

Breecch strike resistance as a correlated response to selection for reproduction

In a study at the Elsenburg Research Farm (Department of Agriculture: Western Cape) two Merino lines were divergently selected for reproduction over more than 20 years. Male and female progeny of ewes that reared more than 1 lamb per joining (i.e. reared twins at least once) were preferred as replacements in the High (H) line. In contrast, replacements in the Low (L) line were preferably descended from ewes that reared fewer than one lamb per joining (i.e. they were barren, or lost all lambs at least once). These lines were found to differ substantially in their ability to rear multiple offspring. Divergent selection for reproduction also resulted in lines that differed markedly for their susceptibility to breech strike, with the H line being more resistant than the L line. The difference in susceptibility to blowfly strike between the two selected lines can possibly, among others, be ascribed to earlier findings that the hoggets in the H line (Fig 1a) are more plain-bodied than their contemporaries in the L line (Fig 1b). Results from these selection lines contribute to growing evidence of a favourable genetic association between a high reproduction rate and a reduced susceptibility to breech strike in wool sheep. For more information: Ansie Scholtz; e-mail address:ansies@elsenburg.com Phone 021 808 5231

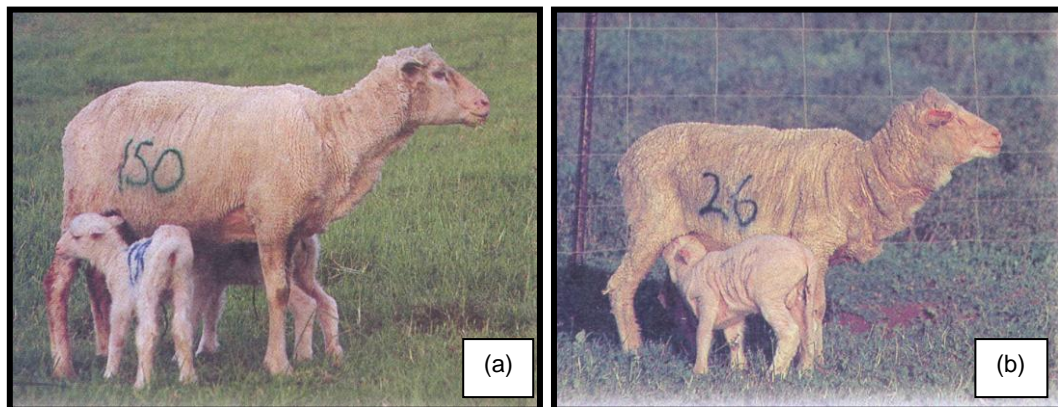


Fig 1. Reproducing ewes from the High (a) and Low (b) lines demonstrating the difference in wrinkliness between the two lines selected for improved reproduction.