal examination. Usually every two to three months.
 - Selenium (if needed) and alpha tocopherol (V-E) injections 30 days before breeding.

ADVANCED MEAT GOAT UTILIZATION

- Rights of way vegetation management
- Pasture renovation (multi-species grazing management)
- Buffer / security zone maintenance
- Weed management in desired species propagation and growth (taught aversion)

MEAT GOAT AVERSION TRIAL



THANK YOU

