Care & Management of Breeding Bucks

Chris Duemler, DVM
Dr. Chris Duemler

- **Education:** B.S. University of Missouri - Columbia
  D.V.M. UM Columbia
- **Career:** 34 years
  Brodhead Veterinary Medical Center
- **Emphasis:** Goats, cattle, horses & pigs
- **Owns:** Goats, dogs & cats
Selection

- Production vs Type
- Production = Milk, Butterfat & Protein
- Type = Longevity
ADGA Genetics
Genetics
ADGA Genetics

ADGA Type Evaluation

<table>
<thead>
<tr>
<th>Trait</th>
<th>Trait Avg</th>
<th>PTA REL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stature</td>
<td>24.3</td>
<td>Short</td>
</tr>
<tr>
<td>Strength</td>
<td>25.6</td>
<td>Weak</td>
</tr>
<tr>
<td>Damsiness</td>
<td>31.0</td>
<td>Clean</td>
</tr>
<tr>
<td>Rump Angle</td>
<td>28.3</td>
<td>Sleep</td>
</tr>
<tr>
<td>Rump Width</td>
<td>26.8</td>
<td>Narrow</td>
</tr>
<tr>
<td>Rear Leg, Side-View</td>
<td>31.5</td>
<td>Posty</td>
</tr>
<tr>
<td>Fore Udder Attachment</td>
<td>33.0</td>
<td>Loose</td>
</tr>
<tr>
<td>Rear Udder Height</td>
<td>36.5</td>
<td>Low</td>
</tr>
<tr>
<td>Rear Udder Arch</td>
<td>24.4</td>
<td>Narrow</td>
</tr>
<tr>
<td>Udder Depth</td>
<td>41.9</td>
<td>Deep</td>
</tr>
<tr>
<td>Medical Suspensory Ligament</td>
<td>25.3</td>
<td>Weak</td>
</tr>
<tr>
<td>Text Placement</td>
<td>19.3</td>
<td>Close</td>
</tr>
<tr>
<td>Text Diameter</td>
<td>15.8</td>
<td>Narrow</td>
</tr>
</tbody>
</table>
ADGA Linear Appraisal History

Goat Detail: LASSENWOOD MILLER OZZIE - N001248785 (PB Buck)

Pedigree
Inbreeding
Line Breeding
Progeny
Linear History
USDA Data
Production Eval
Type Eval

DNA / Collection on File
PTI/ETA
PTI12: -193
PTI12s: 185
ETA12: 132
ETA12s: 68

Format Page for Printing

Appraisal History For: LASSENWOOD MILLER OZZIE - N001248785 (PB Buck)

Linear Traits
LAYear | Age | Stature | Strength | Dairyness | Rump Angle | Rump Width | Rear Leg Side View | Fore Udder Attachment | Rear Udder Height | Rear Udder Arch | Medial Udder Depth |
--- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
2009 | 07-02 | 50 | 29 | 36 | 25 | 35 | 37 | 27 | 23 |

Structural Traits
LAYear | Age | Head | Shoulder Assembly | Front Legs | Rear Legs | Feet | Back | Rump | Udder Texture | General Appearance | Dairy Character | Body Capacity | Mammary System | FS |
--- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
2009 | 07-02 | E | E | E | E | V | V | V | V | E | E | E | E | 92 |

The data listed above are pen-field scores. All previously reported measurements have been converted to the linear scale of 0 through 30. Trait scores on the USDA site may be different due to adjustment factors used in the evaluation process.

All rights reserved. Unauthorized duplication or distribution is prohibited.

This site is the product of a cooperative effort between the ADGA, ATIP-USDA, and Dairy Development as a public service to the dairy goat world. Contact us with questions or comments.
Value of AI?

- Data available for type & milk production of offspring
- Bio-security
- Investment in wide range of genetics
- Produce future sires for herd
Breeding Soundness Exam

- Palpate testicles
- Measure
- Observe behavior
- Semen exam
Breeding Soundness Exam

- Scrotal circumference correlates to:
  1. semen output
  2. age of puberty in daughters
- WBC indicate infection

<table>
<thead>
<tr>
<th>Class</th>
<th>Scrotal Circumference (&gt;14 months)</th>
<th>Motility</th>
<th>Morphology</th>
<th>Debris</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>&gt; 25 cm</td>
<td>&gt; 50%</td>
<td>&gt; 90%</td>
<td>No WBC</td>
</tr>
<tr>
<td>Satisfactory</td>
<td>&gt; 30%</td>
<td>&gt; 70%</td>
<td>No WBC</td>
<td></td>
</tr>
<tr>
<td>Questionable</td>
<td>&lt; 30%</td>
<td>&lt; 70%</td>
<td>May have WBC</td>
<td></td>
</tr>
</tbody>
</table>
Breeding Soundness

- Check for extra teats
- Check for teat placement
Bio-Security

- Johne’s
- CAE
- CLA
- TB
- Brucellosis

Hamac.co.nz
How Many Bucks Do I Need?

- How many does to be freshened in what time period
- How small of a window for freshening
- Off-season breeding
Nurturing

- Feeding Young Bucks
- Body Condition
- Handling
- Housing
Feeding Young Bucks

- Same nutrient requirements as doelings
- White salt
- Ammonium chloride
Body Condition

Feed to body condition
Handling

- Teach to lead when young
- Frequent human interaction in young buck pens
- Check body condition
Housing

- Good ventilation
- Tall fences
- Separate from does by 3 months of age
Pre-Breeding

- Body Condition Scoring
- Soundness
- Trim feet
- Nutrition
- Vaccinations
<table>
<thead>
<tr>
<th>SCORE</th>
<th>SPINOUS PROCESS</th>
<th>RIB CAGE</th>
<th>LOIN EYE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCS 1</td>
<td>Easy to see &amp; feel, sharp</td>
<td>Easy to feel &amp; can feel under</td>
<td>No fat covering</td>
</tr>
<tr>
<td>BCS 2</td>
<td>Thin Easy to feel, but smooth</td>
<td>Smooth, slightly rounded, need to use slight pressure to feel</td>
<td>Smooth, even fat cover</td>
</tr>
<tr>
<td>BCS 3</td>
<td>Good Condition Smooth and rounded</td>
<td>Smooth, even feel</td>
<td>Smooth, even fat cover</td>
</tr>
<tr>
<td>BCS 4</td>
<td>Fat, firm pressure, no points can be felt</td>
<td>Individual ribs cannot be felt, but can still feel indent between ribs</td>
<td>Thick fat</td>
</tr>
<tr>
<td>BCS 5</td>
<td>Obese Smooth, no individual vertebra can be felt</td>
<td>Individual ribs cannot be felt. No separation of ribs felt</td>
<td>Thick fat covering, may be lumpy and &quot;jiggly&quot;</td>
</tr>
</tbody>
</table>
Anatomy

Poor

Thin

Good

Fat

Obese

Sternum

http://kinne.net/bcs.htm

http://www.luresext.edu/goats/research/bcshowto.html
Trim feet

Trim feet regularly.

Just do it!

http://www.goatworld.com/articles/feet/footcare.shtml#photos
Nutrition Pre-breeding

- Increase energy by 10%
- Increase vitamins
- Minerals
- Selenium injection
  - BoSe
  - Multimim
Vaccinations & Testing

- CDT
- CL
- Test for Brucellosis
- TB
- CAE
- DNA Typing
- G-6-S
- Alpha S-1 Casein
Breeding

- Social Interactions
- Pen vs Hand Breeding
- Doe Management
Social Interactions

- Dominant Bucks
- Timid Bucks/Dominant Does
Pen vs Hand Breeding

- Choose buck for ideal genetic mating
- Any one buck is not the ideal mate for all does
- Prevent buck from breeding pregnant does & causing abortions
Doe Management

- Remove Pregnant Does to prevent abortions
Nutrient Requirements

Can be found in *Nutrient Requirements of Small Ruminants* by National Research Council 2007 edition.
Rules of Thumb

Almost identical to dry mature does

Requires:
- $\frac{1}{2}$ the protein of lactating doe feed
- $\frac{1}{4}$ calcium of lactating does
- $\frac{1}{2}$ phosphorus of lactating does

Same vitamins & micro-minerals

Raise the energy 10% in diet pre-breeding

Ammonium Chloride
Problems

- Urolithiasis
- Venereal Diseases
Urolithiasis

Most commonly formed from calcium, magnesium & phosphorus (phosphatic calculi)

Phosphatic Calculi caused by:
- high concentrate feeding/low roughage
- low dietary calcium:phosphorus ratios
- high magnesium
- alkaline urine
  - hay rich in cations
  - urinary tract infections

Silicate Calculi
- plants or water containing high silica

Oxalate Calculi
- ingestion of excessive amounts of oxalate-containing plants
Urolithiasis Prevention

- Increase the calcium to phosphorus ratio (2:1)
- Increase water intake by force feeding salt
- Feed low potassium forages
- No molasses to bucks
- Avoid substances high in oxalate, silica or magnesium
- In wethers avoid early castration?
- Ammonium Chloride – not to exceed 0.5 % of diet