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Extending lactation length starts early in dairy sheep

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This issue examines why dairy sheep often stop milking earlier than necessary and argues that lactation persistence is built through early energy balance, intake stability, forage quality, water supply, protein nutrition, and body condition.

In many dairy sheep systems, the end of lactation is accepted as something that simply arrives. Milk drops, forage quality declines, heat increases, and the flock is gradually dried off. But, in many cases, lactation has not ended because the ewe has reached her biological limit.

It has ended because the system stopped supporting milk production.

Lactation length is not simply a genetic trait. It is a systems outcome shaped by early-lactation energy balance, mid-lactation diet quality, forage decline, water availability, and body condition. In Mediterranean and Middle Eastern systems, even 20 additional milking days can significantly increase total solids delivered to the dairy.

Decline starts early

Dairy sheep naturally have a shorter lactation curve than dairy cows, commonly around 150-180 days in well-managed systems. Yet many flocks begin to decline around 110-130 days, especially as spring conditions give way to summer heat and lower forage quality. This premature decline is rarely caused by one factor.

It reflects the accumulated effect of early negative energy balance, reduced intake, poorer digestibility, weaker protein supply, and water limitations. Late-lactation problems usually begin earlier in the curve.

Early energy balance

The first 30-40 days of lactation shape how long the curve can persist. Ewes that lose substantial body weight during this period, often approaching 8-10% in poorly supported flocks, usually show weaker persistence later.

Excessive mobilization shortens the plateau phase and accelerates the post-peak decline. Early lactation should not be managed only for peak milk. It should also be managed for what comes after peak milk. This is often missed in systems where lambs suckle their mothers first and actual milking starts only after the most critical early-lactation period has passed.

Mid-lactation feed intake

After peak milk, usually around 30-45 days in milk, the goal changes from chasing production to protecting intake and rumen stability. This period often coincides with declining forage quality, increasing temperature, and greater dependence on by-products like wheat bran.

High-fiber, low-protein feeds can reduce dry matter intake through rumen fill, sometimes by 10-20% in practical conditions. Once intake falls, milk volume, milk protein, and persistence tend to follow. Persistence is built on steady intake.

Forage quality

Forage decline is one of the major seasonal constraints in dairy sheep systems. By summer, regional forages often exceed 55-60% NDF, fall to 7-10% crude protein, and lose 10-15 percentage units of digestibility compared with spring forages. The ewe is then asked to maintain milk production from a forage base that is less capable of supporting it. Moderate concentrate feeding, higher-quality protein sources, and controlled use of by-products such as olive cake, grape pomace, or tomato pulp can help. Used well, they can extend lactation for another 2-4 weeks.

Protein and water

Cheese yield depends on casein, not liters alone. A late-lactation reduction in dietary crude protein supply reduces casein synthesis, curd firmness, and total solids delivered to the dairy. Even a 0.2-0.3 percentage point improvement in true protein can have practical value when milk is destined for cheese. Water deserves the same attention, especially when summer total dissolved solids rise above 2,000-3,000 mg/L or sulfates exceed 500 mg/L. Water is rarely treated as a ration ingredient, but in summer dairy sheep systems it often behaves like one.

Body condition

Body condition determines how much biological reserve remains available without compromising the next cycle. Ewes that finish lactation below BCS 2.25-2.5 often stop producing earlier and enter breeding at a disadvantage. Over-conditioned ewes above BCS 3.5 may also reduce intake and face greater metabolic risk. The target is to extend lactation without stealing too much condition from the next production cycle.

This is where lactation length becomes a systems measure rather than a milk-record number.

In brief, extending lactation length in dairy sheep systems requires managing the whole curve, not only the final weeks of milking. Early energy balance determines how much persistence is possible, mid-lactation intake protects that potential, and forage quality, protein supply, water, and body condition determine how long the system can continue supporting milk production. The objective is not more days for the sake of more days. It is more productive days, more milk solids, and better continuity between cycles. Longer lactation is not created at the end of milking; it is protected from the beginning.

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