

Sure Micron testing is important, but what else should I look for?

By Virginia Nollmeyer

Over the years we have emphasized the importance of testing wool for Average Fiber Diameter (AFD). A wool expert once said, “AFD doesn’t tell us if the wool is good or bad, it tells us what it is, as a measurement, in microns.” This is important for determining how to market your wool, what price can be acquired and how to set goals within your flock for increasing desirable wool characteristic.

Before sale time, you have taken steps to decide what type of ram you want to select. You have set a goal for lamb and wool production. We have already established that fiber diameter is one characteristic used to select a prospective ram. Depending on your flock goals, you will select an animal with the appropriate AFD measurement. This is a step in the right direction for improving wool quality, but there is more to wool fiber than just the diameter. In addition to AFD, wool productivity can be improved by looking at the Staple Length, Yield and Density of an animal’s fleece.

Times are changing within our industry and buyers are looking to purchase wool with desirable staple lengths. Staple Length is the measurement in millimeters or inches, of the wool fiber from the tip of the staple to the base. Staple growth and length are factors of nutrition, health and genetics. If nutritional requirements are not met, the fiber may become tender causing a tear in the staple, thus shortening its length. Nutritional deficiencies may also cause the fiber to grow at a slower rate allowing for a shorter staple length at shearing time. An animal’s health affects growth in a negative manner, if the animal has been sick or under stress. Illness or stress, if severe, can cause a break along the length of the staple. Depending upon the location of the break, it can greatly decrease the value of your wool. For example, on a 3” staple, a break in the middle brings the length of the staple down to 1.5”. Nutrition and health are factors of management and can either improve, deteriorate or remain the same from one year to the next. Genetics plays a role in the staple length of your fleeces. You can start to improve staple length from one generation to the next by evaluating fiber length on animals that are available for purchase and buying according to your goals. To determine what is a desirable length of staple, look at breed standards, goals set by the industry for end products, the range of suggested staple lengths as they relate to AFD and the buyers interest. Typically a 23 μ wool clip with a 3” staple will demand a higher price than a 23 μ clip of 1.5”. Not to mention longer staples increase fleece weights. This does not mean a 23 μ clip with a 9” staple is the best. Maybe in the hand spinner market, but there does come a point where too much of a good thing may not be good.

Yield and Density determine what % of your wool will produce a Clean Fleece Weight. A typical fleece has about 13% dirt, 23% lanolin, 10% water, 2% vegetable matter, and 3% ash/sweat. An average 10 pound fleece contains 5 pounds of impurities. Yields in Montana can range from 30 - 65% or higher. Buyers tend to give discounts for low yielding lots of wool and buy wool on a clean fleece price. With increases in your clean fleece weight, there is less waste, more pounds of wool and a demand for a higher price. Testing can be done for Yield on an individual fleece or a whole lot. Core Sampling is

available to producers who would like to know what their micron and yield are before they sell their wool. If you have never had your wool core tested, I would suggest you have it done. The cost for this service is money well spent.

Density plays a role in yield and fleece weights by determining the number of follicles and fibers produced on the animal. Unfortunately, the only way to test density is through a skin biopsy whereby the follicles can be counted and calculated. It is very time consuming. As a producer, density can be visualized by the appearance of the wool on the animal or on the skirting table at shearing time. A dense fleece will typically appear to have continuous staples that are close together, will have less dirt penetration along the length of the staple, maintain higher fleece weights and the fleece holds together at shearing time. Wool that is less dense, will not weigh as much, tends to part on the back of the animal exposing the staples to a higher amount of contamination and does not hold together readily at shearing. If you are looking to increase fleece weights and yield, look for rams that appear to have thick fleeces and more pounds of wool. Producers, who have been testing for yield will know what they average, so don't be afraid to ask.

Wool traits are highly heritable. Meaning that, breeding animals with desired or undesired wool traits will typically produce offspring with similar desired or undesired wool characteristics. Taking the time to set goals for your flock, browsing around the sale barn, and asking questions will make your experience informative and beneficial. Don't be shy, get in there with the ram you like and look at the wool closely. If you would like help, hunt me down, and I would be more than happy to visit with you.

See you at the Sale! ☺