

final report

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Feedlot Technology Adoption Group Extension Model 2016-17

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Executive summary

While Meat & Livestock Australia (MLA) and the Australian Lot Feeders Association (ALFA) have traditionally enjoyed a high level of interaction with larger feedlots, this same relationship has not existed for many small to medium sized operations (<10,000 SCU). Hence a need was identified for improvement of information flow and increased adoption of technologies across the sector.

There was a need for MLA and ALFA to engage more with small to medium sized feedlot operations to improve information flow and increase adoption of technologies across the sector. This project followed on from the 2014/15 project "B.FLT.0456 – Pilot feedlot extension model". The main objective was to oversee the upgrade and operation of the Feedlot Technology Adoption Group (FTAG) Facebook page and website.

The FTAG website and Facebook page are designed to engage small to medium sized feedlot operators as well as employees of larger feedlots and have been in operation since October 2014. The Facebook page has nearly 1940 likes and the website has had over 4250 visits since February 2016. The most popular posts were generally videos and photos with some links to chapters of the Feedlot Design Manual also being popular. The main benefit from this work is the extension of information in the Feedlot Design Manual and Waste Utilisation Manual published by MLA.

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1 Background

While Meat & Livestock Australia (MLA) and the Australian Lot Feeders Association (ALFA) have traditionally enjoyed a high level of interaction with larger feedlots, this same relationship has not existed for many small to medium sized operations (<10,000 SCU). Hence a need was identified for improvement of information flow and increased adoption of technologies across the sector.

2 Project objectives

The overall project objectives include:

- Rebranding and promotion of the Facebook and Feedlot Technology and Adoption Group (FTAG) website with both MLA and ALFA logos;
- Daily monitoring and moderating of the FTAG Facebook Page. Reporting of any significant extension or research priorities back to MLA. Updating the Facebook FTAG website, at least once weekly with new content;
- Updating the FTAG website on a monthly basis, with new content as it comes to hand;
- Provision of a quarterly E-newsletter to FTAG website subscribers; and
- Provision of FTAG Facebook page and website usage metrics to MLA.

3 Methodology

The methodology to achieve project objectives were as follows:

1. Rebranding and promotion of the Facebook and Feedlot Technology and Adoption Group (FTAG) website with both MLA and ALFA logos.

The FTAG Facebook page and website, was to be jointly re-branded as an ALFA-MLA site with official logos. The websites links for both of these organisations will be added on the FTAG sites. Contact was to be made with ALFA and MLA, to request that links to the FTAG site be added on the MLA and ALFA Facebook pages and websites.

Facebook advertising campaigns to a total of \$250 dollars (Incl. GST) would be used as a mechanism, to increase membership of the FTAG site. The metrics around the success of those campaigns and engagement in terms of new likes would be reported to MLA.

2. Daily monitoring and moderating of the FTAG Facebook Page

During the working week (Monday to Friday), FSA would monitor the FTAG Facebook page on a daily basis for member comments. All comments would be reviewed and moderated. Any comments deemed in-appropriate by FSA, would be removed. A record of all removals of comments would be kept by FSA for reporting to MLA.

Through the daily monitoring process FSA would encourage public engagement through direct interaction with the Facebook site's users and encouraging feedback on the site. For training and extension issues that were identified as being of major significance to lot feeders, FSA would communicate this to ALFA/MLA so that ALFA/ MLA could discuss the requirement for the training.

3. Updating the Facebook FTAG website, at least once weekly with new content.

A planning meeting via telephone conference or skype would be conducted between FSA and MLA each quarter to review proposed post topics for the following 12 week period. Final approval of concepts was obtained from MLA Feedlot Project Manager.

Mechanisms for generating new content included:

- Review of similar Facebook pages, or pages with the same intended use (extension and contact with farmers) such as the MLA page, the ALFA page, Condamine Alliance, etc. to get ideas of content to post on the Facebook page.
- Consultation and collaboration with Jeff House (ALFA) regarding information, education, training and technical services to improve management practices among cattle lot feeders throughout Australia.
- Monthly review of Facebook engagement and topics discussed in order to choose topics for the following month. This would also focus the topics that should be updated on the FTAG website.
- When engaging with the feedlot industry through social media, email, over the phone or face-to-face, determine the key messages/issues/technologies that should be discussed on the FTAG website and Facebook page.
- Regular updates to the FTAG website with addition of new content based on the Feedlot Design Manual and various, training for the feedlot industry, feedback on the identification of training needs for the industry and other information sources. The synergy between the Facebook page and the FTAG website will continue to be developed, with links to particular sections of the website posted on Facebook. These links were based on the most popular content on the Facebook page and any other feedback (telephone communications, face-to-face, email) received from the feedlot industry.
- Discussion with MLA about current and completed R&D projects for extension ideas.

4 Results

4.1 Facebook Page

Facebook "Likes": As of 9 June 2017, the Facebook page had a total of 1936 likes which is an increase of 243 from 1693 on 1 February 2016. The number of likes saw several sudden increases in early 2016 and then a steady increase to mid-2017 (*Figure 1*).



Figure 1 - Total likes from February 2016 to current

Daily	data is recorded in the Pacific	time zone.			1W 1M 1Q			
						Start:	1/2/2016	
A	www.cologialica.a.a		an a			End:	8/6/2017	1188
Feb	May	Aug	Nov	Feb	May			

Figure 2 – Daily likes and unlikes from February 2016 to current.

Approximately 28% of fans are women and 71% are men. The predominant age groups of the fans are between 25-34 (41%) and 18-24 (27%) years of age. The majority (65%) of fans are based in Australia with additional fans from South Africa, the United States of America and South American nations.

Facebook Post Reach: The number of people each post was served to (organically or paid). No paid advertisement was undertaken. Note there appears to be some inaccuracies with this graph as several posts during the measured period had a reach in excess of 1,000 fans.



Figure 3 - Facebook reach from February 2016 to current

Facebook Reactions, Comments and Shares: This information shows when and how people interacted with posts on the page. Facebook users who "Like" or are a fan of the FTAG Facebook page have the opportunity to "React", "Comment" or "Share" any post made by the FTAG page. Generally, more interactions with posts results in a larger reach. New photo albums resulted in the highest interaction from fans. This resulted from individual fans viewing multiple photos in succession.



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Popular posts: These include posts with a large reach or high engagement. Posts promoting the extension of information and photos from the Feedlot Design Manual and the Waste Management and Utilisation Manual were very popular.

Post Details	Reported stats may be delayed from what appears on posts $ \mathbb{X}$				
Feedlot Technology Adoption Group	2,823 People Reached				
Published by Caoilinn Murphy [?] · 17 February 2016 · @	48 Likes, Comments & Shares				
A pen rider's sense of horsemanship is a key factor in low-stress cattle handling. Check out Meat & Livestock Australia's video on horsemanship from the Caring for Cattle series.	35 5 30 Likes On Post On Shares				
You should ride calmly through pens at all times. The animals in your care are there to put on weight and the best way for them to do that is to be as relaxed as possible. For this reason it is also important to use a good	5 Comments0 On Post5 On Shares				
horse with a steady temperament. A horse that is naturally highly strung is not suited to the feedlot environment.	8 3 5 Shares On Post On Shares				
https://youtu.be/5T7iH3M2jZg	206 Post Clicks				
Caring for horses (at a cattle feedlot) - Feedlot horses	0 121 85 Photo views Link clicks Other Clicks i				
Horsemanship A pen rider's sense of horsemanship is a key factor in low-stress cattle handling. The demeanour of both horse and rider has a direct effect on YOUTUBE.COM	NEGATIVE FEEDBACK 0 Hide Post 2 Hide All Posts 0 Report as Spam 0 Unlike Page				
Get more likes, comments and shares Boost this post for \$4 to reach up to 1,100 people.					
2,823 people reached Boost post					
ዕ Muhammad Fatchurozi SPt, Robert John Tilley and 3 others 🛛 3 Shares 🛛 🛬 👻					
🖆 Like 🗰 Comment 🎓 Share					

Figure 5 – Post of a video from the MLA "Caring for Cattle" series. This post had the highest reach in the project timeframe.

Post Details	Reported st	ats may be delayed from	n what appears on posts $$	
Feedlot Technology Adoption Group		2,167 People Reached 32 Likes, Comments & Shares		
The brand new Feedlot Design Manual has been published by Meat & Livestock Australia and is essential for anyone looking to develop or expand a feedlot and also provides information on facilities required for the day-to-day management of feedlots.	21 Likes	15 On Post	6 On Shares	
Feedlot Design Manual This manual takes the feedlotter and consultants through the stages of selecting a suitable site, designing the feedlot and its facilities, their construction and the overall management of the project.	Comments 5 Shares	On Post	On Shares	
MLA.COM.AU Get more likes, comments and shares Boost this post for \$4 to reach up to 1,100 people.	165 Post Clicks 0 Photo views	76 Link clicks	89 Other Clicks 1	
2,167 people reached Boost post	NEGATIVE FEEDBACK 0 Hide Post 0 Hide All Posts 0 Report as Spam 0 Unlike Page			
 O Yanty Panjaitan, Leigh O'Sullivan and 13 others 4 Comments 1 Share Share I Like ■ Comment Share 				

Figure 6 – Post advertising the release of the Feedlot Design Manual. This post had the second highest reach in the project timeframe.

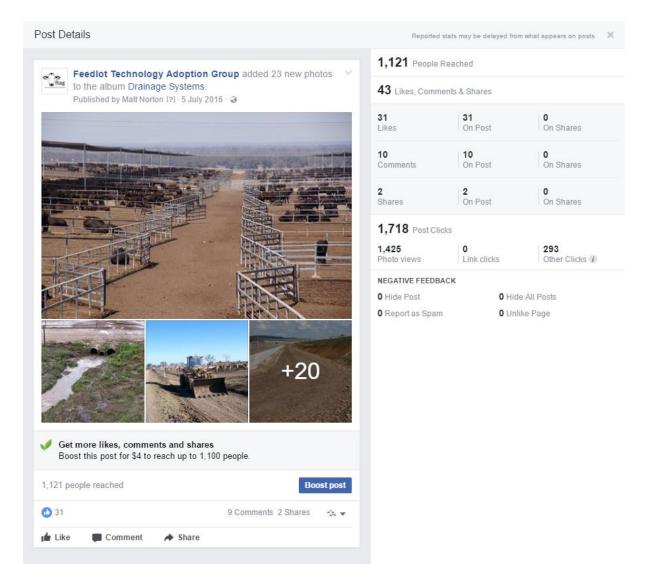


Figure 7 – Photo albums such as this one on drainage systems were popular and had very high engagement

4.2 Website

Using the Google analytics program, it was possible to determine the following trends for the FTAG website (Figure 8):

- Over 3370 users have viewed the page since February 2016;
- The average session duration is 2 minutes 18 seconds;
- The number of page sessions peaked in November 2016 and were steady at approximately 250 sessions per month;
- The bounce rate i.e. a visit where the user left the site without interacting with the site is 69%;
- The percentage of returning site visitors is 20.9%, with an average session duration of 2 minutes 18 seconds;
- 32 users returned to the site between 9-14 times; and
- The majority of sessions were from USA (27%) and Australian audiences (23%).

A search engine optimisation (SEO) assessment was undertaken following the completion of the initial project. An updated assessment of the SEO efficacy has been completed (*Table 1*). The lower the page number and ranking, the more visible the FTAg website is when searching specific terms. The optimum location is to be on the first page (i.e. a ranking of < 10)

Search term	Page number in Google	Ranking	Improvement required	
Feedlot Australia	>10	>100	Yes	
Cattle feedlot information	>10	>100	Yes	
Lot feeding beef cattle	>10	>100	Yes	
Feedlot rations beef	>10	>100	Yes	
Feedlot design	3	23	Yes	
Feedlot technology	1	1	No	
Feedlot site layout	1	4	No	
Feedlot construction	2	13	Yes	
Feedlot cattle disease	>10	>100	Yes	
Feedlot cattle management	>10	>100	Yes	
Welfare safety feedlots	1	8	No	
National feedlot accreditation scheme	5	44	Yes	
Feedlot cattle heat stress	>10	>100	Yes	

Table 1 – Search engine optimisation (SEO) efficacy results for different search terms

The website has been progressively updated with information, particularly information from the Feedlot Design Manual and the Waste Management and Utilisation Manual.

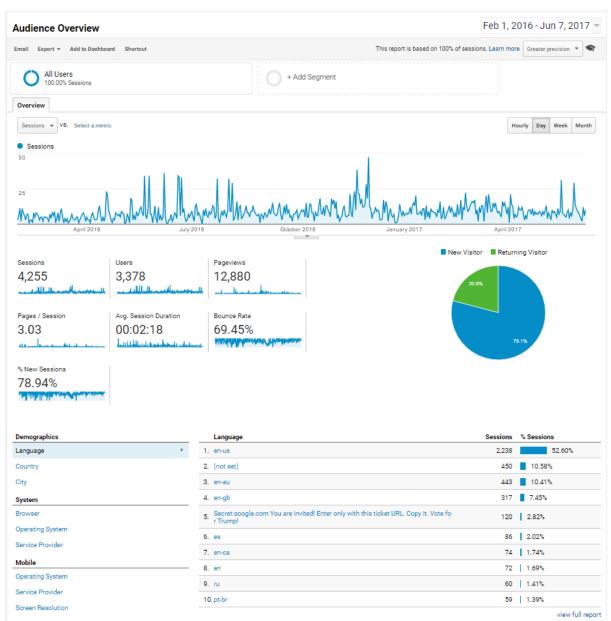


Figure 8 - Google Analytics data for the FTAG website (February 2016 to June 2017)

4.3 YouTube

The FTAG YouTube channel currently has 130 subscribers and nearly 50,000 total views (of all videos) which are steadily increasing (*Figure 9*). Different playlists have been created and videos sourced from other YouTube channels.

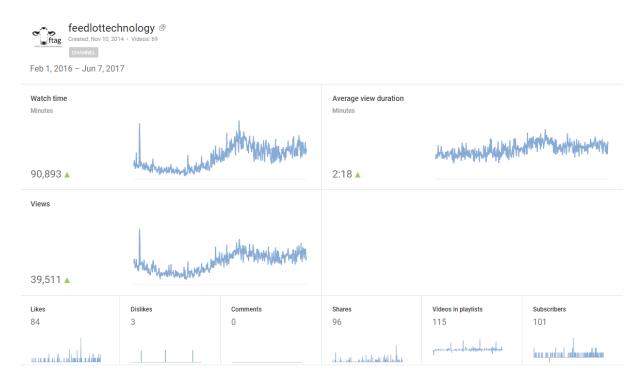


Figure 9 – Overview of FTAG YouTube analytics in the project period.

Top 10 Videos Browse all content				
Video	\checkmark Watch time (minutes)	\downarrow Views	\downarrow Likes	\downarrow Comments
Arrival and Induction	33,518 37%	9,759 25%	25	0
Caring for cattle - Demonstration treating a fo	14,241 16%	9,183 23%	4	0
Caring for cattle - Bovine respiratory disease	13,705 15%	5,480 14%	18	0
Caring for cattle - Nutrition	4,713 5.2%	2,108 5.3%	3	0
Caring for horses (at a cattle feedlot) - Feedlo	4,021 4.4%	2,351 6.0%	4	0
Caring for Cattle - Feedlots: Introduction	2,558 2.8%	1,378 3.5%	2	0
Weaning	2,406 2.6%	578 1.5%	2	0
Sourcing Cattle	1,928 2.1%	631 1.6%	1	0
Caring for cattle - Panting Score	1,775 2.0%	1,033 2.6%	2	0
Caring for cattle - Digestive disorders - acidos	1,695 1.9%	1,236 3.1%	5	0
Top geographies Watch time United States (39%) Australia (12%) United Kingdom (5.5%) Canada (5.5%) South Africa (3.1%)		Gender Views Male (75%) Female (25%)		
Traffic sources Watch time Suggested videos (48%) YouTube search (21%) External (12%) Other (20%)		Playback locations Watch time VouTube watch page (98%) Embedded in external websites and apps (1	.6%)	

Figure 10 - YouTube analytics showing the top 10 videos and viewer demographics.

5 Discussion

5.1 Facebook Page

The FTAG Facebook page has been a very successful extension tool for the Feedlot Design Manual and the Waste Management and Utilisation Manual. Photos from both the manuals and additional photos as well as links to individual chapters were successful in increasing the visibility of these documents. It is noted that any additional photos used on the Facebook page were approved for use within the manuals but not included in the final documents. It would be interesting to compare traffic to the MLA website following relevant FTAG posts to determine the success of these posts in directing traffic towards the MLA website.

There have been very few negative comments or posts that were not appropriate for the FTAG Facebook page. A post from a Russian recruiter advertising for feedlot manager positions in Russia had to be deleted. This post was generally not in line with the intent of the FTAG Facebook page. Generally, comments on posts are fans tagging friends.

The most successful posts with the highest reach and engagement are made in the evening between the hours of 5 pm and 8 pm with Friday being the most successful day of the week. For example,

photo albums for effluent holding ponds and sediment removal systems were posted on a Monday morning. These photo albums had a reach of 17 people. A photo album for drainage systems was posted that afternoon and, in contrast, had a reach of over 1,000 people.

Sharp increases in fans were observed when the admin personally endorsed the FTAG website through personal social media networks. Further personal endorsement from high profile industry members will result in further increases in the FTAG Facebook page popularity. Steady increases generally resulted from regular posts and maximising post reach

5.2 Website

The website's SEO efficacy is very high when specific phrases like "feedlot technology", "feedlot site layout" and "feedlot construction" are searched. The google search ranking for these phrases has increased since the pilot project as a result of additional information being uploaded to the website. The FTAG website does not readily appear when general phrases like "cattle feedlot information" are searched.

The WIX platform used for hosting the FTAG website is difficult and time consuming to use. The appearance of the website, due to the simplicity of the WIX platform, may not encourage users to move past the main page. It is also difficult to align formatting and text structure across various pages. There is also no spellcheck function when typing information into the pages resulting in some errors and the requirement to write text in Microsoft Word prior to copying into the website.

Website sessions peaked in November 2016 coinciding with the US election (*Figure 11*). It appears that there may have been some spam relating to the US election. The language setting for these sessions was set as "Secret.google.com You are invited! Enter only with this ticket URL. Copy it. Vote for Trump!". Previously, the majority of website viewers were from USA.

Language ALL > LANGUAGE Secret.scoogle.com You are invited. Enter only with this ticket UP	L. Copy it. Vote for Trump!			Feb 1, 2016 - Jun 7, 2017 -
Customize Email Export + Add to Dashboard Shortcut				This report is based on 100% of sessions. Learn more Greater precision 💌 🗬
All Users 2.82% Sessions	+ Add Segment			
Explorer				
Summary Site Usage Ecommerce				
Sessions + V9. Select a metric				Day Week Month
Sessions				
12			AM	
6		^ <i>M</i>		
April 2016	July 2016	October 2016	January 2017	April 2017

Figure 11 – Activity in November 2016 that appears to be spam relating to the US election.

5.3 YouTube

The FTAG YouTube channel has grown in popularity in 2017 with significant increases in viewers since January 2017. The highest traffic source is from suggested videos (49%).

6 Conclusions/recommendations

The FTAG Facebook page has been successful in directing fans towards the Feedlot Design Manual and the Waste Management and Utilisation Manual. Although the FTAG Facebook page and website are directed towards an Australian audience, there has been increasing interest from other countries such as USA, South Africa and South American nations. The FTAG Facebook page and website have been re-branded with the ALFA and MLA logos.

Facebook page recommendations:

- The most successful time to post information is in the evenings between 5 pm and 8 pm, especially on Fridays. This is when users are most active, and posts on Fridays can continue to be viewed across the weekend.
- The regularity of relevant posts from MLA and ALFA will influence the success of the FTAG page. Further endorsement from MLA and ALFA will continue to grow the FTAG audience.
- Photos, videos and links to specific information on the MLA website are the most popular posts. Further production of modern, high quality videos relating to feedlot design and management would assist in aligning with the social media audience's preference for short and engaging presentation of information.
- For more regular posting and engagement to occur, further information must be sourced. The key is for the FTAG admin to follow various rural and scientific pages to keep up to date with the latest information on social media.
- Utilise the social media networks for high profile individuals in MLA and ALFA to provide personal endorsement of the FTAG Facebook page.

Website recommendations:

- The WIX platform is simple to use but has a number of issues that make publishing information slow and difficult. This platform may not be best suited to the FTAG website in the future. The future management and development of this website may be best suited to a website design professional with input from FSA Consulting, MLA and AFA. This will ensure consistent and attractive formatting and presentation of information.
- The SEO for the website should be improved to increase the website's search engine ranking for more general search phrases.

YouTube recommendation:

• Development of more videos detailing cattle welfare and management, safety, and feedlot nutrition should by MLA and ALFA in order to ensure the information shared online is up-to-date and to ensure the continued interest of Facebook and website users.

7 Key messages

- The FTAG extension model has been successful in providing individuals within the feedlot industry easy access to information.
- The Facebook page has been successful in providing a quick and easy pathway to information contained within the Feedlot Design Manual and the Waste Management and Utilisation Manual.
- Videos to accompany sections of theses manuals would boost the FTAG Facebook popularity and provide a succinct overview of the information within each chapter.