



Goat Newsletter

Cooperative Extension Program
Langston University

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

Spring 2000

From the Director's Desk



Dr. Tilahun Sahlou

This winter period has consisted of a good mixture of a number of different research and extension activities. Regarding research, the farm crew has done an excellent job in conducting a large number of research trials. Messrs. **Jerry Hayes** and **Glenn Detweiler** are sharing the many responsibilities of running the farm.

One Visiting Scholar has recently completed his 2-year stay with us, Dr. **Manuel Lachica**. Dr. Lachica ran a number of experiments to study energy use by goats. Currently, we are in kidding season, and **Glenn Detweiler** and Dr. **Art Goetsch** are starting an experiment with Alpine kids to look at different milk feeding schemes to hasten the transition to dry feed and im-

prove growth after weaning. Dr. **Steve Hart** is just starting an experiment with Alpines, which pertains to grazing-based dairy goat production systems compared with confinement and relatively high dietary grain levels. Drs. **Ryszard Puchala** and **Tumen Wuliji** have completed their series of skin perfusion experiments looking at mohair growth control. Dr. Wuliji is now starting a subsequent experiment on out of season breeding for Spanish goats, assisted by Dr. **Lionel Dawson**. Also, Drs. **Wuliji**, **Puchala**, and **Goetsch** have just initiated a compensatory growth/body and carcass composition experiment with the summer/fall-born kids from the first year. Dr. **Roger Merkel** noted an appreciable improvement in growth by Boer \times Spanish doelings grazing lespedeza pastures in late-summer when supplemented with polyethylene glycol.

The Extension program has also been busy as well. In collaboration with Oklahoma State University, Langston University conducted a producer grantwriting work-

shop. Producers were able to learn about grantwriting skills from Extension specialists as well as from fellow producers who have successfully competed for producer grants. The Extension program was awarded funding by USDA Food Safety and Inspection Service to conduct training in the Hazard Analysis and Critical Control Point system. Dr. **Terry Gipson** conducted four "HAACP and the Goat Producer" workshops to inform producers about the HACCP system, which is a system for food safety. Mr. **Tim McKinney** and Dr. **Gipson** traveled to Texas A&M University to undergo further training in DHIA procedures.

Spring is also the time for our annual Goat Field Day. This year our field day will be on Saturday, April 29. The theme will be "Goats in the Twenty-first Century". This year we have invited leaders of the various goat industries to share their thoughts and outlooks for goat production and products into the twenty-first century.

Make plans to attend the Goat Field Day today.



Goat Newsletter is published quarterly by the Cooperative Extension Service of the E (Kika) de la Garza Institute for Goat Research, Langston University, Langston, Oklahoma.

Dr. Marvin Burns,

Dean,
School of Agriculture and
Applied Sciences

Dr. Vernon Jones,

Administrator,
Cooperative Extension

Dr. Tilahun Sahlu,

Director,
E (Kika) de la Garza Institute for
Goat Research

E (Kika) de la Garza Institute for
Goat Research
Langston University
P.O. Box 730
Langston, OK 73050
Phone: (405) 466-3836
FAX: (405) 466-3138
URL: <http://www.luresext.edu>

Newsletter Editor

Dr. Terry A. Gipson
tgipson@luresext.edu

The Cooperative Extension Program at Langston University, provides educational programs to individuals regardless of race, color, national origin, religion, sex, age, disability or status as a veteran. Issued in furtherance of Extension work, Act of September 29, 1977, in cooperation with the

Meet the Faculty & Staff



Dr. Vernon Jones

Vernon Jones grew up in a small town in Northeastern Louisiana. While in elementary school, he was active in 4-H and youth science fairs. During his high school years, he participated in Vocational Agriculture which introduced him to swine and cattle judging. While in high school, he was also active in debate, the National Honor Society, Academic Competition, football, baseball and track.

Dr. Jones received his B.S. Degree from Southern University A&M College in Baton Rouge, LA majoring in Plant Science. While attending Southern University, Dr. Jones worked with the Natural Resource Conservation Service as a trainee.

Dr. Jones pursued his graduate studies at the University of Illinois at Urban-Champaign, IL. He received his M.S. and Ph.D. degrees there in Crop Production researching allelopathic effects of plant roots on alfalfa and double cropping with soybeans

and pearl millet.

After receiving his doctorate degree, Dr. Jones was employed at Prairie View A&M University in Prairie View, TX. While there, he worked on a bermuda grass project, established an *in vitro* dry matter digestibility laboratory and taught a Plant Science course.

In the mid-1980's, Dr. Jones made the exodus across the Red River and began his employment at Langston University. Since coming to Langston University, he has conducted research in the areas of double cropping, conservation tillage, relay intercropping, drought tolerance, adaptability of kochia as a forage crop in Oklahoma and nitrate movement in the soil profile. Dr. Jones served as supervisor for three Cooperative Extension Paraprofessionals in the eastern part of the state. He served as Acting Division Director for the then designated Division of Applied Sciences. He has also taught a Soil Science course. He is a member of the American Society of Agronomy and the Crop Science Society.

Presently, Dr. Jones is Administrator of the Cooperative Extension Program at Langston University.

Dr. Vernon Jones can be reached at (405) 466-3836 or at vjones@luresext.edu.

Goat Field Day

Our annual Goat Field Day will be held on Saturday, April 29, 2000 at the Langston University Goat Farm with registration beginning at 8:00 a.m. This year's theme is *Goats in the*



Twenty-first Century. In the morning session, Drs. Marvin Burns and Tilahun Sahlu of Langston University will welcome field day participants and give a goat research update. Dr. George Cooper of USDA will address field day participants and give an overview of USDA activities.

Representatives of the dairy, meat and fiber industries will give an overview and outlook of their respective industries.

For lunch, you can bring your own lunch and picnic on the grounds or you can pre-register for a lunch of barbecued goat, beans, potato salad, refreshments and goat milk ice cream. Cost of the lunch is only \$6.00 per person.

In the afternoon session, participants will break into small-group workshops. There will be a total of seven workshops; however participants will only have time enough to attend three workshops. Workshops will be 1) marketing roundtable for the twenty-first century presented

by the representatives of the various goat industries, 2) voluntary scrapie program and its impact on goat production in the twenty-first century, 3) goat industry support from the National Sheep Industry Improvement Center presented by a representative of the National Livestock Producers Association, 4) the Oklahoma agriculture diversification loan/grant program presented by a representative of the Oklahoma Department of Agriculture, 5) sustainable brush control using goats presented by Dr. Steve Hart of Langston University, 6) essential goat management tips for beginners presented by Dr. Lionel Dawson of Langston University and Oklahoma State University, and 7) effective fencing design for goats. A youth program is also scheduled for the morning and afternoon sessions.

Registration for the Goat Field Day is FREE but there is a \$6.00 per person charge for the optional barbecued goat lunch. Please make plans to attend the Goat Field Day now. A pre-registration form is enclosed in this newsletter for your convenience.

For information regarding the Goat Field Day, contact Dr. Terry Gipson at (405)466-3836 or tgipson@luresext.edu

Ethiopian University Grants Update

by R. Merkel

In December, 1999 Dr. Tilahun Sahlu, Director of the E (Kika) de la Garza Institute for Goat Research, and Dr. Marvin Burns, Dean of the College of Agriculture and Applied Science of Langston University, traveled to Ethiopia to visit Awassa College of Agriculture and Alemaya University of Agriculture and officially sign Memorandums of Understanding with Awassa College of Agriculture. The university linkages established with these institutions provide for collaborative research, training of visiting scien-

tists and the establishment of women's groups for goat production in the local region around both Ethiopian universities.

During their visit Drs. Sahlu and Burns toured university facilities and visited women cooperators who had received goats. Women were visited in Shebedino, a site near Awassa College of Agriculture characterized by dense population and small land holdings insufficient for large ruminant production. The women's group led a tour of their farms where their animals and asso-

(Continued next page)

ciated facilities were shown. Goats were in excellent condition and each farm had developed a forage site specifically for their goats consisting of grass, such as Mali grass, along with the tree legumes leucaena or sesbania. The participants indicated that they had gained new knowledge on goat husbandry through visits to the Awassa College's goat farm and through training sessions. Women had built feeders for their animals and, importantly, had learned the value of, and construction methods for, building separate housing quarters for their animals rather than following the traditional practice of keeping animals inside their own living quarters. The women also stressed the positive impact that raising a few goats has had on their lives, such as providing milk for their children. The women were also optimistic about the future for their children who were healthier and able to attend school. As part of the requirement for receiving goats, women

must repay to the project a number of female offspring equal to the total number of goats initially received. With the onset of kidding, some cooperators will be able to repay their debt in the near future. Those kids will then be distributed to new cooperators. Many more women farmers have expressed interest in joining the project and will, hopefully, receive goats in the near future. Through this project, the E (Kika) de la Garza Institute for Goat Production, Langston University a Awassa College of Agriculture and Alemaya University of Agriculture are contributing to the agriculture development of these regions in Ethiopia by making a positive impact on the health and lives of women farmers and their families.

For information regarding the Ethiopia projects, contact Dr. T. Sahlu at (405)466-3836 or sahlu@luresext.edu

Goat Management Tips

Kidding Management by S. Hart.

Some of you are close to finishing kidding while some people have a month or two before kidding starts. Kidding date can greatly affect your cost of production because the doe has her greatest nutrient requirements in the two to three months following kidding. Kidding early can be profitable especially if grazing conditions such as winter wheat pasture is available. Registered producers can often recoup the extra costs of kidding earlier by having bigger animals at sale time. Although the commercial goat producer probably should kid when grass is lush to reduce the cost of production, internal parasites can be a greater problem at this time since it is warmer. Moving animals to different pastures can help to reduce the buildup of worm eggs.

Disbudding is a common practice for dairy goat producers. However, there is no real reason to disbud or dehorn meat goats. Most dairy goat producers use a hot iron to disbud their goats. Here again, earlier is better. The later you

disbud, the more likely you are to get scurs, especially when the kid is over a week old. Bucks should be disbudded the first couple of days of life to prevent scurs.

It is not as necessary to castrate kids because some markets actually prefer intact males. For early maturing breeds, males need to be castrated because they can breed their littermates before they are weaned. If you have an extended kidding season, the oldest males may be mature enough to breed females if weaning is delayed. Although people have strong opinions about the best method of castration, science has failed to demonstrate that one method clearly causes less stress or is better. If kids are castrated during the first couple of days of life, the stress is less because nerves are not fully developed at this time. Use whatever method works best for you.

For more information regarding goat management, contact Dr. Steve Hart at (405) 466-3836 or at shart@luresext.edu

Research Spotlight

Abstracted by A. Goetsch

Breeding Energy.

In order to profitably raise livestock, knowledge of nutritional requirements is necessary. There is little information on energy requirements of buck goats during the breeding season. This relates to the difficulty and expense in using the experimental procedures, which must be applied with unrestricted movement and allow expression of individual behavior patterns. A method known as the doubly-labeled water technique was used to measure energy expenditure of Angora bucks in single-buck breeding groups and peak breeding season. Total energy expenditure during peak breeding season, corrected for energy used in mohair growth, was only 9% greater than the maintenance energy requirement. There was only a weak relationship between the number of does marked and energy use attributable to activity, suggesting importance of individual style and persistence while courting and less of the number of does marked. In conclusion, breeding activities in single-buck breeding groups did not markedly increase energy requirements of Angora bucks..

Toerien, C. A., T. Sahlu, and W. W. Wong. 1999. Energy expenditure of Angora bucks in peak breeding season estimated with the doubly-labeled water technique. Journal of Animal Science 77:3096-3105.

Grazing Energy.

Energy used by ruminants to graze is affected by environmental conditions, such as land area and topography and types of herbage available. Currently, the National Research Council (NRC) 1981 publication on the nutrient requirements of goats recommends that activity energy costs be estimated as 25% of the maintenance cost for light activity, 50% with semiarid rangeland and slightly hilly conditions, and 75% with sparsely vegetated rangeland or mountainous transhumance pasture. Differences among forage systems typical of goat production conditions in the US or among ruminant species or breeds of a particular species are largely unknown. This experiment was conducted to investigate influences of animal type (Angora goat, Spanish goat, and Suffolk × Rambouillet sheep wethers) on energy used for activity during summer grazing of two types of grass-based pastures. An improved pasture treatment consisted of 0.7-hectare pastures primarily of Old World bluestem and johnsongrass, and a native pasture treatment entailed 10.8-ha paddocks dominated by big and little bluestems and indiangrass. NRC suggests that activity energy costs may be greater for goats than for

other ruminants. In this experiment, total energy expenditure was greater for sheep, which related to a longer period of time spent grazing and greater energy intake, with the result of a similar quantity of stored energy by the sheep and goats. Energy intake was similar between native and improved pastures, although grazing time and the activity energy cost were greater for native pastures. Animals on native pasture also took more steps per unit of time spent grazing, implying that increases in energy intake for native pasture that could be achieved through increased grazing time would occur at a relatively greater energy cost than for improved pasture. Forage availability may be relatively more important for achieving energy intake adequate for body weight maintenance or greater with pasture conditions similar to those of the native pasture treatment than with the improved pasture treatment. Grazing conditions of improved and native pasture treatments may similarly influence productivity by goats and sheep and by different goat breeds.

Herselman, M. J., S. P. Hart, T. Sahlu, S. W. Coleman, and A. L. Goetsch. 1999. Heat energy for growing goats and sheep grazing different pastures in the summer. Journal of Animal Science 77:1258-1265.

Tentative Year 2000 Activities

In the year 2000, The E (Kika) de la Garza Institute for Goat Research will sponsor several extension/education activities. We start with our annual Goat Field Day, which is always scheduled for the last Saturday in April. The 2000 Meat Buck Performance Test is co-sponsored by the Oklahoma Meat Goat Association and has been designated by the ABGA Board of Directors as an ABGA Approved Performance Test. In an effort to expand the walls of the University, this year we will conduct three workshops away from campus. The Sustainable Internal Parasite Control workshop which was initiated last year was very popular and workshops will be held on campus and in Tulsa and McAlester. The Artificial Insemination workshop will also be held on campus and in Tahlequah. Due to the hands-on nature of the Sustainable Internal Parasite Control and Artificial Insemination workshops the number of participants will be limited. Registration forms for individual workshops are available upon request. *Reserve your place today.*

If you are interested in receiving future information regarding these events, please check the appropriate box in the form below and return. ***In compliance with the ADA Act, participants with special needs can be reasonably accommodated by contacting Dr. Terry A. Gipson (405) 466-3836, at least five business days prior to the scheduled event.***

(✂ *Cut along line and mail form*)

FORM TO REQUEST INFORMATION ABOUT FUTURE EVENTS

NAME: _____

TELEPHONE: _____

ADDRESS: _____

ZIP: _____

Date	Activity	✓
April 29, 2000	GOAT FIELD DAY	
May 6, 2000	Meat Buck Performance Test	
June, 3, 2000	Sustainable Internal Parasite Control for Small Ruminants (Langston)	
June 17, 2000	Sustainable Internal Parasite Control for Small Ruminants (Tulsa)	
July 1, 2000	Sustainable Internal Parasite Control for Small Ruminants (McAlester)	
July 7-8, 2000	Level I Meat Goat Judges training	
September 9, 2000	Demonstration Clinic: Artificial Insemination for Goats (Langston)	
October 7, 2000	Demonstration Clinic: Artificial Insemination for Goats (Tahlequah)	
December 2, 2000	Producer Grantwriting Workshop	

Please mail this form to:

Agricultural Research
and Extension Program
Langston University
P.O. Box 730
Langston, OK 73050

ATTN: YEAR 2000 EVENTS

2000 OKLAHOMA MEAT BUCK PERFORMANCE TEST

May 6 - August 19, 2000



Oklahoma Meat Goat
Association

Contact:
Mr. Jim Daniel
OMGA President
Rt. 1, Box 95
Earlsboro, OK 74840
(405) 382-1901



Langston University

IMPORTANT

- ! Due to a mailing list error, the Winter 1999 newsletter was not mailed to all subscribers. If you would like to receive the Winter 1999 newsletter, please check the box and return this form.
- ! The following announcement concerning future issues of the Goat Newsletter appeared in the Winter 1999 newsletter. If you have already sent in a form, you do not need to send in another form. **If you have not yet responded to this announcement, please do so today so that you will continue to receive the Goat Newsletter.**

Y2K Goat Newsletter

The mailing list for the Goat Newsletter continues to grow and so do mailing costs. If you would like to continue receiving the Goat Newsletter in the year 2000, please complete the form below and return. **IMPORTANT: If you do not return the form, then you will no longer receive the Goat Newsletter.**

Beginning in 2001, we will also electronically publish the Goat Newsletter and it will be available via our website or email. If you have an email address and would like to receive the Goat Newsletter electronically, please include your email address.

(✂ Cut along line and mail form)

Y2K GOAT NEWSLETTER FORM

- YES, I want to continue receiving the Goat Newsletter.
- NO, I do NOT want to continue receiving the Goat Newsletter.

NAME: _____

ADDRESS: _____

CITY: _____

STATE: _____

ZIP: _____

EMAIL ADDRESS: _____

- I would like a back issue of the Winter 1999 newsletter.

Please mail this form to:

Agricultural Research and
Extension Program
Langston University
P.O. Box 730
Langston, OK 73050

ATTN: Y2K GOAT NEWSLETTER

Noteworthy News

Dr. **Ryszard Puchala** presented a research abstract entitled “*Effects of triiodothyronine administered to a perfused area of skin in Angora goats*” and Dr. **Art Goetsch** gave overviews of E (Kika) de la Garza Institute for Goat Research research projects at the Southern Section of the American Society of Animal Science in Lexington, KY.

Dr. **Manuel Lachica**, Visiting Scholar, recently returned to Spain after a two-year research stay at Langston. Dr.

Manuel Lachica conducted research concerning the influences of diet type, grazing vs confinement, and cold exposure in recently shorn goats on energy use.

Drs. **Marvin Burns** and **Tilahun Sahlu** traveled to Ethiopia to meet with counterparts on cooperative research projects. Drs. Burns and Sahlu visited Awassa College of Agriculture and Alemaya University of Agriculture.

Dr. **Steve Hart** was a presenter at a symposium on

sericea lespedeza in Dewey, OK co-sponsored by Oklahoma State University and Kansas State University. Dr. **Hart** also attended the National Mastitis Council in Atlanta, GA.

In collaboration with USDA Natural Resource Conservation Service, Dr. **Terry Gips-on** conducted four workshops on “HAACP and the Goat Producer”. Funding for the workshops were provided by USDA Food Safety and Inspection Service.



Goat Newsletter
E (Kika) de la Garza Institute for Goat Research
Langston University
P.O. Box 730
Langston, OK 73050