VICKERY BROS. THE FERTILISER PROFESSIONALS

GROUNDSPREAD

CONTENTS:

EARLY DELIVERY

Fertiliser prices are rising because of increased local and global demand on tight supplies.

Take delivery of your fertiliser in December and January to avoid price rises.

We have prepayment and deferred payment options to suit your cashflow.

IT'S TIME TO LIME

Take delivery this month and defer payment till end of April 2002

Summer Overview

We are rapidly approaching a season where both hi and low analysis fertiliser will rise substantially in price and unlike other years where we could exert some influence on local market prices, the forces dictating this increase are either Australia or worldwide and are well and truly set in motion.

Every major fertiliser player has announced impending substantial price rises during the past weeks, due to expectations that global demand will exceed supply. Domestic demand for pasture fertiliser is at unprecedented levels and industry analysts are expecting a **shortfall** of between 100,000 and 200,000 tonnes of **superphosphate** this coming season. It has the industry so concerned that Incitec has sourced their super for the Victorian market from CSBP in WA and Impact in TAS and for the first time in its history; Pivot is actually making Superfect on Xmas day.

Market forces creating this shortfall and resultant price rise are:

- China's entry into the world trade organisation.
- Strong fertiliser demand across southern Australia.
- Share holders and parent companies wanting a profit on investment.

China's acceptance into the World Trade Organisation and their subsequent tendering for the supply of an additional 5 million tonnes of Dap/Urea/Triple will have the most significant impact on high analysis pricing (Australia's total annual usage of all fertiliser is only 4.8 million tonnes).
We have only to look back to 2000 when China stopped buying urea on the world market. Urea prices fell from $A440-00 per tonne back to $A240-00 per tonne. China entered again this year and prices bounced back to around $A400-00 per tonne . So an additional 5 million tonne to China in a year where global demand is already expected to exceed supply will not help things at all.

The four local superphosphate manufacturers Pivot, Incitec, Impact and CSBP are more than fully committed for all tonnes being manufactured, and there is clearly now no capacity whatsoever to soak up any extra demand. Super plants operate 24 hours a day for 11 months of the year (1 month for shutdown/maintenance), opening stocks for the coming Autumn are behind already because of strong spring sales and subsequently can't be caught up. We will definitely see a shortage or rationing of pasture fertiliser by late Autumn this year.

We will not see the discounting of fertiliser prices at a loss to capture market share as has been evident in the past. Profits have been lean to non existent for all fertiliser companies over the last three years, much to the dismay of parent companies and shareholders. We are now in a market where demand **will** out strip supply and all companies are aware of it, this year we will see all companies marketing to make a reasonable profit.

Geoff Vickery

KEEPING NUTRIENTS BALANCED Bruce Lewis

Used correctly **fertiliser** can provide **productivity** lifts which when combined with pasture utilisation deliver **high returns**. It follows that making the best decisions as to selection of nutrients will have a significant effect on your profit.
This Spring many pastures **suffered** from lower levels of productivity due to nutrients other than phosphorus being limiting. It is important to remain alert to **other nutrient deficiencies** that may be limiting the full response to applied fertiliser.

Sulphate vs Elemental Sulphur

In the soil, sulphur is taken up by **plants** in the **sulphate** form, which is the form of sulphur applied with **superphosphate**. This form generally gives the best and **quickest response** in sulphur deficient soils.
Sulphate sulphur is relatively mobile in soils so in **light sandy soils** sulphur is often also applied in the **elemental** form which is a **slow release** form of sulphur that releases as it oxidises in the soil. This process is slightly **acidifying** to the soil. Supplying insufficient or the wrong form of sulphur can result in lost potential response in some soils.

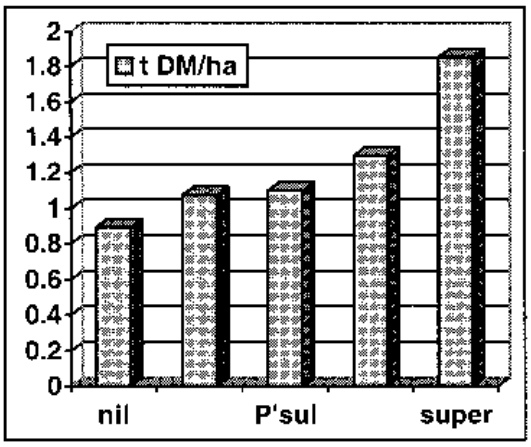
I was reminded of this once again when I attended a field day at Elmhurst run by John Montgomery from Pivot. John demonstrated a **large visual difference** in the response of subclover to fertilisers applying varying rates and **forms of sulphur** on a replicated trial at Elmhurst.
The trial showed that **superphosphate** produced **dry matter** at about **half the cost** of other fertiliser treatments despite being the second most expensive treatment.
As **sulphur** is still a relatively **cheap** nutrient (20c to 50c/kg of sulphur) it's not worth taking risks with sulphur. If you are unsure use a superphosphate type product.

Trial comparing rates and forms of sulphur at Elmhurst, 25/10/01 by John Montgomery. (cost includes $20/tonne for freight)

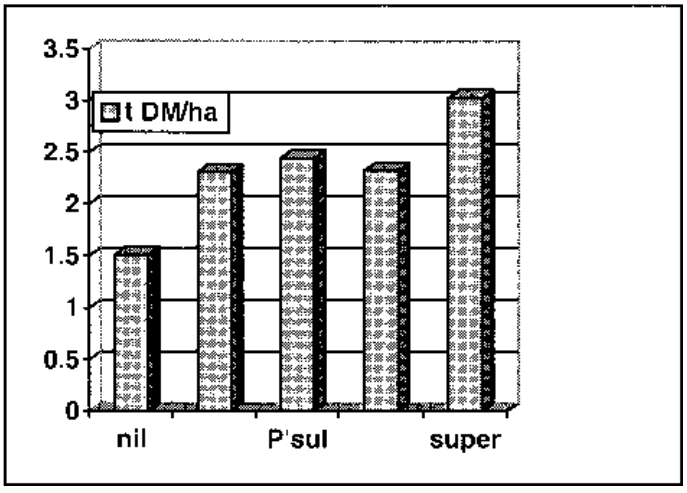
Treatment	Fertiliser kg/ha	P kg/ha	Total S kg/ha	Sulphate kg /ha	Elemental S kg /ha	Cost $ / ha*
Nil	0	0	0	0	0	0
Triple(TSP)	74	15	1	1	-	30
Pasturesul	85	15	8.2	2.5	5.7	34
TSP+SulFer 95	74+20	15	19	1	19	42
Superphosphate	170	15	19	19	-	36.50

A portion of elemental sulphur has been shown to be an advantage in deeper sandy soils however most of these soil types have been taken up for bluegum plantations.
There are some basalt soils in Western Victoria that are not highly sulphur responsive and reducing the sulphur you apply can make some savings.

Winter pasture production (1/6 to 20/8)



Pasture production 13/9 to 23/10



PHOSPHORUS UPTAKE

Phosphorus for **pastures** is generally purchased in the form of **superphosphate** but in more recent years **triple super** has been used as a form to apply phosphorus in this case sulphur is added as **elemental sulphur** .
Farmers have commented that **super** looks thicker after spreading which is quite correct as it is bulkier and hence there are **more granules per kg of phosphorus applied**.
The effect of this **higher granule density** on **plant growth** has been discounted by many people (myself included) as both products apply the same quantity of P per ha.
However the **large difference** in the **phosphorus** measured on **plant tissue** between super and triple super in the sulphur trial at Elmhurst prompted me to **review** my thinking.
The question arises 'Why does the **plant tissue** have a **higher phosphorus** content where **super** applied the same amount as P vs the triple super'.
The only logical explanation is that the **closer granules** allow more **efficient uptake** of phosphorus vs more sparsely spread concentrated granules. This also prompts the question – is the **higher growth** we have measured with super over triple super always due to the sulphur – some may be due to more **efficient phosphorus uptake**.

There has been quite a lot of **research** conducted with nutrient placement in **cropping**. The most recent was the Fertil project managed by Rohan Rainbow in SARDI SA. This work also showed that in cereal crops **nutrient uptake** of the immobile nutrients **phosphorus** and zinc was **more efficient** when placed **close to** the seed or **plant** root zone.
So perhaps **more granules** per ha means something after all.

The following table highlights the **difference** in **phosphorus uptake** at Elmhurst.
The following table shows increased levels of phosphorus uptake on trials I have conducted over the past 10 years.

Bruce Lewis

Nutrient levels in clover tissue, Yield and cost of Dry Matter @ August 29

Fertiliser Treatment	Sulphur %	Phosphorus %	T DM/ha June 1 – Oct 31	D M Cost (c/kg/DM)
Nil	.22	.19	3.26	
Triple Super	.23	.27	4.37	2.7
Pasturesul	.23	.27	4.64	2.5
Triple+S95	.23	.28	4.77	2.8
Superfect	.29	.34	6.43	1.2

	Fertiliser	P Applied	Plant tissuc P%	Dry Matter (kg/ha)	Total P Uptake
Heywood 90	Super	35	0.4	2488	10.0
	Triple	35	0.37	2077	7.7
Cudgee 90	Super	35	0.39	2050	8.0
	Triple	35	0.34	1850	6.3
Callendale 92	Super	18	0.34	2881	9.8
	Triple	18	0.35	2523	8.8
Coojar 92	Super	17	Not taken	3496	
	Triple	17	Not taken	2774	
Chetwynd	Super	18	0.26	2200	5.7
	Triple	18	0.25	1350	3.4

GLOBAL POSITIONING SYSTEMS

We now have three spreaders equipped with GPS units. With a further 2 to be fitted this season . The primary reason for using GPS is to improve spreader accuracy. Our trucks are AFSA accrediated (see spring newsletter) to spreading widths out to 30m, however we can not drive at that width relying on foam marker and the human eye. So the cost of the GPS can be rationalized with the productivity gains from improved spreader accuracy .
We are also hoping to provide customers with feedback via printed maps on where the fertilser was spread. Unfortunatley at this stage because the information has to be manually down loaded and stored from the spreader to our mapping program there is a time cost involved in producing maps. If your property is spread by one of the GPS spreaders we can provide printed maps of area spread at a cost.
The producers of the mapping and guidance software we are using are working on integrating the process so that the transfer of information becomes fully automated, thereby reducing the cost

Molybdenum Copper

This spring has seen many instances of **molybdenum deficiency** where the **clover** is **pale** in colour due to **nitrogen deficiency**. The clover **not** being able to **fix nitrogen** due to low molybdenum has caused the low nitrogen status.

Molybdenum also has an undesirable **interaction** in that it **reduces** the animal's ability to take in **copper** from herbage high in moly. Hence **before** applying moly, clover should be **tissue tested** to confirm that it is indeed moly deficient.

Testing is also required to check the copper status as **copper** may need to be **applied** with the moly to **avoid inducing** copper **deficiency** in animals.
In Western Victoria **this spring** there has been several instances of **copper deficiency** (symptoms showing as steely wool or broken/weak bones in lambs in **extreme cases**) this can have **animal welfare implications.**

The level of **copper** required to **adequately** meet animal requirements is **5ppm**. However if **molybdenum** levels are **high** in the plant this will **reduce** the **copper** available to **animals**.
Trial work has shown an **elevated moly** level of **4ppm** will **reduce** the **copper** available **by half** (Ie. a level of 10ppm reduces to a marginal level of 5ppm).

The level of moly which indicates **deficiency** for plant growth is **less than 0.2ppm**. Responses to moly have occurred up to 0.3ppm in subclover and up to 0.5ppm in white clover.
Peaty swamps commonly have naturally high levels of molybdenum and so it should not be applied to these soils without adequate tissue testing.

LIME

Improve your pasture and crop production on Lime responsive paddocks.

Local trials conducted by the DNRE have shown **increases** in clover composition and **total pasture production** through the application of Lime.

The application of Lime increases the soil pH and thus **reduces** the availability of **aluminum** in the soil eliminating it's toxic effects.

Will your soils be responsive to Lime?

Modern productive farming practices incorporating product removal (Calcium) and clover based pasture leads to soil acidification.

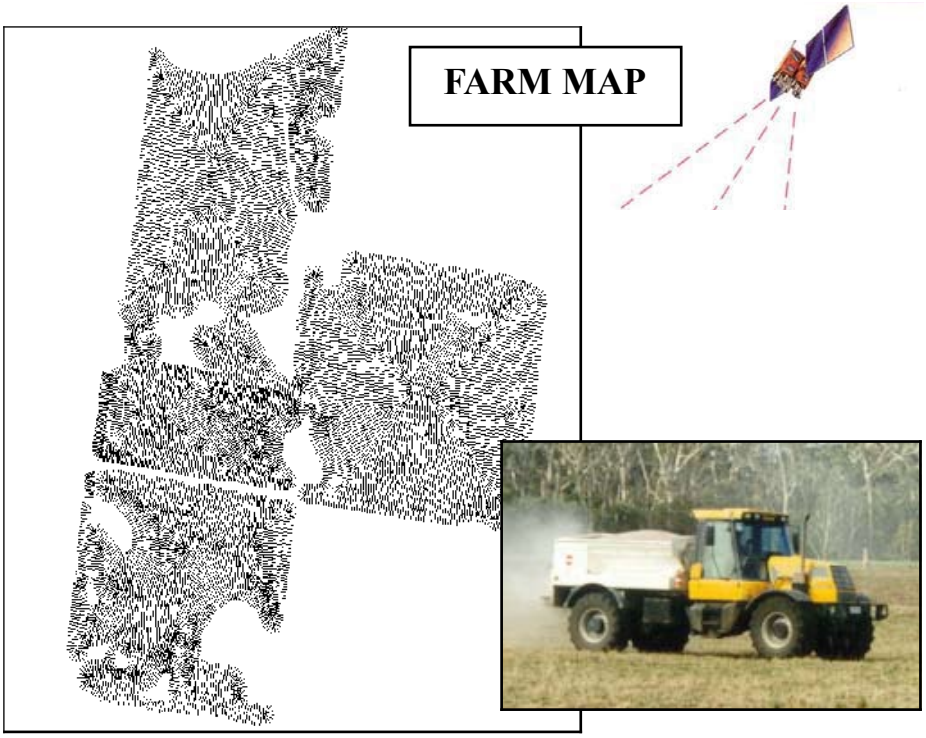
- Past Lime recommendations had been made when Soil pH (water) levels dropped below 5.2.
- **Current research** indicates the level of **aluminum** is a **better indicator** of Lime responsive soils .
- We also now look at the soils phosphorus levels. If P is limiting (less than an Olsen of 10) the application of lime may not be economic until the Phosphorus deficiency is corrected.

Don't let the destructive effects of high aluminum levels reduce your profitability!

Early Delivery:

To **assist** Vickery Bros. in making an **early start** to the spreading season, the total cost of Heywood Lime (ENV 83%) which is **delivered and spread** in **January** by Vickery Bros. can be **deferred** to the **end** of **April 2002**.

Global Positioining System contiued



CROPPING

At a recent Southern Farming Systems field day local farmers viewed a range of the **latest varieties** of various crop types under ideal growing conditions. It is very hard to make judgments on the variety that will suit your farm in these situations as **individual farming practices**, soil fertility and water logging will have a **bigger impact** on the ultimate **yield** of your crops than variety (given the same disease resistance).

The best practice is to **select a variety** that has stood out in the **local trials** and trial a small area of it against your **existing variety**, under **your management** and soil conditions.

Search for the best rotation:

While the conversations of the day covered the "full range" of cropping topics in high rainfall areas, **drainage**, **drainage** and the search for a **viable pulse** crop, we viewed some interesting alternatives.

The work of **Pedro Evans** at the PVI promoting **a clover:crop rotation** seemed to offer a simple solution in our mixed farming enterprises. Pedro's work is not new and he has been reporting **successful crop yields** for several years.

Simply the system involves establishing a thick **stand of clover** generally leura subclover or bolta balansa so allowing the clover to have a good **seed set** in it's first year. This provides the soil **seed reserves** for future **regeneration** as well as **nitrogen** for future crops.

The longer the growing season and **yield of the clovers** the more nitrogen is added to the soil and ultimately the greater yield of the following crop .The year after the clover has been established a cereal **crop** is **direct drilled** after a knockdown spray. Spring wheat has been used for its higher value and direct drilling allows **later sowing**. After the break the next year the **clover regenerates** naturally from the soil seed bank and the **cycle continues**. Pedro is currently trialing two years of cropping and one year of clover and using **canola in the rotation**.

Future trials need to look at the issue of nitrogen losses from the system, using a **mixture of clovers** to potentially **extend** their productive growing **season** into February, which would fit in well with a **Prime lamb** operation. Problems may arise should selective herbicides be required to keep the clover phase clean of grasses, however Pedro has indicated as long as the clover is well fertilized the stands seem to be thickening up later in the rotation keeping weeds out.

Couple this form of rotation with some strategic sub surface drainage, if needed, and a profitable and **sustainable system** could be developed.

GRAIN TRADING

As agents for Pivot Grain we can provide daily harvest prices on most cereals and canola.

If you have on farm storage we also have a list of local dairy farmer customers who wish to source feed grain during the coming year.

MONITORING

Regardless of your rotation monitoring nutrient levels, particularly nitrogen, is critical for optimum yields.

- A soil test to 10 cm is taken to establish the requirements for the major elements and the needs for soil conditioners such as Lime and Gypsum.
- During February or March a Deep N test is taken to 60 cm to establish Nitrogen requirements.
- At 5-6 weeks after crop establishment a tissue test should be carried out to monitor crop trace elements, particularly Copper in this area.

PRIME LAMBS Geoff Robertson

Prime lamb producers, as are all farmers, aware of the huge swings we can have in commodity prices. This time last year lambs were selling at $1.50 – $1.60/kg dressed. This year $2.50 - $2.90/kg dressed and heading higher; on average a change from $45 per head to $65 per head.
However unfortunately we cannot have a huge influence on price; but there are factors in a prime lamb production system on which we can have a influence which will dramatically effect our profitability.

Buying genetics
How do you decide what to buy?
Is the biggest the best?

Recent terminal prime ram sales have shown acceptance of Lambplan as a means of assessing a sire for his future worth. Studs that are providing Lambplan figures are having trouble supplying enough high EBV rams to meet customer needs. Lambplan provides ram buyers with an index of traits that will be passed on to the ram's offspring removing the guesswork when looking at an individual animal and trying to make an assessment on how the animal will perform based purely on his appearance.

It is also interesting to see studs improving their indexes over the years giving the buyer confidence that you are getting better rams than last year and significantly better than five years ago.

Maternal Genetics
However the sire is only half the package. What about the maternal side?

Traditionally the prime lamb industry's maternal genetics has been outsourced from First cross ewe breeders generally based on South Australian Merinos and through the use of self replacing breeds such as Coopworth's and Corriedales.
Producers buying in FX ewes often have no idea of the genetic merit of the stock used in producing the ewes they are buying, however there are FX ewe breeders who are serious about producing top ewes with the best genetics available. These are the animals which will provide the basis for a profitable flock; setting a price based on the genetic value of the animal is the difficult thing.
Lamb producers maintaining self-replacing flocks have had access to performance recorded stock through the Coopworth and Corriedale societies for many years, the choice of genetics available has increased lately with a range of composite genetics that are lambplan tested.
Time and energy spent on identifying the genetic traits that drive your production gives you real control over the type and number of lambs produced, which has a dramatic influence on your profit .

drive your profit

FERTILITY

Achieving good **ewe fertility** levels is **critical** to a **profitable** prime lamb system. One option may be the use of **"Ovastim",** released by Virbac; "Ovastim" when used **in conjunction** with **good management** practices has shown **increases** in lambs marked of **10 to 30 %.**
This product is **not a quick fix** to other management problems, in fact to gain the full benefits **ewe condition** and having the right **quality and quantity** of pasture become even more **critical**.
Contact your local merchandiser for more details.

Summer Action:
Prine Lamb and Merino Ewes

- Monitor soil fertility and topdress fertilizer early for maximum pasture growth after the break.

- Over the summer months ewes need to be monitored for fat score, they need to be 3 plus by the end of December and maintained at that over summer for optimum fertility at joining.

Clover is an integral part of a quality pasture so pasture drymatter should be down to 1000 kg by the break to allow for good clover germination.

Rotational grazing over summer can achieve both of these goals however the jury is still out on whether large mobs of ewes being rotationally grazed at joining impacts on conception.

The reduction in dry matter over summer by rotational grazing should be achieved over several months, not by high stocking rates on a paddock till it is "flogged " out in one grazing. Hard on stock and pastures !!

South West Prime Lamb Group

The South West Prime Lamb Group Focus farm is on track to produce 750 kg of lamb per ha this year and will be targeting the production of 1000 kg of lamb per ha in 2002.

Any Prime lamb producers interested in joining the South West Prime Lamb Group,to be apart of discussion on the above topics and others relating to the industry.

Please contact Kate Joseph on 55295329

POTASSIUM FOR DAIRY PASTURES Bill Feely

The importance of **Potassium (K)** in dairy pastures can never be underestimated. It is **essential** for sustaining **productive pastures** and in particular maintaining the legume component. It is extremely important to monitor K levels to avoid wasting money and to ensure the **best value** for your fertiliser dollar,.
Potash will influence the composition of mixed pastures. Grasses, in particular **perennial grasses** are more **efficient** than legumes in obtaining K from the soil. Where K levels are low, grasses out compete pasture **legumes** leaving them more susceptible to **K deficiency** and poor growth, as a consequence of this the legume component of the **pasture declines**.

How much K ?

Potassium levels are best checked through **soil testing**. The amount of potassium required for optimum pasture growth varies depending on the **soil texture** but is generally in the range from 120 (sandy soils) to 180 (heavy soils). For **dairy** we generally aim for **200 – 250**. This Spring there have been soils tests come back with **potassium** levels **below 100** often in situations where **phosphorus** levels are near **optimum**.
This illustrates that there is further potential to increase production by getting nutrient balance right.

Potassium Losses

As with other production systems K can be lost from dairy pastures by leaching, run off or by soil fixation. On **sandy** and sandy loam soils the likelihood of **leaching** of K is much greater. The inability of the soil to hold the K particles is far less than on heavier soil and consequently leaching occurs. In situations such as this **smaller rates** but **more** applications of **K** is seen as more practical approach to addressing the problem. The removal of K in animal products from the farm is a small amount of overall K losses in a dairy system.
Of the K ingested by animals 3% is used to produce body weight, 5% is exported in milk, 10% is expelled in the dung and 80-85% is excreted as urine. While K in urine and faeces is returned to the paddock much of this K can be effectively **lost** through **transfer** into non– productive areas such as stock camps and yards. A lot of this K in the urine is also subjected to rapid movement through soil pores, some is held and taken up by the deeper roots of pasture plants, but the remainder is subject to leaching.
Bear in mind the nutrient levels on night paddocks as opposed to paddocks that are constantly cut, at the back of the farm could be immense so it really is imperative to get a handle on the nutrient levels.

Deficiency Symptoms

There are numerous visual symptoms that are likely indicators of Potash (K) deficiency.

The first; and probably most common, is that the clover density is greater in patches, with weedy plants dominant between clover patches.

Spotting on the margins of clover and lucerne is another visual symptom of K deficiency.

Weed plants within the pasture can also give an indicator as to the possibility of K deficiency.
Common examples of these are the grass Sweet Vernal and the presence of the yellow flowered Flat weed (hypochoeris radicata).

Summary

- Potassium is important.
- Is expensive if applied when not needed.
- Large variations in levels within farms.
- Regular soil and tissue testing fine tunes its use.

ANIMAL HEALTH

Too little potassium in the soil means reduced pasture growth. **Too much** can cause a **luxury uptake** of K in that pasture, triggering a **mineral imbalance**. The extra K reduces the plants **ability to take up magnesium**. Fertiliser K is only one of several factors which can contribute to the risk of **grass tetany**. If soil test / tissue test data is available there are 2 general rule of thumb formulas that can be applied. Using Cation Exchange Capacity figures from Soil tests.
If the following ratio is **greater than 0.08**, then there is a **risk of grass tetany.**

$$\frac{\text{K meq/100gm}}{\text{Ca meq/100gm+Mg meq/100gm}} > 0.08$$

Alternatively using % from tissue tests '!

$$\frac{\text{K\%}}{\text{Ca\%t Mg\%}} > 2.5\%$$

Continued on page 8

LUCERNE

Semi winter-dormant **lucerne** has much to offer: high quality hay / summer pasture, good use of sub soil moisture in summer, fixation of nitrogen for subsequent use by crop or a grass pasture.

It does require **careful establishment** and management compared to some pastures. Its use is very imited by soil in SW Victoria. It is not the acidity of the soil, as often the sub soils are only slightly acid/ neutral and most soils are low in exchangeable aluminium in the SW. Some lime at seeding ensures good establishment of innoculated lucerne seed.

Mainly it is the **poor drainage** characteristcs that **limit lucerne's** persistence. It is very susceptible to **water-logging.**

There remains however many suitable sites, eg. soils overlying volcanic ash beds, lunettes, marl, river flats and the gravelly loam crests of the basalt plains. On suitable soil, rotationally-grazed lucerne will persist well over many years.

Animal Health

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A quick calculation along these lines can give an idea as too whether milk fever could be a problem. Most pastures growing on soils with adequate potassium levels (colwell K levels between 200 – 250 milligrams / kg) have potassium concentrations of 2 – 3%. Pastures growing on soils with high potassium levels (Colwell K levels above 400mg/kg) can have K concentrations of above 4% and these can cause grass tetany / milk fever. So to prevent this from happening, a low K diet, fed rough hay or straw before calving and kept off paddocks with high soil potassium levels, before and after calving.

PASTURE Supplied by Kevin Reed NRE

Once we identify a paddock that should be resown it should be **soil** and, if possible **plant tissue tested,** to ensure that the potential **improvement** in feed supply will not be lost by failure to **supply optimum** phosphorus, sulphur, potassium, molybdenum and copper. Also the questions; How saline is the soil? Is it strongly acid? High in exchangeable aluminium?, can be answered.

Establishment success comes from **planning, preparation, appropriate inputs, technique and timing**. A weed – free seedbed is especially important for pasture species with slow – growing seedlings such as tall fescue, tall wheatgrass, small-seeded clovers and lucerne. Poor weed control greatly lowers the success of all species. For good control we especially need to **prevent seed set** by **annual grasses** in the previous spring. This is possible with extremely hard grazing or use of herbicide. Hay or silage making can help too.

Getting the species right

In selecting a seed mixture it is best to marry the **species** to the **soil type** and **aspect** – as well as the **rainfall**. Soil type cannot be changed so the soil species match is crucial. If there are major differences in soil type or topography within the paddock the species selection may have to be compromised by using a mix of species. Consequently it will be difficult to give the different parts of the paddock the most appropriate **grazing management** to suit the varying species at critical times. **Fencing** on the contour is often the key to better use of land resources.

How the new pasture fits into the year's feed plan is secondary to getting the soil / species match right. That plan should take into account the new pasture and complement it. For example if it is a summer active grass like *AU Triumph* **tall fescue** or Dundas **tall wheatgrass** on low lying, late finish land we expect that land to be spared heavy grazing in winter and to be used especially for better quality feed in the summer season.

On higher ground highly winter – active species such as *Holdfast* **phalaris** could be established to complement the

high-carrying summer pasture. For higher land that dries off quickly needs the drought-tolerant species; phalaris is excellent in that respect.

Phalaris, *Fraydo* – a winter-active **tall fescue**, and the short **Italian ryegrass** are the outstanding source of winter pasture supply. Some dairy farmers are now incorporating more phalaris and tall fescue into their farm systems.

Improved persistence:

Poor persistence is often blamed on the cultivar. Certainly some cultivars are better able to tolerate the summer drought than others. However if we consider **perennial ryegrass** as an example, poor persistence is often **associated** with **poor choice** of soil type and aspect, close continuous grazing sheep over summer, and poor fertility. Agriculture Victoria is planning to release a new as yet unnamed drought-tolerant cultivar of perennial ryegrass – probably in 2004. Like *Fraydo* tall fescue, the Mediterranean origin of this cultivar is unique in relation to the cultivars presently offered in the market and trials suggest that it is likely to prove more drought tolerant than other cultivars of perennial ryegrass. However plant breeders cannot work miracles and it will not alter the fact that phalaris is more drought tolerant than perennial ryegrass.

Pasture continued

Australian scientists from the NRE and NSW Agriculture have harvested the produce of **natural selection** in the **Australian environment**.
We have collected plants **persisting** well in very old pastures across Victoria and parts of NSW. From these we have produced ***Avalon*** perennial ryegrass (pure Victorian pedigree), ***Fitzroy*** perennial ryegrass and *Mink* **white clover** (parent plants all from the hot North central Vic district).

Species that are found naturally in **moderately fertile** conditions include **Phalaris and subterranean clover**. Significantly **perennial and ialian ryegrass, tall fescue and white clover** occur naturally only in **high fertility** habitats. They should not be relied on if soil fertility is poor.

Legumes for Western Victoria:

Subterranean clover is particularly compatible with Phalaris.
The main subterranean Clover cultivar for the SW Victorian region is ***Leura***. Unlike other regions, the South West has a lot of districts that enjoy a long growing season.
While having excellent winter growth, Leura also has the unique ability to exploit soil moisture late into the season and remains green into January in good years. It is the best cultivar of sub clover for summer pick, high clover content in hay and for fixing nitrogen from the air.

The nitrogen fixed by Leura was evidenced in large plots of wheat grown after either *Enfield* (early-maturing), *Trikkala* (mid-season) or *Leura* subclover (late-maturing). These yielded 5,6 and 7 t/ha respectively in trials at PVI over the past 6 years. The protein content of the wheat was high but increased significantly with the lateness of the sub clover cultivar grown the previous year.
Similar crop trials suggest that special forage clovers like *Morbulk* **Persian clover** and *Bolta* **balansa clover** may fix more nitrogen than sub clover.

The white seeded sub clovers such as *Yarloop* and *Trikkala* belong to a separate sub species that are naturally adapted to waterlogged situations - a situation not uncommon on the basalt plains.
Later – maturing white seeded cultivars include Larisa and Gosse.

Summary

Planning for resowing begins the year before

- Soil and tissue test
- Stop seed set of annuals
- Refence to soil type and topography

Select species to suit environment and grazing management!

FERTICO

What is RPR?
Reactive Phosphate Rock or RPR is a phosphorus rich, sedimentary rock that settled in ocean beds millions of years ago. It is found in several major deposits in the world, but the highest quality rock comes from the Middle East and Northern Africa.

How does it work?
RPR is not water-soluable; rather it slowly reacts with natural soil acids, the result of which is the release of Phosphorus over an extended period.

Is RPR suitable for my soils?
RPR is suitable for soils with a pH (water) of less than 5.5 that exists in areas with high rainfall.Trials over four years by the CSIRO in the Western Districts of Victoria have shown RPR to be an effective source of phosphorus in the right situations.

RPR can be a cost effective source of Phosphorus. Also in its granulated form (Duraphos) it can be spread at the same cost as conventional fertiliser.

Fertico

LIFE TIME WOOL PRODUCTION

The Lifetime Wool Production trial at Austral Park has completed its first treatment period and has lambs due to be weaned in early December and ewes shorn in mid December.

Research funding has come under increasing pressure over the years with money both drying up and being redirected to **'softer' demonstration** style projects. While these demonstration projects are an important part of extension programs they can not replace **'hard' research**.

The lifetime wool production trial has the potential to provide **many practical management** outcomes. Eg.
Lambing and weaning % in merinos are often very **disappointing** and a limiting factor for many properties looking to increase stocking rates. This project will help to **tighten management** protocols to optimise ewe fertility.

To remain **profitable** into the future woolgrowers will need to continue to improve both their **management skills** and **farm productivity**. Supporting sound research programs is a major step in achieving this aim.

The results gained so far are a great measure of the bumper season that we have had this year. Mark Ferguson one of the DNRE researchers working on the project has put together a summary of the story so far.

SUMMARY 2001

Mark Ferguson – DNRE Hamilton

- Average pasture growth rate for the month up to 22 October was 86 kg DM/ha/day and for the month up to 19 November was 103 kg DM/ha/day

- Total pasture production for the year up to 19 November is 10,500 kgDM/ha and with the pasture still growing is likely to be over 12 tonne for the year!

The average stocking rate since April 12 has been around 30 DSE/ha across the 50 hectare experimental site, the stocking rate is obviously higher in the plots being maintained at lower levels of available pasture, results across the different treatments are presented in table 1. Lamb growth rate has responded as would be expected from the experimental treatments as can be seen in table 2.

Table 1. Monthly stocking rates at Austral Park across the different treatments from April 12 when grazing commenced, figures are DSE/hectare
Table 2. Mean lamb growth rate (grams per day) for the period from birth to 12th November for all treatments, lamb survival figures (% alive at marking of those born) are presented in brackets.

Pasture Available	10 May	7 June	4 July	2 August
800	25.1	19.8	22.7	34.6
1100	20.2	18.1	21.6	22.9
1400	13.7	18.4	24.9	20
2000	5	13.5	27	18.4
3500	-	1.1	11.4	17.1
	29 Aug	**27 Sep**	**23 Oct**	**Average**
800	30.7	46.6	60.3	**39.4**
1100	27.3	42.6	57.2	**35**
1400	22.3	35.2	52.5	**31.3**
2000	19.5	32.9	49.2	**27.6**
3500	17.1	27.4	39.3	**18.5**

	Post day 90 treatment av. (g/day) and (lamb survival)				
Pre day 90 Treatment	800 Kg DM/ha	1100 Kg DM/ha	1400 Kg DM/ha	2000 Kg DM/ha	3500 Kg DM/ha
Condition Score 2	146(55%)	165(65%)	183(66%)	199(78%)	220(75%)
Condition Score 3	142(65%)	168(72%)	184(65%)	209(71%)	202(67%)

DRIVERS WANTED:
We have had several people contact us regarding part time spreader driver positions over summer and we will be following up with them in the near future.
However we still require casual drivers in some areas.

Please contact Geoff Vickery on 55752777 for further details

Payment of Pivot accounts at Australia Post:
Pivot customers now have the ability to pay their Pivot accounts at any Australia Post outlet that has Postbillpay facilities (most rural outlets). This can be done

- in person
- By telephone
- On the internet

All that is required is your monthly statement on which is a remittance advice slip that shows the postbillpay as a payment option.

Should you have any account problems with Pivot please contact us. Because we have more contact with the staff at Pivot we should be able to achieve a quicker and hassle free resolution to most problems.

VICKERY BROS. Account Terms

As from 1/12/01 due to our need for a timely completion of BAS, our standard terms for all accounts will be strictly 30 days net.

If customers wish to trade beyond these terms , it will be necessary to call at the office to discuss requirements.

In accordance with our terms and conditions of trade, all overdue amounts will incur a late payment service charge at the rate of 2 % per month.

Rubble for tracks, shed or stock yard flooring.

We can supply limestone rubble or bluestone scalps suitable for many farm applications.

Contact Jake or Craig on 55752777 for a quote

Geoff and Sue along with all the staff at Vickery Bros. would like to thank you for your support over the last 12 months and wish you and your family a Merry Christmas and a safe and profitable new year.

- **EARLY DELIVERY BEATS FERTILISER PRICE RISES**
- **SUPERPHOSPHATE STILL NUMBER 1**
- **BALANCE YOUR NUTRIENTS FOR PROFITS**

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