

INNOVATION PROFILE



BUSINESS SNAPSHOT

OWNERS

James Walker

PROPERTY NAME

Camden Park and Wakefield Station

PROPERTY LOCATION

Longreach and Isisford,
Central Queensland

SIZE OF PROPERTY

8,000 hectares

BRIEF ENTERPRISE DESCRIPTION

A merino wool, lamb and hay business with agistment of sheep or cattle when the season permits.

NUMBER OF PEOPLE WORKING IN THE BUSINESS

2 full time equivalents

AVERAGE ANNUAL RAINFALL

150 - 350mm

WHY THIS IS A PASTORAL ZONE INNOVATION

Some pastoral properties experience a peak in feed supply that is often missed by the inability to rapidly increase stocking rates. This innovation offers an alternative which increases feed security and income.



Hay Baling Native Pasture

Camden Park and Wakefield Station are two pastoral properties run by James Walker from Longreach, Queensland. The properties consist of flat, uninterrupted, Mitchell Grass Downs country and experience summer dominant rainfall with a sub-tropical climate.

There is often a massive abundance of feed early in the year at Camden Park and Wakefield Station. This excess feed can only be captured by increases in livestock numbers or by securing it through cutting, baling and storing.

The innovation is hay baling native grasses as an alternative to significantly increasing stocking rates. The hay is sold domestically and/or stored on-farm to provide James with drought fodder security for his business.

Figure 1: Native grass is cut and baled for hay in autumn at Camden Park Station.

WHAT WAS THE MOTIVATION TO CHANGE?

Pastoralists in a nearby district baled hay in the past and would sell it into James' district during dry times. James used to purchase this hay to feed his livestock when he had no other feed available.

Buying and transporting hay from another district was an added cost for James' business. He was also frustrated by seeing excess feed unused on his property during the good years, as he did not have the stock numbers to graze it.

James wanted to generate more profit from his grazing enterprise. He recognised the costs associated with bringing in hay from outside the area, and as a result identified the opportunity to bale his own.

"The prices were very high so we thought why don't we just do it ourselves?" said James.

James' initial intentions were to produce 2,000 bales of native grass hay and store them for drought security. Five years later they have baled 65,000 bales and are averaging 12,000 to 15,000 bales per year.

Figure 2: An abundance of flinders grass ready for baling early in the year.



HOW DOES THE INNOVATION WORK?

James has found that he can bale native grasses in 3 out of 10 years depending on the amount of excess feed he has available in any given year.

James looks at weather forecasts and estimates the volume of excess grass he will have available for baling well in advance. If it is likely to be a dry start to the year then James will not produce hay from his pastures.

Figure 3 demonstrates the total feed on offer at Longreach during an average year. Although this graph is not indicative of production at Camden and Wakefield Stateion, it shows the typical separation between feed availability and demand in the area. The Meat and Livestock Australia Feed Demand Calculator tool is used to determine the feed demand curve.

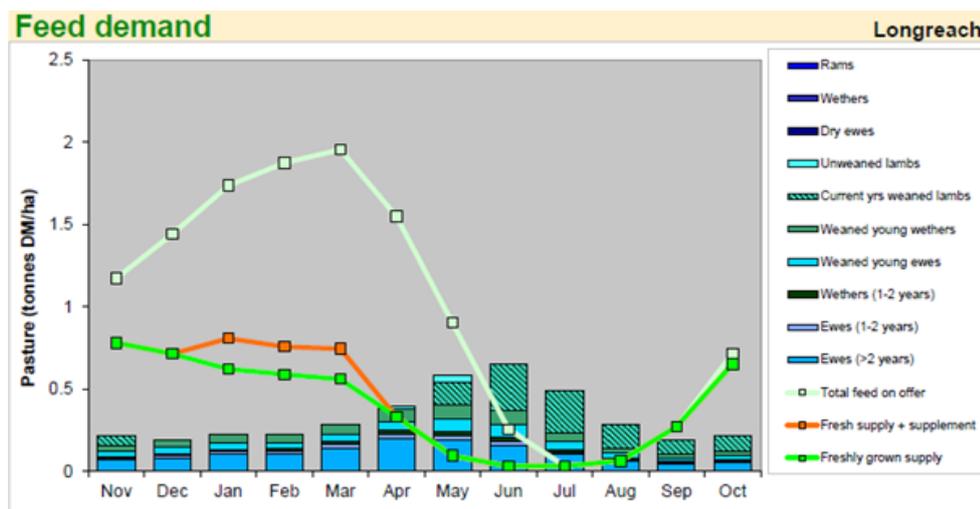


Figure 3: The feed demand curve during the year at Longreach.

James captures the excess feed available in summer and autumn by cutting and baling his native pastures. This provides an alternative income stream and the hay can also be stored on-farm for drought fodder security. In dry years when there is not an abundance of feed, James focuses on maintaining stock condition by feeding out hay stored from previous years.

James employs a hay contractor who is booked in approximately six months before the native grass is ready to cut. The contractor cuts, bales, handles and transports the hay. James' role is to organise the storage and sale of hay.

KEY FEATURES

The key features of the innovation are:

- There is potential to increase income from excess feed.
- Contracting costs are the main expenses.
- It requires a small labour commitment from James as he just needs to organise the contractor and sales.

WHAT ARE THE KEY BENEFITS?

The key benefits James has observed in his business are:

- Increased cashflow
- A diversified income stream
- Fodder security for droughts

KEY RESOURCES REQUIRED FOR THE INNOVATION

The key resources required for this innovation are:

- Availability of a hay baling contractor;
- A market for the hay bales;
- Hay storage facilities. James has a number of large hay sheds;
- Enough grass to cut and bale, without putting pressure on feed supply for the existing livestock enterprises; and
- Time available to organise contractors and sales.

James recommends producers have good organisation, negotiation and retail skills before implementing this innovation. He also believes having good communication skills is essential.



Figure 4: A truck load of hay bales and the hay storage shed at Camden Park.

POTENTIAL CAUTION AND RISK

Baling native grasses in the pastoral zone may not be a sustainable practice in some regions. It removes nutrients and organic matter from the landscape which are not readily returned. James passes on the following words of caution to producers who are looking at implementing this innovation.

- To cut and bale hay you need flat and uninterrupted country.
- Cut and bale grass early in the year while the sugars and starches are still present in the plants. The protein and energy in the standing grass reduces as the season progresses, reducing the hay quality.
- Hay is a perishable product; it can be damaged by mice, insects and weather. It is important to have sufficient storage facilities such as hay sheds to prevent it perishing.
- Try to avoid cutting the grass if storms or rain are forecasted in the same week. If it rains while the cut grass is still lying in the paddock it can decrease the hay quality before it is baled.
- Ensure you keep enough ground cover to prevent erosion and maintain organic matter for soil health.
- Fertiliser may be required to return nutrients to the soil for better pasture growth. Applying fertiliser to the soil is also a risk because there may not be adequate rainfall to get a direct return from applying it.

WHAT COULD BE DONE DIFFERENTLY NEXT TIME?

James makes the following recommendations:

- Test the hay for quality and weigh the bales to provide product assurance to the purchasers. This may require investing in more equipment, such as scales.
- Get soil tests for your paddocks before you start baling hay, and then continue each year after. This will help to understand how much baling is depleting the soil of nutrients and what fertiliser is required to maintain the initial levels.

LOOKING FORWARD

James intends to closely analyse the soil activity on his property whilst hay baling native pastures. This will allow him to assess whether the short term benefit to cashflow outweighs the long term consequences of reducing soil and plant quality.

COST BENEFIT ANALYSIS

If managed correctly, the innovation of baling native pastures for hay can rival sheep or cattle production in terms of gross margins. The stored hay bales can also benefit the livestock enterprise during periods of low feed supply, by providing a supplementary feed source.

FURTHER RESOURCES

- Meat and Livestock Australia 'Feed Demand Calculator tool'
<http://www.mla.com.au/News-and-resources/Tools-and-calculators/Feed-demand-calculator>
- Making More from Sheep Module 8: Turn Pasture into Product
http://www.makingmorefromsheep.com.au/turn-pasture-into-product/procedure_8.1.htm
- James Walker, email james.jambuck@bigpond.com or call 0426 583 336

THE FINAL WORD

"A completely different skill set is required compared to normal pastoral management. You need to manage the contractors and organise the sales and logistics, plus the product is perishable" said James.

Bestprac acknowledges the contribution of the James Walker in the development of this innovation profile.

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Figure 5: Native grass hay bales.