SEASONAL WOOL GROWTH IN ELLIOTTDALE WETHERS UNDER GRAZING

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Elliottdale sheep are currently shorn in January and July each year. July wool weights have been consistently lighter than those in January, despite equal wool growth periods. Seasonal wool growth has been recognised in most breeds of sheep for many years, e.g. Ferguson et al. (1949), and shearing at less than twelve month intervals in any speciality carpet wool breeds makes seasonal variation a more significant factor in choice of shearing time.

Five groups of twenty Elliottdale wethers, stratified for wool weight at a common initial shearing in July were studied over a two year period. One group was shorn every two months, a second group every four months, while the other three groups were shorn at different six monthly intervals, commencing in July, September and November respectively. All 100 sheep were grazed as one mob at a low grazing pressure to minimise nutrition effects.

Figure 1 illustrates the seasonality of wool growth and liveweight pattern in the group shorn every two months. Wool growth in the spring/summer period was approximately twice that of winter. The effect of frequency of shearing was minimal when the total of three shearing records was compared with any corresponding six monthly record.

Wool length (as distinct from weight) is an important characteristic in manufacturers’ specifications. In all treatments wool length was closely related to fleece weight.

The six monthly records indicate that the November and May shearings gave the most similar wool weight, with an amplitude of 13%. The July/January and March/September shearings had an amplitude of 41% and 63% respectively.

The wool growth pattern observed reflects the combined effects of the breed’s physiological control of wool growth and the nutritional circumstances. A number of pairs of shearing times would satisfy equal wool cuts at each shearing but the current practice of January and July is not one of them.

'Amplitude is defined here as Highest-Lowest wool weight /Lowest weight.


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