

More frequently sheared sheep are happier mothers

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Australian Merino sheep in full fleece at a commercial sheep property, NSW.
Credit: Mr Gregory Sawyer

More frequently sheared pregnant sheep are more active, have lower stress levels and produce lambs with finer wool, according to University of Queensland research.

Dr. Edward Narayan from UQ's School of Agriculture and Food Science and the Queensland Alliance for Agriculture and Food Innovation (QAAFI), said research found merino ewes sheared twice during pregnancy, rather than the industry standard of once, fared significantly better.

"There's been anecdotal evidence that shearing ewes early in their pregnancy resulted in higher [wool](#) productivity, but we wanted to see how it affected the animal," Dr. Narayan said.

"While shearing is an acutely stressful activity for the animal, our study reveals that it significantly reduces the ewe's long-term [stress](#). The evidence was in the wool itself."

Stress hormones present in wool samples were analyzed at UQ's Stress Lab for Comparative Physiology and Endocrinology and used to calculate and compare animal stress over time.

"Cortisol is a major stress hormone and prolonged stress is known to negatively influence growth, development and reduce body mass," Dr. Narayan said.

"The hormone is incorporated into the wool through the [blood vessels](#) at a slow pace, and this reflects the stress that the [sheep](#) goes through on a farm.



Australian Merino sheep wool visual assessment. Credit: Gregory Sawyer

"Testing long-term changes in cortisol in sheep is much easier and less invasive than collecting blood or feces.

"After analyzing our samples it was immediately clear that pregnant

ewes sheared twice had significantly lower cortisol levels in their wool over time.

"It's a great result, and farmers should take note that reducing the amount of cortisol in their sheep means reduced instances of a suppressed immune function, reproductive failure, emaciation and poor quality production output, such as dark-cutting meat or reduced wool quality."

High tech tracking and wool micron analysis also revealed that the strategy resulted in more active sheep and lambs with higher quality wool.

"We were lucky enough to use collared smart tag technology to track the activity of the sheep," Dr. Narayan said.

"This revealed much more active animals, grazing and socializing much more than the control group.

"And by analyzing wool microns of these ewe's lambs, we found that they had finer wool microns and better quality comfort scores—their wool was simply more valuable.

"This is a win-win for farmers and sheep, and we're hoping that this practice will become standard across the industry."

Provided by University of Queensland

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