



final report

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Product Sales Seasonality Matrix

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Abstract

The research conducted confirms and quantifies the extent to which processors are exposed to the domestic seasonality of demand for broken meat. In order to reduce the financial impact of the low demand period, other markets for these products must be explored. A “Traffic Light” Matrix has been created, which gives a visual representation of the historical high and low demand periods for certain cuts of beef and lamb into the domestic market. The implication for domestic processors is that it is very difficult to avoid periods of low demand unless other marketing opportunities are available. Within the Tier 1 export markets there seems to be a significant amount of growth and opportunity and this project examines which markets seem the best suited to handle cuts during periods of low domestic demand. However, export markets are generally looking for increased levels of value adding.

Background

There is a need to increase the innovative capacity of both individuals and companies within the red meat sector. This project specifically relates to the employment of a meat-processing cadet at Hardwick’s Kyneton for a three-month period to undertake a number of innovation initiatives relating directly to Hardwick’s Collaborative Innovation Strategies program. Meat & Livestock Australia (MLA) is dedicated to ensuring that the Australian red meat industry remains competitive, sustainable and profitable in both national and international marketplaces. In order to achieve this goal it is essential that the professional capability of the industry be continually improved and expanded. MLA seeks to increase the professionalism and innovative capacity of both individuals and companies within the red meat sector. Increasing innovation within a company will impact directly on the overall performance, profitability and competitiveness of the business, while an industry wide culture of innovation and increased professionalism will ensure that Australia can process an increased volume of red meat, while maintaining our reputation as a supplier of a high quality product which underpins the industry's global success. Hardwick are a recent CISP partner and within their innovation strategy have determined a number of focus areas, with the assessment of marketing options for chilled offal both internationally and domestically, under different packaging platforms and the assessment and possible expansion of value adding capability and capacity being identified as priority areas.

Project Objectives

A product sales matrix capturing historical marketing options within different markets both domestically and internationally for different product both beef and ovine.

This tool will inform Hardwicks’ value adding strategy in assessing the seasonal economic returns achieved for different products in different markets and enable economic analysis to be conducted to determine the feasibility of further processing activities.

4. Executive Summary

As part of the Hardwicks Meatworks Innovation program, and in conjunction with MLA, developing a seasonality matrix has given a clearer picture of previous sales performance, both domestically and internationally. A key part of this project was to investigate and identify future markets for different boned cuts of meat. The export markets that have been analysed are all current Tier 1 listed countries, even if Hardwicks Meatworks do not currently export there. A list of these countries is in Appendix 23. The following data sets have been used:

- a) Internal Hardwicks sales data (across all departments)
- b) Nielsen Domestic Retail Data
- c) DAFF Export Data by cut/destination
 - a. Volume and Revenue

The time period examined was from January 2011 to July 2013. When analysing the data from this time period several problems were encountered including:

- 1) Lack of continuity of data to determine seasonality for a lot of the export markets. This can be attributed to the changes in certain markets (eg Bahrain moving from Mutton to Lamb) or political reasons which can effect the amount of trade a country is willing undertake (Indonesia)
- 2) The revenue data from DAFF for export sales could not be segregated to determine a single price per kg for individual cuts of meat. However, the DAFF data still provided some value for examining the volume of sales and Hardwicks Meatworks market share of Australian product for these countries.
- 3) A constraint of the external export data used is that it only gives insight into demand levels for Australian product within a market and information on competitor exporting country sales is not available.

For analysis of the internal domestic sales data, selling price was selected as a de facto measure of demand. As expected, it was found that for a number of product items there was significant fluctuation in price throughout the year due to the seasonality of demand. Interestingly it was also found to be true that attempting more value adding in the time of low domestic demand did not always give a greater economic benefit to the company. This can be attributed to the fact that there is not a perfect correlation between the seasonal increases/decreases in prices between years. From the analysis a "Traffic Light" Matrix has been developed for both beef and lamb cuts in the domestic market. This provides a visual representation to help communicate the seasonal effects. Due to data constraints a complementary export matrix could not be developed. Seasonality is more applicable to mature markets, which have developed a stable level of demand. As most of the Tier 1 markets are not mature and are still moving up the protein chain, market preferences have not fully developed and thus cannot be analysed. However, the domestic sales matrix clearly demonstrates the periods of low and high demand, and highlights the times when additional export markets sales would assist the overall return for Hardwicks Meatworks.

The overall benefits of this project, through previous historical data, are in gaining an understanding of the seasonality of demand for the Company's various products on the domestic market, and to highlight periods when increased exports sales would assist the overall return generated for Hardwicks Meatworks. The project has also highlighted which export markets can best handle significant volume during these periods of low demand within the domestic market. The increase in revenue projections that can be attributed to the strategies suggested by this project over the next 5 years have been estimated to be:

Beef: \$ 220'400

Lamb: \$ 334'200

Details of the calculations and methodology for these projected economic returns are contained within the body of report and Appendixes 1 & 2. All relevant findings from the research conducted are also contained within this report. Some confidential data has been excluded. The term 'premium' refers to the cut price relative to the carcass price at the time; it is possible that this could be either negative or positive.

5. Hardwicks Internal Sales Data - Lamb

In this project information was gathered using a monthly average for each sales entity, and then using a weighted average, based upon volume, to obtain an overall monthly average across the company. Whilst there can be an element of danger in averaging averages, by using a weighted approach it yielded a more beneficial insight.

a) Export Chilled Lamb & Mutton Carcass

Apart from the last 2 months prices have been relatively flat since the middle of 2012, although there has been some increase over the last few months. There is a 92% correlation between the price of lamb and mutton over the designated time period.

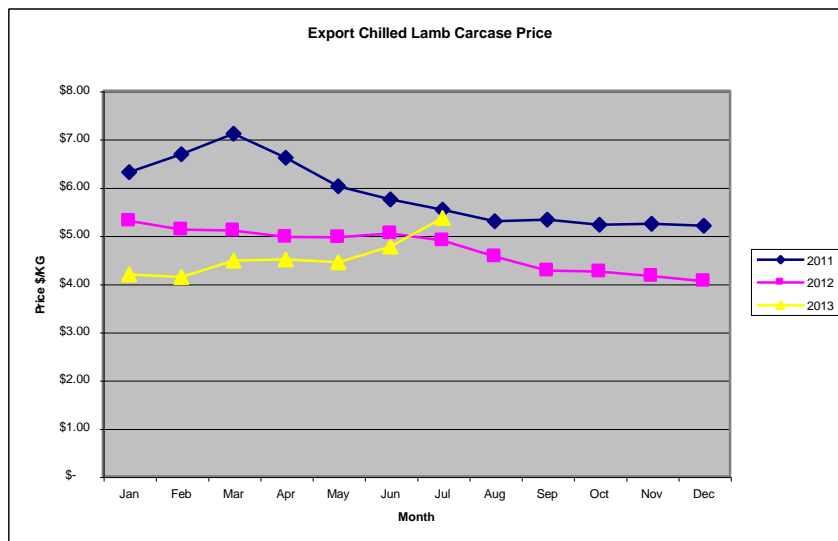


Chart 1: Export Chilled Lamb Carcass Price over the time period

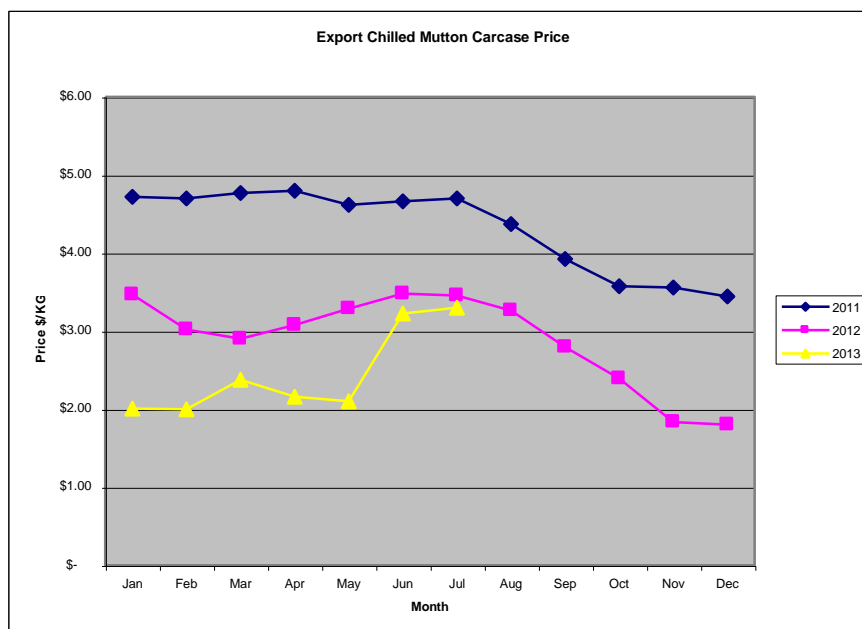


Chart 2: Export Chilled Mutton Carcass Price over the time period

b) Export Frozen Lamb & Mutton Carcass

Challenges were presented when attempting to determine seasonality of frozen export mutton & lamb carcass. There has been a lack of continuity of Export Frozen Lamb & Mutton sales in the same product lines over the time period, with the company focusing on

the chilled markets. The most consistent frozen products over the time period included whole carcass (for both lamb and mutton), 6-Way (for mutton and goat) and boned mutton. In the last few months there has been an increase in the amount of broken/boned lamb that has been processed through the export department.

c) Domestic Lamb Carcass

The domestic sales arm of Hardwicks Meatworks typically has two main target markets: Boning Rooms and Butcher shops. Some restaurants are served but are not nearly as big a part of the business. Below is the price trend over the time period for domestic whole lamb carcass.

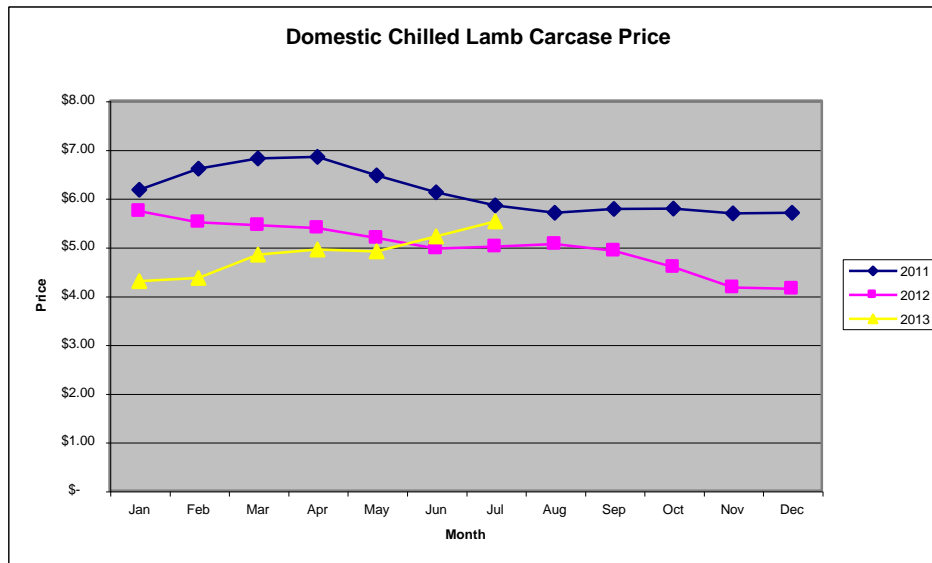


Chart 3: Domestic Chilled Lamb Carcass Price over the time period

d) Lamb Cuts Price Premiums

Domestic markets are served not just with whole carcass but, especially at certain times of the year, there is also an increased level of demand for value added cuts. There were several trends that were observed from the data gathered, these included:

- Prices for Lamb Legs improve from April and start to decline by August, as shown in Chart 4
- Prices for Lamb Loins have a significant drop in price in the middle of the year but it has not been as severe this year, as shown in Chart 5
- Prices for Lamb FQs have increased slightly in the last few months but they are usually pretty consistent, as shown in Chart 6

The data was further analysed to remove the variable of carcass price, by dividing the cut price in question by the carcass price at the time. This methodology yielded a more marked seasonality trend. A second approach taken was to subtract the carcass price from the cut price to show the premium (or discount) achieved from the value adding process, but in all cases this yielded graphs that displayed similar identifiable seasonality. The general price trends for cuts are shown in Appendixes 3, 4 & 5, whilst the 'Price Premium' approach is shown below in Charts 4, 5 & 6. From this a 'Traffic Light' seasonality matrix was created (Appendix 2).

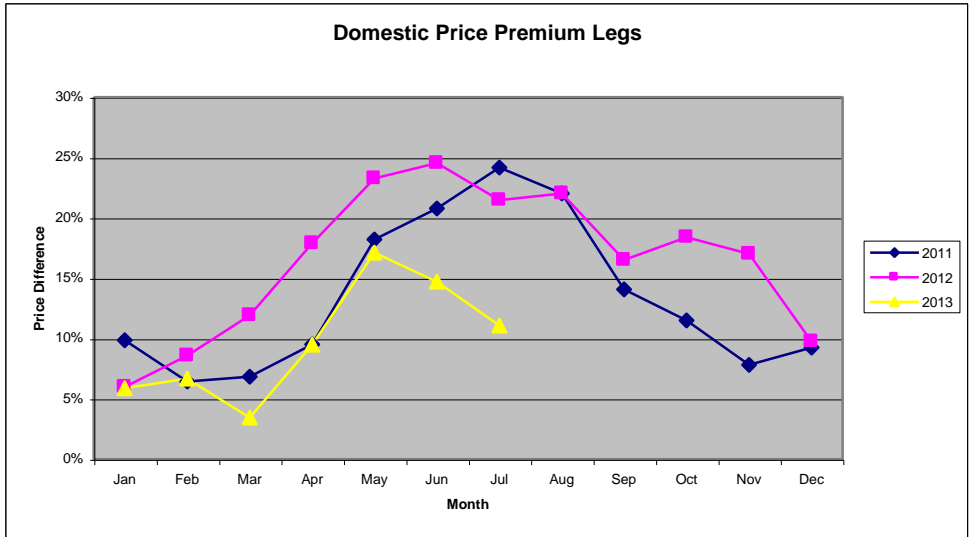


Chart 4: Price Premium Legs

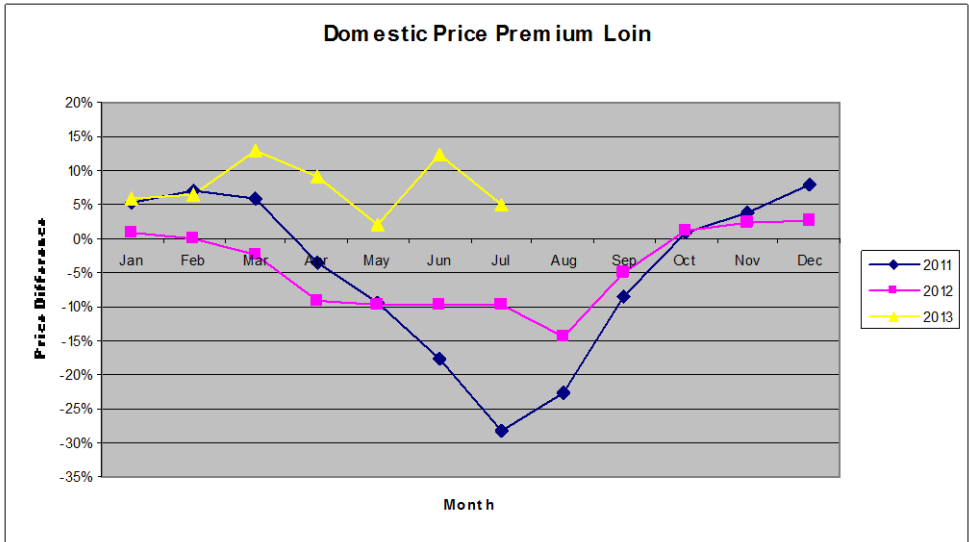


Chart 5: Price Premium Loin

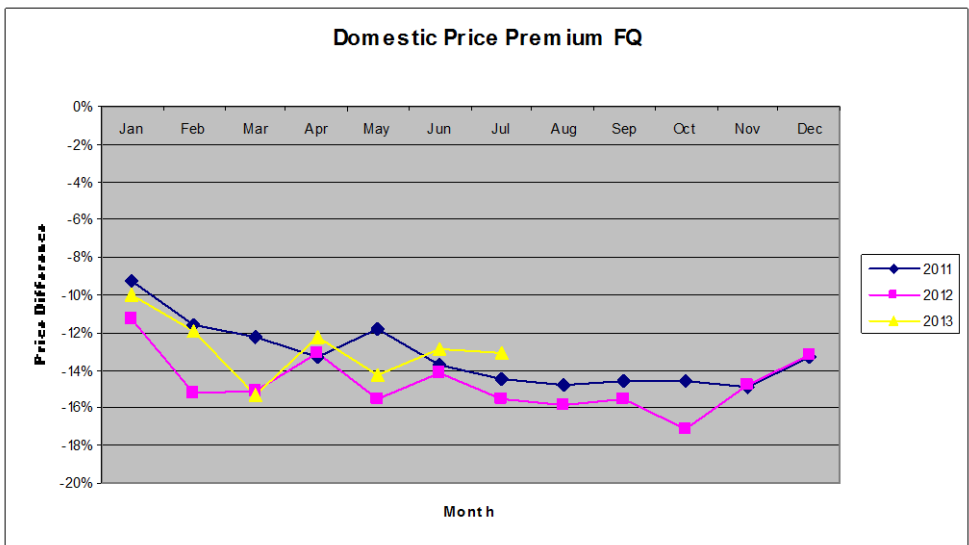


Chart 6: Price Premium FQ

e) Lamb Breaker Analysis

The aim here was to identify the extra value that was gained by breaking a lamb into legs, loins & forequarters. This practise is common in winter when there is extra demand for lamb legs and in summer when there is extra demand for lamb loins.

In doing this analysis there was several key assumptions made about the data. These included using an average weight of 22 kg per carcass, and an even 1/3 split between legs, loins and forequarters. Each cut was then multiplied by the price per kg, to get the total return per item and these were then summed to get a total return per carcass. The overall return was then divided by 22 kg to get the average price per kilogram. For Chart 7, the carcass price was subtracted from the calculated breaker price to get the price difference per kilogram. In this analysis no allowance has been made for the actual cost of breaking and any other associated costs. The raw data for Chart 7 is contained in Appendix 6.

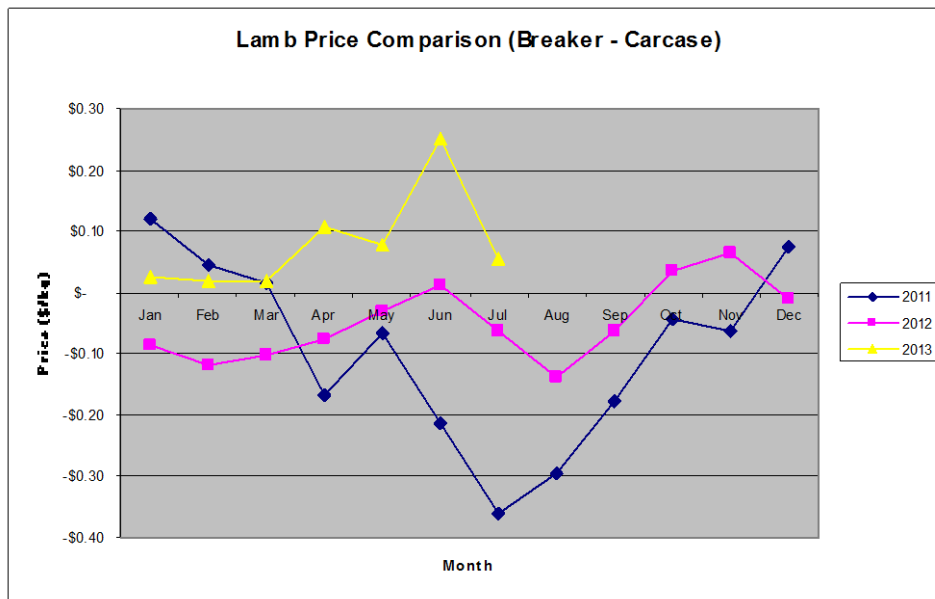


Chart 7: Domestic Lamb Breaker Analysis

As can be seen from the chart, with the exception of 2013, the overall revenue achieved by breaking lamb carcass, was in fact lower than would have been achieved from the sale of the whole carcass. This does not take into account the cost of breaking up the carcass, which would further compound the loss. The increase in economic favourability for breaking lamb carcasses during this year can be attributed to the increased amount of 'value-adding' work carried out on lamb loins. This is confirmed by the decrease in volume of whole lamb loins sold, especially when compared to preceding year's volumes, and a relative increase in price. This confirms the hypothesis that value adding of product can lead to greater economic returns per kg of product, provided that the product specifications can attract a sufficient premium to justify the extra work. Further study would be required to determine the specific amount of extra profit that this generated for Hardwicks Meatworks.

f) Domestic Lamb Costing

The key difference found between production of chilled carcasses for export and domestic markets was that each market used carcasses with different livestock specifications. In general the quality of livestock used to source domestic carcasses was better than those used for export product. There was a far greater amount of variability in the purchase price for the domestic lambs, when compared to the export ones. In order to obtain the necessary data for this analysis several partially incomplete excel files were consolidated

using a weighted average based upon volume. A key takeaway message from this is the fact that this costing data should be incorporated into an accounting package in the future, for ease of regular and future analysis. The Price – Cost (% Gross Margin) for both export and domestic is contained within Appendixes 7 & 8.

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Chart 8: Domestic Lamb Percentage Gross Margin

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Chart 9: Export Lamb Percentage Gross Margin

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Chart 10: Export vs. Domestic Lamb Percentage Gross Margin

g) Price Comparisons For Export & Domestic Lamb Carcasses

Due to a lack of continuity of sales across different product lines, particularly in export markets, the only product line that can be compared across both markets is chilled lamb carcass. There has been a significant increase in the export volume of lamb carcasses processed since August 2012, which has been in line with the increase of production capacity. A visual representation of this is shown in Chart 11. A higher price is still achieved for domestic sales, which has been lower recently (in terms of volume). It is important to recognise that the export of lamb to Bahrain didn't start until October 2012, when sales of mutton carcass stopped completely.

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Chart 11: Lamb Price Differential for Export & Domestic (Export – Domestic)

h) Lamb Seasonality Analysis Outcomes

- 1) Distinct periods of demand seasonality for various lamb cuts on the domestic market have been highlighted. Chart 7 highlights the historical trend that breaking lamb carcasses during the July to October period has yielded uneconomical results for the company (from a sales perspective). If the export markets can be used to sell lamb loins during these identified time periods then a better financial result could be achieved.
- 2) There is a seasonality of gross margin in the domestic market for lamb carcass. This has been attributed to seasonal differences in lamb supply that then affects the selling price. When supply is high the gross margins on the domestic market are usually lower. Again the export market could be used to support margins at these times of the year.

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6. Hardwicks Internal Sales Data - Beef

The raw sales data for the beef part of the business was consolidated using the same manual procedures as for the lamb sales data. Hardwicks Meatworks has had less involvement with the export beef market, when compared to the lamb carcass. The price comparison data by cut is contained in Appendixes 9 to 12.

a) Domestic Beef Carcass

As shown in Chart 12 there has been a continual downward trend in the selling price per kg obtained for beef carcass during the time period examined. This data also shows that there is little seasonality in the price obtained for beef carcass. This data set represents a mix of the two major markets reached by the domestic arm of Hardwicks Meatworks – Butcher Shops and Boning Rooms. There is an inherent difference between the pricing strategies for each of these market segments, so the price presented below is an average selling price per beef body for a designated time period.

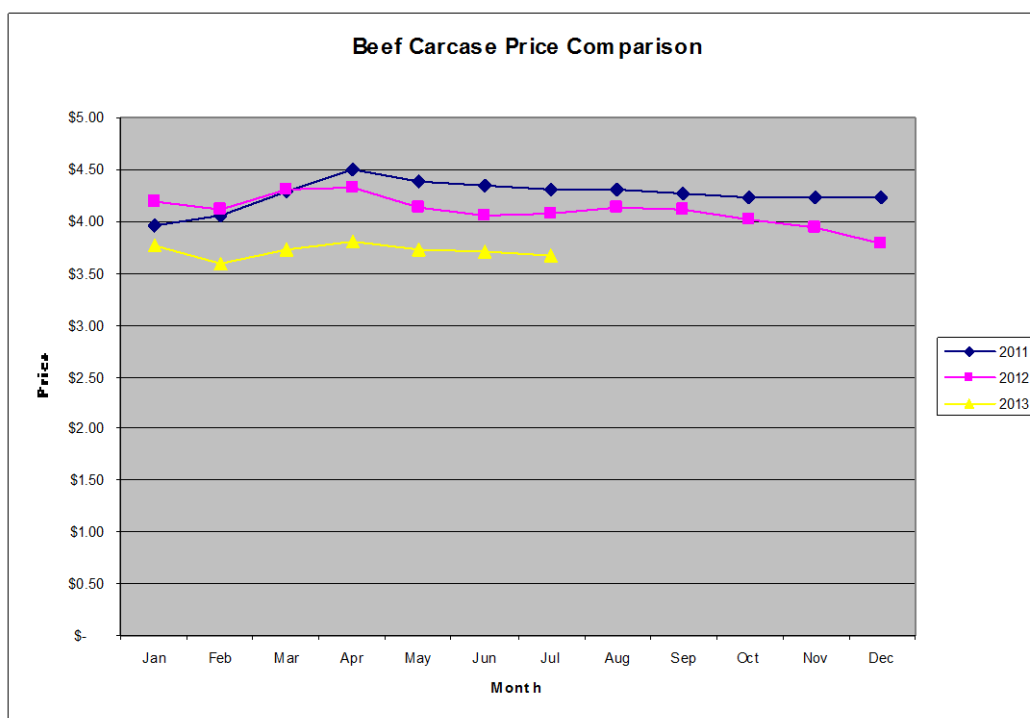


Chart 12: Domestic Beef Carcass Price over the time period

b) Broken Beef Price Premiums

As with the premiums for breaking lamb a similar approach was taken in analysing beef sales to look for seasonal variation of beef cuts. From this analysis, several things that stood out.

Of all the cuts regularly produced the demand for flanks was the most stable over the time period. It was also identified that the premium obtained for Argies (relative to carcass price) was higher this year than in previous years. Subtracting the carcass price from the cut price yielded similar results to dividing it, in terms of identifying seasonality. Chart 13 gives a better representation of the Argie price premium. With a fall in cattle prices this year it is evident that the Company has been able to improve margins with broken beef.

The price premium was taken by dividing the cut price in \$/kg by the carcass price in \$/kg during the designated time periods. The most significant finding of the data analysis is the strong seasonality for beef butts, when compared to the other carcass broken cuts.

However, there is some seasonality in gross margins for argies and forequarters, although somewhat less than beef butts. Traditionally the level of demand for broken carcass meat has driven the break-up process, and the Company then has to find sales for the remaining cuts – sometimes at significantly reduced premiums.

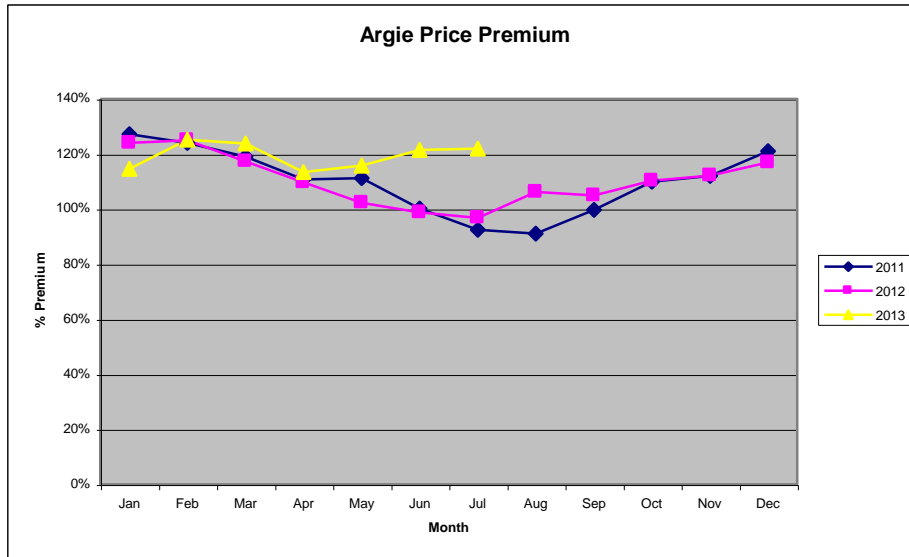


Chart 13: Domestic Argie Price Premium

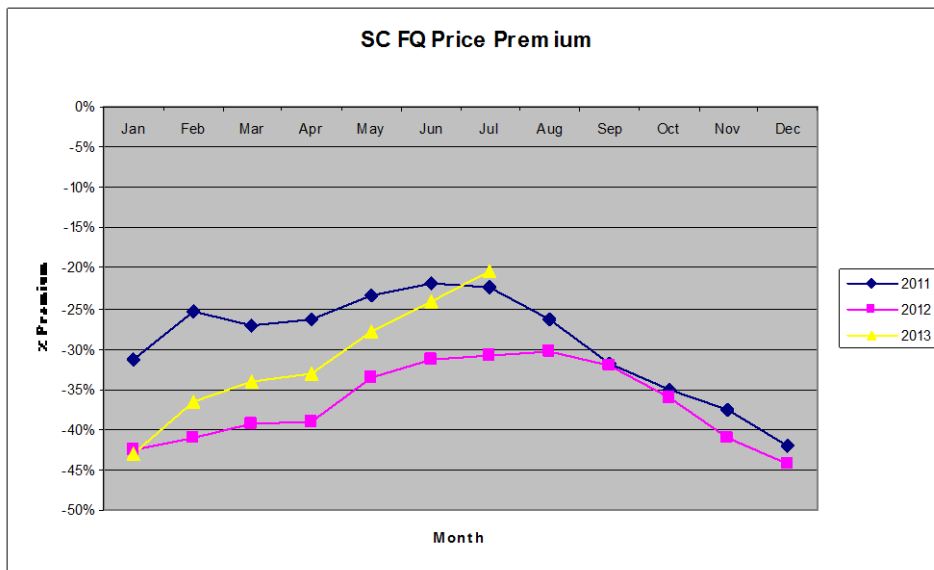


Chart 14: Domestic SC FQ Price Premium

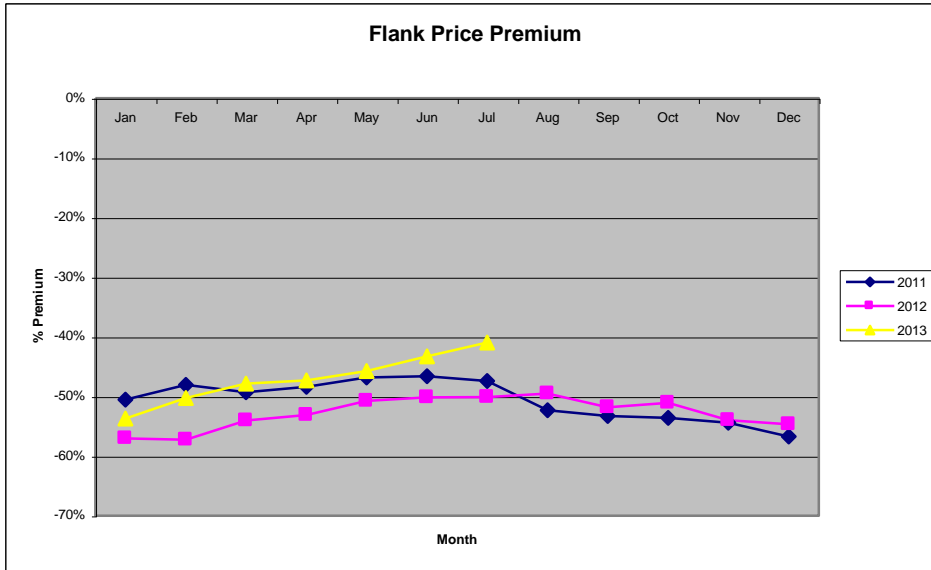


Chart 15: Domestic Flank Price Premium

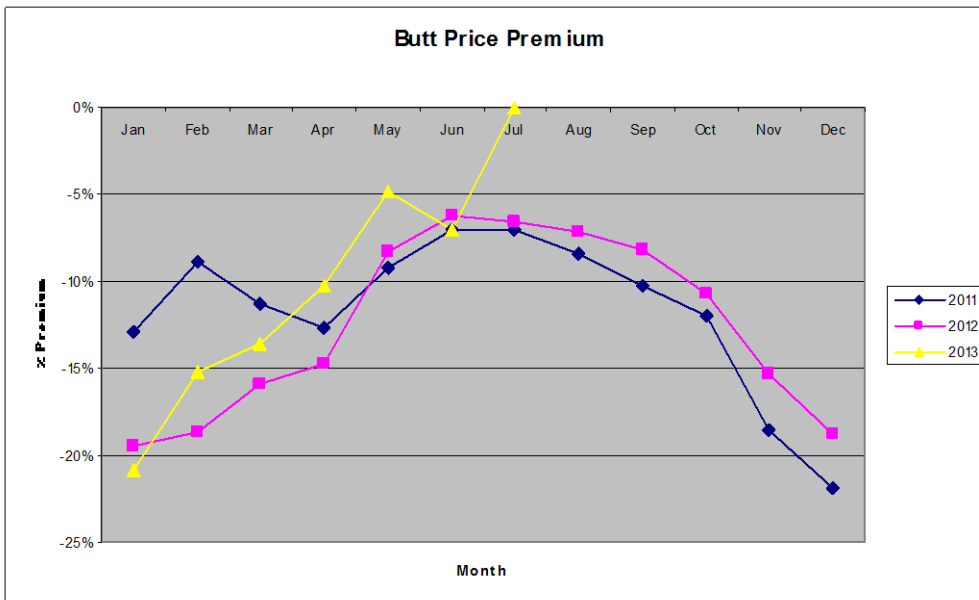


Chart 16: Domestic Butt Price Premium

c) Beef Breaker Price Comparison

The same methodology was used here as was used for the Lamb breaker analysis. An average carcass weight of 200 kilograms was used, as well as the following percentage breakdowns for the main broken cuts:

- SC FQ = 37.3%
- Butt = 26.6%
- Flank = 14.6%
- Argie LC = 21.5%

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Chart 17: Domestic Beef Breaker Analysis

d) Domestic Beef Price/Cost

A similar approach to that for lamb was used to analyse the gross margin for beef carcasses and cuts, however there was only consistent pricing data available for overall beef body and N.1 cattle. From a financial point of view the margins are far better than for small stock. Comparatively the N.1 bodies have a higher Gross Margin, within the time period, and the margin, has always been positive. The same formula for calculating gross margin percentage was used as with lamb. A possible explanation for the lower Breaker – Carcass return in summer is the fact that during this time period there are two unseasonable cuts (FQ & Butts). On a simplistic level this indicates that the more the Company is exposed to the full seasonal nature during lower price time periods, this directly results in an uneconomical financial impact at the sales level.

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Chart 18: Overall Beef Bodies (Price – Cost) Gross Margin

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Chart 19: Overall Beef Bodies Percentage Gross Margin

e) Beef Analysis Conclusions

- 1) There is distinct seasonality of demand for FQ, Butts and Argies on the domestic market.
 - Butts have higher demand in winter
 - FQ show a similar trend
 - Flanks have a marginally similar trend but aren't that seasonal
 - Argies are more in demand in the summer, but the margins has been higher during the winter this year
 - This leads to the question as to whether there is sufficient demand within the Tier 1 export markets to provide a more economical marketing option during these periods
- 2) The need for a uniform and company wide sales data collection service is reinforced by the time taken to collect and collaborate this data. It is understood that Thorsys has the capability for this function.

7. Hardwicks Internal Sales Data - Offal

Sales volume has been used in this analysis as an indicator of demand because the selling prices have remained steady over the time period examined. The time period was the same as the one used for the beef and lamb analysis. The same methodology was used, as with the meat analysis, thus the process of collecting and collaborating the data was a manual and time intensive one.

a) Domestic Beef & Lamb Offal Results

The offal products that show seasonality of demand are shown below in Charts 20-23. Those that do not demonstrate seasonal demand can be found in Appendixes 14 & 15. There may be a slight distortion within the export data as this is based on containers loaded taken out of accounting records. This data is collected on a week ending basis, which can span month ends. As such in order to arrange the data on a monthly basis, the assumption was made that if the week ending fell within that month then it was included, if not it was included in the next month's data.

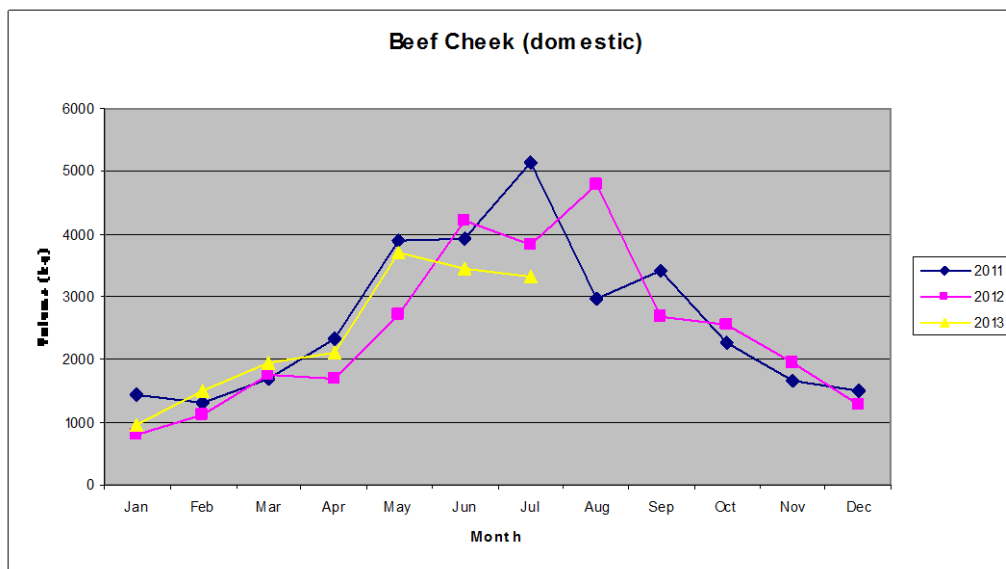


Chart 20: Domestic Beef Cheek over time period

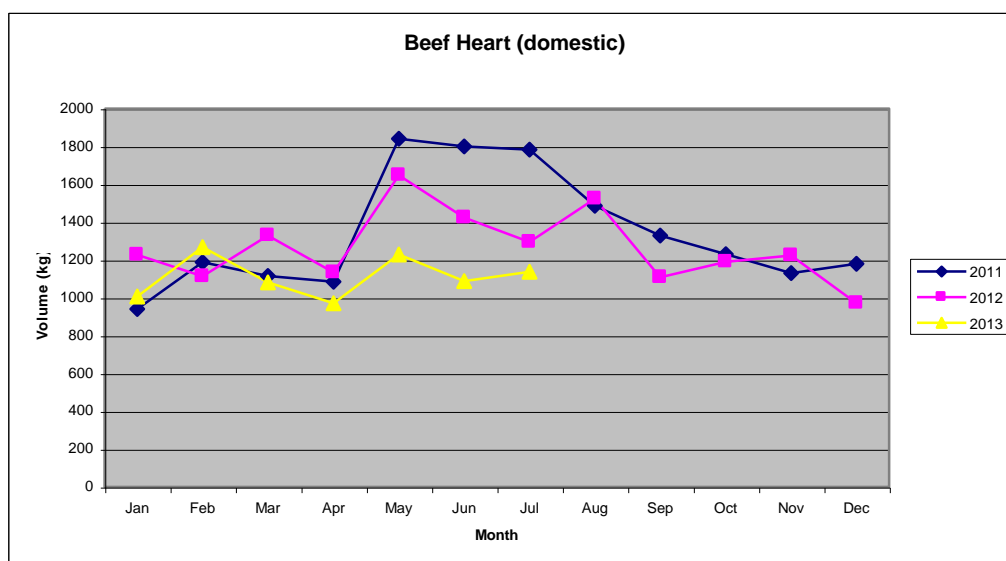


Chart 21: Domestic Beef Heart over time period

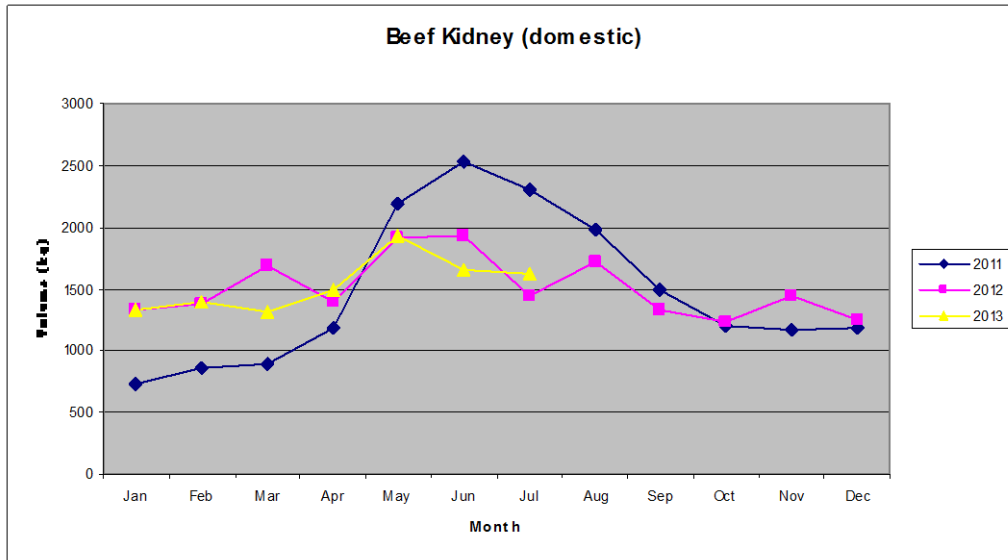


Chart 22: Domestic Beef Kidney over time period

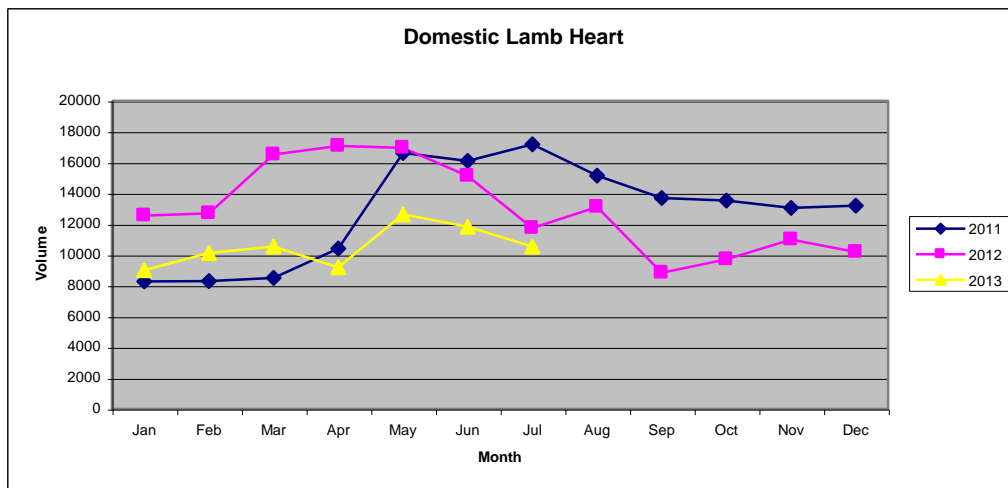


Chart 23: Domestic Lamb Heart over time period

b) Domestic Beef Offal Conclusions

The following trends were observed from the data & graphs collated:

- There is a significant peak in demand for beef cheeks in the winter months, and this drops away significantly during the warmer months (September onwards)
- There is a slight increase in demand for kidneys during winter
- The demand for tails seems to be strong throughout the year (opportunity to increase the price)
- Heart, Liver and Tongue have relatively consistent levels of demand

c) Domestic Lamb Offal Conclusions

The following trends were observed from the data & graphs collated:

- There is a decrease in demand for Hearts over the summer months
- The demand for Kidneys is relatively consistent throughout the year
- There is a slightly higher level of demand for livers during the winter months

d) Export Offal

Export offal is typically sold in 20 mt containers and it therefore takes a considerable time to complete an order. This results in very inconsistent sales data and makes an analysis of sales demand unreliable. Runners and tripe orders have been the most consistent export sales over the time period analysed. For the second half of the time period reviewed, Indonesia has had a strong drive towards self-sufficiency with their meat production, and as such stopped taking large volumes of imported meat & offal products. Because this is about halfway through the designated time period the Indonesian results have been excluded.

For the analyses within these report only Australian products into a market have been examined, eg if liver imports have dropped by 90% it only refers to Australian product. This is a data constraint due to the provider, which in this case is DAFF. The problem with using this data to determine seasonality is it might not be consistent across the time period and it doesn't truly change the preference of each market, but only encompasses the Australia product going into that market. For the purpose of this report it still provides a useful insight however it is important to keep this constraint in mind.

8. Analysis of DAFF data on Australian Exports

a) Export Lamb Carcass Market Share

The data set used was from the DAFF “Export Lamb Value”, the subset “Carcass and Half-Carcass of Lamb Fresh/Chilled” (Code: 020410). The data was supplied in terms of total revenue, and did not exactly match up with that regarding the volume, thus it was not possible to determine price per kilogram. The revenue data set could not be broken down further so looking at revenue for a specific cut of lamb was also not possible.

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b) DAFF Data - Beef Offal

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c) DAFF Data - Lamb Offal Commentary

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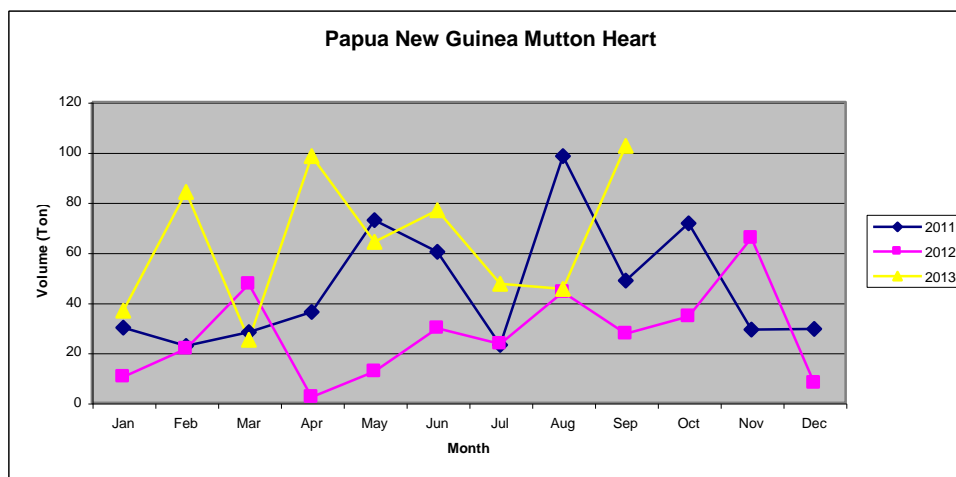


Chart 24: PNG Imports of Australian Mutton Heart over time period

d) Nielsen Domestic Retail Data

This data details Australian supermarket sales and as such the products listed usually have more value added cuts and as such correlation with Hardwicks sales is not possible. The average retail price is listed below in Table 2.

	Mean	Standard Deviation
Lamb	\$ 12.59	\$ 1.27
Beef	\$ 13.21	\$ 0.70

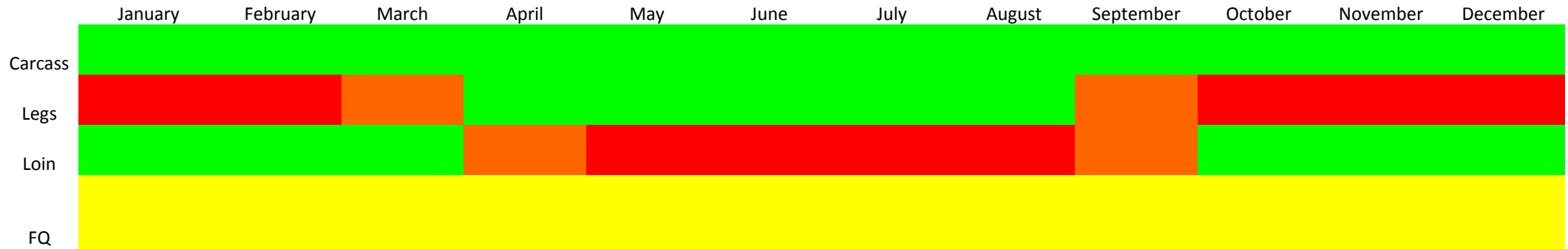
Table 2: Average Retail Price for Beef and Lamb

The greatest volatility, by far, for beef is in the Prime Steak category, and the lamb is in roast/rack subset. The seasonality of demand for these items roughly agrees with Hardwicks internal data set (depending upon the time of year). It is apparent from the Nielsen data that there is not a strong correlation between Australian retail meat prices and corresponding livestock prices. Supermarkets do not move their prices in lines with changes to livestock prices. Whilst prices do move, the changes are more related to longer-term livestock price trends. This makes any comparison with Hardwick’s sales price trends difficult as the Hardwick’s price changes do correlate closely with movements in livestock prices.

9. Traffic Light Matrix

A key aim of this project was to identify ways that the full seasonality price effect of certain cuts of meat could be reduced. Based upon the Hardwicks domestic internal sales data a 'Traffic Light' matrix has been created for Beef & Lamb, Carcass and Primal Cuts (See Appendix 21 & 22). This matrix details times of the year when domestic demand is reduced and where an alternative export market would be advantageous. It is hoped that by removing some volume of products from the domestic market in times of low demand, the current fall in selling price for these periods could be reduced. Potential alternative export markets for each product are listed below the matrix. Only countries that can be reached with Hardwicks current Tier 1 Licence have been included. This list is in Appendix 23. A selection of the biggest markets can be seen in the relevant Appendixes. The time list in the brackets is the identified uneconomical time period for the cut in question.

Lamb Domestic Seasonality



Beef Domestic Seasonality



Key

- Explore other opportunities
- About to Change
- Little Variation
- Traditionally Strongest Period



a) Lamb Cuts Export Opportunities

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b) Beef Cuts Export Opportunities

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10. Project Outcomes

From the market research, in terms of volume and revenue, there would appear to be a significant amount of export potential for more boned and carcass meat within the current constraints of a Tier 1 export licence. A further flow through advantage is that this may lead to a greater level of engagement with customers who serve different markets and ultimately lead to a more diversified range of product sales.

This report has identified key trends of seasonality of product demand on the domestic market. Recently sales for boned beef and lamb have been made into Indonesia, at prices higher than those that have been achieved previously on the domestic market. It will take several years to build relationships in export markets for key products during their period of low demand on the domestic market, and in some cases this may mean continuing to export some products even when domestic demand is high. The seasonality of demand on the domestic market has been set out in a "Traffic Light" style matrix, which is shown in Appendixes 21 & 22.

The findings in this report reinforce the need to develop internal capacity to value add un-seasonal product during periods of low domestic demand so that they can be diverted to alternative export markets. This should increase the marketability of what remains and hence reduce exposure during these unfavourable economic troughs. The key will be to then find export buyers for these products. This report details the best potential export markets for these products at times, which coincide with low domestic demand. This selection of data can be found in Appendixes 24 to 35.

a) Recommendations

- 1) During winter of 2014, it is recommended that further value adding of lamb loins be undertaken in an attempt to achieve higher selling prices in either domestic or export markets.
- 2) A review is carried out of the current accounting software system so that sales data can be more easily collected and analysed. The following features would be useful:
 - a. The ability to easily segregate products by cut across each of the Company's sales networks on a monthly basis
 - b. The system also incorporates product costings so that profitability of value added products could be easily determined.
 - c. The system should be able to calculate weighted averages of product sales across the various sales networks.
- 3) Additional value adding should be undertaken of both beef and lamb carcasses in order to better match the requirements of the export markets to be targeted. This would require a review of the current boning room capacity and facilities.
- 4) Given that there has not been a review of the domestic offal pricing for several years it could be worthwhile reassessing this.

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- 5) Based upon the 'Traffic Light' Matrix the time periods in red should be looked at several months in advance, and ideally the product specified be forward sold as 'value-added' (boned) product into the export markets

This will help to inform the long-term strategic decisions of Hardwicks Meatworks 2, 5 and 10 years from now.

b) Financial Benefit

Below is an analysis of the potential financial benefit if the recommendations above are implemented. The analysis is based on being able to eliminate the periods of low product demand and price progressively over a period of 5 years. The full workings are included in Appendixes 1 & 2. The analysis is based on the following assumptions:

- The carcass price will remain the same in the future, and that there will be no significant changes to the global meat market.
- The Hardwicks Meatworks volumes from 2012 have been used; this is the most recent full calendar year available.
- The Lamb breaker premiums (relative to carcass price) listed below are the averages of that cut throughout the year, as shown in Table 3.
- The Beef breaker premiums (relative to carcass price) listed below are the averages of that cut throughout the year, as shown in Table 4.
- Lamb FQ and Beef Flanks have been excluded from the financial benefit analysis, as they do not show any seasonality of demand.

The calculated financial benefit to Hardwicks Meatworks, if the recommendations are implemented and product moved from the domestic market to export markets is \$334'210.50 for Lamb Cuts and \$220,434.20 for Beef Cuts. These premiums are the cut price relative to carcass price.

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Table 4: Quantitative Projections Sustainable Beef Premiums

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The comparative volume of lambs being processed, and previous exposure to uneconomic seasonality, explains the higher benefits to lamb cuts. The per year benefit of the progressive sales seasonality matrix uptake is listed below in Table 5.

	Beef	Lamb	
Year 1	\$ 10,496.87	\$ 14,713.03	\$ 25,209.90
Year 2	\$ 20,993.74	\$ 31,949.75	\$ 52,943.49
Year 3	\$ 41,987.48	\$ 63,899.50	\$105,886.97
Year 4	\$ 62,981.22	\$ 95,849.24	\$158,830.46
Year 5	\$ 83,974.96	\$127,798.99	\$211,773.95

\$554,644.76

Table 5: Yearly Benefit of Progressive Revenue Benefit

11. Appendices

Appendix 1: Economic Benefit of Seasonality Matrix – Beef Cuts

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Appendix 2: Economic Benefit of Seasonality Matrix – Lamb Cuts

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Appendix 3: Lamb Leg Price Comparison

GRAPH REMOVED FOR CONFIDENTIALITY

Appendix 4: Lamb Loin Price Comparison

GRAPH REMOVED FOR CONFIDENTIALITY

Appendix 5: Lamb FQ Price Comparison

GRAPH REMOVED FOR CONFIDENTIALITY

Appendix 6: Raw Data Domestic Lamb Breaker Analysis

TABLE REMOVED FOR CONFIDENTIALITY

Appendix 7: Domestic Lamb Price – Cost Trend

GRAPH REMOVED FOR CONFIDENTIALITY

Appendix 8: Export Lamb Price – Cost Trend

GRAPH REMOVED FOR CONFIDENTIALITY

Appendix 9: Domestic Beef Butt Price Comparison over time period

GRAPH REMOVED FOR CONFIDENTIALITY

Appendix 10: Domestic Beef SC FQ Price Comparison over time period

GRAPH REMOVED FOR CONFIDENTIALITY

Appendix 11: Domestic Beef Flank Price Comparison over time period

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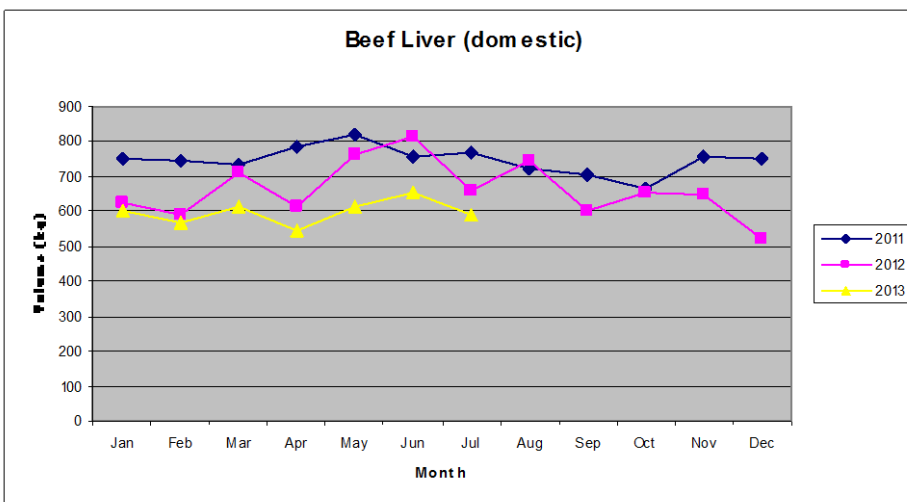
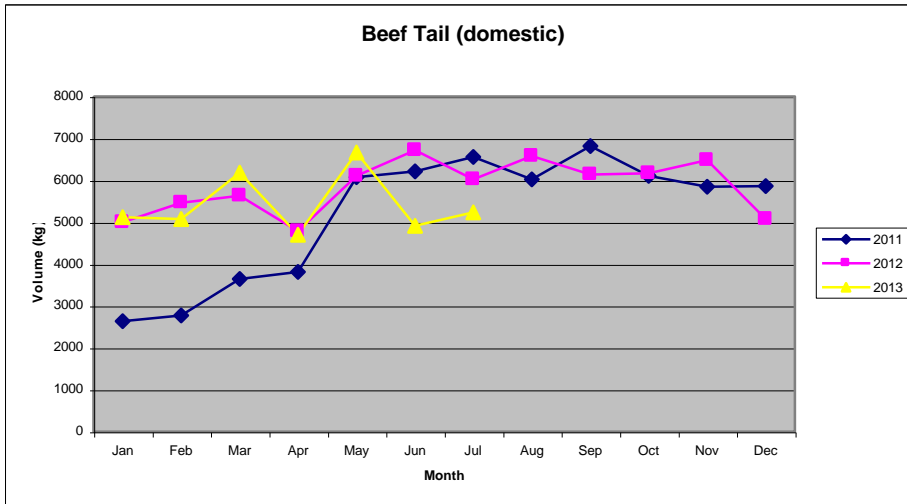
Appendix 12: Domestic Beef Argie Price Comparison over time period

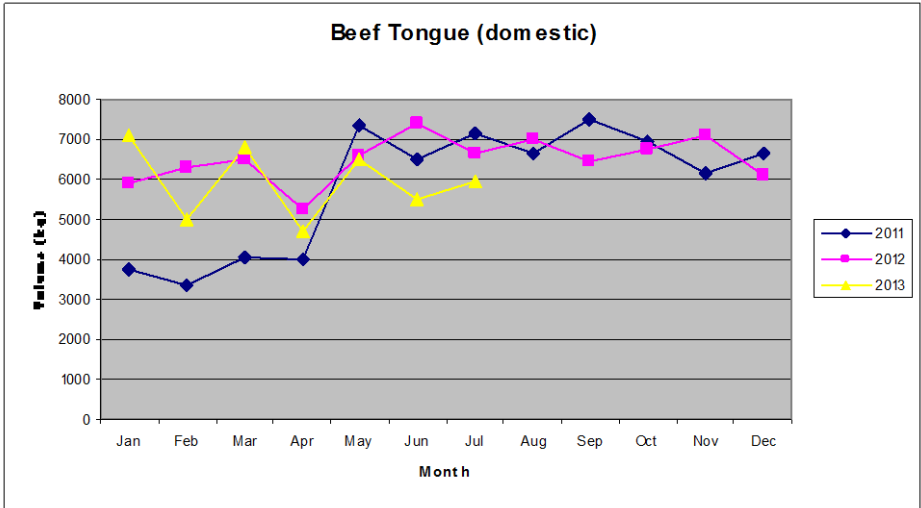
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Appendix 13: Domestic Beef Breaker Data Analysis

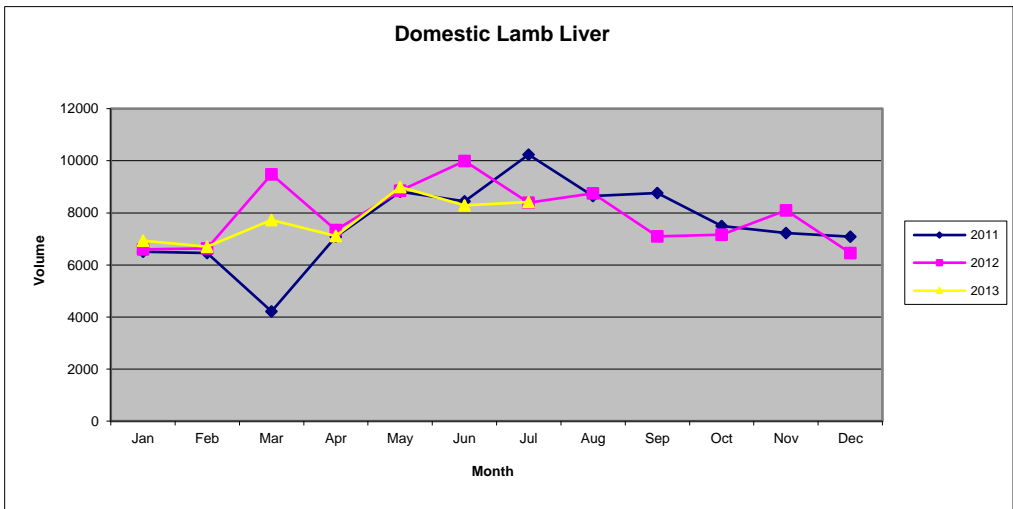
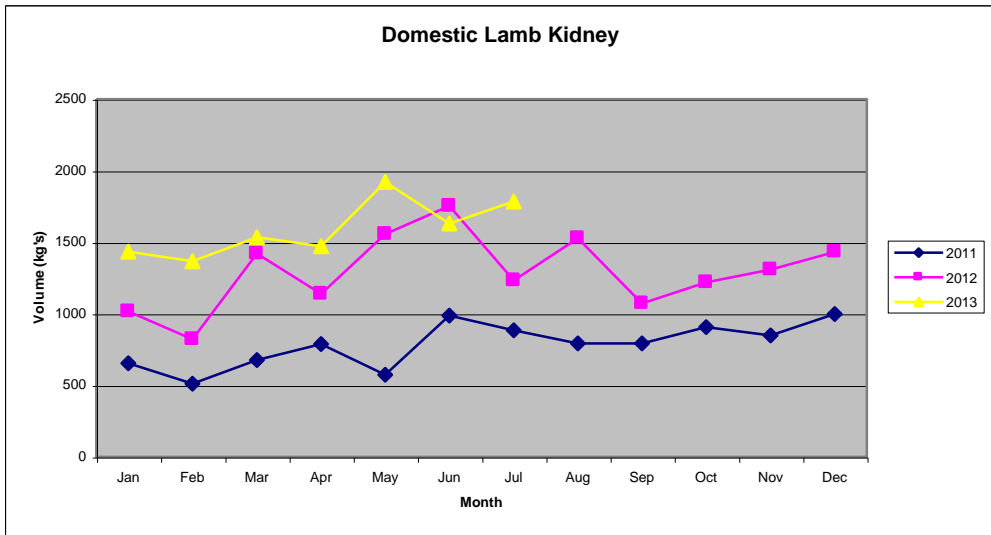
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Appendix 14: Non-Seasonal Beef Offals





Appendix 15: Non-Seasonal Lamb Offals



Appendix 16: Bahrain Export Lamb Value

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Appendix 17: Qatar Export Lamb Value

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Appendix 18: Jordan Export Lamb Value

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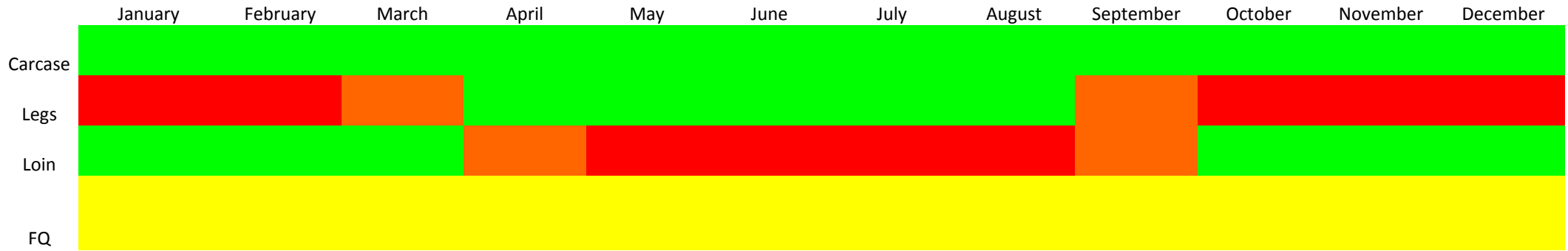
Appendix 19: Kuwait Export Lamb Value

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Appendix 20: UAE Export Lamb Value

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Appendix 21: Lamb Domestic Seasonality (based on internal sales)



Appendix 22: Beef Domestic Seasonality (based on internal sales)



Key

- Explore other opportunities
- About to Change
- Little Variation
- Traditionally Strongest Period

Appendix 23: Current Tier 1 Approved Countries



Australian Government
Australian Quarantine and Inspection Service

Australian Standard Market Access – 21 February 2012 Eligible markets

At 18 January 2012, AQIS is able to certify exports of product from Australian Standard export-registered State regulated establishments to the following markets:

Algeria
Bahrain
Cuba
Egypt (subject to inspection visit and listing)
Fiji
Ghana
Indonesia (subject to inspection visit and listing)
Jamaica
Jordan
Kuwait
Liberia
Mozambique
Oman
Papua New Guinea (subject to inspection visit and listing)
Qatar
Solomon Islands
Sri Lanka
Tonga
Tunisia
Tuvalu
UAE
Vietnam

Edmund Barton Building Barton ACT GPO Box 858 Canberra ACT 2601 ph +61 2 6272 3933 www.aqis.gov.au ANZ21100845

DEPARTMENT OF AGRICULTURE, FISHERIES AND FORESTRY

Appendix 24: Lamb Leg Export Opportunities

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Appendix 25: Lamb Loin Export Opportunities

TABLE REMOVED FOR CONFIDENTIALITY

Appendix 26: Beef Blade Export Opportunities

TABLE REMOVED FOR CONFIDENTIALITY

Appendix 27: Beef Brisket Export Opportunities

TABLE REMOVED FOR CONFIDENTIALITY

Appendix 28: Beef Chuck Export Opportunities

TABLE REMOVED FOR CONFIDENTIALITY

Appendix 29: Beef Cube Roll/Rib Eye Roll

TABLE REMOVED FOR CONFIDENTIALITY

Appendix 30: Beef Rump

TABLE REMOVED FOR CONFIDENTIALITY

Appendix 31: Striploin

TABLE REMOVED FOR CONFIDENTIALITY

Appendix 32: Tenderloin

TABLE REMOVED FOR CONFIDENTIALITY

Appendix 33: Beef Topside/Inside

TABLE REMOVED FOR CONFIDENTIALITY

Appendix 34: Silverside/Outside

TABLE REMOVED FOR CONFIDENTIALITY

Appendix 35: Thick Flank/Knuckle

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