

**Forage-Based Hair Sheep Ram Lamb Evaluation**  
**Summary of Virginia Tech Southwest AREC Ram Test 2012**

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**Program Objectives**

1. To provide a standardized post-weaning performance evaluation of growth and parasite resistance that will furnish records which will be useful to the consignor's breeding program.
2. To serve as an educational tool for the sheep industry.

**Program Overview**

Eighty nine Katahdin rams born December 15, 2011 through March 15, 2012 were delivered to the Southwest Virginia Agricultural Research and Extension Center at Glade Spring, VA on June 5. Rams originated from 13 flocks located in VA, OH, GA and KY. At delivery, rams were weighed, vaccinated for clostridial diseases and soremouth, and scrotal measurements taken. Additionally, rams were dewormed with three anthelmintics (ivermectin, albendazole, levamisole), and fecal samples collected to determine presence of nematode parasites (FEC). A 21 day adjustment period was used to acclimate rams. A subsequent FEC was taken 12 days following delivery to confirm acceptable reduction in parasite load. The primary goal of the pre-test period was to ensure all rams had very low parasite loads at the initiation of the test.

Following the three week adjustment period, rams were allocated to 4 forage paddocks based on age and weight, and the structured performance test initiated on June 29. At the start of the test period all rams will receive an oral dose of 5,000 3<sup>rd</sup> stage *H. contortus* larvae. Body weights, FEC, PCV and FAMACHA scores were taken at the beginning of the test period, at 14 day intervals during the test (14, 28, 42, and 56 days), and at the conclusion of the test (74 days, September 11). During the test, rams had continuous access to fescue paddocks, and received supplemental concentrate feed at rate of 3% body weight daily (75% TDN, 16% CP).

FEC and FAMACHA was utilized to determine rams requiring deworming treatment. Rams were scanned via ultrasound on August 28 to estimate carcass merit/body composition. All rams were dewormed with multiple anthelmintics at the conclusion of the test (September 11). All rams were subjected to a breeding soundness examination conducted by veterinarians from the VA-MD Regional College of Veterinary Medicine.

## Results

A summary of the performance data results for the rams over the 74-day test period is summarized below. A total of 7 rams required deworming treatment during the test period.

Trait	Average	Minimum	Maximum
Test Start Weight, lb	78	48	131
Test Final Weight, lb	96	64	154
ADG, lb/d	0.25	0.05	0.46
WDA, lb	0.47	0.35	0.61
Scrotal Cir., cm	30.0	22.0	35.5
100-lb Adj. Fat Th., mm	2.4	0.7	4.4
100-lb Adj. Loin Depth, mm	18.3	14.3	21.9
Mean Adj. FEC, egg/g	541	11	4003

An educational field day and sale was held on September 22. Thirty-two of the rams which completed the test were offered through the sale. An rams which required deworming were eliminated from the sale, as were rams with poor performance and those which failed the breeding soundness exam. Consingors were allowed to sell a portion of their rams and retain a portion for home use. All available information on the rams was presented in the catalog, including: birth type, codon 171 genotype, final weight, test ADG/ratio, WDA/ratio, scrotal circumference, adjusted fat thickness, adjusted loin muscle depth, mean adjusted FEC (average of four adjusted fecal egg counts taken post-infection), and FEC Category (presented adj FEC into three categories: +++ = rams one standard deviation better than the average, + = one standard deviation poorer than average, and ++ = near average of test group). Rams categorized as +++ for FEC sold at the top of the sale order, followed by ++ rams and finally + category rams. Within FEC category, sale order was established based on an index weighted 2/3 on WDA and 1/3 on ADG. EBVs were also provided for rams participating in the National Sheep Improvement Program.

The 30 rams sold averaged \$883 per head, with a range of \$425 to \$1900. Rams sold to Virginia, North Carolina, Ohio, and Georgia.