

## 2023 TEXAS A&M AGRILIFE ANGORA PASTURE PERFORMANCE TEST

Spring-born Angora billy kids (84 head) from 8 consignors were delivered to the Sonora station Dec. 13, 2022 and managed on pasture for 2 months to acclimate to ranch conditions. The test began on February 21, 2023. 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 throughout the test. Final body weight, scoring, and shearing was conducted on June 27, 2023. There were 78 animals that completed the test. Two goats went died before the start of the test, two goats died during the test, and 2 goats escaped onto a neighboring ranch for most of the test.

Pasture conditions during the test were fair to poor from December to May. Late spring and early summer rains improved forage quality and quantity the last month of the test. Weight gain and fleece production were similar to recent years. In May, fecal samples were taken for parasite load and juniper intake. The NIRS juniper intake prediction estimated an average of 26 percent of their diet. The individuals varied from 1 to 48 percent. For most of the test, 5 high and 5 low AgriLife Cedar Eater (ACE) billy kids were kept in the pasture with the Angora test billies. The high EBV goats consumed 62 percent juniper and the low EBV goats consumed 33 percent juniper. Parasite burden was low this year and goats were not significantly challenged. We inoculated the ACE billies with 5,000 lab grown parasite larva in late spring to test an artificial challenge protocol on pasture. The goats took the challenge well and we did not have any health issue; however, the spike in fecal egg count was lower than we had anticipated. We will continue to refine this protocol for future use in the Angora pasture test.

Fleece measurements were adjusted to 180 days, per testing protocol. Lab scoured yield, fiber diameter, medullated fibers, and kemp fibers were measured from grab 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 selection decisions. The index ratio, which is the index value of the billy 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, Jake Thorne, and Ethan Pope for their assistance with the test.