

Calculating Adjusted Weaning Weight, Indexes and Average Daily Gain

If you are anything like me, you didn't decide to raise goats because you enjoy arithmetic. A little math, however, can help keep you in business. As with any livestock business, the future belongs to those who are improving their herds today, and this means culling on an objective basis. Obviously, we need to remove females who have health or parasite problems, bad bags, or poor reproductive performance. Once we get past those, we need to start eliminating does whose kids aren't measuring up, but how do we identify them? The next question is which doelings do we keep to replace them? Growth indexing can help you make these determinations within your herd. It will also help you get better prices for the superior animals you decide to sell. It won't help you compare animals between herds, because conditions are different from herd to herd. No matter how good your goats are, there is a bottom end and those are meat goats, not breeding animals. Do the math today to own a reputation herd tomorrow.

Use a 90 day adjusted weight to compare individual kids in the herd, whose ages are slightly different. To calculate this, start with actual weaning weight, subtract birth weight and multiply by 90. Divide this number by the kid's actual days of age when weighed, and add the birth weight. By subtracting and then adding back the birth weight, we are getting a truer idea of how the animal actually grew. To work up a 90 day index, average the adjusted 90 day weights within a contemporary group (kids of the same sex and born about the same time). Divide each kid's adjusted 90-day weight by the group average weight, and multiply this number by 100. The kids in the middle of the group will have an index of 100. The higher their index above 100, the more superior they are, and the lower the index the more they need to be culled. If you want to compare how they grow out after weaning, use 120-day weights and 120 as your multiplier. Calculate average daily gain for the period between any two weightings by taking the difference in the weights and dividing it by the number of days that elapsed between the first weighing and the second.

Start with these simple formulas, but also use some common sense and observations. In time, you may want to add some adjustment factors for things like number of siblings or age of mother, which affect the outcome of the indexing. Dr. Richard Browning presents a table of these standard adjustment factors in his fact sheet, On-Farm Performance Testing for Meat Goat Doe Herds. You can access this fact sheet at <http://faculty.tnstate.edu/rbrowning/research.htm> .

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