







milestone report

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Livestock Data Link

Progress Report – Producer benchmarking and improving the LMY component in the LDL system

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Abstract

At the beginning of January 2016, a second Marcus Oldham student commenced a 12-month industry placement with JBS. One of the key responsibilities undertaken by the student was to continue implementing Livestock Data Link [LDL], with the aim of growing the number of producers using the technology. The student undertook quality assurance checks of data being uploaded to LDL to ensure its accuracy, initiated and monitored corrective actions in response to any issues and also used the system for benchmarking and analysis purposes.

Over the 12-month period, JBS, in conjunction with MLA, the New South Wales Department of Primary Industries, Pear Consulting and Agriculture Victoria, conducted 28 LDL training workshops, reaching an audience of 896 people. The training days aimed to educate producers on how to use the LDL system and the sort of information that could be gleaned from it. These days can be categorised in to 19 beef-focussed and 10 lamb-focussed sessions held across the mainland and Tasmania (for a more detailed break-down, refer to Appendix 1).

Whilst this project has been completed in a sense, there are still objectives that need to be achieved for LDL to reach its full potential. For example, upon completion of the student's 12-month placement, work was still being done to enable the inclusion of animal health data and associated information in the "Solutions to Feedback" library. Furthermore, the findings of two pilot projects focussing on Lean Meat Yield [LMY] will be key in designing and releasing a more accurate LMY component in LDL.

Finally, industry exposure to LDL could be increased through looking at a different presentation and engagement style that can target larger producer groups, rather than the current workshops which are effectively limited to a maximum of 20 people. A more user-friendly way of uploading grids or an embedded tutorial on this process would be necessary to achieve this. The cumulative effect of these actions will increase the exposure of producers and industry to LDL and potentially broaden the utilisation of the program.

Executive Summary

At the beginning of January 2016, a student from Marcus Oldham College (Geelong, Victoria) began a full-time, 12-month placement with JBS Southern (a division of JBS Australia). Implementing, promoting, and monitoring Livestock Data Link [LDL] were key focuses for the student. The continuation of producer-benchmarking and the development of a system to benchmark JBS's livestock buyers were also enabled through the use of LDL.

Throughout her 12-month placement, the student travelled to a wide range of regional locations in order to demonstrate LDL's capabilities to audiences that included JBS plant staff, JBS livestock buyers, livestock agents, sheep and beef producers and other industry professionals. The purpose of these widely-presented training sessions was to promote awareness of LDL, as well as assist attendees in learning how to use the system. A fundamental feature of these sessions was a live demonstration of LDL. This aimed to showcase the relevance of the tool to producers and thus pique their interest in it. For further details of workshops conducted, please refer to Appendix 1.

In the second half of 2016, the student assisted in organising and conducting 7 regional producer forums, These forums were presented to both beef and lamb producers across the mainland and Tasmania, and all culminated in the reveal of the region's JBS Farm Assured Producers of the Year. These rankings were calculated using LDL and considered; number of livestock supplied, compliance to company specifications, compliance to Meat Standards Australia [MSA] specifications, average LMY % and spread of supply, among other things.

Agriculture Victoria, the New South Wales Department of Primary Industries, Meat and Livestock Australia, Sophie Folder (Pear Consulting) and Bruce Hancock (MLA/National Lamb Supply Chain coordinator) were extensively involved in the coordination and execution of the LDL training workshops.

The required and agreed milestone reports have been completed. LDL will continue to be used by JBS and this ought to increase the exposure and uptake of the technology by Farm Assured producers.

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1 Milestone description

1.1 Milestone 7

This milestone provides a final report on the progress of the student in their efforts contributing to the development and implementation of the LDL system through JBS Southern's Farm Assurance program. The report outlines methodology, issues encountered and lessons learnt broadly, while also offering insight in to the student's experiences during the 12-month placement.

2 Project objectives

2.1 Expected outcomes:

- Continue to support LDL program in all JBS southern plants
- Oversee the uploading of data at all plants
- Ensure the accuracy of data upload is at an acceptable level.
- · Problem solve any issues that may arise
- Organise and coordinate in conjunction with MLA and DPI a minimum of 4 beef and 4 lamb (Mainland) 2 beef and 2 lamb (Tasmania) producer training days around using Livestock Data Link
- Supply articles around the project to the Farm Assurance (FA) newsletter
- Report outcomes to the JBS Beef and Lamb Supply Chain Groups and management.
- Continue the work already achieved with the producer benchmarking process across both JBS beef and lamb supply chains, identifying FA producers that consistently supply animals that meet customer and compliance requirements.
- Work with the FA supply chain and LDL to give them a greater understanding of the end outcomes that JBS need to satisfy for their customers.
- Continue to provide input in to the design of the Lean Meat Yield (LMY) component in LDL
- Develop and co-ordinate new content for Great Southern marketing collateral
- Assist in the development and roll out of Great Southern and other brands marketing projects.
- Assist with the arrangement of Farm Assured producer forums
- Conduct analysis in relation to livestock grading data and feedback that assists in analysing existing beef meat brand specifications and identifying opportunities for new specifications or adding value with different carcass traits
- Employ and develop a graduate suitable for employment within the red meat industry.

3 Success in meeting the milestone

3.1 Milestone Progress

Implement the LDL program into all JBS southern plants

- All the southern sites continue to upload data regularly this includes Brooklyn (beef), Longford (beef and sheep), Devonport (beef and sheep), Scone (beef), Cobram (sheep) and Bordertown (sheep).
- Upon completion of the placement, Bordertown uploads were still more infrequent than
 preferred. As a result of this, some data has been unavailable when needed for
 reporting reasons. The problem was thought to be due to Bordertown's internal system
 failing to effectively communicate with NLIS Connect. MLA continues to pursue the
 issue with Cedar Creek.

Oversee the uploading of data at all plants

 The data uploads are monitored on Monday, Wednesday and Friday each week with records going back to the beginning of January 2015. If the time lag between uploads and the date of review is greater than four days for an extended period, contact is made with the responsible people.

Ensure the accuracy of data upload is at an acceptable level

- On a weekly basis the data is reviewed and compared to the JBS FA kill summary data. Cattle data is reviewed on Friday and small stock are reviewed on Monday. The accuracy of data is also reviewed whilst doing the weekly data upload checks.
- Some examples of anomalies that the data is reviewed for include; missing or incorrect PIC numbers, incorrect or unrealistic HSCW and inaccurate or missing fat class and/or fat depth, as examples.

Problem solve any issues arising

- Any issues that arose were directed to MLA or the appropriate JBS contact. Issues
 that arose included; target market errors on the LDL dashboard, lags in data uploads
 and missing or inaccurate data.
- There was a recurring problem with target market errors appearing on the dashboard view of various plants (for both beef and lamb). The issue was noticed to be occurring in both producer and processor accounts. This issue had not been resolved at the completion of the student's placement.
- At the completion of the placement, there still seemed to be a lag in uploading MSA data to LDL (it is sometimes up to 4 days behind the other carcase data). This was particularly an issue at Longford and sometimes Scone. It may not have been such an issue at Brooklyn because this plant is not as prompt with NLIS data uploads, so the MSA data does not appear to be so slow. The LDL team has been investigating this issue and is working with MSA to find a resolution.
- LDL's "missing PIC" issue seems to have been resolved.
- In September we noticed an issue in LDL causing inaccurate HSCWs to be assigned to lambs at Cobram. The problem was brought to the attention of MLA and was corrected. The issue occurred again in early November. The second occurrence

appears to have been the result of beef data being linked into Cobram's LDL account. As JBS Cobram is exclusively a smalls processing plant, this issue is particularly absurd. The problem in this data set has been corrected.

Organise and Coordinate in conjunction with MLA/ DPI a minimum of 4 beef and 4 lamb (Mainland) 2 beef and 2 lamb (Tasmania) producer education days around using LDL

- Please refer to the Appendix 1. By the end of the student's 12-month placement, LDL had been presented to 14 mainland beef groups, and 5 Tasmanian beef groups. 7 sheep-focussed sessions had also been conducted on the mainland, and 3 in Tasmania. Thus, this KPI was achieved and exceeded.
- At the conclusion of the project, there were approximately 3100 producers registered
 as part of the JBS Farm Assurance program. At that time, 357 producers were
 registered to use LDL, representing 11.5% of the JBS Farm Assured group. One of the
 KPIs for the project was to have 5% of JBS Farm Assured producers registered for
 and using LDL. Thus, this criteria was achieved.
- Feedback from the LDL workshops that were held over the course of the year identified the following:
 - The grid set-up process is arduous. This can be mainly attributed to the grids themselves being confusing, however, the process of setting a grid up in LDL could also be made more user friendly.
 - There is currently work being done on this, as demonstrated by the new system proposed by Savv-e.
 - Research conducted by Gattorna Alignment indicated that, as their first preference, the majority of producers would prefer to attempt to learn how to use LDL on their own. In order to facilitate this, the student developed "How-to" guides for setting up grids (see Appendices 2 & 3). These were released to the entire JBS Farm Assurance group (i.e. approximately 3160 businesses) on two separate occasions.
 - Errors within the lost opportunity cost calculation. These have since been amended.
 - There has been consistent confusion about the regions used in the benchmarking report. Some regions are missing from the drop-down list, so producers are unsure of the region in which they are included. It has frequently been suggested that rather than a drop-down list, producers could be shown a map of Australia that would allow them to drill down in to each state and its associated regions to make this a bit clearer.
 - Producers expressed their concern over the growing number of systems they need to remember log-in details for. They expressed their desire to see a single log-in point that covers a range of systems including LDL, My MSA and NLIS. MLA has taken this feedback on board and publicly stated they were hoping to release a single sign on system by the end of 2016.
 - Lamb producers consistently state that while the LDL system is of interest to them, it would be far more useful (and so they would be more likely to use it) if it had the capacity to report Animal Health data.
 - At the termination of the placement, Animal Health Australia [AHA] was collecting random samples of data at JBS's Brooklyn plant.

- Further exploration of this area was required for reporting animal health data to be feasible.
- Five large regional forums targeting beef producers in the JBS Farm Assurance program, were conducted in Dunkeld, Benalla, Scone, Gippsland and Deloraine over the three months spanning September 2016 to November 2016. LDL was presented at these forums. In these presentations, we showcased the key information that LDL gives producers access to and emphasised the lost opportunity of non-compliance on both a producer, processor and industry level.
- Two large regional forums targeting JBS lamb producers were conducted in Mundulla and Mount Gambier South Australia. LDL was presented at these forums to emphasise the usefulness of the system in providing better access to carcase feedback.

Supply articles around the project to the FA newsletter

- Two JBS Farm Assurance newsletters were released one in September and the other mid-November. The publications provided producers with an update on the Farm Assurance program and a recap of information presented at the JBS Farm Assurance Regional Producer Forums. LDL was featured in both newsletters.
 - The September newsletter included a small reminder to register and start using the tool (please refer to Appendix 4).
 - The November newsletter featured an article explaining the functions of LDL and outlining the producer training workshops that JBS and MLA have coordinated and conducted over 2016 (please refer to Appendix 6).

Report outcomes to the JBS beef and lamb supply chain groups and management

- On the 3rd of March, a progress report was presented to the Farm Assurance Committee at Brooklyn. This presentation covered the work conducted with and around LDL in 2015, focussing on changes implemented as a result of producer feedback and producer workshops. It also outlined the student's roles and responsibilities associated with LDL.
- On the 1st of June, Mark Inglis presented a progress report to the Lamb Supply Chain Group at Brooklyn. This presentation outlined the producer workshops, the task's undertaken and completed along with the student's roles and responsibilities associated with LDL.
- On the 26th of October, Laura Wishart presented LDL to the Lamb Supply Chain Group at Brooklyn. The presentation outlined the use of LDL in internal reports and presented some of this data. Also presented were the project objectives, issues encountered and outcomes to date.

Create and implement a producer benchmarking process across both our beef and lamb supply chains. Focusing on the FA membership to identify producers that consistently supply animals that meet customer and compliance requirements

 Throughout the placement, both beef and lamb reports were generated on a weekly basis. These reports summarised a week's kill across all plants and detailed overall compliance, compliance to each trait, LMY, average HSCW, average fat and MSA Index. These reports were analysed and presented weekly to the JBS livestock buyers. LDL also underpins the calculation for determining JBS's Producer of the Year for both beef and lamb. Mainland beef and lamb producers were benchmarked in this way and the results were revealed through the aforementioned Regional JBS Farm Assured Producer Forums (please see Table 1 below for a summary of these).

Location	Species	Date
Mundulla, SA	Lamb	24/08/2016
Mount Gambier, SA	Lamb	25/08/2016
Dunkeld, VIC	Beef	6/09/2016
Benalla, VIC	Beef	8/09/2016
Scone, NSW	Beef	6/10/2016
Cobram, VIC	Lamb	20/10/2016
Gippsland, VIC	Beef	25/10/2016
Deloraine, Tas	Beef & Lamb	9/11/2016

Table 1: Overview of JBS Regional Producer Forums

The Cobram forum is typed in red to indicate that it was cancelled (due to a lack of numbers). To see an example of an agenda from one of these sessions, please refer to Appendix 5.

Work with the FA supply chain and LDL to give them a greater understanding of the end outcomes we need to satisfy our customers

- At the end of each producer training session, the attending producers were asked to provide any feedback on how LDL could be improved. This is done via verbal discussion and also the completion of an anonymous evaluation form.
- A study of how the Farm Assurance program has benefitted producers and how it could be improved going forward has been undertaken by Gattorna Alignment, an independent company.

Continue to provide input into the design of the Lean Meat Yield component of LDL

• In conjunction with the Lamb Supply Chain Group, JBS is trialling two pilot projects which look at Lean Meat Yield. The findings of these projects may have an impact on how this figure is reported in LDL.

Assist in the development and roll out of Great Southern and other brands marketing projects.

- The student used LDL to create numerous reports examining different carcase traits that may be used to access new marketing opportunities and/or to create new brands.
- Beef was the main focus in these marketing endeavours. The reports created look at a range of carcase traits across two main target markets; Farm Assured and Natural Grain. Table 2, below outlines those reports being used upon completion of the project.

Beef			
Farm Assurance	Natural Grain		
MSA Index	Marbling		
Focusing on 67+	Focusing on 2+, 3+ and 4+		
Marbling	Meat Colour		
Focusing on 2+, 3+ and 4+	Looking at Meat Colours 1-3, 1-2, 2+ & 4+		
Meat Colour	(separately)		
Looking at Meat Colours 4 & 1-3 (separately)			

Table 2: Carcase traits being examined for new marketing opportunities

 LDL was also used to identify the spread of kill exclusively for JBS "gold status" lamb suppliers. The purpose was to track the consistency of supply throughout the year and identify whether it was enough to support a new brand or product line. Work in this field will continue with the next graduate.

4 Conclusions/recommendations

Work was done to create and release a "How-to" guide for setting up both beef and lamb grids in LDL. The purpose of this was to help producers with what is often said to be one of the most difficult parts of the LDL system and set-up process. The student developed these resources with the hope that they will encourage more producers to register and begin using LDL.

LDL was promoted at a number of regional forums and producer days, as well as in the JBS Farm Assurance Newsletters. To date, 357 producers have registered for LDL. This total has been broken down in to the contribution of each state in Figure 1 below.

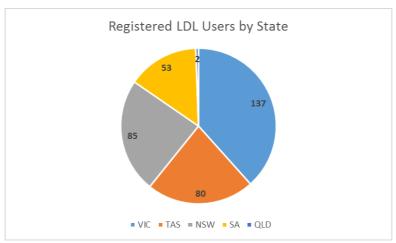


Figure 1: LDL users by state

As demonstrated in Figure 1, the majority of LDL users are located in Victoria, which may indicate that future producer days and other promotional efforts could be focussed in some of the other states.

5 Appendices

5.1 Appendix 1: Livestock Data Link producer day's overview to date

Location	Audience	Number of People	Beef, Sheep, Other?	Date
Colac	Producers/Agents	10	Beef	09/02/2016
Hamilton (DPI Office)	Producers/Agents	5	Beef	10/02/2016
Bairnsdale (DPI Office)	Producers/JBS livestock buyers	7	Beef	04/03/2016
King Island	Producers/JBS livestock buyer	9	Beef	17/03/2016
King Island	Producers/JBS livestock buyer	12	Beef	17/03/2016
Longford, Tasmania	Producers/JBS livestock buyer/Savv-e	6	Beef	18/03/2016
Longford, Tasmania	Producers/JBS livestock buyer/Savv-e	9	Beef	18/03/2016
Bordertown	Reedy Creek Lamb Group	16	Sheep	30/03/2016
Bordertown	Chris Mirams & Best Wool Best Lamb Group	9	Sheep	31/03/2016
Cowra (DPI Office)	Producers	7	Beef	5/04/2016
Corryong	Producers/Agents	14	Beef	6/04/2016
Scone	Plant Staff	10	Beef	20/04/2016
Armidale	Producers	14	Beef	20/07/2016
Scone	Producers	17	Beef	21/07/2016
Penola	Producers/Agents	12	Sheep	4/08/2016
Bordertown	Producers/Agents	12	Sheep	5/08/2016
Greta	LambEx (Northgate Park farm tour group)	140	Sheep	10/08/2016
Mundulla	Producers/Agents	52	Sheep	24/08/2016
Mount Gambier	Producers/Agents	61	Sheep	25/08/2016

Dunkeld	Producers/Agents/MLA/ MSA/Dept. Ag (Vic)	73	Beef	6/09/2016
Benalla	Producers/Agents/MLA/ MSA/Dept. Ag (Vic & NSW)	90	Beef	8/09/2016
Longford	Producers/Agents	11	Sheep	15/09/2016
Oatlands	Producers/Agents	8	Sheep	15/09/2016
Dubbo	Producers/Agents	28	Beef	20/09/2016
Gunnedah	Producers/Agents	8	Beef	21/09/2016
Scone	Producers/Agents	91	Beef	6/10/2016
Gippsland	Producers/Agents	85	Beef	25/10/2016
Deloraine	Producers/Agents	75	Beef & Sheep	9/11/2016
		Total; 896 attendees	Sheep Mainland; 7 Beef Mainland; 14 Total Sheep TAS; 3 Beef TAS; 5 Total	28 LDL sessions to date 16/11/2016

Appendix 1: LDL producer day's overview

5.2 Appendix 2: How to set up a beef grid (page 1 snapshot)





Livestock Data Link [LDL]

How to set up a grid - beef

Once you have been approved access to LDL, you will be able to log in to your account. To do this, go to http://ldl.mla.com.au. You will see the following log-in screen:



Type in your NLIS User ID and Password and click "Log in". You will then be taken to the dashboard of your account, which will look a little like the picture below.



Before you can begin any in-depth analysis of your data, you will need to create a grid in your account. These grids should reflect those that you consign your animals to. To begin this process, click on the "Grid setup" tab on the top right hand corner of the screen.



Appendix 2: How to set up a beef grid (example)

5.3 Appendix 3: How to set up a lamb grid (page 1 snapshot)





Livestock Data Link [LDL]

How to set up a grid - lamb

Once you have been approved access to LDL, you will be able to log in to your account. To do this, go to http://ldl.mla.com.au. You will see the following log-in screen:



Type in your NLIS User ID and Password and click "Log in". You will then be taken to the dashboard of your account, which will look a little like the picture below.



Before you can begin any in-depth analysis of your data, you will need to create a grid in your account. These grids should reflect those that you consign your animals to. To begin this process, click on the "Grid setup" tab on the top right hand corner of the screen.

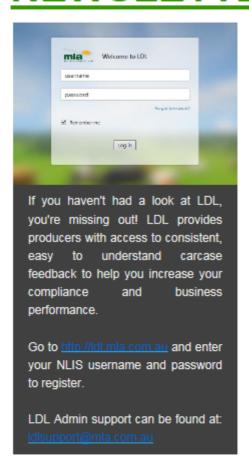


Appendix 3: How to set up a lamb grid (example)

5.4 Appendix 4: LDL component of JBS Farm Assured September Newsletter



September 2016 NEWSLETTER







Some photos from past LDL workshops.

Appendix 4: JBS Farm Assurance Newsletter – September 2016

5.5 Appendix 5: Regional JBS Farm Assured Producer Forum example agenda

JBS Farm Assured Regional Beef Producer Forum – Scone 6th October 2016

	Agenda		
Tlme	Topic	Speaker	
9.00am-9.20am	Registration, tea & coffee		
9.20am-9.30am	Introductions	Laura Wishart (JBS Southern - Business Codet)	
9.30am-9.50am	Farm Assurance Program Update	Mark Inglis (Farm Assurance & Supply Chain Manager)	
9.50am-10.10am	JBS Farm Assurance Gattoma Evaluation	Mark Inglis (Farm Assurance & Supply Chain Manager)	
10.10am-10.30am	Pasture Fed Be ef Project Overview	Patricia O'Keeffe (NSW DPI - Beef Development Officer)	
10.30am-10.50am	Improving Production from Pastures	Ross Watson (Ross Watson Agriculture - Consulting Pasture Agronomist [Scone])	
10.50am-11.10am		Morning Tea	
11.10am-11.40am	Livestock Update	Steve Chapman (JBS Southern - Livestock Manager)	
11.40am-12.10pm	Dark Cutting Beef - Latest Research	Kate Loudon (Murdoch University)	
12.10pm-12.30pm	Using Livestock Data Link for Improved Decision Making	Laura Wishart (JBS Southern - Business Codet)	
12.30pm-12.50pm	Market Up date	Tony Carroll (JBS Southem - Sales (Domestic)	
12.50pm-1.50pm		Lunch	
1.50pm-2.20pm	Characteristics of a Farm Assure d Be of Carcase	Mark Inglis (Farm Assurance & Supply Chain Manager)	
2.20pm-2.40pm	MSA Looking Forward to 2020	Jessira Perovic (MSA Project Officer – Eating Quality Data Analytics)	
2.40pm-2.55pm	Reveal of JBS Scone's Top 100 Producers	JBS Team	
2.55pm-3.00pm	Close	Laura Wishart (JBS Southem - Business Codet)	







Appendix 5: Example of an agenda for the Regional JBS Farm Assured Producer Forum

5.6 Appendix 6: LDL article from the JBS Farm Assured November Newsletter



November 2016 NEWSLETTER

Livestock Data Link [LDL]

Livestock Data Link [LDL] is a centralised online feedback system designed to provide producers easy access to carcase data. It is an MLA initiative and aims to address non-compliance issues within the beef and lamb industries, thus improving profitability for each component of the value chain and the competitiveness of the whole industry in the global market.

LDL allows producers to identify non-compliant carcases, the reasons for and lost opportunity cost of the non-compliance and identify potential management strategies going forward.

Over the past year, JBS, in conjunction with MLA, has organised and facilitated 28 workshops training beef and lamb producers in how to get the maximum benefit out of LDL. Recently, we have also released several "how to" guides around setting up grids in your LDL account. This grid set-up process is essential to extracting meaningful information from your carcase feedback. If you have not yet seen these documents, keep an eye out, as they will be sent out amongst the JBS Farm Assurance group again later this week.

Just a reminder: If your contact details have changed, please make contact with Gabrielle Wright (gabrielle.wright@jbssa.com.au) and let her know so that we can update our records and so that you aren't missing out on any communication from our end.

Going forward, the best point of contact for any LDL related queries is Demelsa Lollback at MLA. Demi's contact details are:

Phone: (02) 8055 1813 Mobile: 0428 231 179

Email: dlollback@mla.com.au

If you haven't had a look at LDL yet, I would highly recommend doing so – it's a great tool; easy to use and impossible to break!

Kind Regards,

Laura Wishart







Left: Laura Wishart explaining the role of LDL in JBS's Producer of the Year calculation.

Right: LDL's log in screen - use your NLIS username and password to register & log in.