

SILAGE MAKING INFORMATION DAY

On the 31 August Reid Stockfeeds held an information day at the Kyabram Football Club on silage making, with guest speaker Mathew Smith. Mathew has been working with Alltech for the past 9 yrs and is currently overseeing the company's forage program in Europe. Mathew originates from Cheshire in United Kingdom and worked on a dairy farm before studying business law. He was a sales manager with a US company in the UK, selling silage inoculant products and advising on crop management for 5 yrs prior to joining Alltech.

Some people look at nutritional value of the silage as a good indicator of the quality but Mathew views the success of a crop actually comes down to:

- **Quantity** - is there enough ?
- **Palatability** - will cows eat it ?
- **Contamination** - is it safe ?

Silage is expensive to grow and make. It should be considered a high value feed, not just a solution for excess pasture growth.

It also should be viewed as an important part of the food chain

paddock → milk → product → plate

TIPS FROM THE DAY:

Variety

What type of seed are you going to use ? Varieties that don't have a seed head give you have more control over quality when mature. For grasses with a seed head you don't want it to be too high, as digestibility decreases along with nutritive value.

Mowing / Drying

Water loss occurs at 100Ltr per Hour per Tonne and decreases after two hours, as the plant's stomata begin to close, reducing water loss to 20Ltr / hr / tn. Mowing into a *wide swath*, will reduce drying time required (from 50 to 24 hours) and give a more even dry with less turning required.

Packing

Packing Density is important for eliminating air, you know you've got it right when you can only just push your fingers into the pit past your finger nails.

**Reids Gippsland are holding a Silage Making Information Day on:
Wednesday 8th October, 10:30am Trafalgar Bowls Club**



SILAGE MAKING TIPS

Kim Brister

Well it's that time of year again, when we are building a wedge of pasture in front of us, and thinking what paddocks to lock up for silage.....

The most important thing to remember about silage is that it is being fed out when pasture in the diet is limited, therefore the feed we cut needs to remain a similar quality to what we cut initially, to ensure cows maintain milk production. And of course, the less waste means more feed to feed out and cheaper cost per kg of dry matter (DM).

The key to good quality silage is *rapid ensiling* and *effective fermentation* of the plant sugars to lactic acid. Lactic acid is produced by bacteria in the absence of air and this acid is the 'pickling' solution that preserves the crop and prevents spoilage organisms from destroying nutrients. Achieving a stable pH (4) as quickly as possible is essential to reduce losses in quality and quantity of silage produced. The exclusion of air will reduce mould growth, gas and effluent production.

Bacteria are required to convert plant sugars to lactic acid. Some bacteria are more efficient than others in this process. Numerous factors can significantly alter the number of favourable lactic-acid producing bacteria such as weather, crop type, moisture content, maturity of the crop and time between cutting and ensiling. A proven silage inoculant can assist in this process. In an uncontrolled fermentation process, with naturally occurring bacteria, alcohols and other acids may be produced. It is important to note, the longer the fermentation process takes, the greater the nutrient losses.

How to determine Dry Matter of your silage?

Form a ball of silage in your hand. Squeeze it with both hands. A guide to dry matter percentage can be determined using the following table:

Dry Matter	Character of sample
<20%	Strong leaking of fluid already under light pressure
25%	Strong leaking of fluid under tight pressure
30%	Leaking of fluid between fingers, hands get wet
35%	No leaking between fingers, but hands become moist
40%	Hands barely glisten
45%	Only a slight feeling of moisture in the hands
>45%	Hands remain completely dry

The Bulk Density at which silage is stored varies with dry matter content, chop length, stack height and compaction. The more moisture in the crop, the higher the bulk density.

As a guide, approximate bulk densities:

Grass silage: 600kg/m³ @ 35% DM

Baled silage: 500kg/m³ @ 45% DM

Estimating silage quantities?

To calculate the amount of silage in a pit, requires :

Volume of Pit x Forage Density x Dry Matter %
(length x height x width) (kg per cubic meter) (kg DM per kg wet feed)

To calculate the amount of silage in a row of bales, requires:

Weight of a Bale x Dry Matter % x Number of Bales
(Kg wet) (kg DM per kg wet feed)



For more tips on making good quality silage, talk to your tech services representative

