

Multi-species Grazing



Evolution to Multi-species Grazing
Rated R - Sex

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Perspective of Presentation: Multi-species Producer

Ultra-High Stock Density / Short Duration



High Density short duration grazing is best



Reasons for Multi-species Grazing

Disclaimer: livestock preferences vary according to experience and management

- \$ Weed Control
- \$ Nutrient recycling
- \$ Hay savings
- \$ Grazing next to each others poop (zone of repugnance)
- \$ Serve as vacuums for each others internal parasites
- \$ Increased stocking rate 24% above cattle alone**
- \$ Breeding age
- \$ Short gestation
- \$ Yrlg Lambs equal mothers wt
- \$ Increased income, cash flow \$\$\$
- \$ Fun and entertaining



Sheep less attracted to hay than cattle
Goats like hay much more than sheep



Winter of 2013/2014 is different

Evolution of infrastructure and Selection thru culling

1. Boundary fence- multi-strand (6 strand preferred)
2. Low wire most important, don't turn it on till you need it 4 strand or more. High grass makes bottom wire look lower
3. Low stocking rate of small ruminants free roaming
4. Hub fenced first (woven wire with offset hot wire)
5. Retrofit Cross fence: initially 3 strand poly wire or electro-net, then 4 strand HT permanent fences, radiating from the hub
6. Farm history: Cattle first, added goats, then sheep, then more sheep, now cattle
7. No hay made on farm, purchased

Current Inventory

- 500 ewes 100 AU
- 500 lambs (0.5 yr) 50 AU
- 50 nannies 8 AU
- 75 kids (0.5 yr) 5 AU
- 60 cows 72 AU
- 20 heifers 12 AU

~1200 animals Total 297 AU still lambing

- 330 acres of upland pasture = 1.1 ac/ AU (**too high!**)
- 16 permanent pastures divided into 45 paddocks
- Stock density 4,000 to 70,000 lb/ac

Perspective of presentation:

Goal of my operation: “A low cost, low stress, grazing operation that improves production and the environment while being consistently profitable”.



Introducing New Species

- Place new species in woven wire hub with offset electric fence
- Graze herd beside the hub for a minimum of 3 days
- Introduce new species after herd has been rotated to fresh grass

2006 Cattle rotationally grazed with goats free ranging



- If stocking rate of sheep is too high
- cattle performance will be sacrificed
- cattle are always the second grazer

2013 One herd for grass management but be aware of pecking order and nutritional demands



January

Bale grazing, 42" wire to hold cows back

34" to hold back steers

3 polywire to hold back sheep and goats

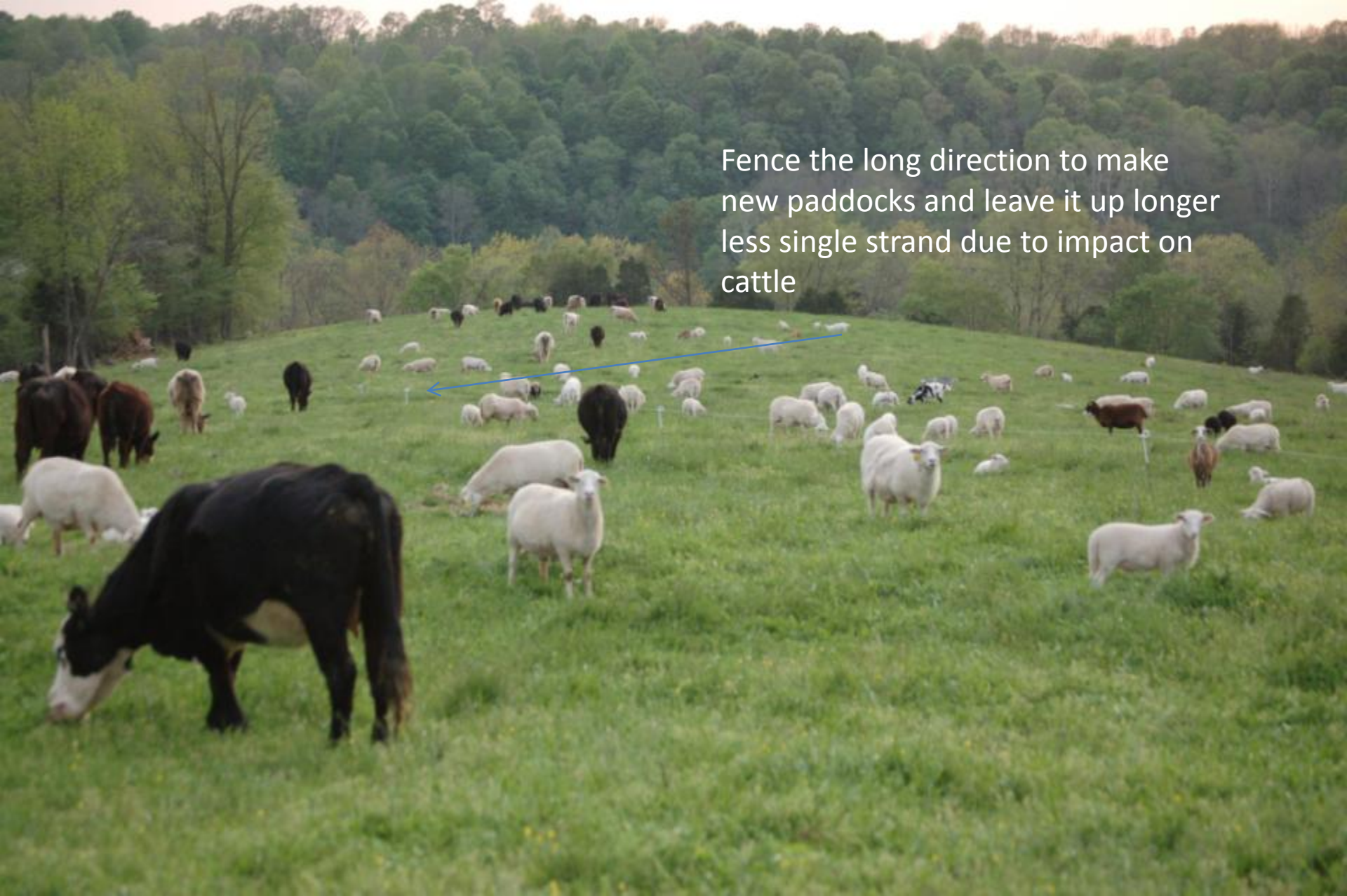
wire spacing (7"-8"-12") 27" tall



Place rolls on low fertility or weedy sites, relocate every time you place a roll

Late March

Fence the long direction to make new paddocks and leave it up longer less single strand due to impact on cattle



**Turn your head,
cover your eyes
SEX SCENE
is
next**

Fence the long direction and
leave it up longer



April
blocks in water tank for escape
and high water level



Overview of Forage Management Considerations



- Maintain minimum grazing height for desired forage species
- Keep light to the desired forage species
- Fertility Management
- High stock density short duration grazing
- Long parallel fences with water placed in every other fenceline
- Plan for a hub or central point when planning fences

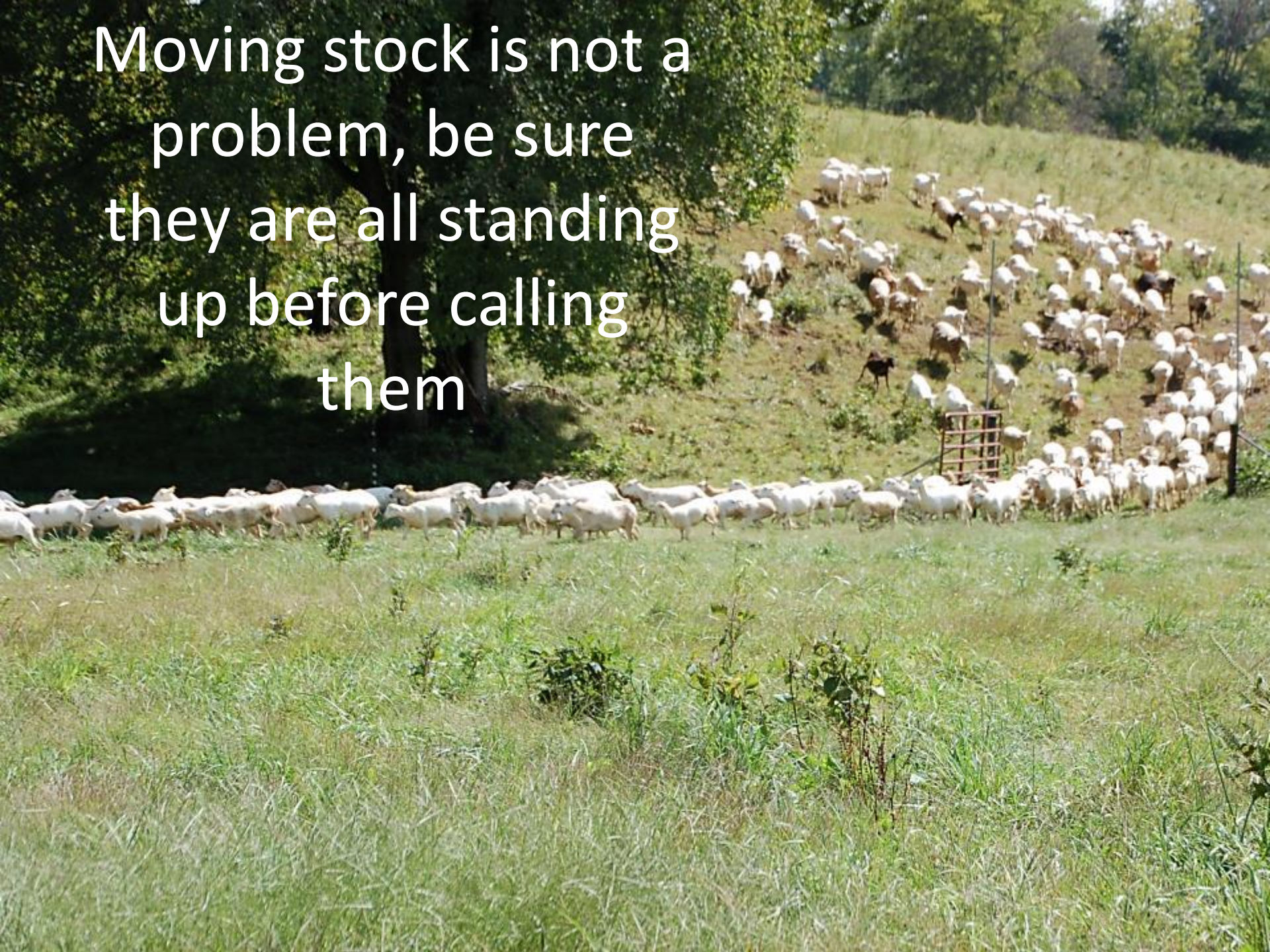
Keep them moving
don't allow stock to take a second
bite of desirable plants



**Hayed too many years
nutrients mined out**



Moving stock is not a
problem, be sure
they are all standing
up before calling
them



Extend your roots with fungus!



Raise grazing height and maintain cover: improve infiltration, moisture holding, increase biology



Mulch

No Mulch

Targeted Grazing

- Sheep: buttercup, other herbaceous weeds
- Goats: woody plants like briars, multiflora rose, corral berry and ironweed
- Cattle: best at treading impact, wingstem weed is not readily consumed but eaten better by cattle than other species





Multiflora rose a delicacy

Multiflora rose after grazing





Wheat and Spiny Amaranth

7 day graze - 28 day rest



Curly Dock before grazed

Goats often prefer more mature forage

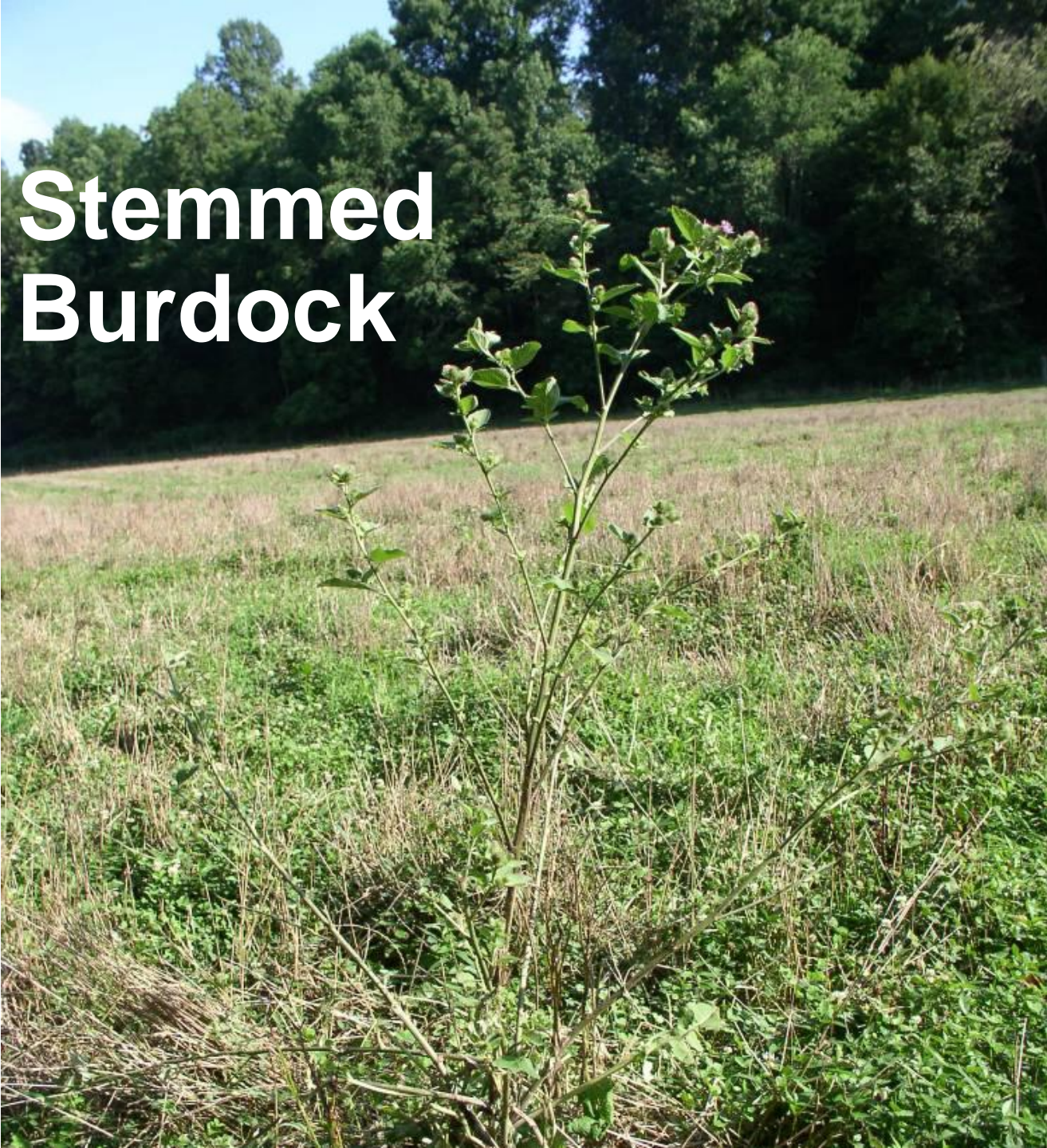
Stemmed Curly dock



Burdock and white clover in wheat



Stemmed Burdock



**Ironweed
(preferred)**





**Lambsquarter and Common
Ragweed before grazing**



Lambs quarter and Common ragweed 1 week after grazing (preferred)

A photograph showing a field with a wire fence in the foreground. The fence is made of silver metal posts and white plastic netting. In the middle ground, there is a dense thicket of green blackberry briars. The background consists of a rolling hillside covered in a dense forest of green trees. The sky is overcast and grey. The text "Blackberry briars and Tall fescue before grazing" is overlaid in white on the left side of the image.

**Blackberry briars
and Tall fescue
before grazing**

**Blackberry briars
and Tall fescue
after grazing**





Blackberry stemmed



Grazing Woods



**Need to fence woods separate,
not much forage in woods
needs a long recovery**

Early July (short dry spell) Sheep and Cattle sharing water



July- rented farm, 225 sheep on 100 acres



August Sericea and briars



Grazing Corn

Are we suppose to be in here?

What is this stuff?



150,000 ppa, drilled

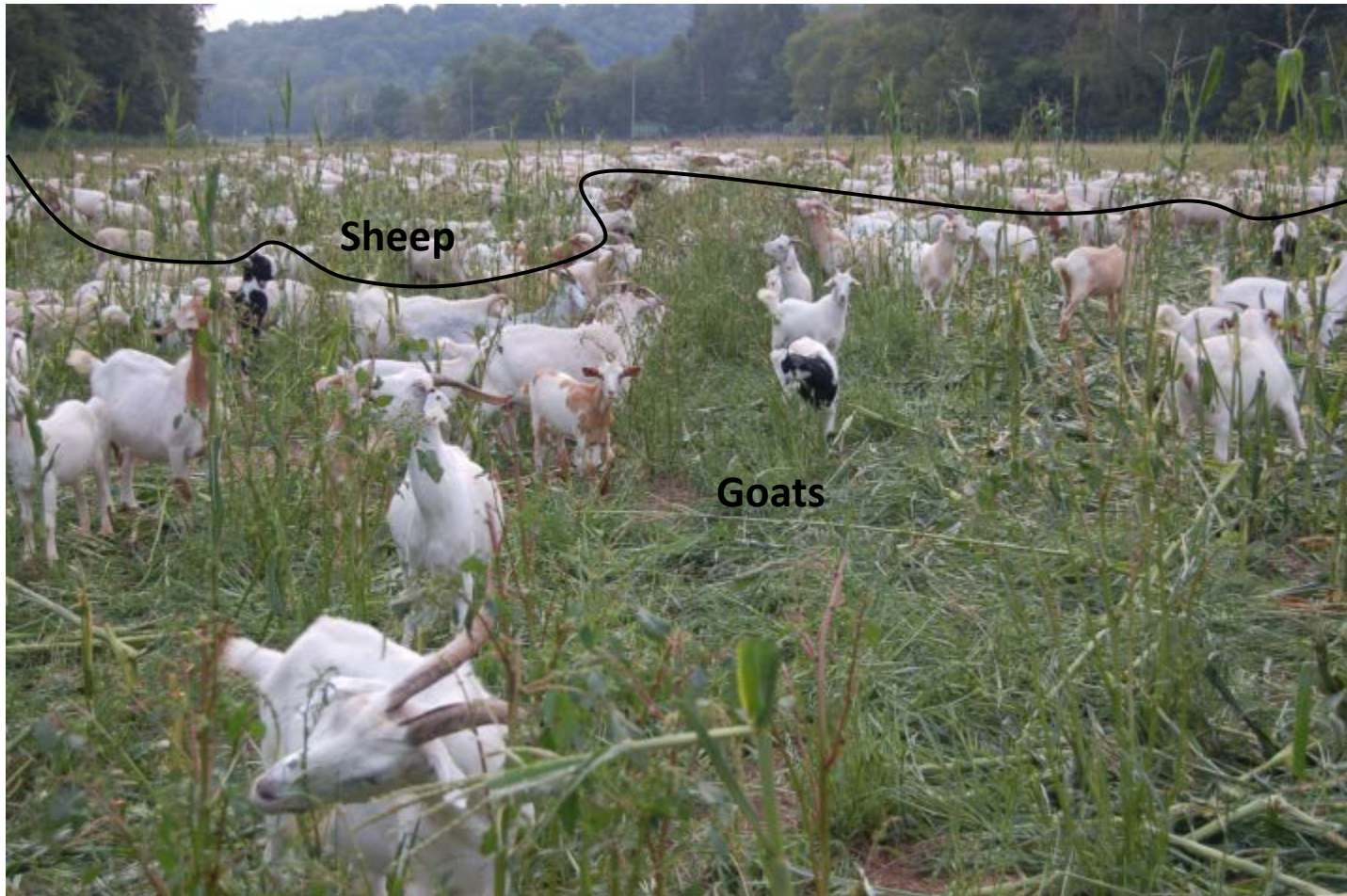
Later Day 1, 8/10/2012



Path for fence
knocked down with truck,
3 wire poly fence



6 days grazing,
Note: Goat heads high,
Sheep heads low, Cattle in tall corn



High Choice steer harvested after grazing corn 18 days, 36 mo. old



August 18, Day 8, of strip grazing Too much can be eaten



Not good residue (litter) management should have back fenced

After Grazing
Brown leaves shading green
Rested a little long



Hay can cave and kill goats and sheep



Late October typically self segregation



Cattle

Sheep

Goats

Early November
red tag notation to sale

mark ear tags with pig ear notcher for bad feet, bad
famacha, messy tail, not shedding or sale.





November-
in growing season only graze top 1/3 of plant
growth stops then take ½ leave ½.



Late November-



Mineral -in general 100 ppm Cu (**caution**) for all species,
3000 ppm Cu in hanging barrel for cattle, sometimes 34”
wire separates cattle from expensive sheep mineral and kelp

December

Sericea hay, slick bottom, 34" wire to keep cattle away



Same site as previous slide in August Pigs with Cattle, Goats, Dogs and Sheep



Prairie Bromegrass adapted to shade and heavy manure areas



Watch rumen fill



Manure

85-57-190/cow/yr (.23-.15-.52/day)

e.g. Nutrients needed (120-30-30)/ .23-.15-.52 x herd
number = days to graze to fertilize

120 N needed/ 23 (0.23x100) = 5 to 10 days due to N loss

Fertilize any crop with 100 cows, 11 days/ac=

256-156-572/ac,

Alchemy!



Quick coupler for water



Favorite water tank for Multi-species
Rotate water point for nutrient mgmt.





Chlorine in a bottle

- Gatorade or like container
- Cut holes in middle of container
- Insert 1" chlorine pool tablet
- Throw in trough spring box or other water source

Happy as a pig in _____, Oh, Water Quality!



They roll in manure more than rooting in it

When acorns start dropping check fence

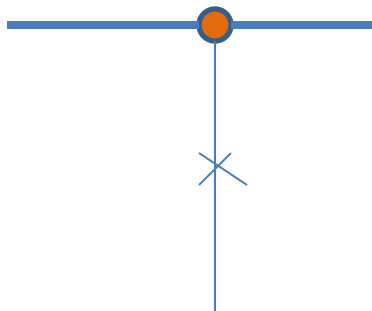
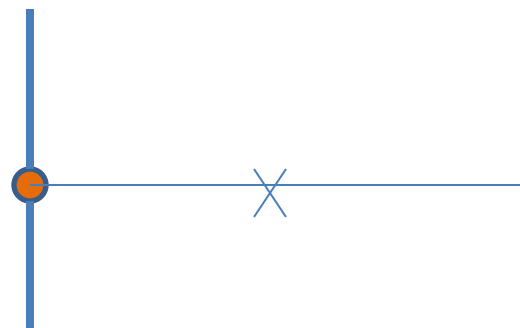
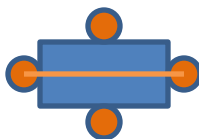
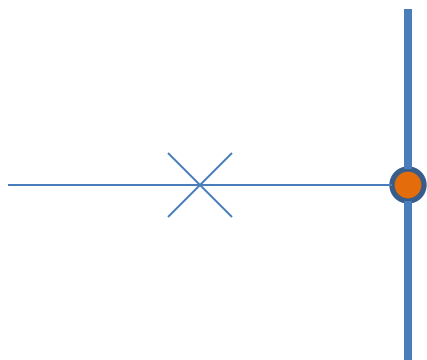
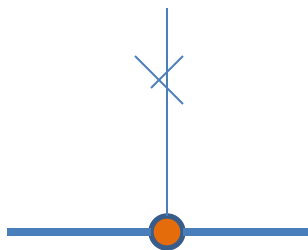


Gated Water Point

Overhead wire

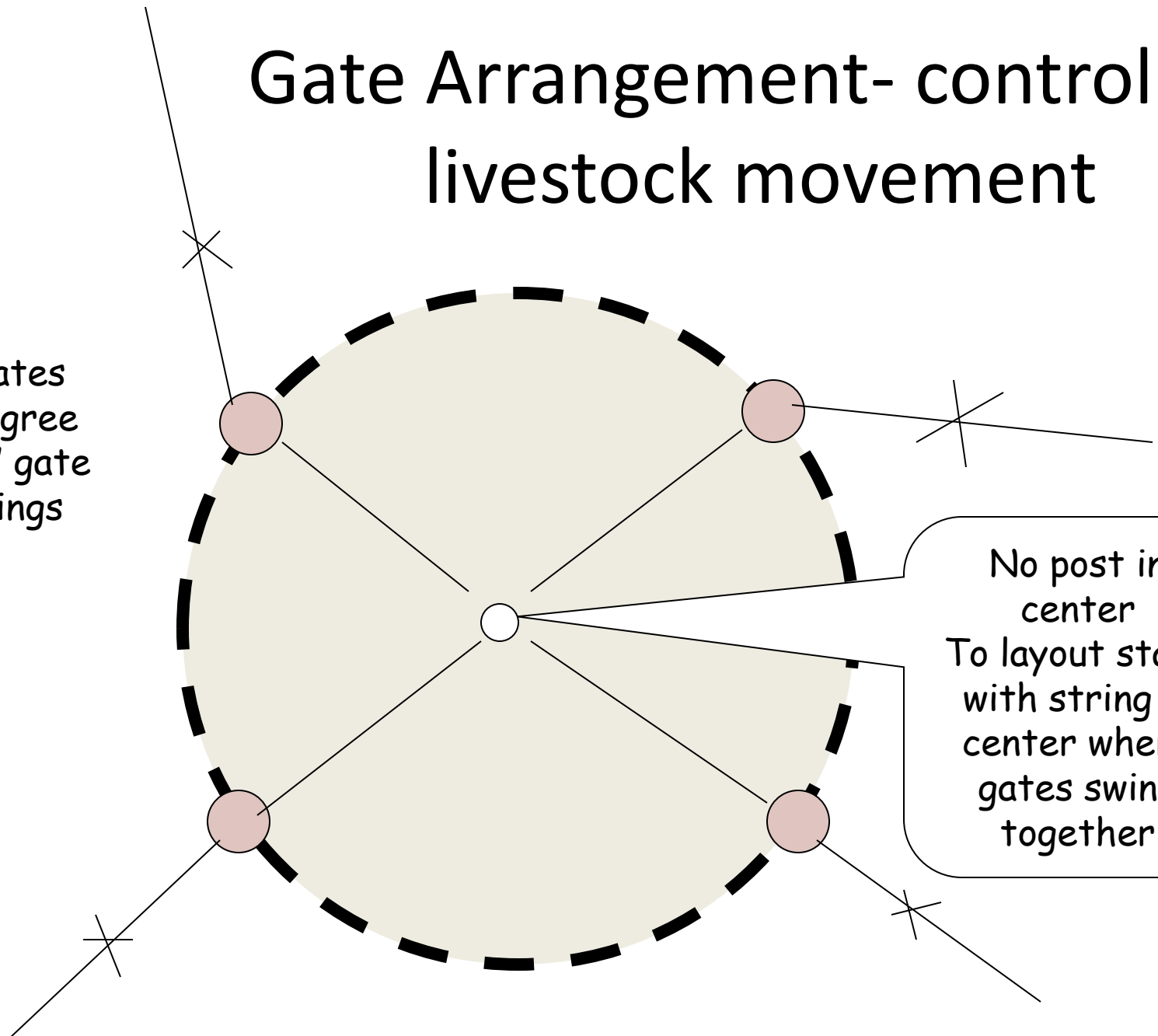
Floating braces





Gate Arrangement- controlling livestock movement

16' gates
90 degree
= 22.5' gate
openings



No post in center
To layout stake
with string in
center where
gates swing
together

Predator control

if no to little predator problem don't shoot
if it's a problem declare war!

- 2 dogs minimum,
 - 1 per ~50 animals
 - Feed dogs with self feeder under shade cloth
- 1 donkey per flock (no ionophore)
- 1 llama per flock (no ionophore)
- Best to introduce fresh weaned guardian
- Cattle serve a roll in predator control
- Home farm: 5 dogs and 1 donkey
- Rented farm: 4 dogs, 6 donkeys, and 2 llamas



Timing and Marketing

- October 20: breeding of ewes and nannies.
- May 11 breeding of cows
- Lambs and kids born in March, no shelter, S. aspect
- Calves born February 20
- Grass fed kids and lambs sold in September, December or January.
- Long yearling grass fed cattle sold in July or August
- I contact direct marketers and offer previous weeks auction mkt price, then sell rest at auction

Good Stock

If you have a good ram folks are going to want your lambs

- Mature Ram can breed 50 ewes x 1.7 lambs/ewe = 85 lambs/yr
- Keep Ram 3 years x 85 lambs/yr = 255 lambs
- Ram cost \$500/255 lambs = \$1.96 lamb/ \$1.5/lb = 1.31lb gain / 150 days = .009 inc. adg needed
- Retained ewe lambs are another benefit



Potential



- **Unlimited with high density short duration grazing**
- High fertility with no fertilizer
- Weed control without herbicides
- Cattle flow
- Longer grazing season
- Less hay fed
- Management of grazing height
- Less droughts and flooding
- Improved water quality
- More profit due to lower inputs and more pounds produced per acre

Just do it!



- Have a goal
- Consider Water Cycle, Mineral Cycle, Energy flow and biological processes
- Manage: cover, less disturbance, live roots and diversity
- Stock so you have some flexibility in drought or winter
- Keep forage in a vegetative state
- Grazing is less than half the cost of hay and higher quality
- Hay value in N, P and K is \$61/ton
- Manure is not waste it's fertilizer ~\$150/AU
- Monitor rumen fill
- Monitor manure: splatters, stackers and pumpkin pie
- Long paddocks, leading to a hub
- One herd but be aware of nutritional demand and pecking order

Comments- Questions Ruminations?

