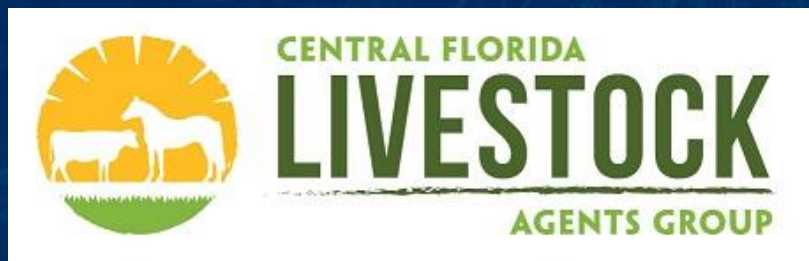


Selection for Reproduction Small Ruminant Conference June 16, 2021

FOR THE

#GATORGOOD



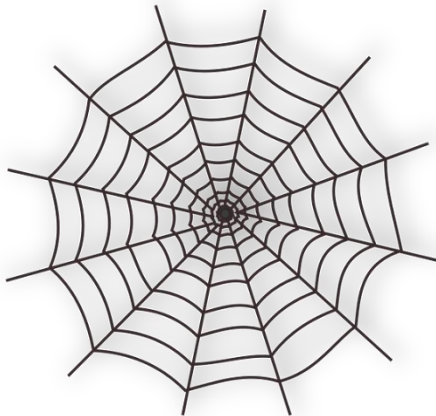
Laura H. Bennett

Livestock Agent (Pasco, Sumter, Hernando)

“Management” for Reproduction

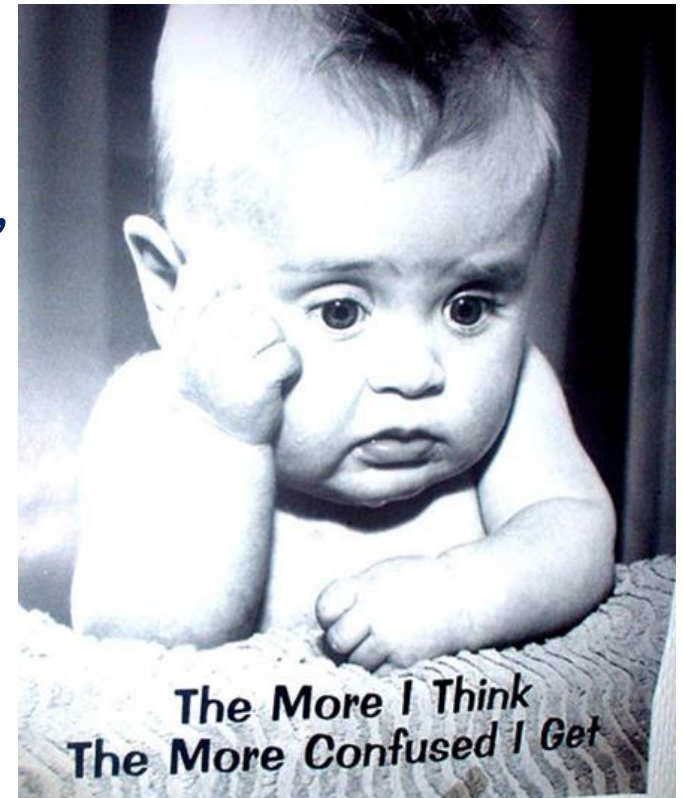
- Nutrition is your biggest concern
- Select for maternal qualities in your females
- Growth/Production in Sires

It's an intricate web!



Many things to evaluate!

- Just because an animal is expensive ... doesn't mean it is necessarily valuable.
- Just because an animal is “cheap” ...doesn't mean it is a value.



Go down the list:

#1 Reproductive Soundness

#2 Structural Soundness

#3 Genetic Potential
for Production



Go down the list:

#1 Reproductive Soundness

#2 Structural Soundness



#3 Genetic Potential
for Production



#1 Reproductive Soundness

- Remove the mystery with a Breeding Soundness Exam
- General health status very important-BIOSECURITY
- Not recommended to share rams or bucks
- Another BSE upon return AND should quarantine 30 d

Scrotal circumference is related
to age puberty will begin
....in female offspring



#2 Structural Soundness

- Mobility for breeding
- Length of time animal will stay in herd
- Necessary for animal to reach full genetic potential
- Problems passed on to offspring



Evaluating Soundness/Structure

– Feet and Toes –

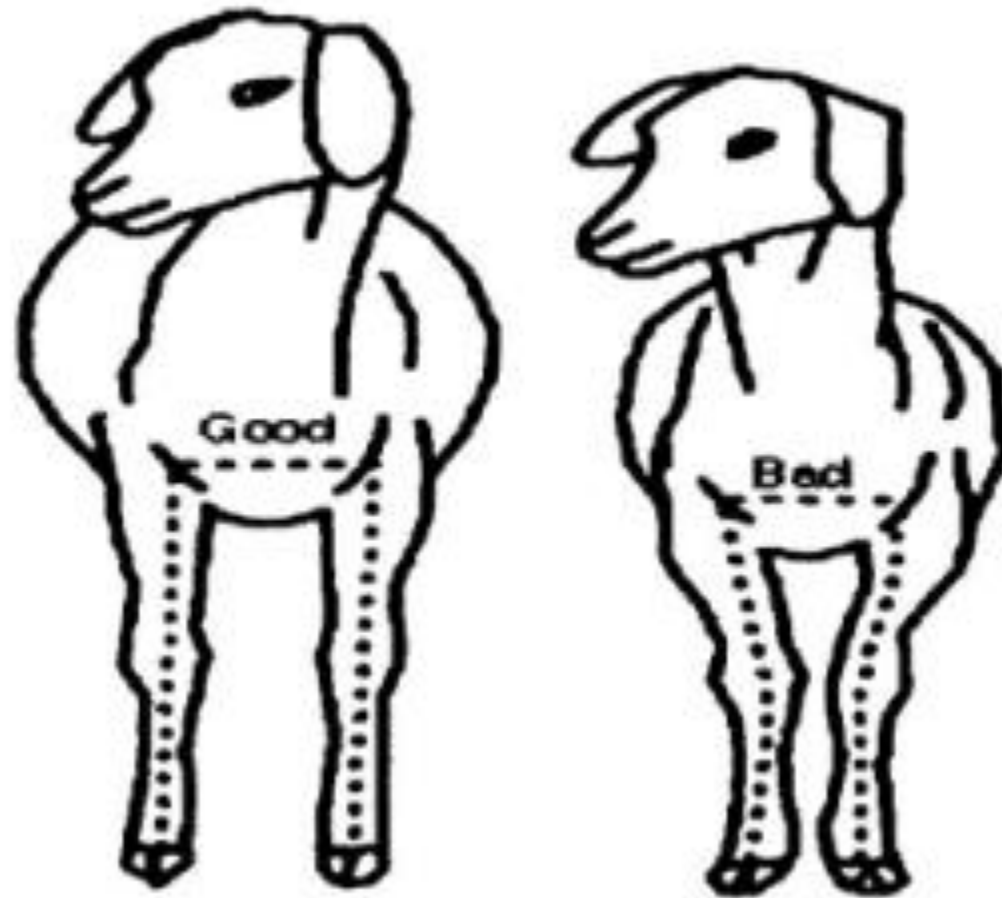


**Big Feet with
Even Toes**

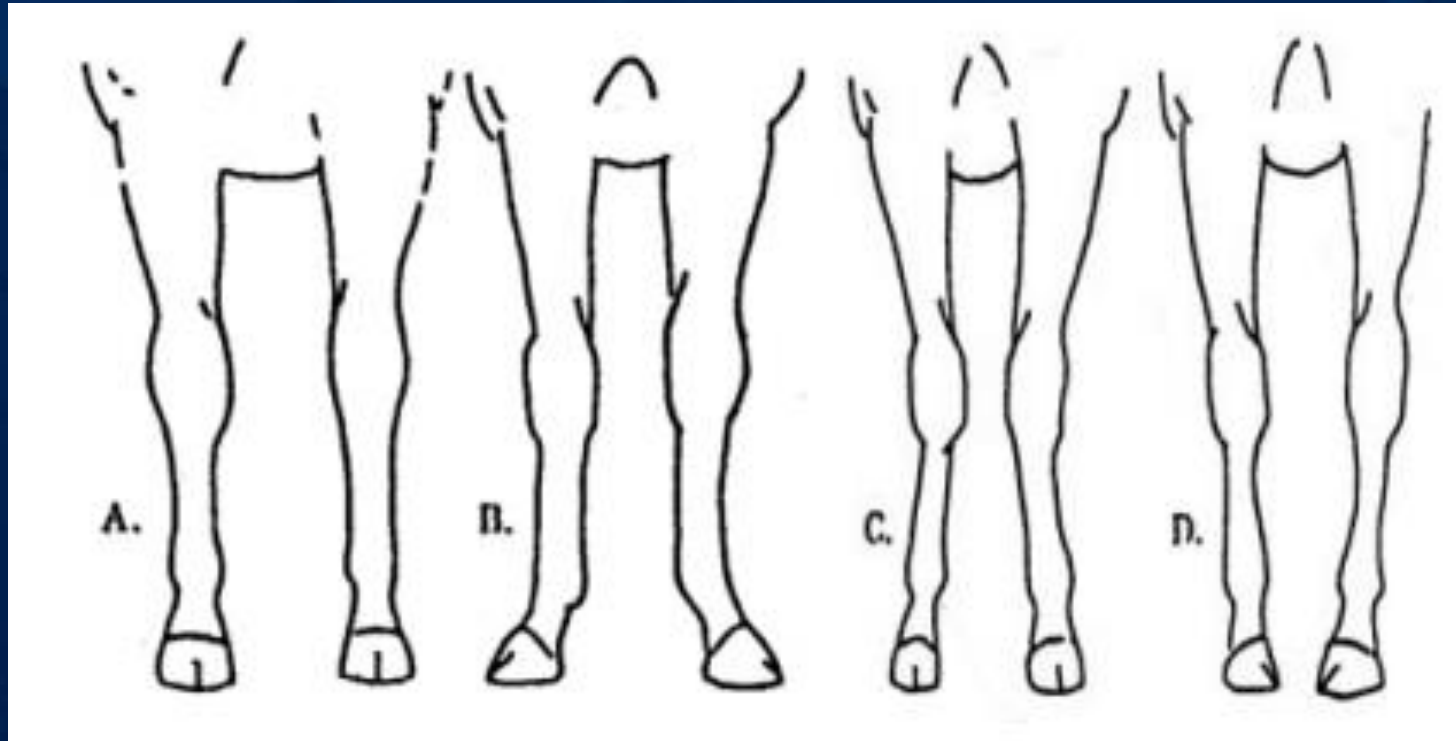


**Feet Turned Out
(Uneven Toes)**

Structure



Structure:



Evaluating Soundness/Structure – Hocks –



Nice Set to Hocks



Too Much Set to Hocks

If you haven't made the U-turn,
evaluate production potential



Genotype & Phenotype

- Select animals “visually”, you are using phenotype
- Select animals on pedigree, you are using genotype
- Genetics + Environment=Physical Attributes

Combine genetics of 2 parents  Expression

- Your job is to manage your herd so they can fully express their genetic potential.

#3 Genetic Potential for Production:

- First- Reproduction
- Second- Growth/Milk



EBVs and EPDs

Tools to evaluate non-visual traits

- Prolificacy
- Milk production
- Parasite resistance



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Heritability

(effects of genetics on a trait)

Trait	Heritability
Birth Weight	.3
Weaning Weight	.2
Mature Weight	.38
Number of Lambs Born	.15

A 100% heritable trait would have a value of 1.0

A doe or ewe's reproductive performance is most important factor for economic viability



Multiparous

Flushing

- Extra nutrition 2 weeks prior to breeding
- Continue 2-3 weeks into breeding season



Look Back Photography © c.harwell 2012

Choosing for reproduction

- Select breeding stock born from multiparous birth
- This can contradict our selection for growth
- For Florida, moderate frame size is better



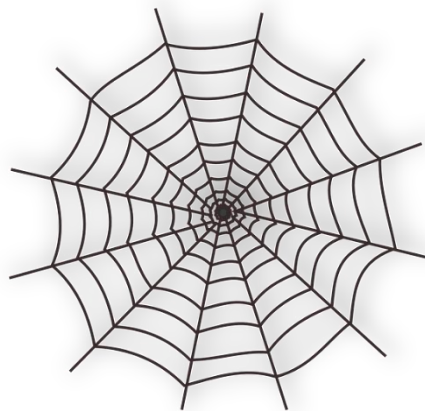
And, if you are keeping
replacement females:

The Buck or Ram will account for around 90%
of your herd genetics after ~4 generations.
Choose well!



Must have a GOOD (GREAT) Genetic Base:

- You CANNOT feed or manage your animals into great performance or phenotype
- You CAN MOST DEFINITELY feed or manage your animals into poor performance or phenotype



Look to the breed standard:



Illinois State Fair, 2017

Source:
American
Dairy
Goat
Association

Young Sire Qualifiers



Crossbreeding for Heterosis:



Fertility of offspring

Lambing/kidding rate

Lamb/Kid survival rate



9 : 3 : 1

Fertility/Health Traits	Growth Traits	Carcass Traits
• Heifer Pregnancy • Cow Pregnancy • Cow Survival • Structure • Feedlot Health	• Birth Weight • Calving Ease • Weaning Weight • Feedlot Gain • Feed Efficiency	• Marbling • Tenderness • Ribeye Area • Back Fat
LOW	HERITABILITY	HIGH



Tools available to the Producer:

Estimated Breeding Values

EPDs (sheep)

Performance Records



Evaluate where you currently ARE and where you want to Go

Request this information when purchasing new animals

Don't select for too many traits at once



Dairy

- American Dairy Goat Association
- Links to Dairy Herd Improvement Association



Goat Herd Improvement Program

[illegible]

Keep Records!

- Evaluate your current production
 - Lambing rate
 - Weaning rate
 - Weaning weight
 - Parasite resistance

Start somewhere!



Choose 1 Trait to Improve (think LBS of lamb weaned/female)

- Whichever trait is in need of most improvement, choose first.



Sheep and Goats:



How will this help, financially?

Buck with an EBV of +10.0 for NKW

Daughters will produce 0.10 more kids

That's 10 more kids per 100 kiddings

$10 \text{ extra kids} \times \$150/\text{kid} = \$1500$

Buck with EBV of +3.0 for WWT

Progeny will be 1.5 kg (3.3 lbs) heavier at weaning than average

$3.3 \text{ lbs} \times \$2.50/\text{lb} = \$7.26/\text{kid}$

$50 \text{ kids} \times \$7.26 = \363

$100 \text{ kids} \times \$7.26 = \$726$

Places to get help

- Livestock or Agricultural Agent could help you set up a system to record and track performance data
- **Meat Sheep Alliance of Florida**
- Laura Bennett
- laurahbennett@ufl.edu
- Pasco, Sumter, Hernando



CENTRAL FLORIDA
LIVESTOCK
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