

**VICKERY BROS.**

**THE FERTILISER PROFESSIONALS**

VICKERY BROS AGRONOMY

THE FERTILISER PROFESSIONALS

SPRING 2018



## WEATHER UPDATE

**LEIGHTON REES**

A recent trip to the Grasslands conference in Millicent gave a good insight into current weather patterns

and how this may affect producers during the season ahead. Guest speaker was Anthony Violi from AV weather, who from a young age has had a passion for climate modelling and forecasting. Anthony now has a large group of subscribing followers who base much of their farm decision making on his forecasting accuracy.

In 2016 when sea temperatures in the Pacific and around the coast of Australia were warm Anthony predicted a wet year. Many other forecasters predicted an El Nino event.

While not a huge believer in global warming himself, Anthony explained that we need to go much further back through old climate data and statistics to get a better understanding of weather patterns and not just rely on recent statistics to develop an accurate forecast. If you go back far enough we have had periods that have been drier and hotter said Anthony. His prediction was that current media talk on global warming will be revised downwards in the future.

Although Anthony has predicted a drier finish to the rest of the year over much of Australia there is still some hope in the SW area. Reasonable spring rain is possible for much of southern Victoria, especially areas closer to the coast. The northern areas of Victoria may however suffer from ongoing dry conditions through spring. In Anthonys view it was too late for an El Nino event to form by the end of the year which gives us some confidence that these spring rains will arrive.

Anthony explained how sea temperatures around the Pacific as well as coastal areas of Australia play a role in his forecasting, but this however makes up only a small percentage of the data that is looked at.

(Warm water in the Pacific and cold water towards the coast of Australia typically indicated an El Nino event and the opposite for a La Nina).

According to Anthony solar cycles also play a role in predicting future forecasts and as they sit at the moment we are looking at going into a period over the next 5 years of increased La Nina activity.

All this being said I think we are in a perfectly placed area to take advantage of current weather conditions. People north of us may not be so lucky. Hopefully relief is near for them.

Thank you to Anthony for his informative presentation.

To follow Anthony and keep abreast of his forecasts contact him on [anthony@avweather.com.au](mailto:anthony@avweather.com.au)

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# SUMMERCROPS FOR 2018

HARRY ARMSTRONG



Prices for well finished livestock of any description are currently at very attractive levels. This should continue while the devastating drought conditions remain in northern areas.

Providing high quality feed for almost any class of animals should be very rewarding over the next year and hopefully beyond.

Well planned summer crops grown in SW Victoria rarely fail and usually provide excellent quality feed. Even in the spring of 2017 when we had near record low late spring/summer rainfall, crops still managed to provide feed for sheep and beef production.

Yields from summer crops are obviously restricted in years of low summer rainfall and the profitability becomes questionable.

There are however always the benefits that summer crops offer in terms of pasture renovation. So even when a summer crop has failed to make us a profit in the summer we should factor in the opportunities it offers such as weed control, disease break (fumigation effect) and the ability for summer crops to dry the soil profile out in wetter paddocks. Difficult to control weeds such as Fog Grass and Bent Grass can be dealt with effectively with help from robust herbicide rates and cultivation. Paddocks carrying these weeds are often associated with poor fertility and the summer crop phase is an ideal time to apply capital rates of phosphorus and potassium. Applying capital fertiliser not only provides optimal fertility for the long-term perennial pasture that follow them but also greatly helps the crop itself fend off insect attack. In cases where a soil test has indicated Olsen P levels are below 5mg/kg and potassium levels are less than 100mg/kg, DAP or MAP should be applied at a minimum of 200 and probably 400kg/ha to increase P levels to a realistic level. Likewise, Muriate of Potash (MOP) could be spread at capital rates around 200kg/ha as well.



These rates may seem extreme, but there is little point sowing perennial pastures unless adequate P & K levels are present to support them.

Planning for summer crops should be done at least 2 years ahead, with a soil test done, preferably in spring, to determine not only P, K & S requirements but also to determine any need for lime or gypsum. If lime or gypsum is a requirement then it needs to be done at least a year ahead of the summer crop.

If you are dealing with a paddock that is not carrying difficult weeds such as Fog and Bent Grass, is not excessively rough and has some history of cultivation, then direct drilling can be considered for summer crops. It will usually require 2 knock down herbicide applications, one early to conserve moisture and the second just prior to sowing. Slug bait may need to be spread after the first knockdown. Some patience and accurate weather forecasting are required in regard to the timing of the second knockdown and sowing date. Sowing just prior to a rain event is ideal.

As with most things we do, the more we plan the better the outcome. So, start planning not only your 2018 summer crop but also arrange soil testing and possible lime applications for the 2019 crop.

## Agromony Team

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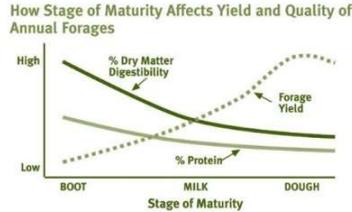
# SILAGE & HAY SEASON 2017

ROGER GEE

Looking across Western Victoria it's quite evident this spring will need to be a big silage and hay season, with very little conserved fodder on hand, the push will be to fill the sheds.

There's a good deal of information about which is better, hay or silage and how to make it, so I'm not about to enter that debate. But what is not in question is quality, quality silage or quality hay is king when it comes to conserved fodder, otherwise it's just expensive filler.

The following chart and graph illustrate clearly what we should target when harvesting silage or hay and quality feed has true value.



Analysis Measurement	Very high	High	Average	Poor	Very Poor	Target Values
Dry Matter Content (% DM) Bulk silage	30 - 35 <sup>1</sup>	30 - 35 <sup>1</sup>	30 - 35 <sup>1</sup>	<30 - >38	<25 - >40	30 - 35 <sup>1</sup>
Dry Matter Content (% DM) Baled silage	40 - 50 <sup>2</sup>	40 - 50 <sup>2</sup>	40 - 50 <sup>2</sup>	37 - 55	37 - 55	40 - 50 <sup>2</sup>
Metabolisable Energy (ME/kg DM) <sup>3</sup>	>11.0	10.5 - 11.0	9.0 - 10.0	8.0 - 9.0	<8.0	>10.5
Crude Protein (% CP)	>18	14 - 18	10 - 14.0	8.0 - 10	<8	14 - 20
Neutral Detergent Fibre (NDF)	30 - 36	34 - 40	41 - 55	56 - 65	>66	30 - 36
Ammonia-Nitrogen as % of total N (% NH-N)	<5%	5 - 10.0	10 - 15.0	15 - 20	>20	<5
Acidity (pH) <sup>4</sup>	4.50 - 4.65	4.50 - 4.65	4.20 - 4.40	3.5 - 4.2	<3.5	4.50 - 4.65

<sup>1</sup> Precision chopped silage 30 - 40 %

<sup>2</sup> Large square baled silage 40 - 60 %

<sup>3</sup> Metabolisable Energy (Megajoules of Metabolisable Energy per Kilogram Dry Matter)

<sup>4</sup> pH varies with DM content and less useful if >35% DM such as with baled silage. Normal, about 5<sup>1</sup>; 2 units

To ensure quality silage & hay, ideally soil tests should be taken on specific paddocks earmarked for fodder production/crops, to check that there's adequate soil fertility. Applying a complete NPKS blend can address nutrient deficiencies, thus reducing fertility limitations to quality, and quantity of fodder produced.

Watch for prevalence of insects such as red-legged earth mite, lucerne flea, aphids, blue oat mites and spray with an appropriate pesticide before their populations increase dramatically. Pastures, especially legume pastures, once locked up are most at risk of pest infestations.

Where capeweed or other weeds have infiltrated large areas of the paddock, spray with an appropriate herbicide early to control, as weeds reduce the quality of pasture crops and compete for valuable nutrients and moisture.

Applying nitrogen in a range of 30-60 kg N/ha is generally the most effective. Expect pasture responses of about 15 - 25 kg/DM/ha for every kg N applied about 4 - 6 weeks after the nitrogen application during spring. Higher responses will be achieved on some newer varieties of both annual and perennial ryegrass. (Note; low fertility paddocks will respond poorly to nitrogen).

Other critical nutrients for successful hay and silage production are potassium & magnesium. Pasture and fodder crops can take up luxury amounts of potassium shortly after application. If there is a known potassium deficiency, consider split applications, one in autumn, and then again at paddock lock up.

Magnesium is not only required by the plant for quality growth, but it helps address grass tetany.

From the table shown below we can calculate that the removal of a 4 ton/ha hay crop will remove 7.2kg/ha of P, 60kg/ha of K, 6.4kg/ha of S and 7.2 kg/ha of magnesium. To replace these nutrients will require approximately 250kg/ha of Super Potash 1:1 + 5kg of magnesium, or an equivalent. This assumes that the entire crop is taken from the paddock and none is returned.

Representative nutrient concentrations in hay and silage grown in southeastern Australia (P. Finn, Hamilton Pastoral and Veterinary Research Institute, Vic)

Hay & Silage - Average Nutrients in kg/tonne								2/12/2000
Type of Hay or Silage	Moisture (%)	Mean Nutrient Concentration (kg/t FW)						
		N*	P	K	S	Ca	Mg	
Legume hay (clover or medic)	89	22	1.7	18	1.6	8.6	2.3	
Lucerne hay	87	30	2	24	2.6	9.9	2.7	
Legume / Grass hay	88	21	2	18	1.7	5.3	1.9	
Oaten hay	90	13	1.6	17	1.1	2.3	1.2	
Pasture hay	88	18	1.8	15	1.6	5	1.8	
Grass silage	44	24	2.8	24	2.2	5.3	2.1	
Maize silage	62	12	1.9	15	1	2.1	2.4	
Pasture silage	48	26	2.8	26	2.3	5.9	2.1	
Oaten silage	45	20	2.5	23	1.8	3.7	1.7	

\* N concentrations expressed on an oven dry basis

Replacing the nutrients removed is essential. You should consider the effect of harvesting silage or hay, and this impact on the whole farms fertiliser profile.

When do we replace? Continued depletion of nutrients, even from fertile paddocks will eventually reduce yields and productivity.

Consideration should be given to applying a NPKS blend to new perennial pastures in spring, to not only extend the grazing season but to also give them some extra vigour going into their first summer.

Regular soil tests will keep track of nutrients transferred both around, and off the farm. Tissue tests will enable close monitoring of trace elements.

Removing nutrients from a hay or silage paddock may also reduce the pH of the soil. Areas that are harvested for hay or silage regularly will acidify more quickly, requiring semi regular applications of lime.

Following these few rules/guide lines will ensure the pasture/fodder crops you are growing have every opportunity of reaching the highest quality.



## SOIL & TISSUE TESTING

REBECCA STEWART

Spring can be a hectic time of the year and this often means some vital monitoring and farm planning can be dropped in the rush. The importance of soil and tissue testing must not be forgotten as high-quality pastures rely on nutrient rich soils.

These nutrient rich soils which are clover dominant produce larger weight gains in livestock, resulting in large financial advantages when selling stock anytime of the year.

Soil and tissue testing provide valuable information on the requirements of nutrient and soil ameliorant applications which can greatly assist in the financial planning for the following season.

Now is a good time to walk over your pastures and check their performance in terms of clover & grass production, weed & pest invasion and also livestock growth from the pasture. Paddocks which have any issues need to be investigated further so management decisions can be made to improve their productivity.

There are three basic steps that must be followed if meaningful results are to be obtained from soil/tissue testing. They are as follows;

1. Take representative samples of the soil/pasture for analysis. Soil samples require a full 0-10cm core depth and around 30 cores per sample and leaf tissue tests need around 200grams of plant material)
2. Analyse the soil/plant material using the accepted procedures that have been calibrated against experiments in that/your district (soil/plant type and enterprise)
3. Interpret the results using criteria derived from those calibrated experiments

Samples may be taken by the farmer or by an agronomist, it should then be sent to an accredited analytical laboratory for testing, with test results coming back to an agronomist to interpret and develop recommendations for the farmer.

Macro nutrients like phosphorus, potassium, sulphur and soil pH are best checked by conducting a soil test. A soil test gives a good overview of the major nutrients within the soil which will enable most of the nutrient issues to be rectified. Cation Exchange Capacity (CEC) and Phosphorus Buffering Index (PBI) levels also assist in planning nutrient applications as well as looking at the soils' texture and organic matter to make decisions of nutrient holding and change capacity.

Trace elements like molybdenum, copper, boron and zinc are best check by sampling and testing the plant tissue. Tissue testing can be likened to a blood test and provides valuable insight into specific nutrient status of the particular plant sampled. Molybdenum deficiency can reduce clover and

pasture growth considerably in acidic soils which have high iron levels (common for the western district) and should rarely be applied without copper as it can interfere with animals ability to absorb copper. Copper can affect animal health greatly and is best checked in July/August. Low moly pastures often have a good fertiliser history nutrition with adequate levels of phosphorus and potassium. Boron is a complex nutrient as it is necessary for a number of functions within the plant but can become toxic. There is small margin between a boron deficiency and a toxicity so graziers need to be extremely cautious.

Forward thinking and gathering as much information as possible is essential for sound planning and budgeting purposes next season. There is no better time than spring to start your farm nutrient budget.

Speak to your local Vickery Bros agronomist today to start planning your farm nutrient budget and take advantage of our soil testing promotion to be prepared for 2019!)

*September/October/November*

# SOIL TESTING OFFER

## 15% DISCOUNT

**FOR THREE OR MORE SOIL TESTS**

Vickery Bros will pass on a 15% discount that has been negotiated with the laboratory, when one customer conducts three or more soil tests.

Offer ends 30th November 2018

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# USING AGROTAIN TO MINIMISE NITROGEN LOSS

FRANZI RIEGGER



A lot of our clients have been using Urea over the winter to maximise their pasture and/or crop growth and are going to continue to use it in the coming months. For the application of Nitrogen in these warmer months it is now on us to remind you of the risk of ammonia losses.

Urea is an escape artist, if it is applied to the soil in non-favourable conditions; It needs to have adequate soil coverage, incorporated by tillage, rain or irrigation within days after application. Otherwise volatilization losses can occur.

The majority of losses generally occur within 4-10 days after urea application. All of this however is dependent on soil, crop and mainly climatic conditions, especially when it is warm, windy and the soil surface is drying out.

To minimise these losses, we are coating Agrotain, a nitrogen stabiliser, in other words; a urease inhibitor onto dry urea granules.



This Agrotain stabilised nitrogen slows hydrolysis, the conversion of urea to ammonium, and can dramatically reduce the losses of nitrogen to volatilisation, when conditions aren't ideal for a Urea application.

This offers flexibility. You are not having to rely on rain soon after spreading and you can time the application to suit the rest of your workload. So, in what situation should you choose stabilised nitrogen over standard urea fertiliser?

- Is there good rainfall predicted within the next 5 days?  
Yes – Urea
- Is your soil pH neutral or alkaline?  
Yes – Urea Agrotain
- Are you applying over 46kg of Nitrogen?  
Yes – Urea Agrotain
- Are soil temperatures above 15 degrees Celsius?  
Yes – Urea Agrotain
- Are daytime temperatures cold?  
Yes – Urea
- Is the soil surface drying out?  
Yes – Urea Agrotain
- Are moderate to strong wind conditions likely at the soil surface?  
Yes – Urea Agrotain
- Do logistics dictate spreading N with no rain predicted for 7 days?  
Yes – Urea Agrotain.

## SEASONAL REMINDERS

- Hay and silage boosters
- Soil and tissue test for next season
- Monitor spring sown pastures for
  - Fertiliser
  - Insects
  - Weeds
- Nitrogen for maximum yields

*November - January*

# LIME DEAL



Let us supply, deliver and spread your lime between  
November and January and take advantage of

## DEFERRED PAYMENT UNTIL APRIL 2019



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