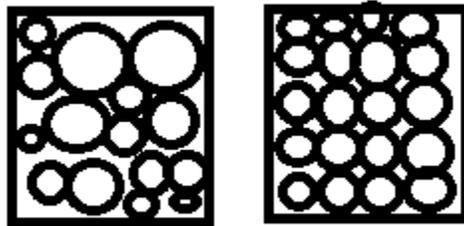


## SKIN BIOPSIES – THE NEXT STEP IN HERD EVALUATION

So, you've run histograms on all of your animals, you have a good idea of who is uniform and who isn't, and who has sustained a relatively low micron well into adulthood. You've set goals for your herd to achieve some uniformity within the herd and are moving in the right direction – what next?

Our opinion is that skin biopsies are the next best step. Some people argue that they are too expensive and farms can't afford them. We would argue that if you want to earn a profit off the fiber from your animals in the long run, you can't afford **not** to run them!

Ultimately, when you sell your fiber, you get paid based on a combination of weight and fineness. The thicker the fiber, the more the weight, but the less valuable the fiber. The finer the fiber, the more valuable it is, but for the same number of fibers on the animal, the weight will be less. Histograms can help you improve fineness and/or improve uniformity, but they won't necessarily maintain or increase the weight for the lower microns. Think of it this way:



Each of these boxes represents a one millimeter cut of skin, and the circles inside represent the fibers. The one on the left has fibers of varying size and 15 fibers to a square millimeter. The question is – how do we get more fibers into this square millimeter in order to maximize weight against fineness. The only way to do it is to create uniformity of micron between fibers, and to reduce the micron width of each fiber, as is shown on the drawing to the right, where there are now 20 fibers for the same space.

Histograms will guide us to improve fineness and create uniformity for 2/3 of our fibers. But, if there are still significantly larger fibers within the last 1/3 that are taking up space and degrading the value of the overall fleece, and/or if there are not any greater number of fibers produced after you have reduced fineness, you are only half way home.

Skin biopsies – taken only once in an animal's life, usually between two and three years of age – inform us as to the micron spread between the thicker primary follicle and its finer secondary fibers, the number of finer secondary fibers, and the number of fibers per square millimeter. By focusing on density, you will improve the ratio of weight to fineness and earn more for your fiber.

For further information on this topic, see our more detailed article – Skin Biopsies, A Breeder's Perspective.