



# Goat Newsletter

Cooperative Extension Program  
Langston University

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

Summer 2008

## From the Director's Desk



As I write this Director's Desk, I am sitting in Indianapolis, IN attending the annual meeting of the American Society of Animal Science (ASAS). This is the centennial celebration of ASAS, and Langston University was honored by being asked to deliver a centennial presentation entitled "Impact of animal science research on U.S. goat production and predictions for the future." This is a testament of the respect that the other universities have for Langston University. The presentation and the accompanying paper that was written was truly a team effort and I thank all those involved.

The goat industry in the United States does not have the depth of research conducted over the past century as many of our other livestock species.

However, in the last two decades, the goat industry rivals the other species as far as quality of research is concerned. One of the research activities, that I highlighted in my ASAS presentation and that was also highlighted in another ASAS presentation on advances in sheep and goat production, was the publication of the new *Nutrient Requirements of Small Ruminants: Sheep, Goats, Cervids, and New World Camelids* by the National Research Council. Dr. **Art Goetsch** served on the committee for this publication and contributed his expertise. Actually more than providing a noted researcher to sit on the committee, Langston University provided the basis for the nutrient requirements for goats. Dr. **Goetsch's** recent project to reevaluate the nutrient resulted in a special issue of *Small Ruminant Research* (2004, Volume 53, Number 3). It was also that research project that resulted in the nutrient requirement calculators that we host on our web site ([http://www2.luresext.edu/goats/research/nutr\\_calc.htm](http://www2.luresext.edu/goats/research/nutr_calc.htm)). I hope that you have had a chance to use the calculators.

I should add that the web-based calculators were the instrument for a proposal that Dr. **Goetsch** submitted and was successful in acquiring funding. It is that grant that takes Drs. **Goetsch** and **Terry Gipson** to various countries to translate the calculators into four languages, Arabic, Chinese, French, and Spanish. It is wonderful to see how one research project has impacted several other subsequent projects: NRC requirements, web-based nutrient calculators, and foreign language translations. I am proud of my team and all that they contribute to the scientific community.

But before I leave this topic, please indulge me and let me say a few words about the NRC publication. This new book provides a summation of the current scientific literature on the nutrient requirements of small ruminants in all stages of production. Knowledge of the nutrient requirements is essential to properly formulate diets for small ruminants. Those requirements may depend on the breed and age of the animal and whether he or she is growing, pregnant, or lactating. As both a practical and a technical



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reference guide, this book was updated to ensure that diets of small ruminants contain adequate amounts of nutrients. The Nutrient Requirements of Small Ruminants is available at the National Academic Press web site ([http://www.nap.edu/catalog.php?record\\_id=11654](http://www.nap.edu/catalog.php?record_id=11654)) for \$116.10. On other research fronts, we are busy with all of the various projects that are studying the energy expenditure of grazing goats.

This spring like many in the past was a busy time with the Annual Goat Field Day and it was a big success again. You can read more about the field day on page 4 of this newsletter. The field day is immediately followed by other important extension activities, including the Annual Meat Goat Buck Performance Test and internal parasite workshops. Drs. **Steve Hart**, **Gipson**, and **Lionel Dawson** lead the buck performance test.

Recently, Dr. **Hart** presented the midpoint report for the tenth annual meat buck performance test, which started May 3, 2008 with 35 bucks enrolled from 8 different breeders. The number of bucks enrolled in the buck test are lower than in previous years but the quality of animals has remained the same. As is our routine at entry, bucks were given a physical examination by Dr. **Dawson**, dewormed with Cydectin (moxidectin), deloused with Atroban De-Lice, and given a preemptive injection of Nuflor for upper respiratory infections. All bucks underwent an adjustment period of two weeks im-

mediately after entry. For the 2008 buck test, the weights at entry (5/3/08) averaged 45 lbs and ranged from 30 to 76 lbs. Weights at the start of the buck test (5/21/08) averaged 51 lbs and ranged from 32 to 84 lbs. Weights at mid-point (7/2/08) averaged 75 and ranged from 41 to 120 lbs. The average gain for the first half of the test was 25 lbs with a range of 8 to 36 lbs. For the first half of the buck test, bucks gained on average 0.59 lbs/day with a range from 0.19 lbs/day to 0.86 lbs/day. Also for the first half of the test, bucks consumed on average of 133 lbs of feed with a range of 82 to 204 lbs. These values translated into an average feed efficiency or feed conversion ratio of 5.4 lbs of feed consumed per lb of gain with a range of 3.7 to 7.6.

For other extension activities, Dr. **Hart** has been preparing for his series of internal parasite workshops this summer. You can contact Dr. **Hart** at 405-466-6138 if you are interested in attending one of his workshops. Dr. **Gipson** will be offering his artificial insemination workshops this fall and if you are interested in more information on those workshops, you can see the information on page 5. Dr. **Gipson** has been also been involved in a new and exciting extension project called eXtension. The national Cooperative Extension service is developing a nationwide web site for the dissemination of information and now we, and goats, are a part of that innovative system. You can read more about that endeavour on page 3 of this newsletter.

# Goats Are Now Part of eXtension

by T.A. Gipson



Earlier this year, a group of goat extension specialists and researchers met in Atlanta, formed a Goat Community of Practice (CoP) and submitted a formal application to eXtension (pronounced e-extension).

*So, what is eXtension?*

eXtension is an Internet-based educational partnership of the seventy-four 1862 and 1890 institutions of the land-grant university system that helps people improve their lives by providing access to objective research-based information and learning opportunities. In 1994, USDA debated Cooperative Extension's survival in a new customer-driven marketplace and in 2001, made the decision to transform the way Cooperative Extension delivers its mission and message through technology (eXtension). In 2004, Cooperative Extension System adopted an assessment to provide project start-up funds and in 2007, launched the full system at <http://www.extension.org>.

*I have an extension agent. So, why was eXtension created?*

eXtension was created to provide 24/7/365 access to information to help people make life-improving decisions; educational products and programs at any time, from any place, in any format on any Internet-ready device; complementary resources to the community-based Cooperative Extension System; increased visibility to Cooperative Extension by reaching new audiences and expanding partnership opportunities; collaborative development of Internet-based educational materials with minimal duplication; and sustained connections between Communities of Practice (CoP) and Communities of Interest (CoI).

*So, what is a CoP?*

A CoP is a group of specialists and others who are knowledgeable in the subject area, in this case goats. The Goat CoP's membership includes goat specialists at all the major universities, plus regional and county extension agents with goat knowledge. Other CoP's that exist are:

- Beef Cattle
- Better Kid Care America
- Consumer Horticulture
- Corn and Soybean Production
- Cotton
- DAIReXNET
- Diversity Across Higher Education
- Drinking Water Issues
- Entrepreneurs and Their Communities
- Extension Disaster Education Network
- Extension Wildfire Information Network
- Families, Food and Fitness
- Family Caregiving
- Financial Security for All
- HorseQuest
- Imported Fire Ants
- Just In Time Parenting
- Land Use Planning
- Livestock and Poultry Environmental Learning Centers
- Map@Syst
- Niche Meat Processing Assistance Network
- Pesticide Environmental Stewardship
- Pork Information
- Sustainable Ag Energy
- Urban Integrated Pest Management
- Wildlife Damage Management
- Youth SET for Life
- eOrganic

*What is a CoI?*

A CoI is the clientele. In this case, goat producers or just anyone who wants to learn more about goats.

*Great. What is the web address so that I can find the information?*

Not so fast. The Goat CoP has just formed and will be putting information on the eXtension web site. We will officially launch the Goat CoP early next year. We will keep you informed as the work progresses.

# Goat Field Day Report

Our annual Goat Field Day was held on Saturday, April 26, 2008. This year's theme was **Innovative and Traditional Goat Marketing**. Our featured speakers were Ms. Ellie Winslow who spoke on Nine Steps to Attract More Customers, and Mr. James Jones, who spoke on Feed Market Situation and Outlook.

Ms. Ellie Winslow is an author and motivational speaker. Ms. Winslow's company, Beyond The Sidewalk Marketing, is dedicated to helping rural entrepreneurs form strategies that can make businesses more profitable and fun. Ms. Winslow's formal education is in English and Biology. However, she has raised many types of livestock and companion animals, including almost 35 years of dairy goats. Ms. Winslow has written two books (Making Money With Goats and Marketing Farm Products). She is a native of California who has lived in most of the Western & Mid Western States. She is currently located in Ontario, Oregon.



*Mr. James "JJ" Jones in the afternoon session.*

Mr. James Jones known as "JJ" is the Area Agricultural Economics Specialist for the Southeast District of the Oklahoma Cooperative Extension Service housed in the Pontotoc County Extension office in Ada, OK. JJ was raised on a small cattle and hog farm in southwest Oklahoma. He went to Oklahoma State University where he received a Bachelor of Science degree in Animal Science and a Master of Science degree in Agricultural Economics. After graduation he started his career working for the University of Tennessee Agricultural Extension Service as an Area Farm Management Specialist. After ten years working in Tennessee, JJ returned



*Dr. Lionel Dawson answers questions in the afternoon session.*

to Oklahoma to work for OSU. JJ is responsible for the planning, implementing and support of the agricultural economics programs for the nineteen county Southeast district. JJ now lives in Roff, OK with his wife and three kids. They operate a small Boer goat operation.

Ms. Winslow offered a full-afternoon Living Beyond the Sidewalk Short Course entitled Growing Your Rural Business: Attitudes, Marketing Secrets and Methods. Ms. Winslow's afternoon session received some of the highest evaluations scores and most positive comments of any of the afternoon sessions.

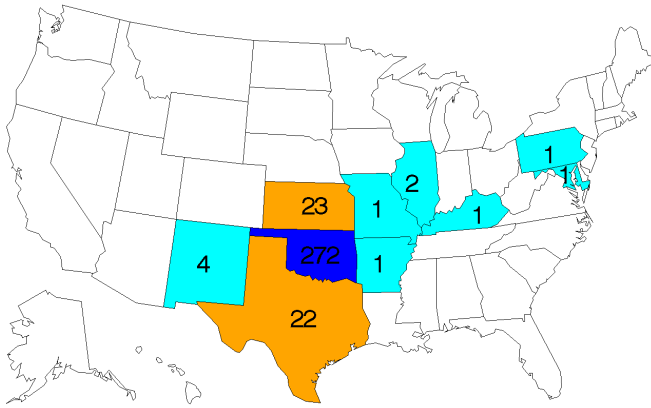
Ms. Cheryl Glover and Ms. Shirlene Hurte supervised the full day activities for youth ages 5-12 in the Fun Tent. Some of the activities included baby goat activities, pony rides; pot your own plant, movies, and many others. Youth and interested adults participated in a full-day clipping, fitting, and showing workshop conducted by Ms. Kay Garrett of



*Mr. Glenn Detweiler conducts a BCS workshop.*

*(cont. next page)*

## 2008 Goat Field Day Pre-Registrations



the Oklahoma Meat Goat Association and a Vo-Ag teacher in Prague, OK. Participants had the opportunity to have hands-on practice of clipping, fitting, and showing a goat.

Attendance at the Goat Field Day continues to remain high. This year 328 people pre-registered (see map at left), 86 by mail, 23 by phone, and 219 by the web site. Of the 328 pre-registered individuals, 263 actually attended the Goat Field Day. In addition, 93 people registered on-site. **A total of 356 participants attended the Goat Field Day.**

The Friday before the Goat Field Day, Dr. Steve Zeng conducted a full-day cheesemaking workshop. There were 23 attendees and Dr. Zeng demonstrated the fabrication of several varieties of goat cheeses. Participants also enjoyed hands-on cheesemaking activities.

You can access the proceedings by going to the link below. There are a few printed copies of the proceedings left and if you would like one, please contact Dr. Terry Gipson at 405-466-6126 or email him at [tgipson@luresext.edu](mailto:tgipson@luresext.edu). Copies are limited.

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

## Artificial Insemination Workshops

The Goat Extension Program will be conducting three artificial insemination workshops this fall. The schedule will be:

1. Langston University on Saturday, September 6, 2008.
2. Cherokee County Fairgrounds in Tahlequah, OK on Saturday, October 4, 2008.
3. Pushmataha County Fairgrounds in Antlers, OK on Saturday, October 18, 2008.

Workshops will present basic anatomy and physiology of goats, estrus detection and synchronization in goats, and semen handling. Participants will have the opportunity to practice with fresh reproductive tracts and with live animals.

Registration for each workshop is limited to 20 participants. Registration fee is \$40 per person. Included in the cost of registration are handouts and lunch.

For information regarding the AI workshops, contact Dr. Terry Gipson at 405-466-6126 or [tgipson@luresext.edu](mailto:tgipson@luresext.edu). Registration forms are available online at [http://www2.luresext.edu/goats/extension/workshops\\_field\\_day.htm](http://www2.luresext.edu/goats/extension/workshops_field_day.htm)



*Dr. Lionel Dawson presenting on estrus detection at the AI workshop in Tahlequah.*

# NLPA

*(Editor's note: Normally, Langston University does not publicize events, activities, or projects of entities outside of Langston University or Oklahoma Cooperative Extension Service. Often producers will call Langston University seeking sources of funding for their goat enterprises; therefore after reviewing the material sent to us by NLPA, it was decided to disseminate this information to our readers. This article is not an endorsement of NLPA by Langston University nor is Langston University involved in the NLPA. This article is **strictly** informative for those seeking financing for goat enterprises. )*



Recently, Langston University was contacted by the National Livestock Producers Association (NLPA) seeking assistance in reaching a wider goat producer audience. NLPA specifically wanted assistance in publicizing their Sheep & Goat Fund, which is a revolving fund established to assist the U.S. sheep and goat industries by strengthening and enhancing the production and marketing of sheep and goats and their products in the United States. NLPA encourages industry members to evaluate the immediate needs in their area, gather support from others who recognize those needs, and work together to find the most effective solutions to local concerns.

Some projects financed by the Fund are shown on the map at the left. Examples (taken from the NLPA web site) of goat projects are:

## Project #3 -- Sheep & Goat Slaughter Facility

This loan was established with a slaughter facility for lambs and goats in Pennsylvania, which is using funds for building and equipment upgrades in order to increase the facility's slaughter capacity. The facility has been in operation since 1986 and since then the owners reported an increase in sales. The facility's customer base is in the Cleveland, Pittsburgh, New Jersey and New York City areas. The facility is also the sole supplier of premium lamb carcasses and primal parts to a business that processes value-added lamb products.

## Project #10 -- Goat Dairy

This loan was established to help a goat dairy in north central New Mexico to complete USDA Grade A certification and become a viable cheese-making operation. The facility had been working toward meeting this certification for the past four years, during which it has acquired a Grade A qualifying dairy goat herd, buildings and equipment and built the financial stability to pursue certification. With the loan from NLPA's Sheep & Goat Fund, the facility will be able to complete all of the certification requirements within a few months and would be ready for the certification inspections. Upon certification of Grade A status, the dairy will become a viable cheese-making operation, opening the door to a market where demand is high, and local (New Mexico) supply is extremely limited.

*For information about NLPA, please contact Ms. Scharee Atchison at 800-237-7193 or by email at [NLPA@NLPA.org](mailto:NLPA@NLPA.org)*

# Research Spotlight

## *Co-grazing sheep and goats.*

Co-grazing of sheep and goats has been practiced throughout history and is commonplace around the world. However, its benefits may not be fully appreciated and means to maximize them have not been extensively studied. Advantages of co-grazing of sheep and goats are derived primarily from differences in preferences for particular plant species and parts, abilities or willingness to consume forages that are not highly preferred and would have greater adverse effects on the other species, and physical capabilities to gain access to specific types of vegetation. Hence, the degree to which total stocking rate or carrying capacity is greater for co- versus mono-species grazing increases with increasing vegetation diversity and, concomitantly, decreasing dietary overlap. Perhaps the most important management decision pertaining to co-grazing is appropriate stocking rates. A simple 'baseline' or 'starting point' method of estimating co-grazing stocking rates is:  $(\text{number with mono-species grazing} \times (100 - \% \text{ overlap})/100) + (\text{number with mono-species grazing} \times (\% \text{ overlap} \times 0.5/100))$ . The equation is applied separately to sheep and then to goats to determine the sheep stocking rate and the goat stocking rate. The total stocking rate is the sum of the two individual stocking rates. The equation noted has limitations. It assumes that intake of forages potentially consumed by each animal species is equal, which obviously is not always true. Furthermore, interactions between stocking rates when the two species graze together versus alone are not considered. Nonetheless, because of its simplicity, the method may have value in field settings, and illustrates the importance of browse plant species in many grazing systems and why management practices are frequently employed to maintain or increase their prevalence and vegetation diversity.

*Animut, G. and A.L. Goetsch . 2008. Co-grazing of sheep and goats: Benefits and constraints. Small Ruminant Research 77: 127-145*

## *Automated Feeding Systems.*

Thirty-two F1 Boer  $\times$  Spanish and 40 3/4 Boer-1/4 Spanish wethers, approximately 5 months of age, were used to compare feeding systems with different dietary treatments. Feeding systems were Calan gates and automated feeding units allowing one animal to consume feed at a time. The two diets included concentrate and dehydrated alfalfa, fed pelletized or loose. The effect of feeding method was not significant for ADG or DM intake (DMI). There was an interaction in DMI involving feeding method, diet, and genotype, which indicated that with a concentrate diet, regardless of physical form, DMI was not influenced by feeding method. Main effect dietary treatment means (3.9, 3.7, 4.5, and 3.7 lbs for pelletized concentrate, loose concentrate, pelletized alfalfa, and loose alfalfa, respectively) indicated that pelletizing had a slightly greater effect on DMI with alfalfa versus concentrate. ADG was lowest among treatments for loose alfalfa (0.46, 0.45, 0.42, and 0.35 lb/day for pelletized concentrate, loose concentrate, pelletized alfalfa, and loose alfalfa, respectively). In summary, meat goats can markedly vary feeding behaviors in response to different diet types and forms; however, there appear limits to such changes, as exemplified by lowest ADG for loose alfalfa. Calan gates and automated feeding systems appear similar in the ability to compare growth performance with treatments such as the concentrate-containing diets and genotypes of this experiment. Pelletizing does not seem to affect growth performance with diets consisting of appreciable concentrate. Effects of pelletizing on growth performance of meat goats consuming forage diets may be attributable to change in level of feed intake, without impact on efficiency of feed utilization.

*Gipson, T.A., A L. Goetsch, G. Detweiler, and T. Sahl. 2007. Effects of feeding method, diet nutritive value and physical form and genotype on feed intake, feeding behavior and growth performance by meat goats. Small Ruminant Research 71:170-178.*

# Noteworthy News

► In May, Drs. **Tilahun Sahlu** and **Steve Zeng** traveled to Memphis, TN to serve as panelists for the Food Safety and Reusable Energy sessions at the Joint Conference of Association of Extension Administrators and Association of Research Directors.

► In May, Drs. **Terry Gipson** and **Art Goetsch** traveled to Yangling, China to work on the USDA International Science and Education Competitive Grant Program (ISECGP) supported project "International Collaboration in Goat Research and Production Web-Based Decision Support Aids" with collaborators from the Northwest Agriculture and Forestry University.

► In June, Dr. **Steve Hart** attended the national meeting of the American Boer Goat Association in Stillwater, OK.

► In June, Dr. **Steve Hart** conducted workshops/presentations on internal parasite control and the use of FAMACHA in Okemah, OK, in Fort Scott, KS at the American Kiko Goat Association national meetings, and in Alma KS at the Kansas meat Goat Conference.

► In July, Drs. **Terry Gipson, Art Goetsch, Steve Hart, Tilahun Sahlu, Lynn Wang, Zaisen Wang,** and **Steve Zeng** attended the joint national meetings of the American Society of Animal Science and the American Dairy Science Association in Indianapolis, IN to make research presentations and attend scientific sessions.

► In July, Dr. **Steve Zeng** traveled to Buenos Aires, Argentina as a featured speaker for the Symposium on Small-Scale Goat Milk Processing Operations. Dr. **Zeng** gave three seminars on goat milk ice cream, yogurt and cheese from the

U.S. perspectives. He and a French dairy expert conducted dairy product manufacturing workshops to goat producers in Argentina.

► In July, Dr. **Terry Gipson** traveled to Rwanda to work on the USDA ISECGP project with collaborators from the National University of Rwanda.

► In July, Dr. **Steve Hart** presented on dairy goat management at the Indian Nation Dairy Goat Club meeting in southeastern, OK

► In August, Drs. **Terry Gipson** and **Art Goetsch** traveled to Cairo, Egypt to work on the U.S.-Egypt Joint Science and technology program funded projects entitled "Effects of Acclimatization on energy Requirements of Goats" and "The Grazing Activity Energy Costs of Goats" with collaborators from the Desert Research Center.



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