Goat Newsletter

Cooperative Extension Program
Langston University

The Newsletter of the E (Kika) de la Garza American Institute for Goat Research *Summer 2011*

From the Director's Desk

Summer is upon us and the temperature has already started to rise here in Oklahoma. As I sit here in the heat, I fondly think back upon the fact that just last month, I was so very thankful to have an electric blanket on my bed to take away the chill of the night. No, I am not talking about a drastic change of weather here in Oklahoma but a drastic shift in hemispheres. You see, I was in South Africa and it is the beginning of their winter. Dr. **Terry Gipson** and I traveled to the Eastern Cape province to purchase Dorper sheep and Boer goats as an outgrowth of our project in Ethiopia. I have traveled to South Africa before but this was my first opportunity to visit farmers on their farms. I would like to share some of my impressions of the people, country, and livestock that we encountered on our trip.

We landed in Johannesburg and quickly made our way down to the Eastern Cape. One of our first stops was in Molteno, a town named after Sir John Molteno, the first prime minister of the Cape Colony. Molteno is high in the Stormberg Mountains and is the coldest town in South Africa. It certainly lived up to it billing and that was the first night in which I was extremely grateful that the quaint country inn in which we were staying had electric blankets on the bed. While in Molteno and for our very first farm visit, we visited Mr. Abraham Blom, a fairly recent graduate of Grootfontein College of Agriculture. Mr. Blom and his young family were trying to revitalize a farm that had lain vacant for more than 40 years. He was very proud of his Dorper sheep that were raised on the veld (pasture) and I must admit that they were very impressive sheep; a young agriculturalist forging his way in this South Africa.

For our Boer goats, we had contacted Mr. Sakkie Nell, a world-renown Boer goat breeder and judge, to act as our agent. Mr. Nell is from near Jansenville in the Noorsveld, which is well known for its many different succulent species. One euphorbia, in particular, is very noticeable by its ubiquitous distribution in this very narrow geographic area between two small mountain ranges. Noors (*euphorbia coerulescens*) is a small, thorny plant that can be used as an emergency forage crop during times of drought. The area is also known for its abundance of greater kudu (*Tragelaphus strepsiceros*) which a very large antelope. Everywhere we went farmers would mention the dangers of driving at night and hitting a kudu. I have to admit that the few nights that Mr. Nell drove us around to farms to select goats, I nervously tried to scan the area just beyond our headlight in anticipation of our impending impact with that giant beast. Fortunately, none were ever seen.

After selecting several sheep and goats and visiting many beautiful farms, we took a brief repose for a weekend in Middelburg,

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home to Grootfontein College of Agriculture, also known as just "Grootfontein." This year, Grootfontein is celebrating its centenary. In 1911, 42 students enrolled in the newly established college and today more than 240 students study and work within the campus confines. Grootfontein has focused upon practical education and still believes that experience is the best teacher. The college has an operational farm of over 20,000 acres and the students are actively engaged in every aspect of farming enterprises. Grootfontein is especially noted for its sheep-and-wool course which was introduced in 1919 and which led to the formation of the first Wool Growers' Associations in South Africa. In 1936, Grootfontein established an eight month sheep-and-wool course that has been the gold standard for South Africa. Besides the obvious ties to small ruminant agriculture, Grootfontein has a special tie for me. You see, the current director of the college is Mr. M.J. "Tino" Herselman. Tino was a Visiting Scholar of mine at Langston University in the early 1990's. He was an extremely bright and hard working young man back then and has turned into the scholar and gentleman that I knew he would be. At dinner one evening, we all laughed as I recounted a story that happened many years ago. Our research project involved the USDA ARS research station at El Reno, OK. Tino and I would drive over from Langston. One day, we were working sheep and goats and had a rather recalcitrant sheep to deal with. Tino kicked off his shoes, ran into the goat pen, grabbed the sheep, and put it over his shoulders to carry to the work area. We all stopped what we were doing and watched slack-jawed as this big, South African, barefoot boy carried this sheep shepherd-style through the pen; then we laughed.

The last stop that we made was at the farm of Colene and Charles Grevelink. Colene was the Young Woman Farmer of the Year in 2005. I must admit that at times I did not think that we would make it to their farm. We would plowed through one extremely large and deep mud hole to find another awaiting us and the mud never seemed to end. It had started to rain in late December, 2011 and basically hadn't stopped since. This part of South Africa had received as much rain in four months as it normally does in three years. The veld looked good to our eyes but we were often informed that the grasses and other plants grew too quickly and became too stemmy to provide good nutrition to the sheep and goats. Once we arrived at the Grevelink's, they welcomed us with open arms, set a place at their table for us, and put us up in their spare bedrooms. However, the Grevelinks were no different than any of the other South Africans that we encountered. They are friendly, hospitable, and gracious. If you have the opportunity to visit South Africa, I implore you to do so. It is an experience that you will not forget. I know that I won't.

Research Spotlight

Night locking.

Twenty-three Boer (75%) × Spanish (25%) multiparous does grazed grass/legume pastures in different stages of production. Twelve does were confined in a building at night and had pasture access from approximately 07:00 to 19:00 h (Night); other animals had continual pasture access (Past). Data collection periods 15 days in length were in late gestation (L-G; 137 ± 5.2 days), early lactation (E-L; 43 ± 2.1 days), late lactation (L-L; 97 ± 1.1 days), the dry period (Dry), and early gestation (L-G; 65 ± 5.9 days). Most does had a litter size of 2, and kids were weaned at 118 ± 1.0 days. Kid ADG tended to be greater for Past than for Night (.30 vs. .26 lb/day). There were treatment differences in time spent grazing (4.5 and 5.8 h) and resting (18.5 and 16.7 h for Night and Past, respectively). Energy expenditure was greater for Past than for Night. Energy expenditure associated with activity tended to be greater for Past than for Night. Night-locking meat goat does decreased metabolizable energy intake in all stages of production addressed as a result of reduced forage intake rather than change in digestion. However, decreased metabolizable energy intake for Night appeared to have greatest impact on productivity when lactating. Unfortunately, as one of the reasons for night-locking is to prevent predation, the suckling period might also be affected. Results of this study do not indicate potential to improve level or efficiency of production by meat goat does by night-locking. In conclusion, 'night-locking' decreased activity energy expenditure to an extent less than the depression in metabolizable energy intake. The greatest impact of Night was in E-L, with reduced recovered energy of lactation and a tendency for lower kid ADG.

Tovar-Luna, I., R. Puchala, T.A. Gipson, G.D. Detweiler, L.J. Dawson, T. Sahlu, A. Keli and A.L. Goetsch. 2011. Effects of night-locking and stage of production on forage intake, digestion, behavior, and energy utilization by meat goat does grazing grass/legume pasture. Livestock Science doi:10.1016/j.livsci.2011.03.034

Producer Behavior Modification.

In 2006, Langston University unveiled an on-line training and certification program for meat goat producers (http://www2.luresext.edu/training/qa.html). The program consists of 22 learning modules, including herd health, biosecurity and internal parasite control. In March 2010, an electronic survey was sent to 160 certified producers to assess impact of the training. Fifty-four surveys were completed for a response rate of 33.7%. Prior to certification, 52.8% of respondents used selective deworming criteria. Current deworming practices and percentage of responses include: FAMACHA, 43; visual condition, 28; pasture rotation-based, 15; and calendar-based, 14. When asked if individual animals or all animals in a pasture or pen received anthelmintic when deworming, 76% of respondents said that only animals requiring deworming received anthelmintic. The dosage of dewormer given was most often calculated based upon table guidelines given in the certification course (54%), vs. 35% who relied on veterinarian instructions and 11% who self-determined dosage amounts. Over 60% of respondents reported that prior to becoming certified they did not consult a veterinarian for use of drugs extra label. When asked how current withdrawal times for drugs not approved for goats are determined, 41% of responses reported using veterinarian instructions with an identical percentage using table guidelines from the certification course; with 19% of responses using information from the Internet. Results of the survey show changes in behavior of certified goat producers when compared with previous practices in anthelmintic usage. More emphasis on the importance of veterinarian approval for lawful use of extra-label drug is needed. Changes in production practices noted imply that an on-line training course can be effective in promoting proper herd health practices for goat producers.

Merkel, R.C. and T.A. Gipson. 2011. Change in behavior of goat producers after on-line training in herd health practices. Small Ruminant Research 98:31-34.

Dr. Sahlu's South African Photo Album

◀ Dorper ewes in lambing pens at the stud of Mr. John Dell of Grahamstown. This stud was established by John's late father in 1958 and John took over in 1978. The family farm, named Hounslow, has 7,700 acres and John runs 800-1000 high-quality Dorper ewes.

A load of goats arriving for our inspection and selection. Piet Nell's nephew, Boetie Nell, was driving the delivery bakkie for him. Bakkie (pronounced bah-kee) is what we call a pickup truck. ▶

◀ One of our last stops was at Charlie Hume's Boer stud. Charlie has one of the largest studs in all of South Africa and runs about 2,000 high-quality breeding does. We drove out to one of Charlie's catch pens and more than 600 doelings awaited us. It was one of the most impressive sights that I have ever seen.

Dorper ewes ready for lambing at the stud of Leroy and Pam Phillips of Molteno. Not only is Molteno the coldest town in South Africa, it is also one of the windiest. There is a plan to put a massive wind farm surrounding their livestock farm. Leroy and Pam are concerned that they might be forced to move due to the noise. As a footnote, at the 2010 Upington International Sale, the highest price paid for a Dorper Ram was R225,000 (~$34,000) and it belonged to Leroy.

We visited several studs and always enjoyed the hospitality that was shown to us. Even the dogs were friendly. Dr. Gipson's friend is a Rhodesian Ridgeback, which is a breed developed in Southern Africa where it was used to hunt lions. The two distinguishing phenotypic features of the Rhodesian Ridgeback are its deep red color and a distinctive ridge of hair running along its back. This hair runs in the opposite direction to the rest of the coat, defining the ridge.

This outstanding, prize winning buck was bred by Lukas Burger and is now owned by a consortium of Messrs. John Henderson, Kobus Lötter, and Sakkie Nell, Sakkie (left) and John (right) are pictured with Dr. Gipson.

2011 Goat Field Day
Healthy Goats, Healthy Herds

The 2011 Goat Field Day was a resounding success with more than 300 participants attending. This year our featured speakers were Drs. Susan Kerr and Lionel Dawson. Dr. Kerr is an Extension Specialist with Washington State University and Dr. Dawson is a Professor in the College of Veterinary Medicine at Oklahoma State University in Stillwater, OK. Mrs. Gianaclis Caldwell, Owner/President of Pholia Farm Creamery was our distinguished Invited Instructor for this year's cheese-making workshop. The afternoon workshops included:

- Goat Emergencies
- Neonatal Kid Care
- Biosecurity: It's Worth the Effort!
- Internal Parasite Control
- Basic Herd Health
- eXtension Goat Information on the Web
- Cheesemaking Overview
- Social Media
- Nutrition for Health and Production
- Goat Reproduction
- DHI Training
- USDA Government Programs
- Body Condition Score as a Management Tool
- Fitting and Showing for Youth and Adults

If you could not attend the 2011 Goat Field Day but would like a copy of the proceedings, please email Dr. Terry Gipson at tgipson@luresext.edu with your mailing address and he will send you a free copy. Please hurry because copies are limited. Or you can access the complete proceedings at the web site listed below.

http://www2.luresext.edu/goats/library/field.htm

Shirt-pocket BCS scorecard

Body condition scoring (BCS) is a simple, fast method of assessing the overall condition, or the thinness or fatness, of your goats. To assist producers in BCS , the Institute has developed a laminated BCS score-card that will fit in your shirt pocket and that you can readily use in the goat pen. You can order the BCS scorecard by sending a check or money order ($1 per scorecard) to:

BCS Scorecard
Dr. Steve Hart
P.O. Box 730
Langston, OK 73050

You can see the complete BCS scorecard on the next page

For more information on the BCS scorecard, please contact Dr. Steve Hart at shart@luresext.edu or at 405-466-6138.

Body Condition Scoring of Goats

Body condition scoring (BCS) is a quick, easy method of describing how thin or fat goats are, using a numerical score from 1 to 5. A goat may be given a half score, for example 2.5, if it is between BCS 2 and BCS 3. Assigning a BCS cannot be done by looking at the goat, one must feel for muscle and fat cover. An appropriate BCS range for goats is from BCS 2 to BCS 4, as seen on the reverse side. Goats that are too thin (BCS 1) may have nutritional or health problems reducing productivity. Overly fat goats (BCS 5) have reduced fertility, increased birthing problems, and health problems.

BCS is commonly assessed in the loin area. Feel the amount of tissue covering the ends of the spinous and transverse processes of the vertebrae. Feel any loin muscle and fat filling the space between the backbone and horizontal bones. In very thin goats the bones can feel "sharp." As the animal gains condition, the thicker tissue covering makes the bone ends feel more rounded and smooth.

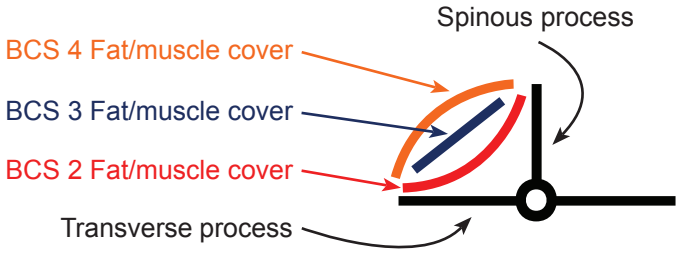
Recommendations

Does

- BCS between 2.5 to 3.5 at breeding
- BCS of 3 to 3.5 prior to wintering and prior to kidding (Does may drop 0.5 or more in BCS during lactation, re-gaining condition after weaning with sufficient nutrition.)

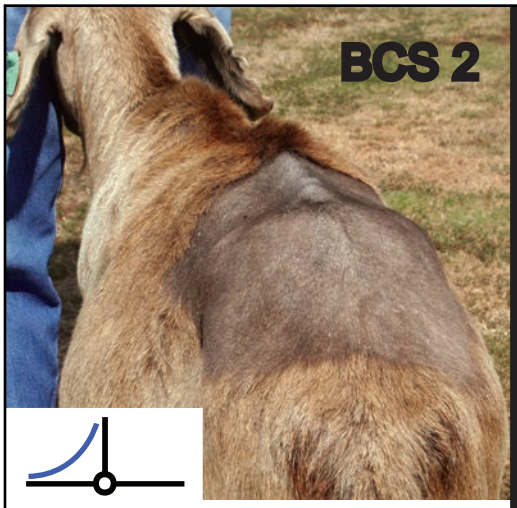
Bucks

- BCS 3 to 3.5 prior to the breeding season

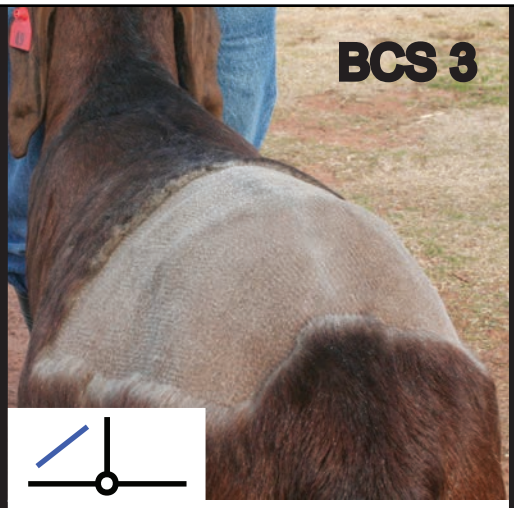


http://www2.luresext.edu/goats/research/bcshowto.html

front side of BCS card (actual size)



BCS 2 - Spinous process is felt as a ridge. A depression is felt between the spinous and transverse processes. Little muscle and fat can be felt. If bone ends are sharp and individual vertebrae felt, the BCS is 1.



BCS 3 - Spinous process does not feel like a ridge, but smooth with small ripples indicating the bones. Area between spinous and transverse processes is filled with muscle and fat cover and felt as a straight or slightly bowed out slope.

BCS 4 - Spinous process feels smooth but not buried in tissue. Individual bones are difficult to feel. Area between the spinous and transverse processes feels full and rounded. If bones are buried in tissue and not felt, the BCS is 5.

back side of BCS card (actual size)

Noteworthy News

►In April, Dr. **Terry Gipson** traveled to Ethiopia to work on activities of the Ethiopia Sheep and Goat Productivity Improvement Program.

►In April, Dr. **Zaisen Wang** traveled to China for the initiating collaboration between the Institute and the Northeast Institute of Geography and Agroecology of the Chinese Academy of Science.

►In May, Dr. **Steve Hart** hosted the annual meeting at Langston University of the Southern Consortium for Small Ruminant Parasite Control.

►In May, Dr. **Roger Merkel** traveled to Ethiopia to work on activities of the Ethiopia Sheep and Goat Productivity Improvement Program.

►In May, Dr. **Steve Hart** hosted a train-the-trainer workshop in Muskogee, OK in which ATTRA personnel presented on their meat goat production electronic toolkit.

►In May, Drs. **Terry Gipson** and **Tilahun Sahlu** traveled to South Africa to select animals as an activity of the Ethiopia Sheep and Goat Productivity Improvement Program.

►In May, Dr. **Steve Hart** conducted an internal parasite control workshop at Langston University.

►In June, Dr. **Steve Hart** conducted an internal parasite control workshop in Muskogee, OK.

►In July, Drs. **Art Goetsch**, **Steve Hart**, **Ryszard Puchala**, **Zaisen Wang**, and **Steve Zeng** attended the joint national meetings of the American Society of Animal Science and the American Dairy Science Association in New Orleans, LA to make research presentations and attend scientific sessions.

►In July, Drs. **Terry Gipson** and **Tilahun Sahlu** returned to South Africa to accompany animals to Ethiopia as an activity of the Ethiopia Sheep and Goat Productivity Improvement Program.

►In July, Dr. **Steve Hart** conducted an internal parasite control workshop in Idabel, OK.

►In July, Dr. **Art Goetsch** traveled to Ethiopia to work on activities of the Ethiopia Sheep and Goat Productivity Improvement Program.

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