Wintering Sheep on Grass in South West England in 2011-12

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Introduction

Underestimating grass growth in the winter can be a problem for set stocked ewes as it can cause over-fatness leading to lambing difficulties and poor grass utilisation. To turn a problem into a solution it was hypothesised that sheep flocks in the south west of England could survive on grass-only diets. A wedge of grass is built up from the autumn, and fed back to the ewes through the winter using a daily shift grazing system. The theory is that the saved wedge plus regrowth should provide enough grass for lambing outside in April, which avoids the need for supplementary concentrates.

Measuring grass with a rising plate meter.

Ewes were very content and calm on the system

Methods

The trial was conducted on a farm in Cornwall with 950 New Zealand Romney in-lamb ewes (average liveweight of 65 kg) due to lamb in late March/April and wintered in one group (until scanning) on 110 ha. The land was gently rolling, around 120 m above sea level with free draining soils and an average annual rainfall of around 138.5cm. The fields used in the trial were shut up from September and all fields were measured with a plate meter before the trial started. Ewes were shorn in October.

The daily feed demand for the ewes was calculated to be 0.85 kg DM/ewe/day (808 kg DM for the group) up until scanning at day 70 of pregnancy, and 1.2 kg DM/ewe/day (1,140 kg DM/group) from then on. The residual target was 800 kg DM/ha pre-scanning and 1,200 kg post scanning. Ewe body condition was monitored pre mating, at scanning and 4 weeks pre lambing. After scanning a leader follower system was adopted with single bearing ewes following the twins.

The winter grazing system began on the 1st of December, with 950 ewes allocated to a paddock roughly one ha in size. The paddock size was calculated based on daily feed demand and plate meter measurements, and seven paddocks were established each week using three stand temporary electric fence. Moving the fences for the week took 2 people 3 – 4 hours and each daily shift took no more than 15 minutes per day.

The ewes moved through the system for 100 days, with a stocking rate of 8.6 ewes per ha and a stocking density of up to 950 per ha. They were then were set stocked at around 17 ewes per hectare 10 days before the start of lambing.

Results

Target pasture cover for lambing was 1500-2000 kg DM/ha. Average cover in November 2011 of 1,982 kg DM/ha and January 2012 of 2,105 kg indicated growth of approximately 10 kg DM/ha in this period. Only 11 kg/head of silage was needed for the winter, fed only when paddocks had a cover of less than 1,200 kg DM/ha pre-grazing or when snow or ice restricted grass intakes.

5% of the ewes were removed due to poor condition, and no health issues emerged. Scanning of 168% and tailing of 158% were similar to previous years. Feed savings worth around £15/ewe and reduced labour requirements meant the producer was keen to repeat the process and several other farmers were keen to volunteer for the system.

A large mob of sheep on the system during 2011-12

Conclusions

Wintering ewes solely on grazed grass looks feasible on farms in south west England with free draining soils where 10 kg DM/ha/day of winter grass growth is likely. The next stage of this project will be to determine whether all grass wintering can be successful on a greater range of systems, with different soil type, breeds, climate and altitudes.

Open day September 2012

Further work in 2012-13

During the winter of 2012-13 a further 6 farms in Southern England and one in Northumberland have adopted the “all grass wintering” system for sheep. Despite challenging weather conditions all farms have expressed favourable comments and have commented that they have more grass than usual in spring and the farms are looking very tidy. Several different breeds of sheep have now been tried successfully on the system.

The full results of the extended project have yet to be analysed but is in progress. It is hoped to extend the trial again to sheep farms further North and on upland farms.

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