

## Flushing ewes on silage - Protein is the key

### Key points

- Protein is the key to achieving a flushing/ovulation response in silage-fed ewes
- A minimum of 12 per cent true protein is required
- High DM wilted silage is better than low DM silage

Many farmers feeding pasture silage supplements as a tool for flushing had lower-than-expected lambing percentages this season, despite ewes making good liveweight gains at mating time.

Answers for this lie in silage feeding trials at Ruakura in the late 1970s, which found that protein is the key to achieving an ovulation response, and boosting lambing percentages.

During droughts, silage is readily eaten by ewes, and they perform well on it – studies show body condition can be improved as much as ewes fed on irrigated pasture. In autumn, silage can be good for flushing ewes.

However, performance at all times is improved with quality.

### Improving silage quality

Ruakura research showed that sheep fed low dry matter silage generally had poor levels of liveweight gain, even when intake was high. In contrast, ewes fed high DM wilted silages enjoyed good levels of liveweight gain.

The reason? The low true protein levels in low dry matter silage.

At low dry matter levels, fermentation bacteria convert more of the dietary proteins in the silage into useless non-protein nitrogen (NPN) compounds.

Protein is essential for the flushing response in ewes. Ewes need to be fed silage with a minimum true protein content of 12 per cent, for at least 17 days, in order to get a flushing effect. Sheep in the trials were fed to appetite, and consumed between 0.5 and 1.2 kg DM/day. Wilting the grass before ensiling also increased ewe intake, and chopping it as well further increased intake.

### Up to scratch?

If you plan to use silage to flush ewes, it's a good idea to check its true protein content.

AgResearch, Lincoln, Massey or any one of a number of other laboratories such as Hill Laboratories (Hamilton) or ARL (Napier) can analyse your silage.

Most protein analyses are crude protein (CP), which is nitrogen content multiplied by 6.25 – a figure which includes NPN compounds. A better indicator of silage quality is to find its true protein percentage.

If true protein levels are below 12 per cent, you may consider supplementing the silage with lupins, grain, *Lotus corniculatus* or peas.

## Feeding

It's easy to teach ewes to eat silage. They will readily accept it if a bit of grazing pressure is applied.

To get a mob started, feed out a little on the last day in a paddock rotation. Once most appear to be eating it, silage can be offered daily.

Some farmers feed grain on top of silage to introduce stock to either feed, and/or to reduce wastage of grain. Note: Cereal grains are low in protein.