

The Cicerone Project I nc.

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NEWSLETTER No 21

September 2002

**You are invited to our next SEMINAR on
Tuesday 10th September
12 noon
Liaison Centre, CSIRO, Chiswick**

"Insurance, Work Cover and OH&S ... the essential expenses"

Keynote speaker will be

Tony Windsor MP

Member for New England

Other speakers will include

Duncan Fraser

Vice President and Chair Industrial Committee of
NSW Farmers Association

John Temperley

Farm Safe Australia

John Harlow

Northern Tablelands Insurance Brokers

**A brief AGM will take place on the day where we have
some exciting new developments to report**

Members \$FREE, Students \$10, Non members \$30

A free Lunch will be available for members only

BOOKINGS ESSENTIAL to help with catering,

please book on 6778 3871 by Friday 6th September

CONTENTS

| | |
|---|---------|
| Seminar details | Page 1 |
| Subscription renewals and AGM date | Page 2 |
| Wether Trial | Page 2 |
| Justin's tour of the UK | Page 2 |
| Congratulations to Pauline Smith | Page 5 |
| Fertiliser and farmers by Jim Scott | Page 6 |
| Lambing paddock engineering by Bob Marchant | Page 7 |
| Mulesing Field day details | Page 9 |
| The time is right for composite cattle by Bob Gaden | Page 10 |

**Subscriptions for 2002-03 are now due so please, if you have not already done so from previous Newsletter reminders, complete the coloured *Subscription renewal form* and return it with your membership fee to
PO Box 1593, ARMIDALE 2350**

Please consider joining or renewing your sub so we can continue the research that you, the producer, have asked to be done.

This will be the final notice in newsletters for 2002 ... I may revert to no middle pages again!!!

**The date for the AGM is Tuesday 10th September
... as usual we will try to keep it very brief!!**

WETHER TRIAL

The Cicerone Project has offered to run a Merino wether trial in recent years but we need at least 8 teams to make the results valid and worthwhile. We are prepared to make the offer again, a team of 12 wethers, MN2 status or better, certified footrot free, entry ASAP, delivery on 21st October. Unless we get immediate interest in this, we will have to cancel the trial. For more details ring Caroline on 6778 3871

Justin's UK tour

By Justin Hoad

The following is a brief outline of my tour of the UK made possible by the Big Brother Movement, an organization that in the past brought young "lads" from the UK to Australia and set them up in agriculture. Now the BBM offers scholarships for young people who have done well in Australia to further their studies in the UK. Awards are offered in arts, music, dance, sports, trades and my award, the Frank Mansill award for Agriculture. I am very grateful to them for giving me this great opportunity to travel and broaden my knowledge.

The award was for \$6000 with the itinerary left up to me. I took holidays from Cicerone and traveled from the 20th of May, until the 7th of July 2002. I was able to spend time at "The Grasslands Show" in Coventry, the "Royal Highland Show" in Edinburgh and "The Royal Agricultural show" in Coventry. These are three of the biggest agricultural events on the UK calendar. I also arranged to visit ten major research stations and universities, dealing with ruminant nutrition, disease, grazing management and organics. I also had some exposure to the bigger picture of research organization structure and industry uptake.

The Royal shows are very big, well organized and run, showing off all facets of agricultural production. There are no kids rides and sideshows, instead there were stands showing research organizations, universities, and agricultural advisers and several different quality assurance accreditation authorities.

British agriculture is much more intensive in every way. They have much smaller farms with bigger tractors and more labor units. Due to the need to house animals in the wetter winter conditions, the small size of the farms and the subsidy system, their agriculture is very inefficient, compared to Australia.

Due to the narrow mindedness of stud breeders there are entire breeds of animals that cannot reproduce without assistance, which in my view is disgusting! At the Royal Highland Show there was a Belgium Blue heifer at the top level that has had a calf cut out. There are some breeds of meat

sheep that need every lamb to be pulled. Australia must not follow this path!

On the up side there was some very good research being conducted. There is a big focus on environmental issues, rather than on production gains. With a large population on a small island, the city dwellers have a big influence on agricultural practices. The government is now offering incentives for farmers to encourage biodiversity with stewardship programs and land based subsidy.

The government is also putting a lot of money into environmental research programs to reduce land degradation, pollution, flora and fauna species extinction. To this end there are also incentives for farmers to become organic certified producers. This in turn has created its own problems. Farmers are becoming certified organic without their hearts being in the right place. They are looking for quick fixes to problems where formerly they used chemicals to control the symptoms. There are companies capitalizing on these band-aid solutions, marketing organic products that do similar jobs to the traditional chemicals. The good organic farmers are trying to address the underlying cause of the problem instead of putting band-aid patches on symptoms.

An example is internal parasites of sheep. The traditional way is to drench every month in a susceptible situation. Some organic producers are substituting chemical drenches with organic certified potions, that are sometimes more harmful than the traditional drenches. The top

researchers are looking at an integrated management approach that utilizes many aspects including-

- Genetics-Breeding sheep with host resistance, rather than resilience, through breeding programs which include either, fecal egg counts, blood tests, and even DNA sampling.
- Immuno-nutrition- The control of immunity through nutrition. Looking at factors such as- improved nutrition during late pregnancy can have life long benefits to the offspring. – Feeding a balanced diet can improve health with even a lower intake. Animals have nutritional wisdom, with the ability to select a diet suitable to their physiological state, even to the point of animals selecting a diet higher in protein and avoiding dung patches when carrying a high worn burden. To this end, having available a pasture sward with a diversity of species, including plants with condensed tannins that may have anthelmintic effects, and non-grass herbaceous plants that are high in micro nutrients and minerals, to supply a balanced selection from which to form a diet.
- Reduced pasture contamination- Nematode eating fungi, dung beetles and earth worms which all reduce the population of infective larvae on the pasture. – The use of grazing management to prepare low contamination pastures for susceptible animals. An example would be grazing a paddock with cattle only, preparing it for lambing ewes or weaner lambs, which we already do.

- Treatment- Use any form of parasite treatment as a last option. Not only does every treatment select for resistance in the parasite population, but also opens the door to inhibited larvae to re-infest the host. If a sustained action treatment is used, the selection for resistance is longer and the animal is not exposed to many parasites for an extended period, it will slow the development of immunity.

Having said all that, the take home message for me was the same from every research station or university that I visited.

“DO NOT LOOK AT A PROBLEM IN ISOLATION”.

Look at the cause and effect relationship, try and address the underlying cause, not just put a quick fix band-aid on a symptom, for example don't just spray the thistles, which are the symptom of bare ground, but encourage perennial grasses to cover it.

Many of the institutes are now looking at multidisciplinary research and trials on a whole ecosystem level. Although there are lots of problems associated with drawing conclusions of results because of the many variables, the results are more valid in a lot of situations, than a study looking at one interaction in isolation out of a living ecosystem.

In all it was a good experience that broadened my mind and knowledge. It will continue to help me in my work in the grazing industry and with Cicerone.

Congratulations to Board member Pauline Smith who has been selected to attend the III World Congress of Rural women in Madrid Spain from 2-4th October.

Pauline writes:-

I have been selected to be one of the ten Rural women from the Wool Industry, sponsored (half expenses) by Australian Wool Innovations (AWI) to attend this congress. I have been told that there will be 1600 delegates from all over the world attending this three-day forum, which is held every four years.

My application for the AWI scholarship was prompted by an email that originated in Primary industries training division in Orange and was forwarded to me by Faculty manager Trevor Gabb. Other candidates received their applications via the AWI web site or through the Rural women's network.

The application required the candidate to outline the past and present contribution to the wool industry and the future role that I would take following the congress. My application emphasised that through my role in TAFE I have contributed to the development of knowledge and skills of many wool producers and wool classers (especially women) over the last 18 years. I am a member of many industry organisations as well as a partner in a stud and commercial wool producing business.

I was thrilled to be selected, as well as Margaret Cameron from Goulburn TAFE has also been selected, this certainly acknowledges the contribution that TAFE teachers of Sheep and Wool are making to the Wool industry. One of my past students Janne Portas from Woolbrook was also selected.

The Congress program has sessions on:

- Rural women in the global village
- Gender, Sustainable Development and Food safety
- Leadership and Rural women Participation
- Women's task in Agriculture and Rural Development
- Public Policies in order to support Rural women

I will also be attending sessions on:

- Agricultural extension and Training for rural development and leadership
- Rural women's access to research and technological innovation for rural, farm and fishing development.

Apart from the congress we will be touring rural areas of Spain for three days and as an extra I have selected three more days touring farms in the UK before flying back to Australia for a couple of days of lamb marking before returning to work for TAFE on Monday 14th October. I am looking forward to 12 days of completely new experiences.

Any small financial contributions from TAFE would be greatly appreciated since my share of the trip is over \$4000.

Lamb Stove or Lamb Stew.... Take a lamb's head and lights; open the jaws of the head and wash them thoroughly; put them in a pot with some beef stock made with three quarts of water and two pounds of shin beef, strained; boil very slowly for an hour; wash and string two good handfuls of spinach, put it in twenty minutes before serving; add a little parsley and one or two onions a short time before it comes off the fire; season with salt and pepper and serve altogether in a tureen taken from *'Enquire Within About Everything, a Victorian Almanac' published in 1856*

Summary of talk by Jim Scott to graziers at Guyra on August 8, 2002

Our UNE Board member, Associate Professor Jim Scott, of UNE's Centre for Sustainable Farming Systems, recently gave a talk to about 100 graziers in Guyra titled: "You could be \$3m better off by using fertiliser regularly over 25 years". This talk showed how grazing enterprises are long-term ventures and he showed calculations of benefits of investing in soil nutrients over a 25 year period. Jim pointed out that it takes time to experience good seasons and good prices together and when one does, it is crucial to reap the benefit.

There are many aspects of fertiliser application that confuse producers. Common statements such as "this country has had a ton of super" or "fertilisers acidify soil" or "fertiliser is too expensive" all cloud the critical issues that should affect fertiliser decisions. This analysis is based on the fact that production is very much linked to soil soluble phosphorus.

Both Jim Scott and Dr. Oscar Cacho from the University of New England have investigated the costs and benefits of fertilizer applications over a 25-year time horizon and they summarised the results as farm net worth in a paper they published in an international journal in 2000. They used real wool prices, interest rates, rainfall, fertilizer prices etc. in their analysis.

The calculations of farm net worth are derived ultimately from wool income which is affected by wool production per head and by the overall carrying capacity. This in turn is affected by pasture growth and quality and this of course depends on soil quality. So, profits are indirectly linked to how fertile the soil is and this is determined mostly by whether the farmer

puts adequate nutrients back into the soil – and this is determined by financial returns but also whether a farmer believes that fertilising is a discretionary expense. Jim and Oscar believe that many farmers only fertilise in those years when they have a tax problem and this is the type of investment they simulated over these 25 years.

They showed how expenditure on family living expenses can impact on net worth and consider the cost of raising 3 children over a period of 25 years. Jim presented this financial analysis of a farm family buying fertiliser and raising children over this 25 year period, from before the Wool Reserve Price scheme up to its demise. It showed one case where the farm was bankrupt to one with \$3.5 m in assets accumulated over this period.

At the conclusion of the talk, one grazier came up to Jim and said "that's exactly how it was – we were married in 1967, raised 3 children, and we agree that these inputs and income flows have to be considered over the long-term".

Jim pointed out that he does not hold shares in any fertiliser company!

Mutton Pie

The following is a capital family dish:- Cut mutton into pieces about 2 inches square and half an inch thick; mix pepper, pounded allspice and salt together, dip the pieces into this; sprinkle stale breadcrumbs at the bottom of the dish; lay in the pieces strewing the crumbs over each layer: put a piece of butter the size of a hen's egg at the top; add a wineglassful of water, and cover in and bake in a moderate oven rather better than an hour. Take an onion, chop fine; a faggot of herbs; half an anchovy; and add it to a little beef stock or gravy; simmer for a quarter of an hour; raise the crust at one end and pour in the liquor –not the thick part.

Taken from '*Enquire Within About Everything, a Victorian Almanac*' published in 1856

Lambing Paddock Engineering

by Bob Marchant NSW Agriculture

In 1984 Taylor JA , Hedges DA and Whalley RDB published in the Australian Rangelands Journal a paper The Distribution of Sheep Camps on the Northern Tablelands of NSW.

This paper is the basis of the concept of lambing paddock engineering which I developed with Graziers on the Southern Tablelands upto 1990 whilst District Sheep and wool officer at Goulburn.

Although NSW Agriculture wished me to continue this work when transferred to Armidale unfortunately the concept wasn't well received in the early 1990's due to the headlong rush by New England graziers into cell grazing which assumed that specialist lambing paddocks were unnecessary.

Fencing based on amalgamated land subdivisions, basic mob demarcation and rabbit control has historically created the design of paddocks and these paddocks can be quite inappropriate for good livestock management.

Fencing Paddocks into certain configurations can influence the joining and lambing performance of ewe flocks.

Graziers should be aware of ram/ewe contact factors when selecting suitable paddocks for joining or when creating additional paddocks through subdivision.

Whereas wind can have beneficial effects in joining paddocks by keeping the mob together the exact opposite applies in lambing paddocks

Wind with or without rain is the main killer of lambs.

The physical characteristics of a paddock aspect, slope, sward height and topography can affect the chill index for a paddock at lamb height.

Design factors to consider when designing specialist lambing paddocks are

- minimising accidental lamb loss [roadkill, drowning]
- reduction of primary predation [fox harbour]
- minimising risk of disease [foot abscess]
- minimising social stress [stocking rate]

However **the most important design factor is**

- **Providing shelter where the stock are forced to use it**

This is where the **research on sheep nocturnal camping behaviour** comes in.

Sheep can be persuaded to use shelter.

Taylor et al found that sheep prefer to camp in the highest driest location in the paddock generally facing north east.

This point is as little as one metre above the next highest point.

Thus fencing can be erected to modify paddock shape and design to prevent ewes from camping and lambing in exposed locations putting their lambs at risk of death from windchill.

Fences can be erected to steer ewes from camping and lambing on exposed high points to camping and lambing in sheltered locations.

Where this was done on Southern Tablelands properties lambmarking percentage was improved from 9 –20 %

Computer modeling has shown investment in new fencing for a 10% increase in lambmarking percentage a positive cashflow can be obtained in 3years.

Windbreak plantings to shelter an exposed campsite takes many years to achieve a return on the investment.

However the use of these windbreak plantings to shelter sheep off shears in bad weather as part of wholefarm planning can show a return if the risk of losing sheep is greater than 0.5% per annum.

Other studies suggest if 5% of a farm's area is devoted to a shelter belt network profitability will be increased in the long term.

Conclusion

Better paddock design or selection on many Tableland properties has the potential to reduce expenditure on the ram flock by allowing use of a lower percentage.

On properties with undulating topography rapid improvement in gross margin through better lambmarking percentage can be achieved by designing or modifying lambing paddocks to take into account sheep camping behaviour to ensure they select a sheltered camp site in which to lamb.

NSW Agriculture has a video demonstrating the concept of lambing paddock engineering in detail. It can be obtained through your local office.

Mutton (vension fashion)

Take the neck of a good four or five year old South-down wether mutton, cut long in the bones; let it hang in temperate weather at least a week. Two days before you dress it take allspice and black pepper, ground and pounded fine, a quarter of an ounce of each, rub them together and then rub your mutton well with this mixture twice a day. When you dress it wash off the spice with warm water and roast it in paste. Recipe taken from '*Enquire Within About Everything, a Victorian Almanac*' published in 1856

The Cicerone Project Inc.

invites you to a

Mulesing Trial Field Day

15th October 2002

from 9:30 am to 3:00pm.

Liaison Centre, CSIRO, Chiswick

Members – Free entry

Students \$10

Non-members - \$25

Hear the results of our Mulesing Trial

Speakers include representatives from UNE, the RSPCA, the Livestock Contractors Association and NSW Agriculture

Morning tea and a light lunch will be available

Did you know that for every single person in Australia today there is one feral pig. With the largest feral pig population in the world, Australia's highest official number is estimated to reach 23 million.

Apart from the environmental damage and predation of lambs (with estimated annual mortalities are \$100 million), calves and native fauna, there are around 20 exotic diseases to which these animals are susceptible.

One of these is Foot and Mouth Disease. When pigs are infected with FMD they exhale 300 times as much airborne virus as other infected animals..... a major outbreak of FMD could cost Australia over \$9billion in lost export earnings over an eight year period. Australian producers must remain vigilant to ensure Australia remains free from this disease. [Ref: *Eradicating a feral pest* in the August issue of *Feedback*, the MLA journal]



The time is right for Composite cattle

Bob Gaden, Technical Specialist Quality Beef,
NSW Agriculture Beef Industry Centre, UNE Armidale NSW 2351

Composite breeding isn't really new – many of our breeds began as composites, some in Australia – Santa Gertrudis, Droughtmaster and Belmont Red are recent man-made composites. But times are moving on, new ideas are developing, and the time is now right for a modern, composite approach to commercial beef breeding:

- Research in both US and Australia has defined the strengths and weaknesses of our breeds, and highlighted the value of the “free lunch” which comes with hybrid vigour in commercial herds.
- Crossbreeding, although theoretically best, has generally been poorly adopted because it's too complicated to manage in most herds. Trying to introduce European content and keep uniformity in the progeny in self-replacing crossbreeding programs is not easy!
- Producer experience with composites is growing. When I visited the Leachman property in Montana in the late 1980's Jim Leachman inspired me with his vision of supplying five similar-looking red breeds, “phenotypic look-alikes”, to his commercial customers. They could take home a different red bull each year and run their herds as simply as a purebred.
- Australia has its own composite breeding pioneers, and all our biggest corporate beef producers have custom-built composite programs.
- With BREEDPLAN in all the major breeds, we know where the good genetics is. It documents the commercial performance of our breeds, and more importantly, on individual bulls, through GROUP BREEDPLAN sire summaries.

With all this knowledge and experience now available, it's no wonder that thinking cattle breeders are picking the eyes out of genetics of all breeds, using an open composite approach to “designer build” cattle with the features they need.

Market driven breeding

The north-west of NSW is the home of many of our innovative composite breeders. They are “market driven”- a composite program allows them the genetic flexibility to fine-tune carcass features – like fatness, weight and marbling - to target their market and increase compliance to the price grid. They are juggling feedlot performance, carcass yield, MSA compliance and lower Brahman content - with the need for paddock adaptability and

performance, to maximise returns and minimise herd running costs. They have learnt to do all this, and produce remarkably even lines of marketable progeny.

No single breed on its own can do it all.

Two types of Composite Breeders

The composite “creator”

These are the pioneers – some inspired by Leachman, or the successes in chicken and pig breeding. They are innovative people, rugged individualists, happy to ignore the pressure to conform to traditional ways. They are the people who are taking the commercial industry forward – they need our encouragement and support. They also need a better EBV system to record and evaluate their composite stock. These are the people who will provide the genetics and the production package to keep our beef industry competitive.

The composite “user”

These are our commercial breeders, now doing their best with breeds which aren't quite ideal, and crossbreeding programs which are too complex. They could be buying ready-made, purpose-built composite bulls and running them in simple, self-replacing commercial herds, tailored to their markets and their environment, with hybrid vigour built-in.

There is a huge, untapped potential for commercial breeders to use composite bulls as they become available, if they are designed for their situation.

Encouraging the pioneers

In 2000, NSW Agriculture convened a meeting of like-minded breeders from north-west NSW. A dozen keen composite breeders came along and formed Composite Beef Breeders Australia (CBBA). It was quickly adopted as a branch of the Beef Improvement Association. The foundation members decided its purpose would be to encourage the pioneers to share their experience, to provide technical support and expand the market by promoting the concept of composite breeding.

They took the hat around, and established a web site. It lists members and their cattle, along with technical information and links to important sites. The group asked NSW Agriculture to look after the technical information content of their web site.

Membership of the group will finance the growth and development of the web site. Its quality and usefulness has already been widely acknowledged –see it for yourself:

www.compositebeef.com.au

A number of field days have been held across Australia in 2001/02 with the support of Meat and Livestock Australia, the Beef Improvement Association, Composite Beef Breeders Australia and composite breeding pioneers. Judging by the reaction so far, the time is right for composite breeding.

MINT VINEGAR.. put into a wide mouthed bottle fresh nice clean mint leaves enough to fill it loosley; then fill up the bottle with good vinegar; after it has been stopped close for two to three weeks it is to be poured off clear into another bottle and kept well corked for use. Serve with lamb when mint cannot be obtained. Another recipe from *Enquire within about everything, a Victorian almanac* written in 1856

The Cicerone Project gratefully acknowledges the funding support given to them by Australian Wool Innovation

Newsletter Editor: Caroline Gaden, Executive Officer of The Cicerone Project Inc.
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The Cicerone Project Inc.

PO Box 1593, ARMIDALE 2350

NSW Agriculture has a new FREE publication

'DROUGHT MANAGEMENT'

available from all offices

REMEMBER THE RULES FOR KEEPING THE NEW

CHEMICAL DIARY

HAVE NOW COME INTO EFFECT

Diary Dates

Farm Walk with the Tamworth SGS group visit to the Cicerone Farm

Tuesday 29th October, ring Caroline for more details 6778 3871