



Growing fine wool for our future

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Abstract

This paper aims to cover the motives and goals for profitable superfine wool growing to meet the needs of our customers, both processors and consumers. At "Wilson's Creek", profitable wool growing involves a focussed and balanced approach towards production, by embracing the best of recent innovations, research and development, and applying these benefits in a commonsense manner to everyday wool growing.

It further involves giving priority to pastures and the resultant nutrition along with peak animal health for optimum wool growth. The benefits of improved breeding technology and genetics are also embraced to achieve our goals.

The product must be marketed to the processor through a focussed involvement in the industry, after making allowances for price fluctuations. By seeking accurate feedback through close communication with your industry and listening to the market signals, the actions taken will lead to a more positive profit driving approach towards wool growing for the long term future.

Introduction

Profit making from a wool growing enterprise should not be left to only the hardy remains of a once great wool industry. The wool industry still has a great future, if one studies the direction that fine wool usage has taken over the past 15 years. The superfine section of the world textile market has created its own mystique over the last two decades, with this wool being put to many different uses or blended with previously unknown fibres. So it is not surprising that superfine wool has difficulty associating with the generic promotion of wool.

The research, promotion and end uses of superfine wools (those wools testing 19.5 microns and finer) differ greatly when compared with the broader wools. From light weight knickers to the Pope's robes, to the high class suiting for the likes of Paul Keating, the whole emphasis is for soft, fine and light fabrics that can be worn against the skin with absolutely no discomfort.

The profits to be made now and into the future from superfine wool growing enterprises are exciting times to look forward to now and in the long-term. With this paper we will attempt to share with you a few of the facts that help our wool growing enterprise drive this profit. This presentation will not contain all the scientific approaches, but some practical and balanced formulae that create profit for our family into future generations. So when we talk about "Growing Fine Wool for Our Future", we are referring to our own families' future.

Background

The family holding "Wilson's Creek" is situated 10 km to the west of Uralla in the New England Region of New South Wales. The property, first settled by my late



father in 1949, comprises 1900 hectares of undulating fine granite and trap rock country.

One of our criteria for success is to make sure that the enterprise is suited to the country. Our country is not farming country, but some of the best superfine wool growing country in the world, producing wools renowned for their high tensile strengths. We experience an annual average rainfall of around 850 mm, but of a somewhat irregular pattern in recent years.

The principal enterprise is the superfine merino flock, of some 9500 sheep and a commercial Poll Hereford herd with 180 breeders. The "Wilson's Creek" flock is supported by a small stud of 360 ewes, which has been bred along Merryville bloodlines for nearly 40 years, with a very successful infusion of Hillcreston blood in the late 1980's. The heavy cutting ability and very soft handle of the wool are a feature of the "Wilson's Creek" sheep and our wool clip that are sought after by the trade over many years.

The stylish wools produced have led to many successes in fleece competitions such as the Zegna National Superfine Competition where top placings are achieved regularly. Naturally these attributes flow through to the market place where "Wilson's Creek" consistently produces front-page wools around 16 microns, with the bulk of the wools being spinner types or better. The adult flock average is 17.8 microns. Hogget wools are generally low 16's, with no individual testing of weaners.

Our goals

'To maintain financial security and a comfortable future through profitable wool growing and marketing'. To achieve this goal our enterprise must be market focused to succeed well into the future. To maintain this focus we include many commonsense approaches and careful management to what now appear to us as everyday operations.

The modern day findings of scientific research also require a balanced practical approach to match up with the requirements of the wool grower. Group breeding schemes do not always suit individual's requirements for example, and this is where a balanced approach is vital for success.

Pastures

On "Wilson's Creek" our main aim is to maintain a balance of native and introduced pasture species, thus appreciating the value of the original grasses of New England. *Microlaena* and *Austrodanthonia* are well recognised as grass species that are invaluable for superfine wool production.

All of the property is improved by way of annual or biennial topdressing, mainly through the application of single superphosphate. Every few years the addition of molybdenum with the super gives the legumes a boost, particularly in areas that have lower pH levels. As required, perennial ryegrass, subterranean clover and white clover seed is also spread across the property by way of aerial application with the fertiliser.

Pasture establishment

Approximately 550 ha have been sown to introduced species over the years. Usually, a mix of species is sown containing fescue, phalaris, cocksfoot, ryegrass with legumes such as subterranean clover and white clover.



The ground preparation method for pasture establishment was a traditional approach with ploughing several times with sowing in late March or August. The ploughing approach was discontinued in 1982 when a boom spray and a direct drill machine were purchased. Although the direct drilling approach has had a few disappointments, the benefits of protecting our soils due to their fine particle nature must be recognised. Sowing techniques continue to be perfected with ongoing experience.

Weed problems

No pastures are established without their inherent problems, whether they be pest or weed invasion. Both are present at "Wilson's Creek", with the cockchafer grub and *Vulpia* always ready to raise their presence. These problems create immediate competition for a new pasture, but problems such as thistle and pinrush control and sorrel are constant attacks on our profits.

Fodder conservation

The sowing of fodder crops, mainly oats for winter grazing purposes is not a regular practice these days, with a preference for concentrating on a good long term pasture with increased fertiliser applications; such an approach tends to be more cost effective and assists young stock when weaned in early winter.

Due to this approach, fodder conservation in the way of harvested grain is not a recommended practice at "Wilson's Creek"! For supplementary feeding purposes, lupins are the preferred grain and are generally purchased late summer while prices are moderate.

Drought policy

The approach at "Wilson's Creek" to the inevitable drought situation is thus one of being prepared. Early fodder purchase and storage is a relatively cheap option and you can budget ahead for your possible requirements. If you don't wait until the last moment, you can be more selective about purchases and hopefully avoid weed problems. A small amount of lucerne hay is also purchased which is occasionally supplemented with the grain and used on calves at weaning.

Breeding objectives and program

We have already stated that our present average micron is 17.8. This has reduced from 18.2 microns over the last 12 years. This has occurred through an increased selective breeding program and from reacting to market signals. This will continue to be our focus.

Selection Criteria in our stud are fairly traditional, but they continue to give us the required improvements and thus increased profit margin. Here we are talking about a traditional style of wool. Our principal markets prefer a traditional style of wool and while that requirement continues, then we will follow that trend closely. However we are always prepared to take on board other trends that may be more profitable, but be aware that the long term prospect will be the most important for your future.

We will now refer to some basic breeding philosophies as they can be often overlooked. The four basics of a good constitution are the first criteria that we select for, and are the FOUR "F's" as we call them.



1. Feed (correct teeth are critical to grazing for production)
2. Feet (sheep must be able to walk correctly e.g. pasterns)
3. Fertility (essential for successful reproduction)
4. Frame (a decent frame and skin to carry your wool production, and residual meat value)

We now have an animal with a good constitution to grow our magnificent superfine wool. Unfortunately we see too many sheep that are not always structurally correct which means that they will probably breed further faults.

Style, clean fleece weight and micron are the main wool indices used at 'Wilson's Creek'.

Style. A traditional fine crimping style superfine wool with softness of handle and bright colour. These traditional styles of wool are well sought after by our main Italian clients. However, we wish to comment on the soft rolling skin (SRS) style of wools.

While many of the attributes of the SRS wools must be appreciated, our program wishes to apply only the deep crimping style of these wools while maintaining the visual superfine attributes with the wools showing crimps of 70's quality and finer on the old Bradford counts.

Clean Fleece Weights (CFW). In the stud, sheep have always been selected on a CFW basis only after allowing for suitable style and micron.

Generally rams and ewes are selected with CFW's greater than the flock average. As there are two sides to any breeding program, all ewes and rams have been fleece weighed and tested. This makes full use of the genetic repeatability factor of 65% and heritability factor around 46%.

Micron. The present goal here is to reduce the adult micron from 17.8u to 17.0u over 6/7 years. Micron is becoming one of the most important factors in breeding due to market / profit signals. Micron also has one of the best heritability factors at around 62%, and repeatability of 66%. Selection in the stud favours animals on the finer side of average with greater emphasis on sires with better repeatability for finer than the average of the entire drop. Years of careful breeding show the comfort factor at 99% or greater.

Sheep in the stud are micron tested at 18 months of age in full wool after being tipped as a lamb the previous year. This means all animals are assessed under exactly the same conditions.

Within the flock of 3500 ewes, the two toothed ewes after initial classing are mid-side sampled prior to joining. The best 20% are selected for micron and for style and are then drafted out to join to proven fine testing rams. The progeny then builds up in this elite flock, which expands to replace the original flock. Naturally, the broad edge of the flock ewes are segregated and sold. The elite flock progeny shows a .2 to .4 finer micron.

Artificial insemination (Laparoscopic) is used at "Wilson's Creek" to secure outside strains as well as a bank of semen from some of the stud sires, after their attributes are proven. Cervical insemination has also been used, but because of an unfavourable



result, we are hesitant to try this method again.

Every Sheep Tested (EST) principle. It is a fact that the EST method for selection of micron has seen the production of superfine wool increase and become finer. This is obviously profit driven from market signals. 10-15 years ago there were few clips with the bulk of their wool in the 16 micron range. These days we are seeing increasing numbers of clips with an increasing number of bales in the 14 micron area and receiving handsome returns.

For many years the volume of wool at 19.5 microns and finer remained around 4-6% of the national clip but this figure has increased greatly to around 15 to 16% of the national clip today.

The big plus over this period of increased production of fine wool is that the trade has absorbed it, unlike the broader micron wools. This trend has been brought about by the soft, fine and light scenario being a big reality. The wools remaining in the stockpile illustrate this point.

With modern testing methods and improved artificial insemination, we have been able to move more quickly with the times to maintain an edge and improve our production and remain more focused on profitability.

How fine can we breed wool or how fine do we want to go at "Wilson's Creek". As stated, we will follow the market trends that lead to the greatest profit for our industry. If in the future, with the aid of improved technology and genetics, the trend dictates greater profits from fine microns, in the long term, then we must look along those lines. Already the Co-coordinated Research Centre (CRC) for wool is looking at a 13 micron project and scientists have predicted that in time we may be able to breed sheep of 10 microns.

Animal health

To derive a profit from the land we must have a productive healthy animal. Internal parasites with the high stocking rates experienced in the NE do create some challenges for producers. At Wilson's Creek we carry out considerable worm larvae testing prior to any proposed treatment. By understanding what worms are present at what levels and taking into consideration the seasonal condition, a drenching strategy can be put in place. Drenches are usually alternated annually with all 3 drench groups still available to us.

Selenium. With much of New England showing various degrees of deficiency in selenium, we appreciate the benefits of maintaining adequate selenium levels, all aimed at improved production. Thus selenium in the form of Selcote® is applied every two years at a rate at .75 kg/Ha. This is usually spread across the whole property with the application of superphosphate.

Joining. With healthy animals at joining time in mid April we are turning towards lower joining percentages of 1% for the first 3 weeks with a backup of 2% for the remaining 3 weeks. By also using teasers we have been able to hopefully improve the genetic gain faster with the use of the best rams. Lambing percentages are usually around 95-100%.



Supplementary Feeding. The use of lupins to assist weaners and boost ewes pre joining and pre lambing is a regular practice at "Wilson's Creek", to improve production and profits.

Health Status. Freedom from footrot, brucellosis and ovine Johne's disease, gives clients clear confidence in the health status of our sheep and assure a profitable result. Around 2000 surplus sheep are sold on property at the end of February each year and with strong interest and support, a premium for the "Wilson's Creek" sheep is achieved.

Flockcare. As a further marketing tool, we are proud to have achieved 'Flockcare' status in Dec '99. Through tight management, clients can be assured that all purchases leave "Wilson's Creek" meeting all 'Flockcare' requirements.

Marketing for profit

A focused approach and communication with exporters and processors is essential when handling such a specialised product. Knowing the requirements of your market and presenting your product accordingly, have led to considerable premiums for the clip.

Gone are the days when success meant growing wool and placing it in the sale catalogue. The superfine industry is fortunate that some 26 years ago, an organisation to lobby the hierarchy of the wool industry was born. Today the Australian Superfine Wool Growers' Association (ASWGA) is a most respected body within the trade and government circles and has fostered strong communication with some 20 overseas processors from top makers to spinners / weavers and garment manufacturers. My involvement in this organisation has led to a more focused approach to further drive the profit margin.

Wool broking

A recent invitation to further investment in our industry saw the opportunity to become a shareholder in a unique wool broking firm. With much foresight, growers and processors have come together as shareholders in a vertically integrated wool broking firm, known as the Australian Wool Network. The benefits have been enormous and we now have processors across Europe and Asia, further advancing the profit.

Risk management

Apart from the auction system where we sell most of our wool, there are an increasing number of options in selling superfine wool. Future trading for 18.0 u is now a reality as well as offer boards, e-wool etc which put your wool on offer to the trade 24 hours a day, at your price, and are handy risk management tools. Direct contracts with top makers also mean a more predictable income. Such risk management is critical to survival in this industry today.

Conclusion

- Set your enterprise to suit your land.
- Plan your production for profits.
- Focus on the market signals.
- Set the wheels in motion.
- Initiate the relative contacts
- Call for professional advice.
- Follow up the communications.
- Allow the relative timeframe.
- Enjoy the profits.