

**UK** **COOPERATIVE EXTENSION SERVICE**  
University of Kentucky – College of Agriculture

LEXINGTON, KY 40546

**November-December**  
**112005**

**KSU** **COOPERATIVE EXTENSION PROGRAMS**  
Kentucky State University

# Goat Producer's Newsletter

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**Adding Value to Kentucky  
Products by Feeding Distillers Dried  
Grains (Report Summer 2005)**

**Charles D. Smith, Producer,  
Glasgow, KY  
Terry Hutchens, UK**

A common buzzword of the day is "added value." When value is added to a commodity such as corn, soybean, vegetables, or meat goats, the locally produced raw product is further refined within the state and marketed as a finished, end-user product. This is the ultimate goal for Kentucky-produced agricultural products.

This was true for this case study conducted at Charles Smith's farm near Glasgow, Kentucky. The original objective was to graze 75-80 slaughter buck kids weighing 40 lbs each on a sorghum sudan hybrid and supplement them by grazing soybeans allotted at 1.5% of body weight. However, this growing season was not conducive to this objective. Due to dry weather, only a few of the soybeans emerged and the sorghum sudan was at best a 50% stand. Within a few weeks, due to slow growth and lack of shading, the Johnsongrass filled the voids between the sudan plants.

Not to be undone, we chose to graze the sudan/Johnsongrass

as a smorgasbord pasture and to provide daily protein and energy supplementation. The goats were grazed on the mixture in 4 grazing paddocks and rotated as the growth and regrowth dictated at 7-10 day rotations. Furthermore, the goats were hand-fed (.8 to 1.0 lbs) of supplement one time each day.

The supplement was a commercially available general nutrition pellet and distillers dried grains (DDG). DDG is a by-product feed produced and donated to this project by Commonwealth Agri-Energy (ethanol plant), 4895 Pembroke Rd. Hopkinsville, Kentucky. DDG is a by-product produced in significant quantity in Kentucky from the production of ethanol and bourbon whiskeys.

After a bit of trial and error, the following feed ration emerged, 2 parts pelleted feed to 1 part DDG was found to be palatable and acceptable to lightweight slaughter goats. Supplement cost / head / day was \$0.08. The supplement was feed at 1.5% of live body weight. While, the cost of the sorghum sudan hybrid / Johnsongrass smorgasbord pasture was \$0.06/ head /day based on a yield of 4000 lbs of dry matter and a consumption rate of 3.5% of live body weight. The establishment and nitrogen cost for 1 acre of sorghum sudan is \$110 / acre. The feed cost per head for the 60 day period was \$8.60 with a \$0.66 cost per pound of gain. Gains in the first 28 day period was well below desirable gain due to extreme heat and dry weather. Heat appears to have a tremendous detrimental affect on lightweight kids, even though adequate shade, fresh water and minerals were provided. The last 28 days reflect a favorable increase in weight gain and are more within

<b>Table 5</b>	<b>Begin- ning Wts.</b>	<b>1st 28 Day Wts</b>	<b>Last 28 Day Wts.</b>
<b>Ave Number of Goats on Pasture #</b>	<b>Lbs</b>	<b>Lbs</b>	<b>Lbs</b>
<b>65 goats</b>	47	51	63
<b>Total Wt. Gain</b>		240	675
<b>Average Gain / goat</b>		4	13
<b>Stock Rate / Ac</b>	22		
<b>Lbs of goat gain / Ac</b>		80	225
<b>Total Grazing Days</b>	5850		

expected rates of gain. Even though conditions were not ideal, Charles Smith commented that if he had not cooperated in this project he would have fed approximately \$1000 in hay by the end of August due to little or no pasture.

We will continue to explore ways of feeding goats that reduce feed costs and provide safe grazing environments by using traditional and non-tradition forages and by-product feeds.



**Charles Smith loading trailer with distiller dried grains.**