

Turbo time



GENE TALK
Mark Young

Now is the time that ewes and beef cows real earn you money.

They never work harder than at peak lactation. It is easy to take for granted the effort these “machines” put into producing fast-growing calves and lambs.

With grass quality and quantity peaking, these animals still cannot get enough fuel from what they eat. Such is the drive to produce milk, they burn energy stored in their bodies to fuel this drive.

This is not a selective depletion of just fat. They also break down muscle and even bone. Studies of highly producing dairy cows have shown their bones become more porous as protein and mineral is released. This may be to release



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calcium or protein to make milk. It’s probably both, as nature is pretty good at sorting these things out.

Body Condition Scoring (BCS) is widely used to assess the reserves animals carry. You can visually assess this well in cattle but in sheep the fleece can fool you. Hence the “hands-on” system used for sheep (to find out more about the BCS system call 0800-BEEFLAMB).

BCS is good for rating animals within a genetically uniform herd or flock but less good when there is a mix of breeds (genotypes). Some breeds differ in where they deposit fat (see sidebar) and so BCS systems may under or overestimate body reserves in some types.

Body reserves are critical for productive ewes and cows. We don’t know enough about how they are used to sustain production year-in, year-out. Is internal fat “better” than subcutaneous fat for fuelling lactation? Subcutaneous fat is important for insulation in cold weather, but is this less critical in well-fleeced sheep?

To address such questions, scientists at AgResearch have initiated work with ram breeders in New Zealand. They record ewe LW and BCS several times a year. As information builds, we can begin to see how changes in these traits are associated with ewe productivity.

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Why is this important to breeders and their clients? It is critically important because of the remarkable success they have had in reducing fat in their stock. Historically, a lot of meat animals were too fat. Focused breeding programmes mean this is largely a thing of the past. While it is easy to penalise fat through its effect on carcase value, it is hard to put a value on it for the cow or ewe.

Some commercial farmers and breeders are aware that ewes and cows can have too little fat. We must define “optimal” fatness for ewes and cows in different farming situations. Genetics optimal for easier country with reliable feed supply

Milking potential and fat location

Research in the 1980s came up with a “lactability” rating for cattle breeds and showed that those with higher lactation potential stored more fat internally (around the organs) and less under the skin (subcutaneous).

Dr Paul Muir, of On-Farm Research, tells me he has seen a similar effect with East Friesian sheep. The ewes store more internal fat and less subcutaneous fat than other genotypes. So BCS underestimates their fat reserves. Not a surprise given they are heavy milkers.

Some people are put off by animals that look like they have a low BCS, but a respected breeder once told me that for his dairy cattle he “selected for performance and got used to what they looked like”.

may be too lean for harder conditions where the environment is less reliable.

Defining optimal fatness or BCS is an important part of assessing maternal suitability for any farm system. You can help by providing feedback to your breeder on performance of cows and ewes you breed from their rams and bulls. Typically, breeders are eager to get feedback and you can only benefit by providing it.

If the breeder you buy bulls and rams from to breed replacements has genetic information on body fatness, ask to see it to address any issues you have with body condition in your ewes or cows. Your breeder can help you do this.

Remember, the condition of a bull or a ram you view is not a good indicator of what they pass to their daughters. Genetic information, eBVs or indexes, is far more reliable for rating them on future performance of their daughters.

You can give B+LNZ or SIL your thoughts on this topic by email to silhelp@sil.co.nz or by leaving a phone message on 0800-silhelp (0800-745-435).

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