Prime lamb production from improved pastures

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Abstract

This paper describes a prime lamb enterprise on the Northern Tablelands, in which the pasture resources are combined with livestock management and marketing to improve profitability. The importance of good soil fertility is highlighted as a key to improving lambing percentages, while the use of smaller paddocks, supplementary feeding, a change in shearing time, a good drenching program and targeting market weights, have all contributed to the success of the enterprise.

A key strategy to establish high producing permanent pastures has been to control the *Vulpia*, sow forage oats and then within 12 months sow a sound perennial based pasture mixture.

Background

Triangle is a 700 ha (1750 ac) property located 10 km west of Ben Lomond village, on the Northern Tablelands. It comprises approximately 95% basalt soils, with maybe 5% granite and trap-rock. Fortunately, we enjoy a relatively reliable rainfall of 940 mm (37.5") per annum, mostly falling in spring and early summer and a regularly dry autumn. Approximately half the property is at 1150 - 1200 metres altitude rising steeply to over 1300 metres (4300 feet) where the soils are redder and stonier. The lower county features some beautiful alluvial flats.

Triangle was purchased by my father in 1961. It could best be described as a run-down potato growing property with little pasture improvement or fertiliser history. We embarked on a pasture improvement program consisting of ploughing the arable country, sowing down with phalaris, fescue and red and white clovers and regular fertiliser applications of 125 kg/ha of single superphosphate per year over the whole property. The appearance of the place and production subsequently went "through the roof".

During the 60's and 70's Triangle became the first cross ewe and prime lamb focus of a family enterprise encompassing several properties producing fine merino wool as well as commercial Poll Hereford cattle.

I took over the management of Triangle in 1984. 1990 saw the family partnership dissolved; with my wife, Kim, and I taking over Triangle and another property approx 10 km away – "Beckmore".

In 1995 Beckmore was sold to finance the purchase of approximately 520 ha (1300 acres) from a neighbour adjoining Triangle.

We still run our first cross ewe and prime lamb enterprise on Triangle alone, because the new block "North Moredun" has a St John's Wort problem. Over the last 5 years, due to a concerted spraying program, sympathetic grazing, and pasture improvement,

the St John's Wort has declined to approximately 10% of what I "inherited". No wort has been transferred to Triangle.

Livestock program

From the start of the prime lamb program in the early 60's until 3 years ago, first cross ewes had been sourced from the family's (now my brother's) cull merino ewes joined to Border Leicester rams. This has been very easy with a consistent, clean ewe coming onto the place as a 2 tooth, producing a comeback clip with little fly problems. However, as a result of a footrot scare and a change in the merino operation continued by my brother, it has become necessary to source ewes from elsewhere. This has produced less consistent results, but some benefits.

The best results have been achieved by purchasing April/May drop mixed sex first cross lambs from the Coonamble area in September/October for approximately $30 per head. As soon as they arrive on Triangle they are shorn, and then run on North Moredun. The wether portion is fattened and sold, usually by Christmas time for between $45 and $60 depending on the market, resulting in the replacement ewes costing between $5 and $15 per head, all expenses paid. Being western bred, their wool is not as fine, nor as fly resistant, but they do have larger frames. When joined with rams purchased from Andrew Say's Yasloc Poll Dorset stud near Glen Innes, and with the help of breedplan figures, the resulting second cross lambs have increased length and liveweights.

So how many ewes do we run? For most of the 60's, 70's and 80's we ran between 2000 and 2400 ewes, with a lambing percentage of 120% to 130%, depending on seasonal conditions. Since taking over management in 1984 I have been gradually reducing the ewe numbers to 1900 – 2000.

This allowed me to continue pasture improvement and increase lambing percentages steadily. With the exception of 1995, when the lambing percentage was 133% following a low 620 mm (25") rainfall, each year's percentage has been above 140% on joining. Last year was our best year with a lambing percentage of 146.8%. Ewe mortality varies from 2 – 4% per year. So, in 15 years I have increased the lambing percentage to the point where I am still producing approximately 3000 lambs per year from 400 less ewes. Wool production per head has also increased, so total wool production has not decreased. Pasture management and animal nutrition have also improved and are now easier to manage. My main future goal is to increase ewe numbers without causing a drop in lambing percentages.

I continue to carry on a commercial Poll Hereford herd on North Moredun and Triangle, selling the steers to the feedlots at 18 months to 2 years of age. Increasingly the cattle are used to control the length of the grass on Triangle. On average I run 80 cows, 50 heifers and 50 steers, and when added to the first cross ewes and their progeny, this gives a total of 10,000 DSE or 14 DSE/ha (5.75 DSE/acre) on Triangle. North Moredun is carrying approximately 10 DSE/ha because of the continuing development.

Reasons for increased lambing percentage

Despite the benefits of good soil, and good rainfall, I still contribute much of the production figures to fertiliser. I have continued to apply the equivalent of 125 kg/ha

of single super per year. Over the last 10 years, it has been in the form of the so-called high analysis fertilisers, giving a total of 4.5 tonnes/ha or 1.8 tons/acre. Soil tests indicate that nutrient levels are barely maintained. Phosphorus readings taken recently range from a low 6 mg/kg (Bray) in a paddock ear-marked for further development to a high of 26 mg/kg (Bray) in an improved paddock, suggesting a more strategic approach to fertiliser applications could be beneficial. Soil pH is 4.9 – 5.6. With 3000 lambs and 100 plus grown cattle leaving the place on the back of a truck each year, the phosphate leaving the property has to be replaced.

Animal husbandry

With the current trend for smaller paddocks, I am still finding my 40 ha (100 acre) average size paddocks very easy to manage. There are 14 major paddocks running 6 or 7 mobs of ewes, thus 2 paddocks per mob, allowing a fresh paddock for critical times, namely, at weaning, lambing and joining.

During the cold and dry winters, supplementary feeding of the ewes with lupins is necessary 1 – 2 years in 5, helping the ewes maintain body weight prior to going into a fresh paddock for lambing. I have not yet felt it necessary to feed during lambing – even during the most recent drought.

My shearing time is not the "norm" for the Northern Tablelands. I shear in January, immediately following weaning. The benefits by shearing prior to the grasses setting seeds are a high yield (>80%) and low vegetable matter of 0.2% to 1%. The disadvantage is that a break in the wool can occur at lambing if nutrition and animal health aren't closely monitored at that time. With the lambs and the wool off the ewes by mid January, the nutritional requirements for the ewe over the 2 months prior to joining are minimal, giving the best feed to the weaned lambs. With this break, the ewes are "jumping out of their skin" by the time the rams are introduced. This also allows plenty of time to check teeth, feet, udders, and general conformation. The greatest disadvantage, and the main reason most farmers in the Northern Tablelands don't shear in January, is that the ewes lamb in half wool. Most see this as an unnecessary risk for the ewes to get "cast" or stuck on their side whilst lambing. For this reason I check the ewes each day, which takes 2 – 3 hours each morning for the 4 weeks of lambing. It is a task that I enjoy, and with ewe loses of 2 – 4 % and 140 plus percentage lambing, I don't consider that I do the job badly!

The drenching program for the ewes involves 1 broad spectrum, and a 5 in 1 vaccination prior to lambing, a Closantal at jetting (beginning of November), and a flukicide prior to joining. Egg counts are taken at other times if a problem is suspected. Monitoring has shown that the pre-lambing drench is unnecessary, but experience has shown otherwise.

The lambs receive their first drench at jetting in November (not at marking when they receive a 5 in 1) and a follow up at weaning. Generally that is all that is required to get the lambs to market, and obviously the lambs that are ready to market at weaning (about 20 – 25%) are not drenched.

After 15 years of drafting lambs visually, I concluded that I really didn't know what I was doing (slow learner!). On completion of an AusMeat Prime Lamb Marketing and

Feedback workshop in 1994, I built a lamb weighing and drafting system based on Ruddweigh scales from Guyra, and have not drafted a lamb visually since.

In the last few years the lambs under 32 kg at weaning, (20%), are shorn to allow faster growth rates and a chance to catch up with the heavier lambs. The best lambs always go on to the very best feed, thus ensuring lambs always leave the property in the best possible condition to meet market expectations. These expectations can be, at best, described as inconsistent, and at worst, fickle! Generally, however, lamb weight requirements, are increasing and fat score requirements reducing. The trade still prefers 2 or 3 score lambs. 10 years ago, most sales were 17 to 18 kg dw, now most are 20 kg, and when the erratic export trade requires lambs, mine have been able to be suitably finished.

During the early 90's some supplementary feeding of the lambs was carried out using self-feeders and various lamb rations based on available grains. Feed lotting was also tried with some success, but when conditions again demand supplementation, the self-feeders in the best paddocks will be my preferred option.

I do believe that in the long term it is cheaper and more beneficial to establish a fresh high production pasture every 2 – 3 years. I have tried various renovation methods including winter cleaning, spray topping, increased fertiliser applications on targeted paddocks, and using so called high production pasture species for 2 years prior to permanent pasture establishment. In my country the best method is still to control the *Vulpia* (rat's tail fescue) with strategic chemical applications and a short-term forage crop conventionally sown, (oats still takes some beating). Within 12 months a permanent pasture of phalaris, fescue, and red and white clover is sown. Growth rates for steers on a new pasture are consistently between 0.5 and 1 kg per head per day during winter, and over 2 kg per head per day during the summer months. On these same pastures over 200 gm per head per day for the lambs are easily achieved.

In the last few years I have been involved in one of the few rural growth industries – that of becoming "accredited" – by completing the Farm Chemical Accreditation course, Cattlecare and Flockcare. Despite by cynicism, the effects are proving beneficial and such courses are becoming more obligatory. Prograze, pasture and animal health seminars, field days, and marketing options are continually accessed and will remain important. Improvements can still be made in the areas of nutrition management by more closely monitoring animal performances.

Work is still needed to be carried out in the areas of tree regeneration, shelter belts, and continued vigilance against noxious weeds is essential.

Despite declining red meat consumption, I believe that there is a place for high quality, high production, prime lamb enterprises, and I will continue to strive to meet these goals.