

Raising Meat Goats on Pasture



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Top 10 Reasons Not to Raise Goats



1. You have to be smarter than everything that wants to kill them.
2. You have to be smarter than goats
3. Parasite Problems
4. Predator Problems
5. Fencing – keeping them in!
6. Hoof problems
7. Weather problems (kidding, parasites)
8. Lack of infrastructure (marketing, veterinary expertise, animal health products, feed products, knowledge, research)
9. Higher labor requirements (kidding, hoof care, parasite control, ,marketing)
10. You're not going to get rich quick

Management Considerations

- Predator Control
- Fencing
- Facilities
- Parasite Control
- Pasture & Grazing Management
- Marketing
- Advantages

Predator Control



- Guard Animal + Effective Predator Fencing
- Guard dog, Llama, donkey - dogs best on larger and brushier farms. Llamas and donkeys work well on smaller operations.
- Fencing - 7 - 8 wire HT power fence for perimeter

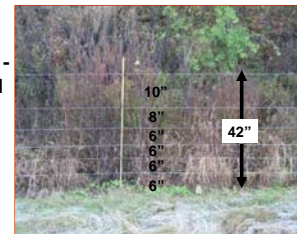
Fencing for Sheep & Goats





- HT electric/power
 - 6 - 8 wire perimeter
 - 2 - 6 wire interior
- Woven wire
 - 39" + 1-2 barbed or electric
 - Wider mesh preferred

Electric Fencing

- Both sheep & goats can be trained to respect electric fencing
- Perimeter should be 6 - 8 wires at least 42" tall
 - bottom wire 6 - 8" from the ground
 - 6 to 12 inch spacing between wires
 - alternating hot and ground wires

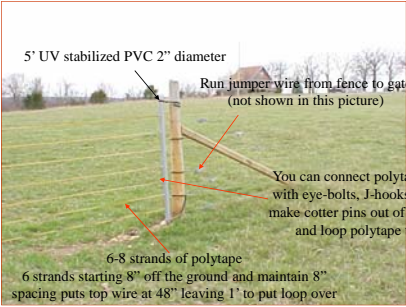


- Goats can be controlled with 3 or more strands of HT electric wire for subdivision fencing
- 2 polywires have been successful for stripgrazing as long as forage supplies are adequate
- Electric netting is also available for temporary fencing

Electric Gate – Ozark Style

utilizing 6 - 8 strands of polytape and UV stabilized PVC pipe



5' UV stabilized PVC 2" diameter


Run jumper wire from fence to gate (not shown in this picture)

You can connect polytape to posts with eye-bolts, J-hooks or simply make cotter pins out of high tensile and loop polytape through

6-8 strands of polytape
6 strands starting 8" off the ground and maintain 8" spacing puts top wire at 48" leaving 1' to put loop over


Conventional Fencing

- Woven wire is effective but expensive
 - 6 x 12" mesh is preferred to minimize horned goats getting caught
 - Wider spacing (24" – 36") now available, less expensive



Conventional Fencing

- May run an electric offset wire 12 - 15" from the ground to reduce animals getting caught or climbing on fence
- 6 - 8 strand barbed wire can work or 4 - 5 strand with at least 2 electric offset wires.
- Conventional fencing is generally more expensive and less flexible




Coyote Fast Food Restaurant


Shelter

Goats will need some type of shelter from rain and other weather extremes. Goats don't like to get wet and are less tolerant of cold/wet than sheep or cattle!

Natural shelter





Portable shelter that can be used as a portable creep feeder for kids. (mineral feeders attached)

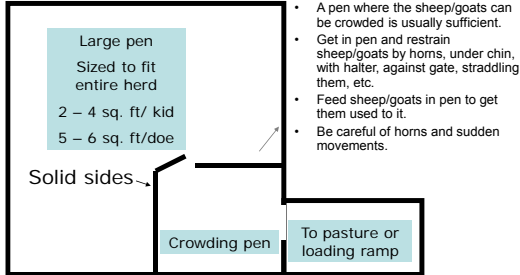


Shelter

- Barn Space
 - 10 – 15 sq. ft. per animal in open housing with pasture
 - 20 sq. ft. - 30 sq. ft. exercise area in confinement systems
 - Open shed – 8 – 10 sq. ft./goat; 4' – 6' high in rear; 6 – 8' high in front; open to south
- Lambing/Kidding Jugs
 - 4' x 4' – 5' x 5'

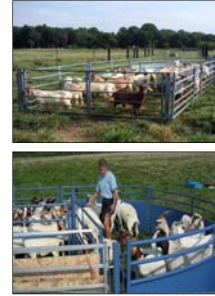



Handling small numbers of sheep and goats



Handling large numbers of sheep and goats

- A more elaborate handling system is usually required.
- Can be permanent or portable.
- Can be constructed from steel, aluminum, or wood.
- Can be homemade or purchased.
- Chute – 10' long x 4' high x 12" wide solid sides



Parasite Control/Prevention

- Parasites can be major problem
- Control and Prevention need to be planned
 - Select animals for parasite resistance
 - Grazing management
 - Watch grazing heights – not less than 4"
 - Longer rest periods to help break cycle (>40 days)
 - Grazing cattle in rotation with sheep or goats
 - Haying in rotation
 - Cropping in rotation
 - Strategic Deworming program
 - FAMACHA & FEC

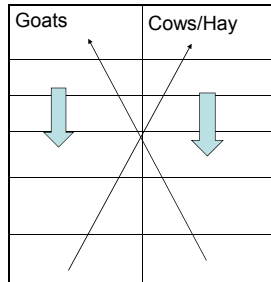


Graze cattle or cut hay in combination with rotational grazing

1. Have an 8 paddock or more grazing system in place
2. Start rotating goats/sheep through half the paddocks
3. Cut hay or have cattle grazing through other half
4. When each herd finishes cycle through half – switch to other side
5. Same can be done with hay

Rotate with Cattle or Hay

- Move every 3 – 5 days
- Gives each pasture a 15 – 30 day rest
- Gives double that for each species of livestock
- Helps maintain forage quality & clean up pastures
- Can be done with hay also



Grazing Management Objectives:

- Manage forage to meet animal nutritional needs
- Maintain pasture condition/health
- Manage internal parasite levels

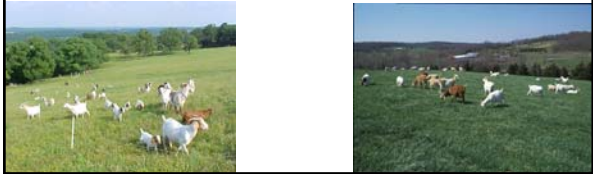


Strategies:

- Utilize proper stocking rates
 - Don't overstock
- Utilize animal grazing behavior to an advantage
 - Proper grazing heights
 - Utilize browse
 - Utilize plants high in tannins

Strategies, cont'd.

- Utilize rotational grazing management
 - Manage plant rest periods for plant health, forage quality, lower parasite levels
 - Utilize cattle or hay in rotation



Utilize proper stocking rates

- Lower stocking rates & higher residuals will generally have less of a parasite build up in the pasture



How many goats can you stock?

Pasture is often the most limiting resource.

- Pasture stocking rates vary by . . .
 - Pasture quality/production
 - Rainfall: amount and distribution.
 - Pasture species
 - Time of year/month/season
 - Soil fertility – lime, N, P, K
 - Amount of supplementation
 - Grazing management
continuous, rotational, intensive



How many goats can you stock?

- It depends upon your management system and resources.
 - Each farm has a different set of resources to use to raise livestock
 - Land, labor, management and capital



$$\text{Carrying Capacity} = \frac{\text{Forage Production} \times \text{Seasonal Utilization Rate}}{\text{Daily Intake} \times \text{Length of the Grazing Season}}$$


Stocking Rate Guidelines

| Pasture Type | Cows | Sheep | Goats | Cows + Goats |
|--------------------------|------|-------|-------------|---------------|
| Excellent Pasture | 1 | 5 - 6 | 6 - 8 | 1 + 1 - 2 |
| Brushy Pasture | 1 | 6 - 7 | 9 - 11 | 1 + 2 - 4 |
| Brush Eradication | | | 8 - 12 / ac | .5 + 6 - 8/ac |
| Sustainable browse mgmt. | | | 1 - 3 / ac | |

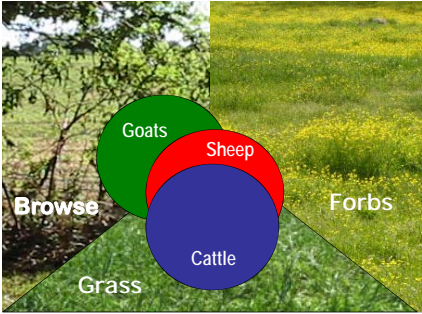
Kennedy - 2002

Match animals to resources

- A lot of the health and other problems with sheep and goats is directly related to not letting a goat be a goat or a sheep be a sheep – they are ruminants!
- Use animals that fit your land and forage resources




Diet Preferences



However, there is regular crossover among the 3 types of feeders as diet preferences and food availability changes throughout the year.

Grazing Habits/Preferences

- Goats
 - Prefer browse over grass
 - Prefer some forbs over grass
 - Prefer grass over clover
 - Prefer taller plants
 - Prefer rough, steep land over flat, smooth
 - Tend to graze perimeter before center of pasture
 - Graze from the top down
 - Don't like to graze closer than 4"
 - Graze in uniform layers



Grazing Preference dependent on forages available, animals experience, stock density and timing


| | |
|---|---|
| ❖ Desirable Browse | ❖ Desirable Forbs |
| <ul style="list-style-type: none"> Multiflora rose Blackberry Greenbrier Honeysuckle Honey locust Sumac Willow Persimmon/sassafras Oak Walnut Wild Grape | <ul style="list-style-type: none"> Chicory Lespedeza Red clover Ragweed Lambsquarter Sericea Kudzu Crown vetch Poison ivy/oak Spotted knapweed Pigweed |

Grazing Preference dependent on forages available, animals experience, stock density and timing

| | |
|---|---|
| ❖ Desirable Grasses | ❖ Intermediate Grasses |
| <ul style="list-style-type: none"> Tall fescue (vegetative & fall stockpile*) Ryegrass Rye, wheat, oats cheat - spring preference* orchardgrass Crabgrass (taller) foxtail, purpletop, barnyardgrass - pre head Most NWSG | <ul style="list-style-type: none"> Bermudagrass Bluegrass Broomsedge Caucasian bluestem |

Grazing Preference dependent on forages available, animals experience, stock density and timing

| | |
|---|---|
| ❖ Intermediate Forbs | ❖ Intermediate Browse |
| <ul style="list-style-type: none"> Ironweed Spiny amaranth Curly dock Pokeweed Buttercup White clover Thistle Bur dock Ox-eye daisy Queen Anne's lace | <ul style="list-style-type: none"> Cedar Buckbrush Hickory |



Grazing Preference dependent on forages available, animals experience, stock density and timing


❖ Undesirable Species

- Horsenettle
- Perilla mint
- Woolly Croton
- Lanceleaf Ragweed (until after frost)
- Wild Cherry (poisonous if wilted)
- Switchgrass (may cause photosensitivity)
- Alsike clover (may cause liver damage)



Utilize goat grazing behavior to an advantage

- Include browse plants in grazing system
 - Goats love browse



- The higher from the ground they eat the less likely they are to pick up parasite larvae
- A lot of browse plants are higher in tannins
- High tannin diets reduce reproduction of internal parasites

Utilize grazing behavior to an advantage

- Utilize plants high in tannins
 - Goats tend to intake higher levels of tannins than other ruminants




Possible Plants with Condensed Tannins or other Secondary Compounds that Help Control Internal Parasites?

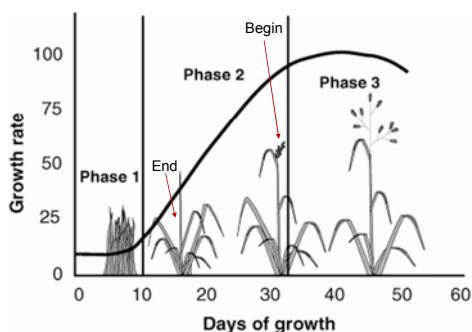
| | |
|---------------------|---------------------|
| • Sericea Lespedeza | • Oak leaves/acorns |
| • Annual lespedeza | • Walnut leaves |
| • Birdsfoot trefoil | • Mulberry |
| • Arrowleaf clover | • Mimosa |
| • Berseem clover | • Acacia |
| • Crown vetch | • Autumn olive |
| • Chicory | • Multiflora-rose |

Utilize rotational grazing management

- To manage forage quality to meet animal nutritional needs
- To maintain pasture condition/health
- To manage internal parasite levels



Plant Growth Phases



Grazing in the Spring

- Keep pastures vegetative - early boot
- Rotate frequently (no longer than 5 days in a pasture) - increases intake of high quality plants - prevents regrowth from being eaten too soon
- Rest pastures 20 - 30 days - allow plants time to recover and provide adequate quantity of high quality forage
- Rotate with cattle or haying

Grazing During Summer

- Try to have cool season pastures fully utilized by the end of June - then rest all summer if possible
- For summer, graze warm season grass pastures, lespedeza, alfalfa, chicory
 - Taller growing natives allow the animals to graze higher off the ground
 - Provide by-pass protein

Grazing During Summer

- Graze regrowth in hayfields that were cut in spring
- Utilize weedy/brushy pastures during summer
- Hinge cut cull trees from woods for goats to browse
 - Allows goats to eat higher off the ground
 - Provides high tannin diet
 - Allows cool season pastures to rest



Grazing during Fall & Winter

- Start using cool season pastures again
 - They have had a 60 - 90 day rest during the summer
 - Defer grazing on some pastures to stockpile for winter grazing
- Allow warm season pastures to rest all winter
- Rotate similar to spring but stay in each pasture a little longer to give a longer rest period (35 - 40 days)
 - Forage quality doesn't drop as quickly in the fall
- Utilize Stockpiled Fescue for winter feed
 - Stripgraze to improve utilization

Stripgrazing Stockpiled Fescue



MK 11-21-2007

Marketing Goats

- **Know what your marketing options are**
 - Direct marketing to consumers
 - Marketing direct to processor
 - Auctions
 - Pooled/graded sales
- **What the market wants**
 - Size and age
 - Timing – ethnic holidays
- **Where the markets are**
 - Local
 - National – can be found on the internet
 - <http://www.ams.usda.gov/>



So.... Why raise goats?

- Less land needed
- Less investment required
- Growing demand for products from various ethnic populations (which are also growing)
- Growing popularity of meat goat enterprises.
- Multi-purpose animals
 - ➔ Reproductive efficiency
 - ➔ Efficient foragers
 - ➔ Vegetation control
- Easy to handle
- ➔ **More profit potential**



Economic Comparison

- | | |
|--|--|
| <ul style="list-style-type: none"> • Cattle <ul style="list-style-type: none"> – 1 cow/calf unit/3 ac – 95% calf crop – 500 lb. weaning weight – 475 lbs. weaned/ 3ac – \$1.30/lb. – \$617.50 gross/3 ac – 158.3 lbs./ac – \$205.83 gross/ac | <ul style="list-style-type: none"> • Goats <ul style="list-style-type: none"> – 8 goat/kid units/3 ac – 150% kid crop – 60 lb weaning weight – 720 lbs. weaned/3 ac – \$1.30/lb. – \$936.00 gross/3 ac – 240 lbs./ac – \$312.00 gross/ac |
|--|--|

Increasing Inventory/Equity *Reproductive Efficiency*

- | | |
|--|--|
| <ul style="list-style-type: none"> • Goats/Sheep <ul style="list-style-type: none"> – Start with 1 doe – Save all females for 5 years - sell all males – 150% kid crop – 50/50 doe/buck kids – At the end of 5 years: <ul style="list-style-type: none"> • 24 females in herd • 24 males sold | <ul style="list-style-type: none"> • Cattle <ul style="list-style-type: none"> – Start with 1 cow – Save all females for 5 years - sell all males – 95% calf crop – 50/50 heifer/bull calves – At the end of 5 years: <ul style="list-style-type: none"> • 5 females in herd • 5 males sold |
|--|--|

Want to sell Multiflora rose, Buckbrush, Sericea or Ironweed for \$500.00/ton?

- Get goats!
 - It takes about 5 pounds of intake to get 1 lb. gain
 - Current 60 – 70 lb kid prices = \$1.25/lb
 - \$1.25/5 = \$0.25
 - \$0.25 x 2000 = \$500

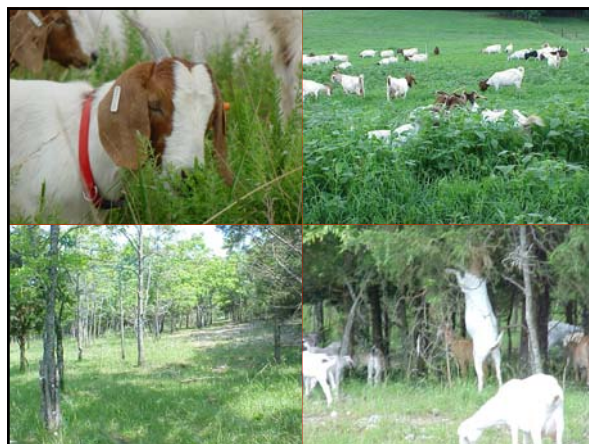


Goats in Land and Forage Management

- In a NC State study, after 4 years of goat grazing pastures containing herbaceous weeds, vines, multiflora rose, blackberry and hardwood sprouts, pastures became dominated with grass and clover
- In a West Virginia study goats reduced brush cover from 45% to less than 15% in one season.
- In an Ohio State University study, goats eliminated 92% of the multiflora rose in 1 season, however it took up to 4 years for total elimination

Controlling Sericea Lespedeza with Goats

- Research and field experience in OK & KS
 - Reduced seeds per stem from 960 to 3
 - No new seedling spread
 - Reduction in stem count (25 – 30%)
- Research at Langston University in OK
 - Stocked at 6-8 goats/ac year 1, 4 – 6/ac. year 2, 3 – 4/ac. year 3
 - End of 3rd year virtually no live sericea plants
 - Left 1 goat/ac. thereafter to control germinating seedlings
 - Weaned goats gained about .3 lb/hd/day during the summer on Sericea



Special thanks to:

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www.sheepandgoat.com
 For the use of some of her slides

Thank You

Questions?
 Comments,
 Discussion?



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