



Safeguarding Australia's Livestock Industries: *Improving biosecurity in pig production systems*

ADOPTION FORUM

Final Report

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Executive Summary

An adoption forum held at the University of Sydney on 21-22 August 2008 brought together a range of delegates with interest in the small-scale sector of the Australian pig industry including representatives of the industry, other livestock industries, state and federal governments, universities and the Australian Biosecurity Cooperative Research Centre (AB-CRC). The forum supported by Australian Pork Limited (APL), The University of Sydney and the AB-CRC aimed to i) inform delegates of the key findings from an AB-CRC funded project conducted by a University of Sydney research team related to the demographics and biosecurity practices of pig producers who trade at saleyards in Eastern Australia and ii) facilitate identification of actions to overcome gaps and deficiencies identified by the research.

The key research findings were presented and considered by the delegates through facilitated group discussions and activities related to a series of focus questions. The recommendations arising from the forum were the following actions:

Action 1: The listed set of minimum biosecurity standards generated by forum participants will be submitted to the APIQ Standards Review Committee through the provision of this report to Mr Bill Salter (Pig National Livestock Identification Scheme Committee) and Dr Pat Mitchell (Australian Pork Ltd) for consideration in the review of the Australian Pig Industry Quality Assurance program (APIQ).

Action 2: Animal Health Australia (AHA) to develop recommendations on an action plan on national swill feeding audits to be presented to Animal Health Committee (AHC) for discussion.

Action 3: The University of Sydney research team to provide to the Pig National Livestock Identification Scheme (NLIS) Consultative Committee a report of the research findings about level of ability to meet the National Livestock Traceability Performance Standards (NLTPS) and Forum recommendations for the components of a national approach to traceability.

Action 4: Pig NLIS Consultative Committee to develop a strategy for a national approach to traceability based on the information provided by Action 3 and to lobby state governments to comply with this strategy.

Action 5: AHA to incorporate biosecurity and disease detection into relevant training programs as part of emergency animal disease preparedness.

Action 6: APL to liaise with AHA regarding the ability of the E-Surveillance program to capture data on suspect pigs at abattoirs.

Action 7: APL to develop an extension strategy with AHA and state governments relating to issues of compliance.

Forum Overview

The pork industry in Australia has a competitive advantage in the global market due to the health status of our pig herds. Farm biosecurity is paramount to keep our herds free of diseases prevalent in other parts of the world and is founded on the practices implemented by pig producers on a day-to-day basis. However little is known about the demographics and practices of pig producers in Australia who raise pigs in small herds. The 2005 Australian Pig Annual reported that producers with herds of less than 100 sows comprised 80% of pig producers and raised approximately 10% of the national herd (APL, 2006). There is concern that the biosecurity practices of these small-scale producers may be insufficient to prevent disease entry and spread.

To address this knowledge gap a research team at the University of Sydney was funded by the Australian Biosecurity CRC for Emerging Infectious Disease (AB-CRC) to undertake the project '*Peri-urban and remote regional surveillance for biosecurity for the pig industry in Eastern Australia*' (AB-CRC 3.016RE). It focused on on-farm and post-farm-gate disease surveillance and biosecurity among pig producers trading through saleyards in eastern Australia. This project assessed the biosecurity, traceability, disease reporting, trading practices and extension needs of peri-urban & regional pig producers, and evaluated current disease surveillance activities at pig saleyards and abattoirs for potential improvements.

This project now at its conclusion has evaluated disease surveillance and biosecurity of the above-mentioned sectors of the industry. We have found a number of practices that may pose a risk to the national livestock industry and identified potential means of improving current strategies for exotic disease detection at saleyards and abattoirs where pigs are sold/processed.

A forum was held at the University of Sydney on 21-22 August 2008 to convey the project findings to livestock industry and government stakeholders and invite consideration of the implications of these findings for current and future biosecurity, traceability and surveillance practices in the pig industry. The forum, supported by Australian Pork Limited (APL), The University of Sydney and the AB-CRC, was attended by 35 delegates (see Delegates List) representing the pork industry, pork producers, other livestock industries, state governments, federal government, universities and the AB-CRC.

The objectives of the forum were broadly to:

- Inform livestock industry and government stakeholders of the key findings of AB-CRC 3.016RE related to on-farm biosecurity, swill feeding, disease surveillance, traceability and extension/communication among pig producers who trade at saleyards in Eastern Australia.
- Facilitate stakeholder identification of approaches to overcome identified gaps and deficiencies.

More specifically, we sought to:

- Gain consensus on a set of minimum on-farm biosecurity standards for pig producers who own at least one pig, either by ratifying existing standards or suggesting different standards for small producers.
- Gain consensus on the collection and application of data generated from conducting swill feeding audits in all states of Australia.
- Develop a pathway to a more consistent/cohesive approach to traceability across all states of Australia.
- Gain consensus on a national approach to collection and application of disease surveillance data collected at saleyards and abattoirs.
- Gain consensus on the value of extension and communication activities to all sectors of the pig-rearing community.
- Develop solutions to increase extension penetration and communication flows in a sustainable way to all pig producers, with measurable impacts on biosecurity outcomes.
- Develop solutions to increase extension and training in a sustainable way to target groups post-farm gate responsible for surveillance and traceability, with measurable impacts on the national surveillance and traceability capabilities.

The workshop, facilitated by Dr Nigel Perkins, consisted of a series of presentations and general discussion sessions interspersed with group activities that addressed specific focus questions.

This report presents a summary of the major outputs of the forum as well as the final recommendations.

Industry (Australian Pork Ltd) perspective

Mr Bill Salter, Manager of the Pig NLIS Program in Australia, equated biosecurity with 'safe life' and delineated risks to this posed by animals, people, feed, water and pests. Pertinent to this forum, Bill reported the following APL initiatives:

- Gap analysis of emergency disease preparedness
- Review of front-line detection and reporting capacity of producers
- Development of a National Vendor Declaration (PigPass) to improve traceability in the pig industry
- Consideration of these issues in view of the rapidly changing industry structure and context.
- Currently, 20% of APL member producers (estimated to contribute about 80% of national volume) are accredited with the Australian Pig Industry Quality Assurance program (APIQ). The APIQ program presently includes a number of biosecurity standards (BS1-BS5):

BS1: Compliance with regulations prohibiting swill feeding

BS2: People, animal and transport movements are recorded

BS3: A controlled entrance with hand washing facilities is in place and farm boots and clothing are provided for visitors

BS4: Staff are trained in emergency disease recognition

BS5: (Recommended as Good Management Practice) Domestic pigs are separated from other animals, especially feral pigs and other animals of risk

The APIQ biosecurity standards have been approved by the Animal Health Committee (AHC) but are not legislated in any state or territory. The APIQ standards are currently under review by APL and the Pig NLIS Consultative Committee.

Key findings from the on-farm component of the project

Ms Nicole Schembri presented a review of the key research project findings related to: (1) Producer demographics and biosecurity practices, (2) Feeding of prohibited substances (swill) to pigs, (3) Disease detection and reporting practices, and (4) Communication and extension needs of producers.

Key findings in this study were:

- Small-scale producers with herds of less than 150 sows differed from large-scale producers with more than 150 sows in:
 - ♦ Motivation for keeping pigs (mainly for additional income, hobby or home consumption)
 - ♦ Movement in and out of pig raising
 - ♦ Level of biosecurity practices (although large-scale also failed to implement some biosecurity practices)
 - ♦ Some small-scale producers did not recognise meat as swill
 - ♦ Lower level of veterinary contact.
- Both small- and large-scale producers raised other livestock; relied mainly on other producers, veterinarians and family for information on pig production; were not members of a representative body; reported barriers to disease reporting; and stated need for more extension service and to feel part of the pig industry.
- Inconsistencies in state legislation on the definition of swill and the conduct of swill feeding audits.

Discussion between and following topic presentations focused on the following issues:

- Definition of the terms small-scale producer, large-scale producer, commercial producer.
- Clarification of current swill feeding audit activities conducted by state government departments.
- Consensus at national level by AHC that the definition of swill should state prohibition of placental mammals and their products but that this recommendation was implemented inconsistently across the states leading to the current variation in state legislation.
- History of legislation introduced after the classical swine fever (CSF) outbreak in 1960 that prohibited movement of pigs from saleyards except direct to slaughter - but was withdrawn about 20 years later.
- Reasons for producer mistrust of government animal health agencies.

- History and impact of the reduction in extension service provided by state government agencies to the pig sector over the last 15-20 years.
- Clarification of the process for a pig producer to become a member of APL and the level of APL membership across all sectors of the industry.
- Clarification of the process by which levies are collected from the sale of pigs and directed to APL.
- The nature of extension activities required to promote change in producer practices.

Minimum biosecurity standards for pig producers

FOCUS QUESTION 1: “What are the minimum biosecurity standards acceptable for people who own one pig or more?”

Responses recorded:

- Minimum standards should apply to all producers and that additional standards could then be adopted on a voluntary basis
- General consensus was that minimum on-farm biosecurity standards should be incorporated into industry standards (eg. the revised version of APIQ).
- Compulsory for all pig producers to be registered with the relevant State Government Agency
- Notification to authorities of suspect notifiable disease
- Competency in Emergency Animal Disease (EAD) recognition
- Biosecurity standards to be incorporated into the Pork Industry Biosecurity Plan - as held by AHA as part of the APL Emergency Animal Disease Response Agreement (EADRA)
- Compliance with regulations prohibiting swill feeding
- Keep pigs separated from other animals, especially feral pigs and other “at risk” animals
- Recording of people, animal and transport movements
- Quarantine periods for pigs on entry; for sick pigs; for people between piggery visits; for piggeries following arrival of pigs purchased from a saleyard
- Commodity vendor declarations for all feed stuffs
- Prohibit the keeping of pigs in suburban areas
- National Vendor Declaration required for all pig movements
- Animal Health Certificate required for all pig movements - in addition to NVDs
- Emergency disease action plan (EDAP)
- Identification of pigs
- Animal health plan
- A controlled entrance with hand washing facilities and provision of farm boots and clothing for visitors

These responses were prioritised, based on the perceived highest biosecurity risk:

Table 1
Minimum on-farm biosecurity standards applicable to pig producers who own at least one pig
1. Compliance with regulations prohibiting swill feeding
2. Recording movements of people, animals and transport
3. Compliance with regulations that require notification of suspect disease

Action: The listed set of minimum biosecurity standards generated by forum participants will be submitted to the APIQ Standards Review Committee through provision of this report to Mr Bill Salter and Dr Pat Mitchell for consideration in the review of APIQ.

Swill feeding audits

FOCUS QUESTION 2: “What are the potential benefits (nationally and internationally) of the information generated through audits of biosecurity and swill feeding?”

A brainstorming session provided individual answers to this question that were well accepted by the collective and led to discussion of who should be funding the audit processes. Initial discussion clarified that the term ‘audit’ was being used to refer to checks on compliance with swill feeding legislation.

Potential benefits listed were:

- Product integrity
- Maintenance of market access
- Adjunct to passive surveillance in maintaining and demonstrating national disease status
- Prevention of exotic disease incursion - by insuring compliance with swill feeding legislation
- Increased producer and feed provider compliance with swill feeding legislation
- Increased producer awareness and reporting of emergency animal disease / notifiable disease
- Increased producer compliance with biosecurity standards.

It was considered by the delegates that audits of compliance with swill feeding legislation were the responsibility of state governments and that audits of compliance with biosecurity standards could move to be part of an industry quality assurance scheme (eg. through the revised version of APIQ or part of the PigPass National Vendor Declaration (NVD) system).

FOCUS QUESTION 3: “How can current auditing practices be modified (design, standardisation, sampling strategy, central collection, analysis, reporting, key indicators, etc.) to achieve the desired information?”

Delegates were assigned to groups for discussion of this focus question. Following compilation of individual responses to the focus question, each group prioritised responses and wrote their top three responses on cards that were then stuck on the wall and clustered in a facilitated discussion into the following themes.

Theme 1

- National collation and reporting of audit data
- Consistent national definition for swill and audit approach
- National standards for audit conduct
- National database and annual reporting

- National approach - definition of swill; legislation; quota for audits; collection and reporting of audit data

Theme 2

- Education campaign - producers and suppliers of pig feed
- Awareness and training of pig producers
- Knowledge of pig health a prerequisite for owning pigs
- Education linked to auditing - could be as follow-up extension to low/non-compliers
- Create effective deterrent to non-compliance
- Training of inspectors to conduct audits

Theme 3

- Identify the producers
- Identify unknown piggeries
- Require a Property Identification Code for piggeries in all states
- Every sale attended to aid piggery identification - to identify pig producers and location of their piggery

Theme 4

- Random representative audit

Theme 5

- Producers paid for the audit
- Make QA cheaper

Theme 6

- Risk-based approach to audit
- Targeted audit - producers and feed sources
- Dob in a cheat

Theme 7

- Whole farm audit with inspection of all livestock on property to maximise opportunity of visit given most small-scale pig producers own other animals in addition to pigs

Theme 8 - Feed sources

- Follow-up Environmental Protection Authority (EPA)/ food health
 - Control of swill at source
 - Awareness and auditing of food supply chain
-

Delegates were of the unanimous opinion that audits of compliance with swill feeding legislation were the responsibility of government and that a standardised national approach to conduct audits is essential. It was considered that AHA is the appropriate body to lead a process that will deliver a national swill feeding audit program.

Another suggestion proposed later in the forum on Day 2 to improve producer awareness of swill feeding legislation was the modification of the PigPass NVD to make the swill feeding declaration more prominent and to capture this data for incorporation in the improved audit process. It was suggested that compliance with Swill Feeding Legislation should continue to be part of APIQ Biosecurity Standards so that APIQ auditing could underpin State Government audits.

Action: AHA to develop recommendations on an action plan on national swill feeding audits to be presented to Animal Health Committee (AHC) for discussion.

Traceability systems

The second presentation of research project findings provided by Ms Nicole Schembri and Dr Marta Hernandez-Jover covered the topics of:

- Pig identification and traceability legislation
- Evaluation of the official post-farm-gate identification system for pigs for sale in New South Wales
- Evaluation of the implementation of new traceability and food safety requirements in the pig industry in Australia
- Pig identification trial
- Producers' perspectives on on-farm and post-farm-gate identification practices

Key findings were:

- Lack of post-farm-gate identification of weaner pigs except in Victoria
- Poor compliance with the post-farm-gate tattoo application by some producers
- Poor performance of the post-farm-gate tattoo system which could compromise the National Livestock Traceability Performance Standards (NLTPS)
- Variation in requirement for PigPass between states - Currently only a requirement for export and domestic abattoirs in New South Wales
- Poor compliance with PigPass by a substantial proportion of producers, specially at saleyards and domestic abattoirs
- Lack of use of on-farm identification, incorrect tattoo application and reluctance to alternative identification systems were identified among producers trading through saleyards
- A need for extension and support for improving traceability practices specially among producers supplying pigs to saleyards and domestic abattoirs was identified
- Variation in the age/weight specification for weaner pigs between states

Discussion between and following topic presentations focused on:

- Requirement soon to be introduced in Victoria requiring a PigPass NVD to accompany all movements of pigs to saleyards, export and domestic abattoirs and with change of ownership to another piggery.
- Need for legislative requirement or price differential to be introduced to act as a driver for higher adoption of and compliance with PigPass

- Purpose of the NLTPS is to ensure ability to trace back from chiller to farm
- Need for standard operating procedure for application of slap tattoos and extension of this to producers at saleyards
- Varied opinion about industry participation in extension to producers at saleyards

FOCUS QUESTION: “What are the expected benefits of a national approach to traceability legislation and policy?”

There was strong agreement about having a national approach but recognition that although the NLTPS are set at the national level by the Primary Industries Ministerial Council (PIMC), the states are then responsible for developing and implementing legislation independently. This appears to have resulted in the current situation where there are national standards and yet the legislative requirements in different states do differ. Other limitations of the current system recognised by the delegates were the lack of monitoring of tattoo compliance by state governments; the lack of feedback to producers on tattoo compliance and performance by abattoirs; and the lack of a regular review of the brand register in each state.

Listed benefits of a national approach were:

- Faster emergency animal disease response time
- Facilitation of interstate movement of pigs
- Enabling a coordinated industry campaign on pig identification.

FOCUS QUESTION: “What are the next steps/potential improvements to meeting the traceability standards?”

The group consensus was in support of a national approach with the following consistent features:

Essential

1. Producer registration - every producer must be registered with the relevant State Government Agency
2. Pig identification & movement document - for all ages of pigs and for every movement when pig/s transfer ownership or go to slaughter
3. Pig identification - by slap tattoo for pigs >25 kg and ear tag listing tattoo number for pigs <25kg
4. Movement document - PigPass NVD

Suggested

5. Feedback mechanism to producers on tattoo non-compliance
6. Extension and education of producers
7. Audit use of brands against brand register

Delegates were informed about a current AHA initiative - the E-Surveillance Program. This is under evaluation for export abattoir implementation at present and potentially could be applied to domestic abattoirs and extended to include use of tattoos. This approach to data collection at abattoirs provides the ability to generate feedback reports to producers that could include tattoo compliance/non-compliance.

Action: The University of Sydney research team to provide to the Pig NLIS Consultative Committee a report of the research findings about level of ability to meet NLTPS and Forum recommendations for the components of a national approach to traceability.

Action: Pig NLIS Consultative Committee to develop a strategy for a national approach to traceability based on the information provided by Action 3 and to lobby state governments to comply with this strategy.

Post-farm-gate disease surveillance

For the third presentation of research project findings, Dr Marta Hernandez-Jover with support from Dr Naomi Cogger summarised:

- Review of legislation and current surveillance activities at saleyards and abattoirs
- Evaluation of the likelihood of disease detection in pigs at saleyards and abattoirs.

Key findings were:

- Lack of national legislation specific for disease surveillance at saleyards
- Attendance of government inspectors at saleyards is not required to be 100% by policy and differences between states requirements were identified
- The purpose of animal inspection of stockmen at saleyards and abattoirs lairage relates to animal identification and welfare rather than disease detection.
- Ante-mortem inspection of pigs at domestic abattoirs by quality assurance (QA) inspectors does not comply with legislation (lack of resources, conflict of interest).
- Incomplete data collection on suspect animals and condemnations at domestic abattoirs (and in a lower magnitude at export abattoirs).
- A simulation model evaluating the sensitivity of detection of Foot and Mouth disease at saleyards and abattoirs with the current surveillance activities found that:
 - ◆ Ability of exotic disease detection by stockmen and inspectors at saleyards and domestic abattoirs could be improved
 - ◆ Ability of exotic disease detection at export abattoir is higher than at domestic abattoirs
 - ◆ The variables with more effect on the sensitivity of detection and as a consequence could potentially be improved are:
 - Ability of the stockmen to detect
 - Presence of the government inspector at saleyards
 - Presence of the QA inspector at lairage at domestic abattoirs
 - Presence of the AQIS veterinarian at lairage at export abattoirs

Discussion between and following topic presentations focused on:

- Agreement between project findings and previous research undertaken by Jan Jackowiak that demonstrated a low sensitivity for ante-mortem inspection by abattoir inspectors and the potential to significantly improve the sensitivity of ante-mortem inspection by pig producers through training.
- Concern about reliance on saleyard and domestic abattoir personnel to participate in disease surveillance due to potential conflict of interest given employer income is dependent on level of pig sales and pig slaughter.
- Purpose of inspection at saleyards - Should it be disease detection?

FOCUS QUESTION: “What are the expected benefits for stakeholders that could be gained from improved/modified disease surveillance activities at saleyards and domestic abattoirs?”

A brainstorming session provided individual answers to this question and led to further debate about the purpose of inspection of pigs at saleyards. Currently inspection of pigs at saleyards involves state government personnel checking compliance with tattoo legislation and animal welfare codes, and at abattoirs, abattoir personnel checking compliance with tattoo legislation and identifying suspect pigs. The purpose of inspection in both cases is thus assurance of the safety for human consumption of pork products and ability to ensure traceability to farm. Disease detection was considered to be more an activity undertaken by the producer on-farm and thus considered to be only a secondary purpose for inspection at saleyards and abattoirs.

The focus question prompted consideration of disease surveillance as a primary purpose of inspection at saleyards and abattoirs and the potential benefits of this were recognised to be increases in:

- Level of disease detection by inspectors
- Animal welfare
- Negative data available to provide evidence of disease free status
- Compliance with tattoo and PigPass due to greater inspector presence resulting in improved traceability
- Assurance of product safety that reduces potential risk to public health and improves public confidence.

After consideration of these potential benefits the majority of delegates still considered that the responsibility for disease detection should remain primarily with the producer.

FOCUS QUESTION: “How can current surveillance practices be modified (design, standardisation, sampling strategy, central collection, analysis, reporting, key indicators, etc.) to achieve these benefits?”

Practices that would lead to expected benefits from more disease surveillance at saleyards and abattoirs:

- Presence of inspectors at all pig sales
- Active engagement of inspectors in examination of pigs at pig sales and in interaction with pig vendors, pig purchasers and saleyard agents
- Training of stock inspectors at saleyards and abattoirs in detection of abnormal from normal and in emergency disease detection
- Separation of suspect animals on arrival at the facility
- Modification of PigPass NVD to include a prominent health declaration by the producer
- Introduction of a penalty for transporters that present sick animals at the saleyard or abattoir.

The cost-benefit of undertaking these practices and increasing inspector presence and expanding inspector responsibility for disease detection was a topic of considerable discussion. Rather than committing to inspector responsibility there was greater support for enhancing on-farm inspection and reporting by producers. It was recognised that reliance on on-farm inspection requires improving producer knowledge and producer willingness to report suspect pigs to authorities. It was agreed that saleyards are an important venue to locate small-scale producers.

Priorities for improvement of disease detection

1. Education

Targeted delivery of educational material to producers that is appropriate for and aimed at needs in relation to disease detection and reporting of specific sub-groups of producers.

2. Better use of recorded data

Collation and reporting of information that is routinely recorded at saleyards and abattoirs on suspect pigs and condemnations. It was noted that the E-Surveillance Program currently under evaluation could provide ability to capture data on suspect pigs at abattoirs.

Action: AHA to incorporate biosecurity and disease detection into relevant training programs as part of emergency animal disease preparedness.

Action: APL to liaise with AHA regarding the ability of the E-Surveillance program to capture data on suspect pigs at abattoirs.

Extension

To conclude the workshop, Dr Nigel Perkins reviewed outcomes on minimum biosecurity standards, attributes for swill feeding audits, features of a national approach to traceability and issues for disease surveillance on-farm and in saleyards and abattoirs. Nigel then introduced the final topic for the forum by presenting a brief summary of project findings highlighting the following:

- The small-scale sector of the pig industry comprises 80% of pig producers but raises 10% of national sow herd.
- Biosecurity compliance (swill feeding, traceability, disease surveillance) is variable across the pig industry and project findings show more compliance among pig producers with >150 sows than producers with <150 sows. However there were no differences in biosecurity practices among producers with <150 sows. Although non-compliance with biosecurity measures was more likely to occur in small scale producers, there was still variable compliance among larger producers as well ie there is a continual need to address biosecurity issues across the entire industry.
- The larger, more commercial end of the pig industry cannot ignore the small scale producers. A major disease outbreak will have adverse effects across the entire industry regardless of where it may begin. This means that the industry has to develop approaches to improve biosecurity across the entire spectrum of producers including down to the very small scale producer (1 to 10 sows).
- Attributes of small-scale producers differ from large-scale producers in relation to motivation, membership of APL, awareness of biosecurity issues and obligations, mistrust of government authorities and incentives to adopt/change practices.
- Major gap in communication/extension to small-scale producers.

Given that there is a non-zero biosecurity risk across the spectrum of producers in the pig industry, Nigel then invited delegates to consider three focus questions related to extension.

FOCUS QUESTION: “What are the constraints to extension? For producers with 0-10 sows? For producers with 100-150 sows?”

A brainstorming session provided individual responses to this question. Facilitated discussion then enabled delegates to agree on the level of each constraint applied to the two groups of producers that represented the extremes of the small-scale pig sector (see table below).

Constraint to extension	Level constraint applies to producers with:	
	0-10 sows	100-150 sows
Knowing identity and location	+++	
Motivation to change	+++	
Economic motivation (profit)		+++
Language	+++	
Terminology	+++	
Time constraint	++	++
Cost of obtaining advice	++	
Access to skills	++ more difficult	+
Trust in provider	+++	++
Delivery of extension	+++	++
Funding	+++	++

There was general agreement on several points about extension to the small-scale pig sector including:

- Saleyards are an important focus of contact with these producers
- Due to reliance on other producers for information in this sector, farmer “champions” are a valuable means of influencing the practices of producers in this sector.
- Whatever is implemented in relation to minimum biosecurity practices and identification and traceability requirements across the pig industry, the implemented systems must be workable for all the industry down to its “weakest link” - the small-scale sector.

FOCUS QUESTION: “What are the solutions?”

Delegates participated in a general discussion of alternate approaches to address the extension needs of small-scale pig producers. Themes that emerged from this discussion were:

- What is extension? Activities to transfer/disseminate information only or activities to engage producers that promote two-way communication and adoption of new practices.
- Extension activities must be relevant to the target producer sector. Activities and resources must be targeted to different producer groups and address the motivations and concerns of each different sector. Existing extension resources (e.g. APL) can be adapted to suit the small-scale sector.
- Extension activities must be based at or via locations that producers frequent/utilise. Saleyards recognised as an important location at which to engage producers in extension activities. Other locations to engage producers may include feed stores and abattoirs. Extension materials (e.g.

leaflets) can be distributed via mailouts or handouts conducted by saleyard agents, abattoirs and in NSW by Rural Lands Protection Boards. Field days provide opportunity to conduct demonstrations (e.g. post-mortem technique) and distribute information.

- Representation of small-scale producers. Establishment of an association for small-scale producers, or preferably, of a sub-group for small-scale producers within APL.. A national network for extension to the small landholder sector has recently been established and includes dedicated personnel from state governments in Victoria and Western Australia.
- Uptake of extension by small-scale producers. Uptake is likely to be variable (as it is with large-scale producers and evident from seminars conducted by the USyd research team) unless there is a driver that requires producers to engage at some level with extension activities. Education provides a basis for requiring compliance with for example minimum biosecurity standards.
- Collaborative model of extension delivery to cattle producers at more remote store sales in Queensland - industry funding through Meat & Livestock Australia using AHA resources and facilitated by QDPI personnel.

Discussion was then directed by Dr Nigel Perkins to the final focus question.

FOCUS QUESTION: “Tasks and who is responsible?”

Facilitated discussion amongst delegates noted the following:

- Present lack of industry funding support for extension to small-scale sector due to perceived government responsibility for this sector. However government do not consider extension to be a major function and lack the funds and personnel to address need. State government departments did previously provide extension support but this has been withdrawn with cutbacks over past 20 years.
- AHA has some responsibility for animal health extension due to income from industry levy funds.
- APL membership (commercial producers) has not supported funding of extension to the small-scale sector.
- APL Uptake Program - although usually related to new technology uptake - might be an avenue for development of effective extension methodologies for small-scale producers based at saleyards.

General consensus emerged for the development of an extension strategy by APL, AHA and state governments involving several approaches that will support small-scale producers to comply with minimum biosecurity standards.

Action: APL to develop an extension strategy with AHA and state governments relating to issues of compliance.

Recommendations

The recommendations arising from the forum included the following actions:

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