



THE SHEEP'S BACK

Autumn 2016

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Once a Year Worth It?
The Business Of Sheep -
Nathan & Wendy Brown**



Is Shearing More Than Once A Year Worth It?

Introduction

Shearing on a more regular basis has been promoted for the past 12-18 months in response to the discounts received for long staple length wool. It is also being promoted on the back of an apparent increase in demand for shorter staple length wool. As a consequence, producers that tend to produce longer staple length wool have changed from shearing annually to shearing either six monthly or eight monthly. So what are the benefits and costs associated with shearing more often?

Why Is Wool Length Important?

There are premiums and discounts for different length wools because fibre length is important to yarn making. This depends whether the end product is a worsted style yarn or a woollen yarn. Worsted yarns are made from longer fibres, the processing route is more complex and requires the removal of short fibres. Not only are the short fibres removed, but fibres that are too long to process break, meaning they end up in two pieces - one good length and one too short that needs removing. About 80% of

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Australia's wool clip is processed through the worsted system. This produces a fine, smooth, tight and strong finished product appropriate for suiting and fashion fabrics.

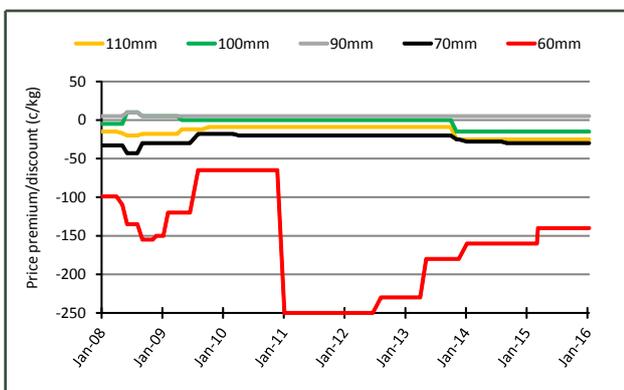
Woollen yarns are made from shorter staples and are mostly mixed with synthetics or cotton. They are relatively coarse and weak and have many protruding fibre ends. The end products are knitted fabrics because they are soft, light, stretchy and full of air making them good insulators.

This is the underlying reason that there are discounts on either end on the scale, but no premiums for 'correct' length wool.

Premiums & Discounts For Different Staple Length Wool

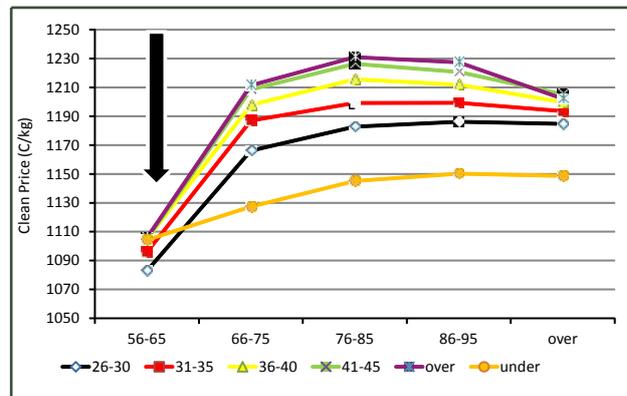
There is no premium in the market place for shorter length wool. However, there is a perceived premium for shorter wool, which is where the push to shear more regularly originates from. Figure 1 clearly shows that any wool under 70mm does attract some level of discounts. Further to this, the level of discount applied to long wool (110mm plus) is not as great as the discounts applied to short wool (60mm or less) (Figure 1).

Figure 1: Price premiums & discounts from 80mm wool over time. Source: DAFWA, AWEX



The changing staple strength, as the time of shearing alters in an eight monthly shearing cycle, also influences price. The length by strength by price graph shows actual variation in the wool market (Figure 2). If a flock usually produces a longer staple wool (over 95mm) at a lower strength (26-30 N/ktex) then shearing more frequently could possibly increase the wool value. A staple length of 66-75mm and the strength 41-45 N/ktex (Figure 2) potentially adds 25 c/kg to the wool clip.

Figure 2: Length by strength by price. Source: AWEX, DAFWA. Analysis: Icon Agriculture.



There are clear discounts for wool less than 70mm and severe discounts for wool less than 60mm. This is plainly illustrated in both Figures 1 and 2 where the discount between 70mm and 60mm staple length is about 100c/kg with peak discount of 250c/kg.

Management Implications

There are management implications of shearing every eight months or shearing every six months. The biggest issue is how to manage the seasonal variations in wool growth. Research has shown that wool growth in adult sheep producing 3.2kgs of clean wool ranges from 172g/month to

349g/month. This aligns with feed availability and feed quality over the months, so aligning 8 monthly shearing to capture the benefits in a normal season is challenging, let alone a poor season. Some of the issues that could potentially arise are shearing clashing with other jobs on the farm such as harvest, lambing and also access to shearing staff.

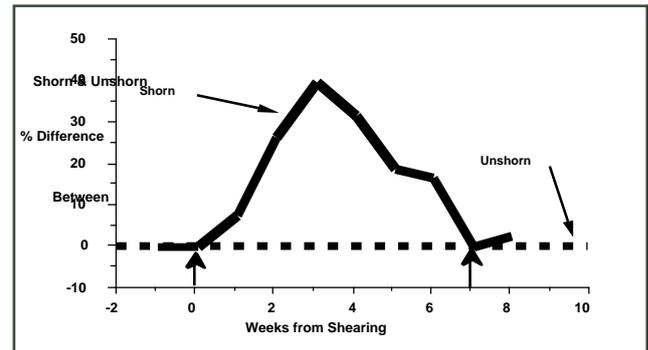
Benefits

Shearing every eight months improves wool cut by about 7% in adults and maybe more if shearing six monthly. This is by far the most important aspect of shearing more often and is the underlying reason that drives producers to shear more often. Shearing itself increases appetite off shears for a short time (Figure 3). Adult sheep three weeks post shearing have a 40% greater appetite than sheep not shorn. This increase in appetite increases feed intake, some of which is converted to wool. The timing is critical. The consequences of shearing prior to the break can be that there is no cheap paddock feed available. The answer lies somewhere between no more wool produced and some level of weight loss.

There is anecdotal evidence that shearing more often increases the lambing percentage. The reason is possibly the rising plane of nutrition off shears coinciding with mating. This is imitating the 'flushing' effect that is widely used in the sheep industry. It is important to remember that there is no scientific research to back up the claim that shearing more often increases lambing rates.

There is the potential that shearing more frequently improves fly control and may even eliminate the need for crutching. Eliminating crutching altogether without any chemical control (eg jetting) is fraught with danger.

Figure 3: Changes in appetite after shearing of an adult Merino Source: Manika Wodzicka-Tomaszewska (1964).



Shearing more often improves staple strength. This will only be the case if the shearing time coincides with the position of the break. If the wool is shorter there is a greater likelihood that the break will be either at the tip or base which effects the price positively. However, shearing every eight months alters the position of the break as the shearing time changes.

Shearing more frequently will also help you be able to better assess the condition of your sheep. There are two reasons for this:

- 1) sheep will have less wool on them for a longer period of the year, enabling you to visually assess them and
- 2) sheep will be in the yards more often.

Costs

Shearing is the most costly exercise that a sheep enterprise undertakes. It accounts for 38% of total sheep costs and, at current wool prices, about 27% of total wool income and 14% of total sheep income. In the high rainfall areas it is as expensive per hectare to shear your sheep as harvest your grain crop. By shearing three times in two years this adds 50% to sheep costs. Not only is shearing expensive, but it is extremely time consuming.

For example:

- 1) 10000 sheep take 16 days to shear or
- 2) 1500 sheep take three days to shear.

Has the business got sufficient spare labour and time to facilitate another shearing? However, if shearing more often, it should actually be quicker, thus costing less using a cost plus system.

One of the biggest potential costs to shearing more often is if a shearing falls when there is a feed gap post shearing (Figure 3). It is either expensive to capitalise on the increased appetite of freshly shorn sheep or it won't be capitalised on at all. It would not be economical to feed sheep to capitalise on this increased appetite. If shearing does fall prior to a feed gap they may produce no more wool and lose weight.

Shearing three times in two years is very complex and will cause problems. Trying to fit everything on time and within the parameters of not shearing during harvest and not changing lambing time from year to year is difficult. The test system in Table 1 works for April lambings but trying to fit everything around June/July/August lambing is almost impossible.

The first assumption that we made is you cannot shear during harvest. The majority of farms are mixed enterprises and don't have access to spare labour during harvest. The second assumption is that lambing is at a fixed time every year. This was also due to the availability of labour and fitting around existing tasks on the farm.

Table 1: Test system for shearing three times every two years.

	Year 1	Year 2	Year 3	Year 4
January	Shear 1		Shear 4	
February			Sell Ewes	
March				
April	Lamb	Lamb	Lamb	Lamb
May		Shear 3		Shear 6
June	Mules	Mules	Mules	Mules
July				
August		Sell Weths		Sell Weths
September	Shear 2		Shear 5	
October	Sell All		Sell all	
November	Mate	Mate	Mate	Mate
December				

The biggest risk to shearing more often is falling off the price wall (Figure 2). This refers to producing a staple length less than 66mm at any staple strengths. There is a significant financial penalty to missing the minimum staple length required.

Is It Economical To Shear More Often?

The comparative margins below would suggest that annual shearing will outperform shearing every eight months, but not by much.

Shearing 3 times in 2 years	\$21.92/dse
Shearing annually	\$22.47/dse

We assumed that shearing more often produced 7% more wool but with no price advantage over time, shearing will be cheaper by 4% and there were no crutching costs. Anecdotal evidence suggests that shearing more often increases lambing percentages. This may or may not be the case but without scientific evidence this cannot be an assumption.

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Alternatives To Shearing More Frequently

Shearing more often will not increase margins unless the lambing percentage claim can be verified. So what are the alternatives if your flock's staple length is consistently greater than 110mm?

1. Increase the stocking rate.
2. Firm reserves when selling wool to avoid sudden fluctuations in discounts.
3. Checking out your ram source.

Increasing the stocking rate will increase the pressure the sheep are under which in turn will produce a shorter staple. As a result, the sheep enterprise will produce more wool per hectare.

As Figure 1 shows, the discounts for long wool vary over time. Discussing the discounts with your agent and putting firm reserves on your wool can lessen the impact of the discount for 'over length' wool. Lastly, if your wool clip is consistently attracting discounts for length, it is worth checking out your ram source via Merino Select. This can be found at:

[www.sheepgenetics.org.au/Breeding services/MERINOSELECT-Home](http://www.sheepgenetics.org.au/Breeding_services/MERINOSELECT-Home)

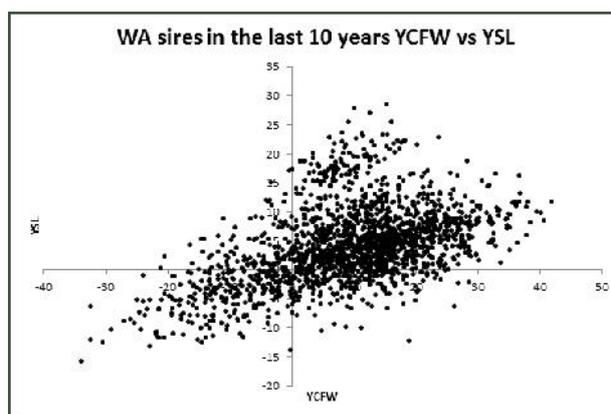
Or enter Merino Select in your search engine.

The relationship between staple length (YSL) and fleece weight (YCFW) is shown in Figure 4.

We know that there is no premium for different staple length wools, only discounts for wool either too long or too short. Fleece weight is where the money is but for some reason some people are chasing more staple length. In Figure 4 those WA sires with ex-

treme YSL are not the sires producing the most wool. Of the group of animals in the top 10% for YSL, only one is also in the top 10% for fleece weight.

Figure 4: The relationship between YCFW and YSL for WA sire over the past 10 years. Source: Caris Jones, SGA.



Conclusions

For a system of shearing more frequently to be economical, the sheep enterprise must have spare time, labour and be able to generate more lambs. Before embarking on a program to shear more frequently, it is very important to weigh up the facts and remember production drives profits much more than price.

Wool production per hectare is a much more important key performance indicator than wool price per kilogram.

Facts:

- Fibre length is important to yarn making.
- Price signals are not clearly pushing for shorter wool.
- Shearing three times in two years will be labour intensive and troublesome sometimes.
- Financial rewards are not great.
- There are management and genetic alternatives.

The Business of Sheep

Nathan & Wendy Brown – Boonoke West

“Changing perspective from farming sheep to managing a sheep business, that is profitable and benefits the mixed farm as a whole.”

When Nathan and Wendy Brown took control of the family business in 2000, they got to work revitalising the business, starting with the cropping system. Through training, advice from peers, industry experts and research they drove up the profitability of the enterprise. They then took these principles and management techniques and applied them to the sheep enterprise where, although they were already knowledgeable in operational techniques, there was a lack of knowledge in where the money was. Since changing to a business focus, sheep enterprise gross margins have doubled and operational efficiencies have improved greatly. Pasture has also gone from something that sheep eat to driving stocking rate and the cropping system.



The Browns manage approximately 5500ha over two properties in Jerramungup and Frankland River. They run a 50:50 sheep/crop enterprise. Within the sheep operation they join 6700 ewes to Merino, 1300 culls/older ewes to terminal sires and run 5000 hoggets. They also have a stud selling 60-70 rams through private selection each year.

When they took over the farm it was 60:40 sheep crop, however taking on quite a lot of

debt at the same time they needed to improve the profitability fast. Nathan initially increased cropping area to 70%, reducing sheep numbers. He learnt from progressive local farmers and advisors that he needed to improve the timing of his spraying, plan ahead and upgrade machinery; investing in inputs in order to maximise outputs and profitability. Once the cropping side of the business started to improve, Nathan looked harder at the sheep and applied the same principles; investing in pasture, working to a plan with staff and investing in equipment to make management easier and more efficient.

The Sheep Journey

After increasing the crop program they retained too many sheep which led to high feed costs and poor lamb and ewe survival rates. “We weren’t running the sheep well”. This led to trying to make more from less, running a low stocking rate, aiming for a high wool cut per head and lambing in April targeting a higher price for heavier lambs. The income was great on a per head basis but when analysing the books at the end of the year they still weren’t making any money from the sheep.

The lambing percentage was still quite poor, sitting in the 70’s. They got involved in a Life Time Ewe Management course and this led to a rude shock regarding how much feed/nutrition a lambing ewe



required! Determined to improve sheep management they followed through with feeding rates and spent a great deal improving the autumn lambing percentage.

Following extensive research and discussion with an adviser, many options were looked at to fill the feed gap ranging from early sown grazing crops to whole system change. Finally the decision was made to change time of lambing from April to July (the stud is still early).

Changing the Whole System

Nathan's biggest learning curve for the sheep enterprise has been understanding stocking rates and their impact on profit. He transferred his understanding of an area based monitoring system from cropping to sheep. While April lambing, the stocking rate was 3.5-4 DSE/ha. Through changing time of lambing the stocking rate aim shifted to 5.5-6 DSE/ha. The shift in lambing date allows the ewes to get the most out of the pastures at the time of year most valuable to the stock - when they are lambing. This, coupled with pasture improvements, allowed him to halve supplementary feed costs even though he had almost doubled the stocking rate. He has also reduced his joining period from 6 weeks to 5 weeks.

Investing in Efficiency

Changing the system is one thing but making it run efficiently still requires infrastructure



and planning. Over the last few years the business has erected three sets of stock yards, renovated a shearing shed and annually puts up around 10kms of fencing. This allows the stock to be processed efficiently and ensures that boxing up of mobs is minimised, which saves a great deal of time. The business also invested in a sheep handler several years ago, they now use it to jet, vaccinate, wean and weigh lambs. They also keep a hand piece handy for any cleaning up they need to do.



The business employs a stock manager who is solely focused on the sheep. This arose as the business felt that the sheep weren't being managed well enough, everything was "OK" but they were missing with timeliness of feeding, drenching, etc and there was quite a lot of missed production potential. This also led other management decisions not being made when they should be. After initial scepticism from their advisor, the business demonstrated that increased productivity from better management did in fact more than pay for the full time position as well as the other management benefits.

A big part of having a successful stock manager is having a good plan for the year. Every January, Nathan goes through the plan for the whole year with the manager and they finish up with a calendar outlining what happens when. The manager can now prompt Nathan regarding upcoming issues rather than the other way around.

Pasture is the Backbone of the Whole Business

Nathan considers the pasture phase of his rotation to be the backbone of the cropping system as well as central to sheep management. He manipulates pastures early (using Targa MCPA), killing out brome grass, barley grass and cape weed but leaving rye grass as a feed base with clover. He considers rye grass to be relatively easy to kill before a cropping phase as it has a short flowering window so responds well to late spray topping, which also allows the paddock to have a longer growing season and more green feed for sheep. In order to protect his clover base, Nathan has not used any group B herbicides since 2004. He also spreads super in his pasture phase (super copper zinc moly), at 100kg/ha, which has made a big difference to the clover and feed-base in general.

Nathan will also sometimes drill in barley and oats into clover to bulk them up, although he is aware of crowding out the clover. The goal at the end of the two year

pasture rotation is to have a weed free, dense clover paddock that is low in disease and high in nitrogen form nodulation. “We have to get this right or put the next crop rotation in jeopardy”.

The Future

As markets have changed, so to have the sheep crop mix. From a high of 70:30 when wool and meat were at their worst, the balance now sits a touch over 50% sheep. Over the last fifteen years, technology and markets have changed and Nathan has realised that keeping up to date, planning, investing in efficiency and monitoring his enterprises on a per hectare basis has allowed him to make changes progressively and keep moving forward.

Nathan believes “Successful businesses have processes and plans and make decisions that are not emotive. This is especially important when the farm gets bigger, as there’s not enough time to look everywhere and make good decisions on the hop.”

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