

2022 TEXAS A&M AGRILIFE ANGORA PASTURE PERFORMANCE TEST

Spring-born Angora billy kids (54 head) were delivered to the Sonora station Dec. 13, 2021 and managed on pasture for 2 months to acclimate to the ranch conditions. A subsample of billies from each grower were tested for internal parasites upon arrival. All samples were below 400 eggs per gram and we did not treat any goats for internal parasites. The test began on February 16, 2022. One goat went missing between drop off and the start of the test. After initial shearing, body weights were recorded. Billies were managed on pasture throughout the test. We provided a 20% breeder range cube at 1 pound per goat 3 times per week prior to the initial shearing. Due to poor range conditions, this was increased to 1 pound per goat 5 days per week after the start of the test. Intermediate body weights were recorded periodically to monitor weight gains. In April, test billies knocked over a deer corn feeder and ate around 200 pounds of corn, which caused severe digestive upset. Two goats died, three goats were placed in a sick pen for 1 week, and the remainder had reduced performance for several weeks. After recovery, we suspended feeding pellets for 1 week prior to collection of fecal samples for juniper intake and parasite load. Final body weight, scoring, and shearing was conducted on July 13, 2022. There were 51 animals that completed the test.

The NIRS juniper intake prediction estimated that the on average the test goats ate 24 percent of their diet as juniper. The individuals varied from 0 to 36 percent. A few weeks before testing for cedar intake 6 high and 6 low from the Super Juniper Eating Goat project (aka AgriLife Cedar Eaters) were put in the pasture with the test billies. On average, the high EBV goats consumed 69 percent juniper and the low EBV goats consumed 31 percent juniper. This level of juniper intake by ACE goats was much higher than previous years, likely due to droughty conditions. We can't be certain that actual intake or dietary percentage of juniper intake is closely predicted by this test. However, we are confident that the test can accurately rank juniper intake across a population of individuals that forage on pastures typical to the research station.

Fiber length measurements represent an average of straightened lock measurements taken on the neck, back, and thigh. Fiber diameter measurements were obtained by measuring fibers from a core sample of the entire fleece. The column labeled fiber diameter STD shows a measure of the variation within a fleece, lower values are more desirable. Fleece measurements were adjusted to 180 days, per testing protocol. Laboratory-determined yield, med, and kemp values were also measured from a core sample of the entire fleece.

The visual scores were assigned according to the following criteria: Face cover 0 = bald...5 = closed (in the index, no advantage was given for values less than 1), Neck cover 0 = bare...5 = excellent cover, Belly cover 0 = bare...5 = excellent cover, Character 0 = none...5 = excellent.

An index value has been calculated for all bucks as shown below: $\text{Index} = (4 \times \text{adj. clean fleece wt.}) + (25 \times \text{avg. daily body weight gain}) + (.12 \times \text{final weight}) + (3 \times \text{straightened lock length}) - (1.5 \times \text{fiber diameter}) - (3 \times \text{face cover score})$ (no credit below 1) $+ (2.5 \times \text{character score}) + (1.5 \times \text{neck cover score})$. This index was empirically derived and should not necessarily be used exclusively for making selections. The index ratio, which is the index value of the buck divided by the average index multiplied by 100 was calculated and is listed on the report. All animals with an index ratio above 100 are above average.

This report was compiled by Dr. Reid Redden, Angora Pasture Test coordinator. Coalson Brown performed the daily supervision and feeding of the goats. Special thanks to Dr. Doug Tolleson, Dr. John Walker, Dr. Dawn Brown, Ethan Pope, Joleen Frost, and Faron Pfeiffer for their assistance with the test.