2025 TEXAS A&M AGRILIFE ANGORA PASTURE PERFORMANCE TEST

Spring-born Angora billy kids (100 head) from 5 consignors were delivered to the Sonora station Dec. 5th , 2024, and managed on pasture for two months before the test began on Feb. 4th, 2025. After initial shearing, weights were recorded and all goats received a copper oxide wire particle bolus, despite fecal samples suggesting very low worm burdens.

A significant change to the test format in 2025 was that we divided billies into two groups and managed them in separate pastures, aligning the test with Dr. Doug Tolleson's "Sonora-Flex" grazing research. In this research, different pastures are intended to simulate different grazing systems: 1) a 'Four Pasture-Three Herd' adaptation and 2) continuous multi-species grazing with patch burning. Goats were split between the "Merrill" and "Sutton" pastures, with consignors evenly represented.

At the conclusion of the test, we went through each trait and looked at differences between goats in the Merrill and Sutton, and for some traits it was clear that the differing environments impacted the results. Using statistical modeling, we determined that goats in the Sutton **gained 5.4 lbs more** than those in the Merrill, which also impacted average daily gain calculations. Additionally, goats in the Sutton **consumed 3.1% more** juniper. Therefore, when you look at the results sheet, you will notice a column that contains the **actual values** for each of these traits and then an additional column with an **adjusted value**. For goats in the Merrill, end weight, ADG, juniper % and overall index was adjusted up (5.4 added to end weight, 3.1% added to Juniper, etc.) to account for these differences. For goats in the Sutton, the values in the 'raw data' and 'adjusted' columns are exactly the same. Hopefully this distinction is clear and is not confused with the 'adjusted' fleece information, which are values that were adjusted from 126 days of hair growth (length of the test) to a standard of 180-days of growth to remain consistent with a typical shearing schedule. Important to recognize, there were **no differences in any of the mohair traits** between the two pastures. Merrill goats had slightly higher neck scores, though this likely due to goat variation, not environment.

Final scoring of the goats was conducted on June 18th, and the final shearing and body weight was recorded on June 20th, in San Angelo. The location change for scoring and shearing was made to align with the mohair council meeting occurring in San Angelo at this same time. Whether we make this location change at the end of the test permanent is yet to be determined- more likely it will be a year-by-year decision in the future.

There were 91 animals that completed the test, 9 less than the 100 that started. Pasture conditions from December through April were harsh given the lack of precipitation in the region for many months preceding the test. While we cannot say for sure- pasture conditions, the emergence of toxic plants and potentially predation could have led to the deaths of these goats. In each pasture, livestock guardian dogs stay with the goats, but we are aware of a significant coyote population in the area. Without dogs, it is likely more goats would be lost. Either way, we take responsibility for these losses and are continuing to refine our management to provide you valuable information but minimize death loss as much as possible.

The goats were initially supplemented with a 20%CP range cube at a rate of 3 lbs/hd/*week*, in line with previous years, but this was increased in April to try and offset poor range nutrition. We heavily discussed the pros and cons of increasing supplement at this time; on one hand the goats were being 'tested' in a tough environment and genetics that had a propensity to survive in this scenario were sure to overtake those that did not- which we know is of interest to many of you. However, we also recognize that when nutrition is significantly limited, so too is our ability to accurately measure the genetic potential of a goat for many of the traits that we measure. If the goats are constantly in a negative energy balance, then the growth, mohair quality and quantity, and other datapoints we are reporting are likely not reflective of which goat has favorable genetics for these traits. We also don't want to stand idle when we are losing goats, so the feed was increased to 1lb/hd/*day*. This move was also in the long-term best interest of our pastures that needed some grazing relief. As many of you know, in May and June we received favorable rainfall and ultimately ended the test with goats increasing in both weight and body condition.

In early June, fecal samples were taken for parasite load and juniper intake. The decision to wait for fecal sampling was due to very little parasite challenge on the pasture prior to this time period, and in reality the worm burdens carried by the goats were still very low at the time of sampling. With an overall test average of ~150 epg, I would caution you to not infer too much about the parasite resistance of the goats given the relative lack of challenge. In general, we typically would wait until the herd average is around 500 – 1000 epg to draw too many conclusions about which goats may be genetically favorable or not. In some of my other research, we infect small ruminants with *Haemonchus contortus* larvae, and while I have intentions of maybe including this in the Angora test in the future, given that the goats were already dealing with nutritional stress, this year did not seem the right time to include this aspect of testing. Of course, the mild and warm summer we have had since the end of the test has been very favorable for worms, and parasitism might be occurring in your goats at home. Please reach out to me if you wish to take some new fecal samples to get a better understanding of where your goats stand for this trait.

The NIRS juniper intake prediction estimated an average of 32% of their diet. This is significantly higher than results from last year, when the average intake was 9%. Entirely different range conditions from year to year are probably to explain for this variability, not a dramatic difference in the genetics of goats. Low and high AgriLife Cedar Eater (ACE) billy kids were also kept in the pasture alongside the Angora test billies again this year. The high EBV meat goats consumed 40% percent juniper and the low EBV goats consumed 29.6% juniper. The Angoras were still intermediate between the high and low ACE billies, albeit the maximum Angora value was 47.6% and the minimum was 21.8%, suggesting significant variation across the test goats for consumption. You might notice that some goats do not have a value for NIR, this is because enough sample could not be collected at the time, or the consistency of the sample was not appropriate for the analysis.

Fleece measurements were adjusted to 180 days, per testing protocol. Lab scoured yield, fiber diameter,
medullated fibers, and kemp fibers were measured from core samples 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: Index = (4 x adj. clean fleece wt.) + (25
x avg. daily body weight gain) + (.12 x final weight) + (3 x straightened lock length) – (1.5 x fiber
diameter) – (3 x face cover score; no credit below 1) + (2.5 x character score) + (1.5 x 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 for the 2025 test.

This report was compiled by Dr. Jake Thorne, Angora Pasture Test coordinator. Coalson Brown
performed the daily supervision and feeding of the goats. Special thanks to Dr. Doug Tolleson,
Carson Millican, Ethan Pope, Katy Wardlaw, Lindsay Dunda and several others for their
assistance with the test. Please feel free to contact me at (325) 657-7320 or
jake.thorne@ag.tamu.edu with any questions.