Livestock Knowledge Transfer
a DEFRA initiative
operated by ADAS/IGER/University of Bristol

REDUCING RED CLOVER SILAGE LOSS

Red clover is a high yielding, high protein legume that can be grown successfully in many areas of the UK. Red clover leys are best suited to silage. The first cut should be taken in late May or early June, with a second cut 6 - 8 weeks later, and a final cut taken no later than mid October. This latter growth could also be used for grazing for finishing weaned lambs or beef cattle.

RED CLOVER BASICS

- Red clover fixes atmospheric nitrogen, so does not require applied fertiliser N
- Soil requirements pH ~6.0, P and K indexes 2 or above
- Performs best on moisture retentive, medium to heavy soils

RED CLOVER SILAGE QUALITY

Dry Matter content	25-30%
Digestibility	60-70%
Acidity: pH	4.0-4.5
Ammonia N as % of total N	<5%
Crude Protein	14-19%
Energy ME (MJ/kg DM)	9.8-11.4

How is it different from grass and maize silage?

- Digestibility remains relatively constant with maturity
- It resists a decline in pH during fermentation and has a low soluble sugar content, making it a more difficult crop to ensile, and the use of inoculants essential
- Inoculation also leads to preservation of a higher protein level and quality

CONCERN	ADVICE
When to cut	Allow red clover to flower before harvesting in the establishment year. (To help root development and the growth of the bacteria that fix N) Following years, harvest at intervals of 6 weeks re-growth at any time between bud development and early flowering
Wilting	Wilting is essential to reduce water content & concentrate the sugars Leaving wide swaths after mowing will assist the wilting process Aggressive mowers should not be used, preferably rubber rollers or tynes Avoid soil contamination during tedding and raking Chop length of at least 2½cm (1")
Inoculant	Follow manufacturers instructions, do not store in warm conditions Don't use dirty or chlorinated water (leave water in an open container overnight)
Silo Management	Fill silo rapidly, spread crop evenly, consolidate well Use two sheets of plastic, thinner sheet next to the silage, thicker protective sheet above, sheet down overnight Avoid rolling the morning after covering (this can create a vacuum & allow air into the silage) Seal well, place tyres or bales on top, ensure that all tyres are touching
Big Bales	Use 6 layers of film wrap to ensure effective fermentation
Feeding	Ensure that the sheet remains close to the cutting edge of the silage

MORE INFORMATION

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IGER: kt@bbsrc.ac.uk, ADAS: owen.davies@adas.co.uk
www.agriknowledge.co.uk
Legumes for MILK and MEAT, Chalcombe Publications.

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