Proc. Tenth Ann. Conf. Grassld. Soc. NSW, 1995, pp. 14-16.

GRAZING INDUSTRIES OUTLOOK:

"HOW TO BECOME KINGS IN GRASS CASTLES"

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SUMMARY: Many farmers claim that their great skills are in being a top first cross lamb producer, a great wool producer, or breeders of first class Herefords. This is poorly targeted production which misses the two key production areas at either end of the claim: (1) Fulfilling specific profitable market requirements, and (2) Being brilliant producers of high quality mixed grass clover pastures. Very few farmers claim to have skills in either of these areas. In 25 years I have only met 1 grazier who said he was an apparel fibre producer and only 1 farmer who said he was a brilliant grass producer. These are the two key elements in using the grass to produce the wealth which allows people to become "kings" even though they are ever dependent on the grass to build the castles.

The great Australian author Mary Durack, in her book "Kings in Grass Castles" has the quote "if we are kings, then we are only kings in grass castles", referring to the wealth of the graziers of Western Queensland. The quote sums up an aspect of the risks and transitory nature of the pastoral industries, but for once it places the emphasis on the pasture first and not the animals that are only a by-product of the pastures.

Farmers often concentrate on the animals alone, so that people are "cattle kings", "merino specialists", or "prime lamb fanatics", but never "pasture fanatics". In this paper I want to help farmers direct their thoughts to the logic of running a profitable farm directed firstly towards the markets and then back towards the pastures.

The long term sustainability of any farm depends on pasture management, animal management and financial management. Most farmers want to preserve and restore the productive capacity of their soil and their farm. The question is "where do you start"? That question has a very simple answer - **profit is needed to restore farms**. You start with a financial analysis which looks at the "potential profitability" of the current and potential enterprises and enterprise combinations that you can run on your farm. Out of this analysis, you have to look at specific markets that exist for both current and potential products and how you can individually better target the market and better fulfil your ultimate client's needs. Farmers must constantly aim to abstract a premium rent for the additional added value that they are able to bring to the product that they sell.

Australia has been notoriously a producer of "undifferentiated bulk product" into an over supplied and over subsidised world market. This is a slow, but classic recipe for going bankrupt.

Unfortunately, 20% to 30% of the farmers in our major industries (wool, wheat and beef) are probably beyond financial recovery. The dairy industry is a great example of such an industry where the pathetically poor dairy farmers of twenty years ago were kept on their farms and did not readjust to a grossly obvious problem because of Government subsidies and handouts to compensate them for the world problem that they were in.

We produced two products only:

- Milk, which could not possibly be differentiated; and,
- Butter, which also could not be differentiated

They were saleable in a standard bottle or a standard wax wrapping and were sold either inside Australia or into the London market with a large subsidy.

We now have 80% less dairy farmers, the same number of cows and average production per cow 25% higher. A large publicly owned dairy corporation exports dairy products all around the world and sells probably 25 highly differentiated, highly value added milk products; dairy based sweets, 10 different milk variations, butter combinations, creams,

Table 1. An example of a first stage analysis of a pasture supply and animal demand model.

SECTION A - PASTURE ASSUMPTIONS (Example Farm)

			Carrying capacity of Crop/pasture (DES/ha/month)												
Crop/pasture		Comments	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ave.
Native	A	Sub & grasses	8.0	8.0	8.0	8.0	6.0	6.0	6.0	6.0	12.0	12.0	12.0	10.0	6.5
Peerennial	B	Phalaris, cocksfoot, clover	8.0	8.0	8.0	8.0	10.0	10.0	10.0	10.0	16.0	16.0	16.0	12.0	11.0
Oats & pasture	C														
New pasture Year 1	D	Lightly grazed			16.0	20.0									3.0
Oats graze	E	Good establishment	6.2	6.2	6.2		15.0	30.0	30.0	30.0	30.0	30.0	8.0	8.0	16.6

SECTION B - TOTAL PASTURE PRODUCTIVITY (Example farm)

				Carrying capacity by paddock & month (DSE/paddock/month)												
Paddock	No	Type	Ha	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ave.
Grass	1	Oats graze	100	620	620	620		1500	3000	3000	3000	3000	3000	800	800	19960
Top lucerne	2	Perennial pasture	120	960	960	960	960	1200	1200	1200	1200	1920	1920	1920	1440	15840
Lucerne	3	Perennial pastuire	150	1200	1200	1200	1200	1500	1500	1500	1500	2400	2400	2400	1800	19800
House	4	Native	50	400	400	400	400	300	300	300	300	600	600	600	500	5100
Total			420	3180	3180	3180	2560	4500	6000	6000	6000	7920	7920	5720	4540	60700
															Monthly average DSE	5058

SECTION C - ANIMAL ASSUMPTIONS

		Livestock feed requirements (DSE/month)												
Stock type		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ave.
Cows	Number	120	120	120	120	120	120	120	120	120	120	120	120	
	DSE	16.0	8.0	8.0	8.0	8.0	10.0	10.0	16.0	16.0	16.0	16.0	16.0	
	Total	1920	960	960	960	960	1200	1200	1920	1920	1920	1920	1920	17760
Breeding Merino ewes	Number	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
	DSE	1.3	1.3	1.4	1.4	1.5	1.6	1.9	2.1	21.	2.1	2.2	1.5	
	Total	2080	2080	2240	2240	2400	2560	3040	3380	3360	3360	3520	2080	32320
All livestock	Total	4000	3040	3200	3200	3380	3760	4240	6280	5280	5280	5440	4000	50080
	Total DSE	5800	4640	4800	4800	4960	5380	5840	6880	6880	6880	7040	5600	50080

custards, all attractively and conveniently packaged for use in the modern household.

How does all this relate to pasture production? It relates to finding that specific market, working out how to profitably produce for it's specific needs, and then tailoring pasture and animal management strategies to maximise the technical combinations to meet market specifications.

So decide which markets potentially have profit in them. This need not be either complicated or involve any vertical integration. Dairy farmers have not changed the product their cows produce, but it is guaranteed disease free, guaranteed free of contaminants, refrigerated straight out of the cow, delivered to the factory on a daily basis on a forward contract basis. This allows budgeting and planning at the farm end to maximise production and meet the quality standards.

Having specified the market, on-farm planning is then a matter of matching animal requirements to pasture production. There is a problem of "chicken and egg". But having estimated approximately the size of the herd or flock in the goat/cheese or specialised veal/beef enterprise, then the monthly/weekly feed requirements of each specific group within the flock/herd can be designated along with the periods of special needs in terms of quality and quantity. This schedule of feed requirement from the animals can then be modelled against pasture productivity. This is a matter of designating soil types, the most productive suitable pastures species, the pasture mixes, the long term sustainable pasture plans and the needs for specialists pastures for periods of acute need and of course pasture management and a supplementation policy. Lucerne for the weaners, grazing oats to finish steers, by-pass protein to utilise dry pastures are brief examples of a few options.

Table 1 and Figure 1 are an example of a first stage analysis of a pasture supply and animal demand model. The basic need of most grazing enterprises, where a perennial grass can be grown, is for a considerable proportion of the property to be under a long term perennial pasture, containing at least 1 or 2 vigorous grasses and a good legume base,

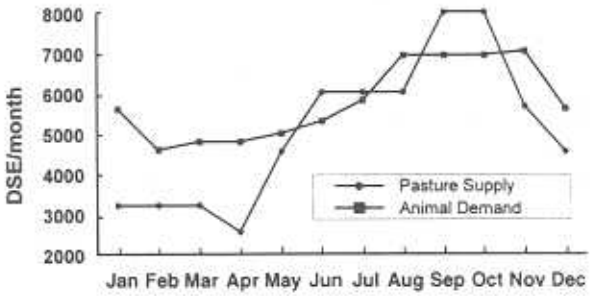

Figure 1. Pasture supply versus animal demand.

Figure 2. Improved pasture area versus stocking rate.

either annual or perennial to produce the nitrogen and additional protein in the pasture mix.

This long term perennial pasture should be designed to be run at low cost in both establishment and long term annual maintenance costs. The methods of sustaining it in a high state of productivity such as fertiliser and renovation are management factors that must be considered. Specialist pastures such as areas of irrigation, grazing oats, specific winter and summer pastures, must be considered within the requirements and animal needs by moving sale, joining and shearing times, so that animal needs can be better matched to pasture production. If the market requirement is for winter milk and it pays sufficient premium, then pastures both long term, short term and supplementation must be geared to produce that specific market requirements.

The perennial grass pastures native to Australia have in many areas been degraded by the general "set stocking" pattern of pasture management. Even under conservative stocking rates, the repeated grazing of the most palatable species has reduced the overall nutritional value and palatability of the remaining species and in many cases has allowed weed species to invade. Many pastures in NSW that previously carried perennial grasses are degraded to the stage where weeds, annual grasses and annual legumes are the only remaining species. In the worst cases, such as part of the Western Division of NSW, the areas have almost zero carrying capacity with the invasion of woody weeds, tree species and the loss of most of the grazing capacity.

Grazing management to maximise pasture productivity and longevity is still poorly understood and highly controversial. Species such as lucerne have a well known requirement for short grazing and long rest periods and this rotational grazing strategy has been reasonably well understood for some years. More controversial is the "time controlled grazing" strategies being widely implemented at the moment. In this, pastures are grazed for approximately 3 days and rested for approximately 60 days with considerably management input depending on the speed of pasture growth and the need to ration out remaining dry feed in drought/shortage periods.

Supplementation of abundant low quality grass pastures with urea and by-pass protein is a technology which is now being adopted and has potential to increase the pasture productivity of Australia. Research results with cattle are promising, but sheep responses are less encouraging. The pasture improvement revolution has in many cases wound down because of lack of enterprise profitability, inability to replace pastures after drought plus the acid soil and salting problems. Yet there is a lot of exciting research work going on in pastures which will allow the repair of damage done in areas such as the wheat/sheep zone and can offer long term soil protection and improved high levels of productivity.

Figure 2 which shows the percentage of improved pasture verses actual stocking rate demonstrates over 35 farms a potential to increase carrying capacity by some 30% and much more on the "best" farms.

References

Mary Durack - "Kings in Grass Castles".