driving 3 h. The rest of the kids were directly transported to the abattoir after loading onto the trailer. Animals were held overnight with access to water only before slaughter. Skin swab samples were made on the hind legs immediately after transportation and just before slaughter. Immediately after evisceration, carcass swab samples were taken and rumen and rectal content samples were also collected. Microbial counts in both rectal and rumen contents were not different ($P > 0.05$) among goats grazed on the experimental pastures. Neither pasture type nor transport stress significantly influenced ($P > 0.05$) *E. coli*, total coliform and aerobic plate counts on skin or carcasses. The *E. coli* counts on skin were 0.18 and 0.13 ± 0.091 (mean ± SEM) $\log_{10}$cfu/cm^2 in transport and non-transported groups, respectively. The aerobic plate counts on carcasses were 2.62, 2.91, and 2.41 ± 0.310 (mean ± SEM) $\log_{10}$cfu/cm^2, respectively, in goats grazed on SL, BG and BG plus SL pastures. The results indicate that neither pasture type nor transportation stress appear to significantly influence gut, skin, or carcass microbial loads in meat goats.

Key words: sericea lespedeza, transport, *E. coli*

T391 Gastro-intestinal parasitic infestation in meat goats and its relationships with production traits under a pasture-based performance test in Western Maryland. K. Nadarajah*[1], S. Schoenian[2], D. L. Kuhlers[1], M. D. Carpenter[1], and D. Rankins[1], [1]*Auburn University, Auburn, AL*, [2]*University of Maryland Extension, Keedysville.*

Variation among meat goats for gastro-intestinal parasitic (GIP) infestation and its relationships with production traits should be explored for selecting goats for resistance to GIP. The objective was to examine between animal variation for GIP infestation and growth performance of bucks participated in a pasture-based performance test in 2009 (n = 60) and 2010 (n = 72), respectively, in Western Maryland. Bucks were managed as a single group on pasture with access to free choice minerals, and were rotationally grazed among 5, 2 acre paddocks. Using SAS, data were analyzed within test-years for fecal egg count (FEC), FAMACHA score (FAM), BCS and growth performance of individual bucks at initial-entry-to-test (IT) and end-of-test (ET). Mean, SD and correlations among traits for IT-weight (IT-WT), IT-FEC, IT-FAM, and IT-BCS and similar parameter estimates for ET-weight (ET-WT), ET-FEC, ET-FAM, and ET-BCS, as well as overall ADG on test were computed. Mean ± SD of bucks on tests in 2009 and 2010 for IT-WT were 21.3 ± 4.8 kg and 20.1 ± 4.5 kg, respectively. For same years, means ± SD of bucks were 1,202 ± 1,614 and 682 ± 1,201 for IT-FEC, 1.82 ± 0.83 and 1.61 ± 0.78 for IT-FAM, and 2.68 ± 0.33 and 2.72 ± 0.40 for IT-BCS, respectively. Means and SD of bucks for ET-WT were 28.1 ± 4.8 kg and 26.3 ± 4.4 kg, for ET-FEC 1,584 ± 1,229 and 400 ± 417, for ET_FAM 2.4 ± 1.1 and 1.57 ± 0.53, and for ET-BCS 2.7 ± 0.4 and 1.6 ± 0.5 in 2009 and 2010, respectively. The mean ADG were 63.5 ± 30.8 g and 54.4 ± 25.8 g for 2009 and 2010, respectively. In both test years, the correlations between IT-FEC and IT-FAM with IT-WT were negative ($P = 0.5$), but IT-WT with IT-BCS was positive ($P < 0.001$). In 2010 test, correlation between IT-FEC and IT-FAM was positive ($P = 0.06$) and correlation between ET-FEC and ET-FAM was positive ($P = 0.08$) in 2009 test. Between variations among bucks for FEC were large. Lack of pedigree information on bucks restricted the estimation of genetic (co)variances from these data. Phenotypic parameters will be used to simulate performance and pedigree data to conduct genetic analyses.

Key words: gastro-intestinal parasite, meat goats, performance test

T392 Gastro-intestinal parasitic infestation and its relationships with growth performance in meat goats on pasture with supplemental grain feeding test at the Kerr Center in Oklahoma. K. Nadarajah*[1], M. Penick[2], D. L. Kuhlers[1], M. D. Carpenter[1], and D. Rankins[1], [1]*Auburn University, Auburn, AL*, [2]*Kerr Center, Poteau, OK.*

Understanding the relationships between growth performance and gastro-intestinal parasitic (GIP) infestation in meat goats was the objective in this study that should help in selecting goats for resistance to GIP infestation. Data used for this investigation were collected through the buck performance tests at the Kerr Center in Oklahoma in 2009 (n = 58) and 2010 (n = 60), respectively. Bucks on test were grazed on mixed pasture consisting of bermuda, fescue, lespedeza, warm season native grasses and forbs. Bucks also received approximately 340 g of distillers dried grain per head/d and free choice mineral. Using SAS, phenotypic means, SD and correlations among traits of interest were computed within test-years for fecal egg count (FEC), FAMACHA score (FAM) and growth performance of individual bucks at initial-entry-into-test (IT) and end-of-test (ET). Relationships among bucks for performance were estimated for IT weight (IT-WT), IT-FEC and IT-FAM and ET weight (ET-WT), ET-FEC and ET-FAM as well as overall ADG on test. The means ± SD of bucks entered for test in 2009 and 2010, for IT-WT were 22.5 ± 3.4 kg and 23.3 ± 3.5 kg, respectively. In the respective years, the means and SD of bucks for IT-FEC were 976 ± 1,239 and 405 ± 587, and for IT-FAM were 2.6 ± 0.56 and 2.6 ± 0.62. Means and SD of bucks on test in 2009 and 2010, respectively, at ET as follows: for ET-WT 24.6 ± 3.3 kg and 33.7 ± 3.9 kg, for ET-FEC 1,688 ± 2,540 and 1,290 ± 742, and for ET-FAM 2.1 ± 1.2 and 2.75 ± 0.47. Between variations among bucks were large for FEC across test years. The mean ADG in 2009 test was 19.9 ± 30.8 g and the mean ADG in 2010 was 99.8 ± 34.4 g. In 2009 test, correlation between ET-WT and ET-FAM was negative ($P = 0.09$) and ET-FEC and ET-FAM was positive ($P < 0.01$). In both years, correlations between ET-WT and ADG were positive ($P < 0.001$). Lack of pedigree information on individual bucks restricted the estimation of genetic (co)variances from this data. Phenotypic parameters from this study will be used to simulate pedigree and performance data to conduct genetic analyses.

Key words: gastro-intestinal parasite, meat goats, performance test

T393 Lamb immune status (blood IgG, IgM and chitotriosidase activity) during weaning, preliminary results. L. E. Hernandez-Castellano*[1], A. Morales-delaNuez[1], I. Moreno-Indias[1], D. Sanchez-Macias[1], A. Torres[2,1], A. Arguello[1], J. Capote[2], and N. Castro[1], [1]*Universidad de Las Palmas de Gran Canaria, Arucas, Las Palmas, Spain*, [2]*Instituto Canario de Investigaciones Agrarias, La Laguna, Tenerife, Spain.*

The effect of weaning on some blood immune status-related parameters was investigated using 10 lambs (Canaria dairy breed). Lambs were raised with ewes until they reached 10 kg of live BW with open access to ewe feed. After that, to start the weaning period, lambs were removed from dams and placed in a pen for 6 wk, with free access to starter feed and water. The ewes were milked once a day (morning). During the first week, lambs had access to ewes twice daily (10:00 a.m. after milking, and 17:00 p.m.). During the second week, lambs accessed ewes once a day (17:00 p.m.), and thereafter, the lambs did not have access to ewes. A blood sample was obtained from lambs before the beginning of weaning protocol and subsequently once a week until the end of the experiment. IgG and IgM were measured using a commercial ELISA (Bethyl Laboratories, Montgomery, TX)