

Audiences within audiences

Jayce Morgan

NSW Department of Primary Industries, 4 Marsden Park Road, Calala NSW 2340

Email: jayce.morgan@dpi.nsw.gov.au

Abstract. Australian multi-enterprise farmers are time poor. They live in a multi-media age with rapid technology development. Developers and extension professionals are increasingly using technology such as webinars, podcasts, YouTube, Twitter, Facebook websites and Moodle to connect with and provide information. The technology meets an impasse however when your target audience works under pressure and barely have time to read their emails. Perhaps it is time to refresh our memories and recognise that there are many audiences within one industry and each sector of an industry may have several audiences with different needs. Two recent projects the author has been involved in that were funded by Australian Pork Limited have been 'Target 25' and 'Barriers to Adoption'. These two projects addressed a common problem with differing approaches. The common problem was that there is often no evidence to support that the practices and information that results from industry-funded research is being adopted at the coalface of production. No measureable productivity improvements and subsequent increased profits are evident. The author has established that industries, especially the Australian pork industry, are stratified into various levels of capacity as information seekers. To create beneficial change firstly each level needs to be identified, secondly the key communication and interaction methods need to be established and thirdly each engagement and interaction activity needs to be evaluated before a reengagement occurs.

Keywords: farmers, technology, barriers, adoption

Introduction

Two research projects 'Target 25' and 'Barriers to Adoption of new technology in the pork industry – a preliminary study' addressed a common problem. That 'problem' was the apparent lack of uptake of new innovations. The perception of the 'problem' exists because it is difficult to measure the uptake of a new innovation. Average herd production performance appeared unchanged over time even though there was a lot of research being conducted into new technologies with the perception of real benefits if adopted on farm. Both projects were funded by Australian Pork Limited (APL).

In Target 25 the approach was to bypass managers and talk directly to staff in the mating and farrowing sheds. This approach was outlined in the participation proposal and farms had to elect to participate and pay a fee to be part of the project. The aim for each farm was to improve reproductive performance of their herd. It was believed that dealing directly with the workers would allow investigators to assess capacity and identify areas for improvement; whether they were worker skills and knowledge or method application in terms of sequence and timing.

Workers were interviewed to discover what they actually did in the mating or farrowing sheds; and whether their activities deviated from the farm's standard operating procedures. Owners and managers would expect things were done a certain way but sometimes different things happened in the shed or various reasons. Sometimes there was a tendency to take shortcuts which could be indicative of a/the need for greater knowledge and training so that the significance of the steps was fully understood; while sometimes facilities or substandard facilities played a role in the deviation from accepted procedure.

In Barriers to Adoption, farmers with less than 1,000 sows were targeted and interviewed in a focus group setting. Farms in this size category tend to be multi-enterprise farms or have some source of off farm income. These farmers can be very difficult to attract to meetings because they are time poor and juggling several demands on their time. APL was seeking to discover effective adoption pathways. The questions asked of farmers focussed on communications – what they choose to read, internet usage, use of notepads and smart phones and whether they had heard of a selection of research results.

A key finding in this project was that there were real communication difficulties because of a combination of technical issues such as computer line speeds and mobile phone reception in some areas as well as an assumption by industry organisations and government (perhaps) that email is a good communication tool and all farmers are comfortable with its use. Email is certainly cost effective if emails are read. Farmers in these groups expressed real frustration because they heard only part of the story when hearing about new research or they had difficulties in restoring communications when they dropped off an email or subscription list.

Other points raised included complexity of the information and the length of the description. Farmers wanted short and to the point messages. One focus group even suggested that some of the information should not be directed at them but rather be directed to their nutritionist or vet and that this consultant would then suggest things the farmer might try.

Information filters

In both projects, the farmers or farm workers were receiving filtered information. New information was delivered to them after distillation by a third party. Farm workers hear what management chooses to tell them and farmers who rely on consultants are also hearing a modified version.

Whilst this filtering is not that much different to the filtering that occurred in the days of government extension services, however, the risk today is that private consultants may be paid to promote certain technologies. This may be acceptable if these are reliable technologies that work and the farmer is profitable as a result of their use. Can anyone be truly objective? Perhaps that is one of the big benefits of today's information highway – if you seek them you can find differing assessments about technology or innovation. Good if you have time but maybe not so good if you rely on others to provide your information. Whose responsibility is it if you get given the wrong information?

At a Kansas Swine industry day in 2012 a small survey was conducted on farmers and consultants to determine the level of knowledge, production practices and identification of information gaps in nutrition-based topics. Flohr et al. (2012) identified that there were gaps in knowledge even among consultants and that 'not sure' responses averaged around 30% for consultants with 10+ years in industry and were higher for those with less experience. Farmer 'not sure' responses were greater than 30% for most questions. While it is true that very few people can be comprehensively correct with their technical knowledge this work indicates that consultants and farmers have gaps in their knowledge.

Farmers in the 'Barriers to Adoption' project felt very strongly that nutrition consultants should be advising them with very little questioning on their part. If farmers choose to place a high degree of trust in the advice from their nutrition consultants, then the target for nutrition extension activities should be with nutrition consultants more so than farmers. The use of nutrition consultants is common in intensive pork production. Well formulated diets can significantly reduce the cost of production.

What does the new entrant to the industry do? Much information about nutrition is written with a certain amount of assumed knowledge – it is assumed that the audience knows most of the terms, their definitions, acronyms or abbreviations. The work by Flohr et al. (2012) suggests a significant proportion of industry were 'not sure' about some fairly basic nutrition information. Is this due to an assumption that the stayers in industry know the basics so we just tell them what's new; or are we forgetting that there are always new entrants to industry? If existing staff act as mentors for new staff (Target 25) but are unsure of some aspects of procedure or are themselves taking 'shortcuts' this could be a cause for unchanged production averages.

Back to Basics

The pork industry in Australia consists of large, multisite, intensive, indoor, vertically-integrated operations ranging down to the smaller family single site indoor intensive operation, which competes for time and labour input with other farm operations such as other livestock, cropping or off farm employment. Based on enquiries to my office another small but growing sector is the small outdoor producer who ventures into pigs for change of scene with some income potential; or who see themselves as gourmet food suppliers with high animal welfare credibility. Until recently, most research and extension activities have focussed on the indoor intensive pork producer. Accusations of cruelty by animal activist organisations and focus on the new 'free range' pork have shifted consumer attention to more 'welfare friendly' production systems.

Based on questions asked by some of these new entrants, it appears that they have no real understanding of pork production and the damage that pigs can exert on the environment. Many large scale producers began in this way 30+ years ago. As the production systems have evolved so has the information provided. The number of farms has declined but the number of sows has stayed steady. Familiar faces attend industry functions. A focus group farmer commented they had attended Pan Pacific Pork Expo once, but wouldn't bother again because they didn't feel that there was anything for them. Anecdotes from other small-scale outdoor pig farmers suggests that many in this group feel somewhat disenfranchised from the mainstream industry because they don't see current research as applicable to their needs.

Such is the interest in outdoor pork production that a farmer seems to only have a few successful sales at the local farmers market and they are interviewed on radio as entrepreneurs and almost in the category of saviours of the pork industry. One recent interview profiled a producer who used his pigs to graze bracken fern and spoke at length about the darker colour of his pork. There was no way of knowing if the gentleman was aware that bracken fern is toxic to livestock or that dark colour in the meat can be an indicator of long-term stress.

A long established farmer complained that the new outdoor pork producer was stealing the 'moral high ground' from the established industry. Why is this happening? Is it only the influence of the animal welfare lobby and the supermarket push to be seen to be stocking 'welfare friendly' product; or is it that we have overlooked a large segment of our audience and the information they rely on to form decisions has no sound basis based on science or prior experience?

Only productive farms receive good extension or do they?

As government extension services all but disappear and private consultants fill the breach it becomes obvious that their focus will be on the larger farms that can afford to employ consultants. Industry research and development corporations rely on farmer levies for much of their funding. To some degree these funds may be matched by federal government funds to enlarge the available pool of money for research, but larger farms contribute a large proportion of the money and expect research projects and outcomes that will be of benefit to their operations. Newer and smaller sectors of industry that have small numbers of pigs per producer tend to feel disenfranchised.

Investment in research, development and extension (RD&E) tends to focus in areas of most benefit to the most productive areas of industry where it is most likely there can be measurable outcomes. Farmers have long been classified into different groups relative to their acceptance and adoption of new ideas. Wilkinson (2008) referred to innovators, early adopters, early majority, late majority and laggards and highlighted the fact that a laggard of the 1950s might be considered very differently today especially in reference to the example used which was use of DDT. Stephens (2013, p. 9) referred to the groups as 'the 3,000-odd very large businesses, the productive and profitable middle, the unprofitable and the peri-urban, lifestyle or hobby farmer group' and recognised that each group had very different needs and would utilise extension services differently.

Does Stephen's (2013) description cover the full extent of the variety of audience types? What about students of all ages and consumers? It is recognised that there is a 'disconnection' between consumers and farmers and that there are fewer and fewer students of agricultural sciences. Have we forgotten to service two of our most influential audiences?

Farmers in the Barriers to Adoption project commented that information provided was too complex for their needs. They need simple and to the point, short segments of information that provide the facts and can be used in training staff. They were not interested in too much background information. They also wanted to see new technologies trialled on other farms and hear a farmer's assessment. The horizontal transfer of information farmer to farmer is still important when it comes to new technology assessment. Charlesworth (2012, p. 910) noted '...farmers are very observant and are willing for someone else to try a new idea first as they know full well that the first adopters are the people who run the most risk until the issues with the idea are ironed out'.

Intensive production systems rely on farm biosecurity to keep their farms disease free. This is recommended best practice but it removes opportunity for other farmers to view a farms production practices first hand. It can also create the impression that the farm has something to hide – something which animal welfare activists take good advantage of. With the progression to more electronic forms of extension media especially social media it is apparent that the editing process in a video can result in a very different perception to what is actually happening on farm.

What now?

Stephens (2013) suggested that large corporate farms would generate their own extension and profitable farmers would employ consultants leaving all the rest of the groups to look to R&D organisations for service. A survey of the role of private sector crop advisors conducted by the Australian Farm Institute with funding from Grains Research and Development Corporation (GRDC) found that advisors participating in the survey reported that face-to-face discussions with a grain grower on-farm was still the most important method of delivering crop production information. The other important observation of this work was that horizontal transfer of

information is still important; and the fact that information and extension from advisors is specific and does not address the whole of farm activities like farm planning and resource management.

As extension professionals we embrace the new communication tools and endeavour to provide webinars or videos that can be viewed from the office or home farm to save farmers time and reduce costs. But are we servicing our farmers' needs? Has our shift in focus to RD&E with measurable outcomes meant that we are missing the target in the broader community? Does the fact that we need to measure progress mean we are missing opportunities to create awareness of the great industry agriculture is?

There are many audiences that need extension services and we are falling short in several of them and are non-existent in several others. I don't have all the answers to overcome the issues raised. I am reviewing how my contribution to NSW DPI information is presented in an attempt to cater for different needs. It is probable that the same message needs to be repeated in different formats. I am also working on the provision of information that hopefully will be of use for students and consumers, which if read, listened to or viewed may provide a greater understanding of the industry in which I work.

I have been providing extension and research updates in the cafeteria of the local pig sale. Old fashioned yes but seems to be appreciated. The farmers attending the pig sale tend to be the smaller-scale producers. All the information is freely available for download from the various websites. As for the 'disenfranchised' I am looking for ways to remove the 'dis' and help this sector of pig farmers to be part of their industry. They are a growing sector and have different needs to the large scale pork producer and a different philosophy regarding the keeping of pigs.

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References

- Charlesworth K 2012, 'Landcare Corner', *Conservation Farmers Inc Newsletter*, 8(6): 910.
- Flohr JR, Tokach MD, DeRouchey JM, Patience JF, Goodband RD, Dritz SS and Nelssen JL 2012, 'Feed efficiency in swine: A survey of current knowledge,' in *Proceedings of Kansas State University Swine Industry Day*, 1-16, <<http://krex.k-state.edu/dspace/handle/2097/14994>>.
- Hughes P 2009, 'Target 25' *Final Report*, Australian Pork Limited, Barton, ACT <<http://www.australianpork.com.au/>>.
- Keogh M 2013, 'Discoveries' *Farm Institute Insights Quarterly Newsletter*, 10(1): 7.
- Morgan JE 2013, 'Barriers to adoption of new technology in the pork industry – a preliminary study', Final Report APL Project 2012/1034, Australian Pork Limited, Barton, ACT <<http://www.australianpork.com.au/>>.
- Stephens M 2013, 'The future of agricultural extension', *Farm Institute Insights Quarterly Newsletter*, 10(1): 9.
- Wilkinson R 2008, 'The many meanings of adoption', Presentation to *Understanding Practice Change by Farmers Symposium*, Melbourne 14th November 2008, <<http://www.ruralpracticechange.org/>>.