

# Instructions for Webinar Participation

## Getting Started

- The webinar will start soon
- Audio is through your computer speakers or headset – ***you may not hear sound until webinar begins***
- Audio check - use the Audio Settings **Audio Settings** options to do a sound check
- If you see presenters talking but do not hear audio, use the Question & Answer feature to indicate you are not getting sound

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2. A box will open where you can type in questions, comments, indicate sound problems, etc.
3. You can use this throughout this webinar to ask questions

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MSU EXTENSION 2016 BEGINNING FARMER WEBINAR SERIES



TWENTY THREE EVENING WEBINARS FOR PEOPLE WANTING TO 'GET STARTED' FARMING

**March 30, 2016 7:00pm eastern  
Getting started with Meat Goats**

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# Getting Started with Meat Goats

Mike Metzger

MSU Extension Educator

Small Ruminants



It isn't what you don't know that will get you; it is what you don't know that you need to know that will bite you in the butt every time.



## Things to know

- Goats are a dry-climate species
- They can handle hot and cold but they don't do well in wet or wet and windy climates
- Goats are not "little cows" and they should not be mentioned in the same sentence as sheep
  - Cattle and sheep are grass eaters
  - Goats are foragers/browsers -- not grazers



# Basic Management



- Feeding
- Housing
- Predator Control
- Diseases





# Basic Goat Information

- Gestation— 155 days (5 months)
  - Typically kid the first time at 1 year of age
- Goats tend to be seasonal breeders (Cycle in late summer/fall)
- Average 2.1 kids/kidding
  - 1 to 5 kids
  - No problems with freemartins as seen in cattle
- Polled goats tend to have reproductive problems (hermaphroditic females)





## Basic vocabulary terms:

- Doe/Nanny-female goat of any age
- Buck/Billy-male goat of any age
  - Dairy producers tend to use Buck/Doe
  - Meat producers tend to use Billy/Nanny
  - Also varies by area of the country
- Wether-castrated male goat
- Kid (doeling/buckling)-goat under 12 months of age
- Yearling-goat 12-24 months of age





# Feed

- Goats do not eat tin cans
- Lactating Does require good quality feed
  - 15-18% protein Concentrates (4#/head/Day)
  - High quality alfalfa hay or pasture (6#/head/day)
- Growing Kids
  - 2#/head/day
  - Can also use pasture
- Dry does
  - Pasture or medium quality hay





# Housing

- Meat goats need a clean, dry, draft-free shelter
  - simple three-sided structure
  - full insulated barn
- If you will be raising kids in the winter, you will want to have a clean, warm building for this purpose





# Fencing

- Fencing needs to be sturdy and strong for goats
  - will make the most of any breach in a fenceline
- Goats need access to a lot of land for forage and pasture
- You may want to combine perimeter fencing to keep predators out and farm animals in
- Interior, temporary fencing for smaller paddocks
  - to keep does separate from bucks
  - Kids separate from does





# Predator Control

- Important where stray dogs, coyotes, and other predators
  - Llamas
  - Donkeys
  - Guard Dogs



# Predator Control



- Predator control starts with a good fence.
- If necessary, use management options to control predation
  - Lamb/kid at a time or place when/where predator risk is low
  - Consider penning or corralling animals at night
- ➔ 45% of sheep farms employ livestock guardians
  - Guardian dogs (29.6%)
  - Llamas (14.2%)
  - Donkeys (11.4%)
- Contact Wildlife Services for assistance with lethal control







# Diseases

- Johne's
- Caprine Arthritic Encephalitis (CAE)
- Caseous Lymphadenitis (CL)
- Overeating





## Johne's Disease

- Same organism as cattle
- Contaminated feed, water, bedding, and soiled udders are the major ways the organism spreads
- Can also be spread by contaminated colostrum
- Normal stools are the usual observation even in clinically diseased goats
- Blood tests have been used to diagnose paratuberculosis in small ruminants BUT have a relatively low sensitivity







# Caprine Arthritic Encephalitis (CAE)

- Chronic infection of the joints and rare occasions encephalitis in kids under 6 months
- Not all infected goats progress to disease
- There is NO evidence that the CAE virus is transmissible to humans





## Caprine Arthritic Encephalitis (CAE)

- If you supplement colostrum
  - Heat treat colostrum to 135 degrees F. for 60 minutes to inactivate the virus









Courtesy of Espen Rimstad





# Caseous Lymphadenitis (CL)

- Bacteria *Corynebacterium pseudotuberculosis*
  - Affects both sheep and goats
- Typically the abscesses contain a thick yellow-green pus with little or no odor
- Once organism enters body, can be transported within cells, animals are infected for life
- Typically seen in lymph nodes and lymphoid tissues

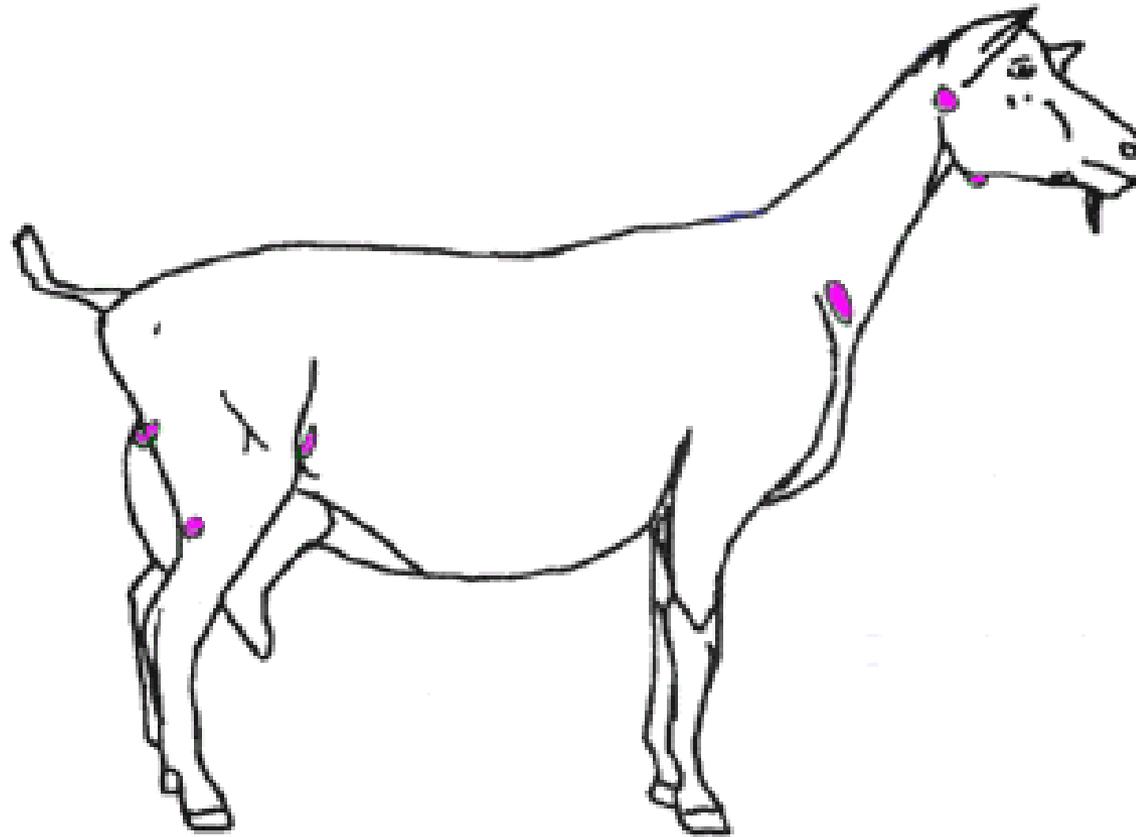




## Caseous Lymphadenitis (CL)

- Argument about how long organism can persist in the environment
  - Days if smeared on a surface
  - Weeks to months if incorporated in organic matter
    - Some even say years





**Location of common swellings caused by caseous lymphadenitis. Abscess in the location of external lymph nodes suggest caseous lymphadenitis.**





## CL Vaccine





Photo Copyright 2000 GoatWorld.com





# Caseous Lymphadenitis (CL)

- How organism leaves infected animal
  - **SKIN:** abscesses draining through skin - important!
  - **RESPIRATORY TRACT:** coughing, nasal secretions releasing stuff from lung abscesses
  - **MAMMARY GLAND:** there have been reports of shedding in milk –another good reason to pasteurize milk









# Overeating

- Enterotoxemia
- Caused by *Clostridium perfringens*, Type C and D
- Commonly associated with heavy concentrate feeding or an abrupt change in the diet
  - Can be caused by really good pasture as well
- Animals are frequently found dead without symptoms
- Symptoms are often confused with other diseases such as *e.coli* scours or polio



## Overeating

- Vaccinate pregnant does 6 weeks prior to kidding
- Vaccinate kids at 4-6 weeks of age
- Revaccinate 4 weeks after initial vaccination







# Why would anyone want to raise meat goats?

- Goats are annoying!
- They're looking for a way to die. If the coyotes don't get them, the worms do
- Nobody eats goat meat.





# Why would anyone want to raise meat goats?

- Goats eat everything they're not supposed to
- You can't keep goats in
- Goats take too much work.
- You can't make any money!





# However . . .

- There's an unsatisfied demand for lamb, mutton, and goat meat in the U.S., especially among persons of certain ethnic and/or religious backgrounds.
- Worldwide people consume more goat meat than beef, pork, or chicken.
- Goat meat has 40% less saturated fat than skinless chicken.

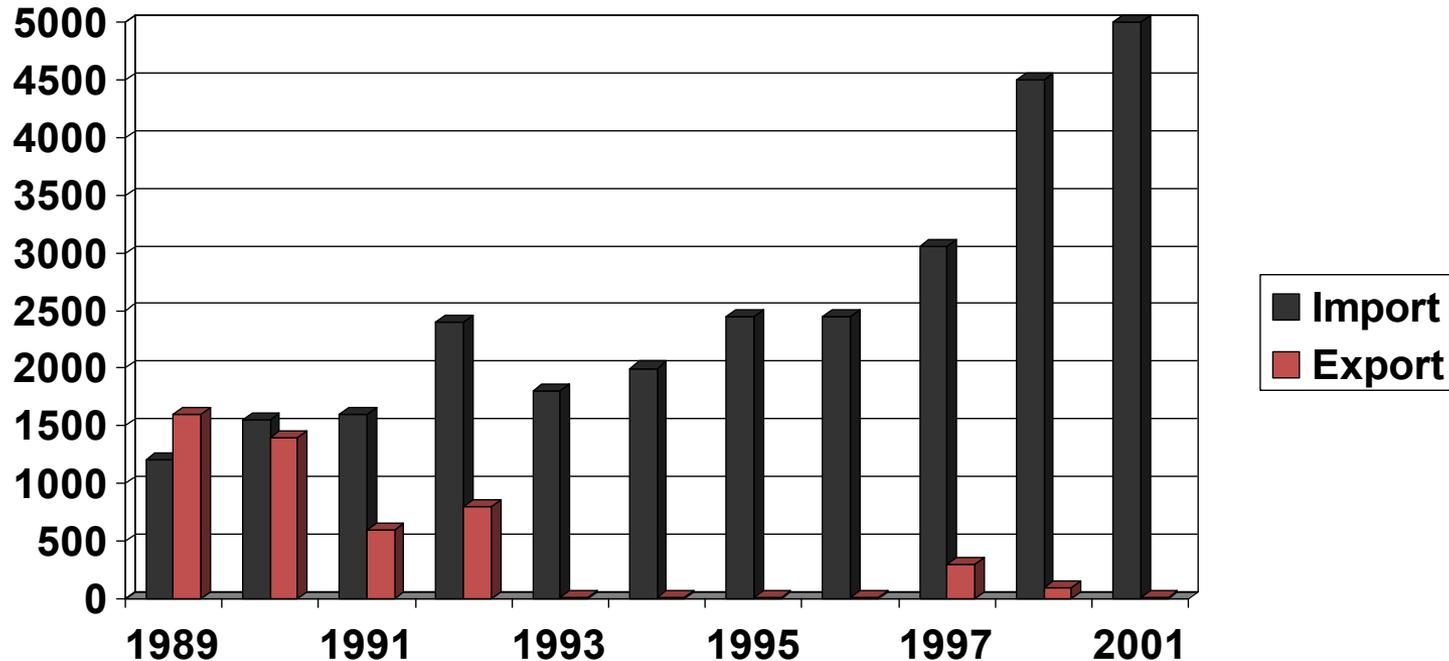


## Muslim Population Centers

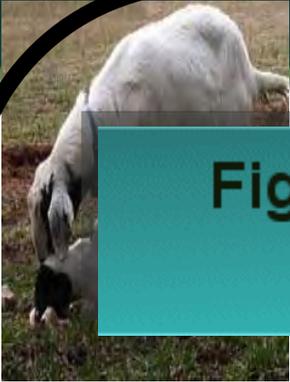
<u>Metropolitan Area</u>	<u>Population</u>
<b>Los Angeles</b>	<b>700,000</b>
<b>New York (Tri-State Area)</b>	<b>600,000</b>
<b>Chicago</b>	<b>400,000</b>
<b>Detroit</b>	<b>400,000</b>
<b>Toronto, Canada</b>	<b>400,000</b>
<b>Houston</b>	<b>300,000</b>
<b>Washington, DC</b>	<b>300,000</b>
<b>Southern Florida</b>	<b>250,000</b>
<b>Dallas</b>	<b>200,000</b>



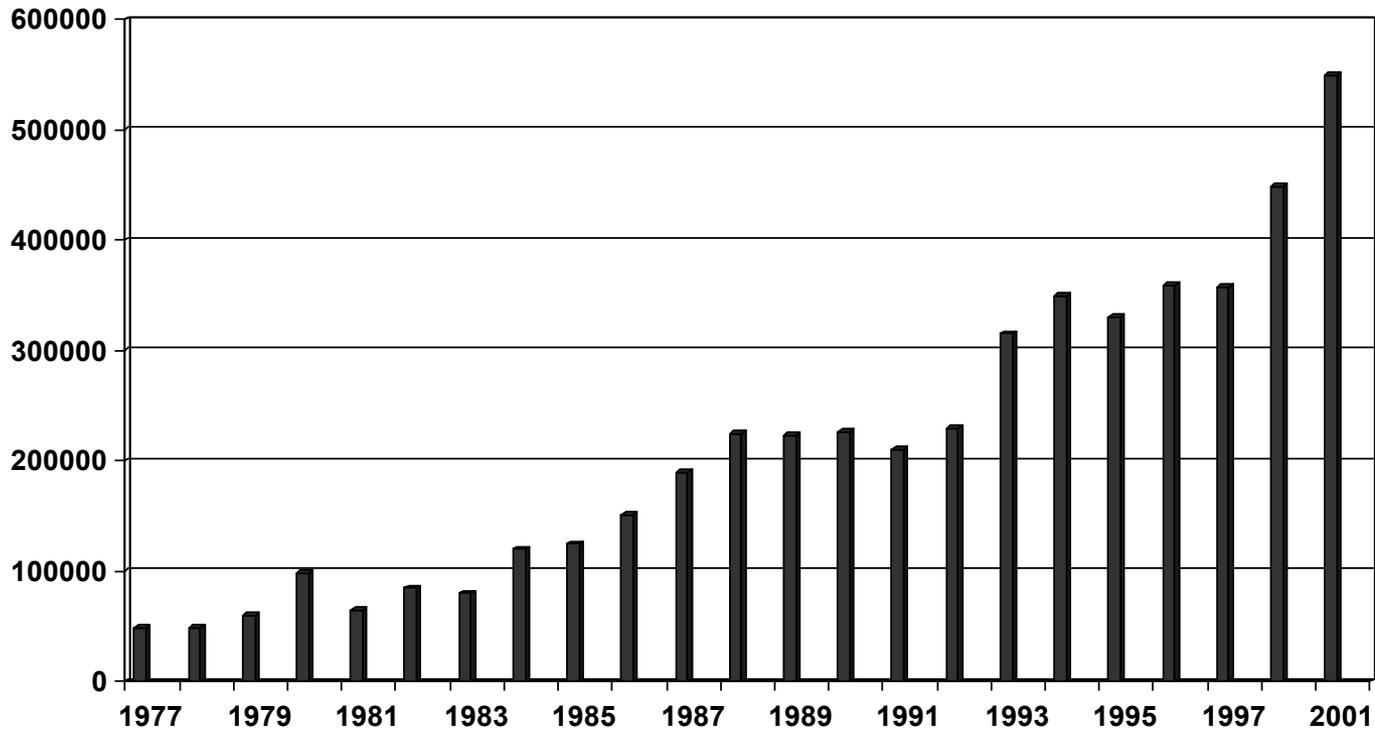
# Import/Export



**• Since 1990 Australian imports growing at a rate of >30% annually supplies major portion of goat meat sold commercially in the U.S.**



**Figure 1: Number of goats slaughtered at USDA inspected slaughter facilities.**





## U.S. Potential

- Why should U.S. retailers buy home grown meat when they can buy frozen for ½ price?
  - Farm fresh is what they want
  - Often times want Halal meat

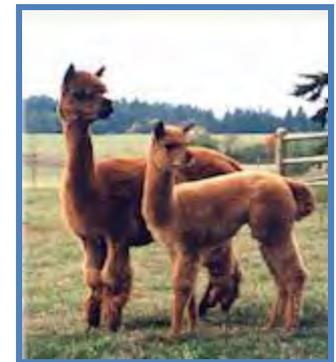




Sheep and goats are far more productive and efficient than beef cattle and camelids.



- Early puberty
- 5 month gestation
- Usually give birth to twins and triplets
- Have the potential to wean more than 100% of their body weight
  - Weans 3 60# kids



**180 # / 150 # = 120%**



## Sheep and goat grazing can be very beneficial to the environment.



- Goats prefer to eat browse.
- Sheep and goats eat invasive plants and plants that are poisonous to cattle.
- The smaller hooves of sheep and goats do less damage to the soil than the hooves of large livestock.
- They shy away from wet areas.
- Sheep and goat grazing complements cattle and horse grazing.





# Sheep and goat raising doesn't have to be hard work.

- There are breeds which are hardier and more resistant to disease.
- There are production systems which keep labor requirements to a minimum and let sheep and goats produce naturally.
- Proper equipment and facilities will reduce labor requirements.
- You can choose to work smart, not hard. It's your choice.





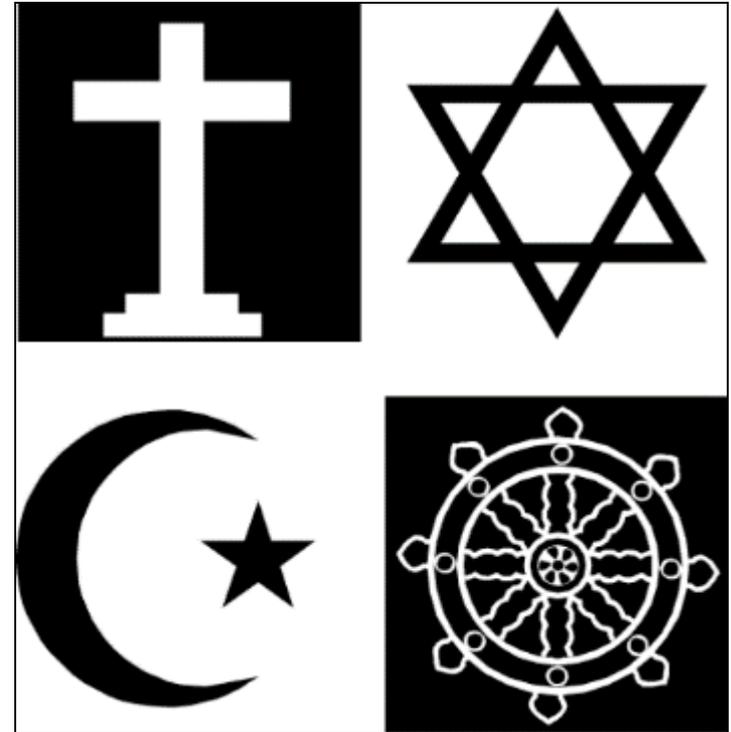
# Determine your target market and produce for it . . . not vice versa.

## 1) Commodity markets (low cost producer)

- Public livestock auctions
- Order buyers
- Direct to packer

## 2) Direct/Niche markets

- Freezer goats
- Ethnic markets/on-farm or custom slaughter
- Farmer's markets
- Internet
- Club goats
- Breeding stock
- Vegetation control



# Start with the right animals



- Select healthy, sound animals from reputable breeders.
  - Be wary of hoof problems, respiratory problems, chronic digestive problems, abscesses, abortions etc.

Select the appropriate breeds or breed cross(es) for your operation.

- Crossbreed for meat production.



# Start with the right animals



- Start with mature females.
- Start small and grow the size of your operation gradually.
- Do not get more animals than your pasture, facilities, and labor can support.





# Keys to making a profit with meat goats.

- Treat goat enterprise as a business (profit in 3/5 years according to IRS)
  - Make decisions based on economics.
  - Select animals for economically important traits.
  - ➔ Control feed costs.
  - Limit veterinary and medicine costs.
  - ➔ Be a savvy marketer
  - ➔ Achieve high levels of production to spread out fixed and variable costs.





# Primary Meat Goat Breeds

- Boer      From South Africa, imported  
1993
- Kiko      New Zealand
- Spanish





## What breed is right for you?

- You can raise any breed of goat for meat
  - specific breeds are focused on putting on weight versus producing milk
  - other characteristics that make the breed more desirable for meat production

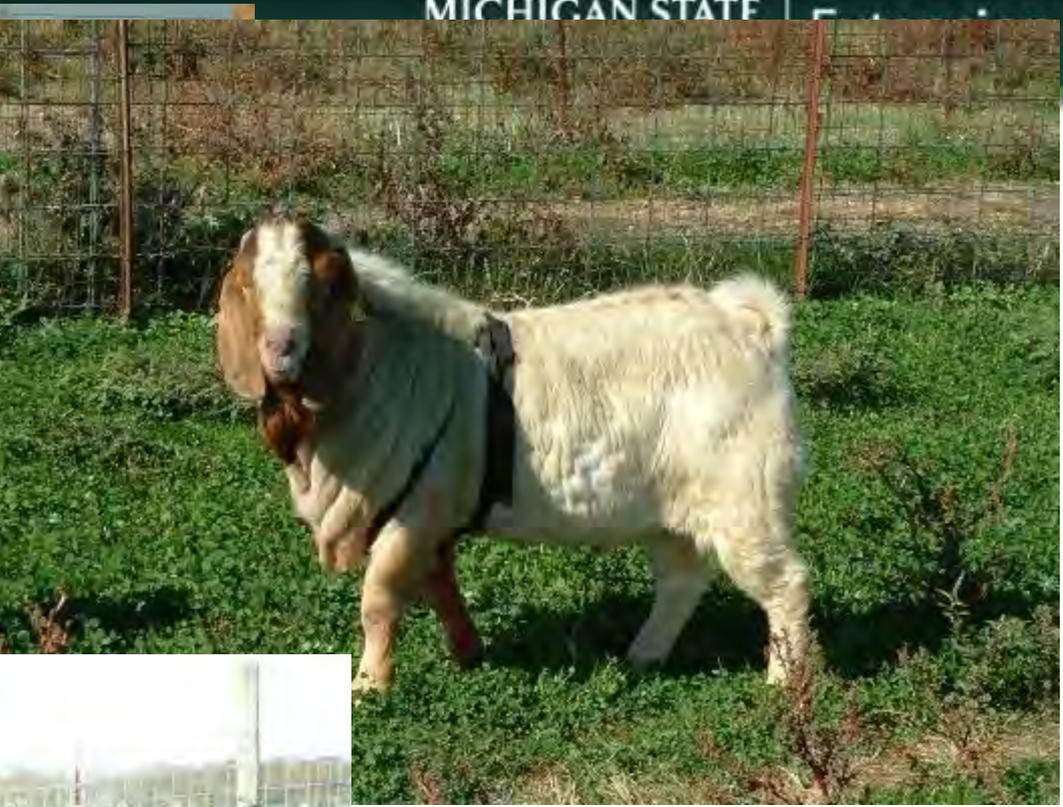




## What breed is right for you?

- If you are raising goats for meat, you don't need to buy a show goat
  - in fact, you shouldn't
  - Show goats and meat goats are raised differently
- You don't need to buy registered stock
  - Most meat producers will find a good, full breed buck and breed him with mixed-breed does
- Finding the right market for your goat meat will determine what qualities you want







## Boer Goats

- Boer goats originated in South Africa for meat and were selected for superior body shape, high growth rate and fertility
- They have large frames
- They are white and reddish-brown, or all red, short-haired, and with black, brown or red markings on the head and neck
- They have short horns that are curved close to the head





## Boer Goats

- high resistance to disease
  - Except foot rot
- high fertility rates
- grow fast
- high quality meat
- can be poor mothers







## Kiko

- Large-framed, white, hardy and able to thrive under poor conditions
- Developed in New Zealand and brought to the US in the 1990s
- Strictly meat producing goats.
- If you have a lot of range available, Kikos may be a more economical breed than Boers for you to raise





## Kiko

- low maintenance
- Good maternal characteristics
- quite resistant against parasites or at least a high tolerance against them
- high growth rate
- most especially favorable for crossbreeding with other type of goats







## Spanish Meat Goats

- Available before Boers in the US
- Spanish goats were the standard meat-goat breed, especially in the South
- Descendants of goats brought by Spanish explorers
- Medium-sized and lanky, mostly short-haired, and come in all colors
- They have long, often twisty horns





## Spanish Meat Goats

- easy to handle
- extremely hardy
- able to survive in various temperatures
- breed all year round and are a great source of milk aside from goat meat
- good mothers
- Tend to be smaller framed







## Crossbreds

- Dairy goat breeds such as Nubian, Alpine, Toggenburg, and Saanen are crossed with Boers for meat production
- Many commercial producers use a 3-way cross of boer, spanish, and kiko





## Systems

- Kidding to market
  - Ownership from start to finish
    - You own the does
    - Sell kids as slaughter ready animals
- Kidding to weaning
  - Kids are born on your farm but sold to others for more feeding before they are ready for slaughter
- Weaning to market
  - Buy weaned kids
    - Sell as slaughter ready animals





## Production Systems

- Pasture based
  - Goats prefer to browse
  - Animals on pasture during growing season
  - Understanding parasite management is a must
  - Lower cost system
- Drylot/Feedlot
  - Feed brought to animals
  - Manure management can become an issue
  - Higher cost system

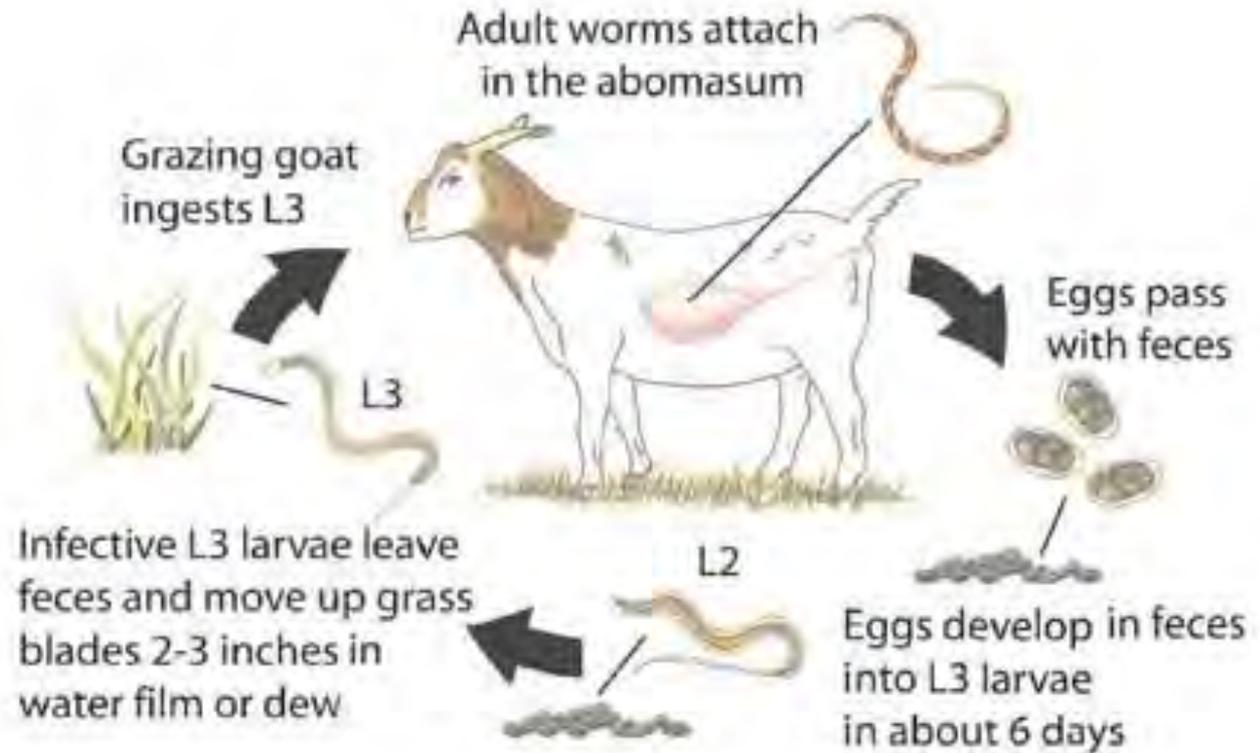




## Pasture based system

- Does may kid in the barn or on pasture
  - Lactating does make best use of good pasture
- Rotational graze for maximum production
  - Optimum pasture production
  - Can help with internal parasite control
- Grazing pasture is a learned activity
  - Feedlot animals put on pasture will stand around screaming they have nothing to eat
- Must have stored feeds for winter use





**Life Cycle of *Haemonchus contortus*,  
the barber pole worm**



# What is a goat “GRADE” ??

**GRADE** : *a define category of standards based on visual appraisal and measurable carcass characteristics*

# USDA Live Goat Grades

- Selection No. 1
- Selection No. 2
- Selection No. 3

Effective Date: October 2001



## Selection No. 1

Selection No. 1 live goat have a superior meat type conformation without regard to the presence of fat cover. They shall be thickly muscled throughout the body as indicated by a pronounced (bulging) outside leg, a full (rounded) loin, and a moderately thick outside shoulder.





Selection 1  
88 lbs.

Selection 1  
Carcass  
44 lbs.

50.0% Yield





## Selection No. 2

Selection No. 2 live goats have an average meat type conformation without regard to the presence of fat cover. They shall be moderately muscled throughout the body as indicated by a slightly thick and a slightly pronounced outside leg, a slightly full loin, and a slightly thick to slightly thin outside shoulder.





Selection 2  
79 lbs.

Yield  
46.8%

Selection 2  
Carcass  
37 lbs.





## Selection No. 3

Selection No. 3 live goats have an inferior meat type conformation without regard to the presence of fat cover. The legs, back and shoulders are narrow in relation with its length and they have a very angular and sunken appearance





Selection 3  
50 lbs.

Yield  
40%



Selection 3  
Carcass  
20 lbs.



## Carcass Data

- Dressing Percentage
  - Amount of goat that goes into the cooler
  - 45 – 52%
- Fat cover
  - Minimal
- Carcass weight
  - Less than 50 lbs; depends on holiday
- Carcass Shrink
  - Can lose over 8% overnight
- Ribeye area
  - 1.2 to 2 sq"





## Primary Issue

- What are the ways and means to make goat meat more accessible to the consumer, processor, retailer or wholesaler of goat meat.
  - Quality product on a year round bases (Accelerated breeding or breeding groups)
  - Assist in nurturing culinary traditions
  - Adhere to specific carcass preferences (Blemish free)
  - Ethnic people must be made to feel welcome on the farm
  - The industry needs to go to the price/lb system
  - Don't ignore the domestic market



## Marketing Strategies Pooling For The Regional & National Market

- Pooling or co-mingling animals into graded livestock sales.
- This is a good outlet for the small farmer who is not going to sell direct
- Graded and grouped sales





# Selling On Farm

- If you have goats near a busy highway, you will have customers
- Ethnic groups often near college towns
- Advertise in ethnic grocery stores, etc.
- Be sure to ask enough! Currently at least \$2.50/pound, more at holidays





## What does hal-al mean?

- Halal is an Arabic word that means "permissible"
- The slaughter of a hal-al animal has certain guidelines
  - Allah's (God's) name must be pronounced during slaughter
  - The instrument must be very sharp to ensure humane slaughter
    - The animal must be slit at the throat.
  - The animal must not be unconscious





## What does hal-al mean?

- The slaughter of a hal-al animal has certain guidelines (Continued)
  - The animal must be hung upside down and allowed to bleed dry
    - Eating blood is not halal
  - These steps must be accomplished by a Muslim or the People of the Book (Christian or Jew)
    - Many observant Muslims find kosher meat acceptable
  - The animal must have been fed a natural diet that did not contain animal by-products





## Marketing Meat (Legally)

- Sell live
  - Can be butchered on farm of non-USDA inspected facility
- To sell cuts
  - Must be slaughtered at a USDA inspected facility
  - Must have MDARD permit(s)





## Challenges

- Finding good stock
- Predator control
- Marketing
- Being accepted as an industry
- Resistant parasites
- Vets with knowledge





## Summary

- Managing goats is different than managing sheep or cattle
- Housing can be minimal, but fencing should be constructed to keep animals in and predators out
- Start with animals from a reputable source
- There is a demand for goat meat with several different marketing choices



# Questions

A group of approximately 15 goats of various breeds, including Nubians and Boer goats, are gathered in a grassy pen. The goats have white, brown, and tan markings. Some have large, floppy ears. They are standing and looking in various directions. The pen is enclosed by a blue metal fence on the left and a wooden fence in the background. The ground is covered in green grass.

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