

A newsletter for pork producers



PigBytes

Issue 22 July 2014

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Managing Animal Well Being – a preliminary study of farmers

Trish Holyoake

A recent article in the Australian Veterinary Journal describes the results of a survey of pig farmers in Victoria involving identification and management of sick, injured and heat-stressed pigs.

The farmers surveyed used behavioural changes in the animals under their care, including vocalisation, change in gait, lethargy/listlessness and self-isolation to detect those in pain.

Treatment records were used commonly to ensure pigs were not sold whilst on drug withhold and to monitor the recovery of compromised pigs.

Anti-inflammatory medications were considered a useful adjunct to aid in the recovery of pigs.

The article authors state that “the results of this study indicate the farmers consider animal welfare of high importance.”

There are a number of injectable anti-inflammatory medications on the market that are registered to treat pigs. These can be broadly classed as non-steroidal (eg. flunixin, meloxicam, tolafenamic acid) and steroidal (cortisone-based).

Both are effective in relieving the clinical signs of inflammation (pain, swelling and fever), and are a useful adjunct to treating such conditions as lameness and mastitis/udder oedema.

There are some studies that report anti-inflammatories aid in the recovery of acute respiratory disease in pigs, when used in combination with effective antimicrobials.

Steroidal anti-inflammatories may have immune-suppressive effects so should only be used when bacterial infections are controlled.

Anti-inflammatories that are not registered for use in pigs but are registered in other food producing animal species (eg. ketoprofen) may only be used to treat pigs' off-label under veterinary direction if this practice is allowed under relevant state legislation.

Products that are not registered for use in food-producing animals (eg. aspirin, phenylbutazone) should not be used to treat pigs under any circumstances, as there will be no maximum residue limits and corresponding withhold periods determined for these medications.

Remember that other non-medication therapies, such as placing lame sows on straw and providing a heat lamp for sick weaners, will provide additional support to aid in the recovery process.

*Wilson *et al.*, Aust. Vet. J. 92 (6):206-212

PigCare is Born

Trish Holyoake

Do you own pigs as a hobby or small business? Then PigCare may be for you!

PigCare was developed and is managed by Dr Trish Holyoake as a way for smallholder pig producers to meet with each other and exchange information on all pig-related matters with like-minded people.

"Many small-scale pig owners feel isolated and don't join in with larger formal networks as they don't consider them relevant", Trish said. "It may be difficult to filter out the validity and usefulness of some of the information related to pigs. Developing relationships with other trusted sources overcomes some of these issues."

PigCare consists of face-to-face meetings held in Bendigo every 6-8 weeks and a Facebook site (Facebook\Pigcarer) for those who are remote from Bendigo.

Two face-to-face meetings have been held since April, attracting approximately 30 attendees each time. At the first meeting, three pig farmers with varying degrees of experience spoke of "mistakes they had made with pig farming", with one of the most common mistakes being lack of preparation before the pigs arrive on-farm (building effective fences, allowing enough space for rotational grazing, lack of experience/knowledge).

At the most recent meeting held in June, the butchers from The Meat Room presented on the importance of identifying a buyer before you launch into growing pigs ("there's only so much pork you and your friends can eat"), how to market "free range/traditional-breed" pigs ("why call it a "rolled roast" when you can call it a porchetta?") and how to butcher a pig carcass.

They also discussed the legalities of doing a home-kill (basically, the meat cannot leave the property, and you must be classified as a "farm" in Victoria – as required by Primesafe).

Figure 1: Hugo the pig in the audience mourning a fellow porker....



Source: Trish Holyoake

The next face-to-face meeting will be held on August 12th in Bendigo with "feeding pigs" as the topic. Attendance is free, with a light meal provided before the meeting. Contact Trish Holyoake for further information.

Tocal College Regional Graduation

Ken Ryall

Tocal College recently held a Regional Graduation Ceremony at the Young Golf Club.

Most of the participants are working in the pork industry and are unable to leave their pigs to attend the main graduation ceremonies that are held at the Paterson and Yanco campuses each year.

All the qualifications were achieved by Skills Recognition.

Figure 2: The graduates and trainers from Left to Right Mia Mackay, Education Officer, Tocal College; Darren Bayley, Manager Education Delivery, Tocal College; Richard Yeo, Training Coordinator, State Training Services, Riverina; Greg Ward, Young; David Hubble, Young; Kim Roberts, Temora; Peter Jolliffe, Young; Donna Fraser, Grenfell; Peter Kable, Murrumbidgee; Kathryn Brendel, Boorowa; Tony Mulvahill, Goulburn; Trish Butt, Young; Ean Pollard, Young; Cr Stuart Freudenstein, Mayor of Young; Ken Ryall, Education Officer, Tocal College.



Monitoring production costs

Sara Willis and John Riley

During the last 9-12 months producers in Queensland and Northern NSW have faced feed costs of over \$500 per tonne.

Producers have seen profit margins eroded and have struggled to meet their outgoings.

Whilst the cost of feed might fall in the coming months through secured grains and proteins, one

can confidently predict that non feed costs will increase.

Electricity, fuel and the costs of meeting legislation and QA standards are costs that will increase.

The demand by the Australian Tax Office for monthly or quarterly GST returns provides an opportunity for all producers to have accurate details of the financial strengths and weaknesses of their business.

The use of a spread sheet allows the BAS figures to be translated into cost and returns per pig or kg of pig meat sold.

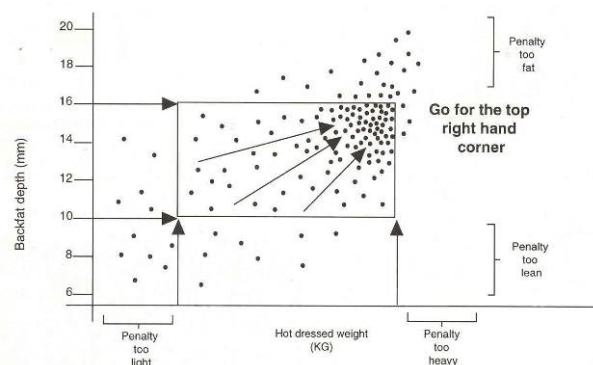
The herd FCR can be calculated in the spreadsheet by including the tonnes of feed used in the period along with the total weight of pig meat sold.

Remember producers sell pig meat not just bacon pigs. Cull sows, at owners risk and condemnations all reduce the average price compared with that quoted for top grade bacon by the buyer.

The average price received can be improved by spending time in ensuring that every pig sent for slaughter is returning the optimum value.

Far too often, pigs are below or above the optimum sales weight. An analysis of sales weight and back fat is a simple exercise to carry out and will illustrate the opportunity for increasing returns (Figure 3).

Figure 3: Example of a scattergram analysis of where your pigs fit relative to weight and fat penalties.



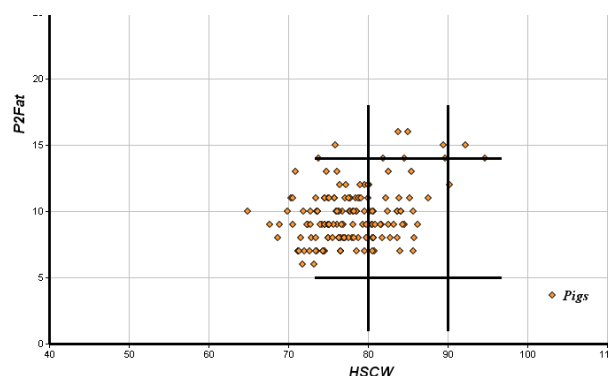
Instructions:

- After discussions with the purchaser of your pigs, mark on the vertical axis the required range of backfats; similarly along the horizontal axis, mark the corresponding required range of dressed weight.
- Extend these four lines to form a rectangle.
- From your kill sheets plot the point for each pig which relates backfat to hot dressed weight.
- Maximise your profit—go for the top right hand corner.

For producers supplying Swickers, there is information available that will enable you to conduct your own scattergram analyses so as to investigate opportunities for improving returns (Fig 4).

A once only software licence fee applies to access your information electronically anytime. If you are interested please contact Kingsley Kefford for licencing details. Phone 07 4164 9582; mobile 0407 763 761 or email kingsley.kefford@swickers.com.au

Figure 4: A Scattergram example formulated out of information from the Swickers extranet.



Why keep financial data?

For you to make decisions regarding your business it is **imperative** that you establish the costs of production for your unit.

A simple spreadsheet is available, please contact Sara.Willis@dpi.qld.gov.au or phone 4688 1214.

This will provide Herd FCR, average feed cost/tonne, Av DW (dressed weight), a breakdown of production costs and operating margin.

Table 1: Cost of production comparison table - how do you compare?

Operating costs	\$/kg carcass weight	Your value (\$/kg)
Feed	2.00	
Labour	0.40	
Health	0.20	
Electricity & gas	0.04	
Water	0.01	
Other non-feed costs	0.50	
Total costs *	3.15	

* Excluding depreciation and interest on capital

Source: PigBytes April 2014 edition 21

Your future in the industry will dictate ongoing capital investment to maintain or improve production efficiency and meet legislation.

To manage your business it is essential to measure financial performance. Like reading a road map you cannot determine where you are going if you don't know where you are now.

Every business is different. Do not base your decisions on the industry average cost of production. It does not apply to you.

Hamming it up – Victorian vets participate in a pig refresher course

Trish Holyoake

Want to know the difference between a Wessex Saddleback and a Hampshire pig? Then ask one of the 12 veterinarians who participated in a two-day "pig veterinarians refresher course" held in Bendigo in June, 2014.

The course was the brainchild of Dr Trish Holyoake, Principal Veterinary Officer Pigs at the Victorian Department of Environment and Primary Industries (DEPI).

The broad objective of the course was to increase the knowledge and clinical skills of the "general practitioner" working in rural and peri-urban areas where smallholder pig farms are located and/or who have the occasional pig client.

"The training was part of the department's efforts to increase surveillance for Foot and Mouth Disease (FMD) and to ensure that pig owners are aware of legislation regarding feeding pigs," Dr Holyoake said.

"Feeding swill (food waste containing meat and dairy products not of Australian origin) to pigs is the most likely mechanism that will trigger an emergency animal disease outbreak.

"The demographic who are most likely to be unaware of what you can and can't feed pigs are hobby farmers and pet pig owners. These folk are also less likely to recognise new or unusual disease events than their larger commercial counterparts."

In 2013, the number of pig producers in Victoria alone rose by 155, with the majority rearing small numbers of pigs for home-consumption and/or for organic, "slow food" and/or free range markets.

Dr Holyoake said a recent survey of pig producers* (Schembri et al., 2013) showed only 32.9 per cent of small-scale (21–100 sows) and 11.2 per cent of backyard (less than 20 sows) herds had contacted a veterinarian in the past 12 months.

"Focus group discussions revealed access to veterinarians with pig expertise was a major barrier

to the utilisation of veterinary services by smaller-scale producers," she said.

Figure 5: Dr Holyoake (dark blue overalls in with the pigs) introducing the vets to some Wessex Saddleback gilts.



"Pigs are a specialist species to work with and many veterinarians and animal health professionals lack the experience and confidence to handle them."

Dr Holyoake said establishing regular contact between veterinarians and small-scale/backyard pig producers was an important factor in managing biosecurity risk in this country and upgrading veterinarians' pig knowledge and skills was the first step.

The pig refresher course consisted of a day in the classroom learning about the legal obligations of pig ownership, routine disease prevention strategies, breeding basics and tricks for successful pig rearing.

Day two was spent on-farm catching pigs, collecting blood, stomach tubing piglets and tattooing.

Dr John Glastonbury, pathologist from Charles Sturt University, ran a post mortem session in the afternoon.

Participants had nothing but praise for the course, with 10 out of 12 grading the course as "excellent", with comments including "best course ever" and "I loved it!"

Several participants said the course provided them with information on the legal aspects of pig ownership that they were unaware of.

"The training clearly met one of our main objectives in terms of increasing awareness of legislation and providing information that veterinarians will be able to pass on to pig owners," Dr Holyoake said.

All participants completing the course earned 17 CPD points. Anyone interested in attending the next course (date to be confirmed) can contact Trish Holyoake at trish.holyoake@depi.vic.gov.au

By the way, Wessex Saddlebacks have floppy ears. Hampshire pigs' ears are erect!

References

* N Schembri, M Hernandez-Jover, J-ALML Toribio and PK Holyoake (2013). Demographic and production practices of pig producers trading at saleyards in eastern Australia. *Aust. Vet. J.* Vol 91 (12):507-51

Quick facts - Did you know?

- Anyone who owns a pig in Victoria is by law required by law to obtain a Property Identification Code (PIC)
- In Victoria, prohibited food waste (swill) is food waste containing meat or any other mammalian products or by-products including imported milk products. Milk itself, or Australian milk products or by-products from a factory or milk processing premises licensed under the Dairy Act 2000, are permitted.
- All pigs must be accompanied by a current and valid PigPass National Vendor Declaration (NVD) when moving from a property to a saleyard or abattoir. Pigs also require a PigPass NVD when moving from property to property, except where the ownership of the pig(s) remains unchanged and the property of dispatch can be identified for the life of the pigs.

Improve feed conversion – reduce particle size

Tony Edwards

A survey of commercial feed mills and home mixers in 2013 revealed a wide range in average grain particle sizes with many well above the suggested optimum of 700 micron. Particle size for some was recorded at 1500+ microns (>1.5mm).

Results from a recent Pork CRC project looking into feed particle size and its effects in grower and finisher pigs showed that particle size really is important.

The project looked at the effects of particle size on pig performance in the grower/finisher herd. It involved 3 separate trials using the same protocols and 3,168 pigs in total.

Diets were based on wheat, barley, peas and canola meal and were fed as a grower diet (14.2MJ DE and 0.70 g available lysine /MJ DE for 30-60 kg live weight) and as a finisher diet (14.0 MJ DE and 0.60 g available lysine /MJ DE for 60-100kg live weight).

Three treatments relating to particle size were a "fine" product (500-600 micron), a "coarse" product

(1000-1100 micron) and a 50:50 mix of "fine" and "coarse". The diets were fed ad libitum as pellets.

Key findings were that reducing the grind size from 1100 to 600 micron had no effect on average daily gain (ADG) but did reduce feed intake. This resulted in a 2.6% improvement in feed conversion ratio (FCR) in the grower phase and 5.6% improvement in the finisher phase.

[Project 4B-121: Effects of Grind Size in Typical Grower/Finisher diets under commercial conditions.](#)

Could you be a 'Grower of the Year'?

Jayce Morgan

While reading in the library the other day an article titled "What makes a Grower of the Year?" The 2013 Cotton Grower of the Year was being asked why he was successful.

Three main points were outlined:

- Attention to detail
- Precision management
- Forward planning

The farmer explained a simple but regimented approach to his enterprise. Crops were planned two years in advance, Soil health was deemed the most important asset and experts were consulted for interpretation of measurement and testing results. Decisions were based on facts.

In this farmers case planning meant that there was no need to make management changes midcrop; and this was seen as a measurement of success.

When asked about weeds the advice was to know what you're up against – understand the biology and how to control the weed before it became a problem.

So how does this relate to pigs you might ask?

In every way this management approach will bring excellent results.

Details are so important whatever section of the piggery you examine. Small things like careless semen handling can have huge impacts on the herd breeding performance. Draughts at piglet level can have major impact on piglet survival.

Precision management is about timing and accurate measurement – timing of vaccinations, the correct dose rates for veterinary treatments, proper diet formulations and correct mixing techniques for diets.

It is also about good record keeping, accurate diagnosis of problems and not being afraid to seek advice.

Forward planning can refer to marketing, input purchases, staff development and training as well as contingency planning for unforeseen future events which may affect day to day operations.

Develop your business to be competitive through good management of your assets of pigs and people.

Get the facts on any potential opportunities or threats and be prepared.

Reference: Autumn Edition Spotlight, Cotton Research and Development Corporation 2014

Exercise Odysseus

Leanna Dries

Exercise Odysseus is a series of discussion exercises and field activities that are being held during 2014 throughout Australia to enhance Australia's arrangements for implementing a national livestock standstill in the event of a foot-and-mouth disease (FMD) outbreak.

Foot and Mouth Disease (FMD) is a serious and highly contagious disease of livestock. It is not present in Australia.

Australia's freedom from FMD underpins access to export markets for many of our agricultural products. An FMD disease outbreak could cost the Australian industry \$50 billion over 10 years in loss of market access.

An example of the impact an outbreak of FMD can have is from South Africa where a three-year ban on exporting meat was only lifted earlier this year following a FMD outbreak in 2011.

Arrangements are already in place to respond to an outbreak of foot-and-mouth disease; however continued prevention and preparedness remains a national priority.

A key measure in preventing an outbreak of FMD is not feeding swill to pigs. FMD outbreaks have occurred overseas when pigs have been fed food waste containing infected meat products, or swill.

Swill is food or food scraps that contains meat products. Swill feeding is illegal in all Australian states and territories.

National livestock standstill

If Australia had an outbreak of foot-and-mouth disease, a critical measure in limiting its spread will be to stop the movement of all susceptible

livestock, initially for a period of 72 hours, known as the national livestock standstill.

This standstill will restrict spread of the disease, while allowing authorities to conduct surveillance activities and trace the movement of affected livestock.

A national livestock standstill means that livestock must not be moved, even if they are not showing signs of illness, and the disease hasn't been detected near you. Under state and territory laws, you may be prosecuted for moving livestock during a national livestock standstill.

A national livestock standstill would be announced through a range of media and other communication channels.

Government agencies, livestock industries and other agricultural organisations would also provide information about the standstill directly to their members and stakeholders.

A national livestock standstill has important implications for the pig industry due to the frequent movements of pigs that occur normally.

Plan how you can manage your pigs with regards to space, feed and the welfare implications of not being able to move pigs during a livestock standstill before a disease outbreak occurs.

When planning for the impact of a standstill on your farm, it is important to consider that the livestock standstill may be longer than the initial 3 days and movement restrictions may still apply in your area.

If you notice signs of disease, report it immediately to your local veterinarian or the Emergency Animal Disease Watch Hotline on 1800 675 888.

More information about [Exercise Odysseus](#)

More information on [Foot and Mouth Disease](#)

To learn more about Property Identification Codes, or to register for a code, visit your local state department of agriculture or primary industries.

Brucella suis risk to dogs

Amanda Lee

The Department of Primary Industries (DPI) has issued a warning to dog owners, following a recent spate of serious brucellosis (*Brucella suis*) infections in dogs.

DPI Senior Veterinary Officer Pigs and Poultry, Amanda Lee, said four dogs in NSW have recently tested positive for the *Brucella suis* strain of the disease, which originates in pigs.

"Brucellosis (*Brucella suis*) is a serious infectious disease of pigs that can be passed on to other animals and people through contact with urine, blood, saliva and reproductive materials," Dr Lee said.

"Two pig hunting dogs in north-western NSW have recently tested positive for brucellosis after suspected contact with an infected feral pig in the Moree area.

"Both dogs presented separately to private veterinarians with clinical signs suggestive of brucellosis infection, including fever, enlarged lymph nodes and enlarged testicles."

DPI has been assisted by Local Land Services in the investigations.

Dr Lee said two other cases highlight the risk of brucellosis being transmitted to pups at birth.

"We've also confirmed that a Bull Arab cross living in Sydney, and a Great Dane cross pup in Walgett have tested positive for this disease," Dr Lee said.

"Neither of the dogs have had any known contact with feral pigs and we suspect the disease may have been passed on by their mother at birth.

"It is a crucial reminder for people to be aware of their animal's history and to purchase or obtain pups from reputable breeders."

DPI recommends that dogs confirmed infected with brucellosis be euthanased because of the potential risk to people.

Director of Communicable Diseases Branch NSW Health, Dr Vicky Sheppeard, said NSW Health is in contact with the owners of the infected dogs and vets who treated the dogs.

"Brucellosis in humans is a potentially fatal disease and symptoms may include intermittent fever, sweating, lethargy, loss of appetite, headache, and back pain," Dr Sheppeard said.

"It is essential that people who are at an increased risk of brucellosis infection, including feral pig hunters, farm workers, vets and abattoir workers practise good personal hygiene and wear protective clothing when in close contact with potentially infected animals."

Owners who are concerned that their dog may have signs of Brucellosis should contact their local veterinarian to have it assessed.

The veterinarian will notify a Local Land Services inspector or an inspector with DPI if they consider the case suspect for Brucellosis.

[ABC radio interview](#)

Reference:

Riddout C, Lee A, Moloney B, Massey PD, Charman N, and Jordan D 2014 'Detection of brucellosis and leptospirosis in feral pigs in New South Wales' Australian Veterinary Journal. Article first published online: 23 June 2014, DOI: 10.1111/avj.12203.

Last chance PigGas workshops in SA & Vic

Ian Kruger

The last two PigGas Workshops will be held for pork producers at Murray Bridge SA on 24 September and in Shepparton VIC on 30 September 2014.

Learn about the Kyoto Protocol, carbon farming, the government's new Emissions Reduction Fund and how you might be able to participate.

Hear about pork industry research to measure and reduce on-farm greenhouse gas emissions. Learn to calculate the baseline carbon footprint for your piggery using the PigGas Calculator and how to reduce emissions no matter what the size or type of piggery.

Find out if there are opportunities to earn money from a biogas project on your piggery.

All this and more will be discussed - everything you've always wanted to know about piggery carbon emissions and mitigation, but were afraid to ask! Attendance at these workshops is free.

The National PigGas Extension program is funded by Ian Kruger Consulting, the Australian Government and Australian Pork Limited.

Places are limited to 20 at each workshop. Registration is essential to obtain further workshop details. **Please register early** by contacting Ian Kruger on email iankrugerconsulting@gmail.com

or mobile 0401 365 488.

A case of lumpy udder

Trish Holyoake

A farmer noticed an egg-sized lump in a right side, rear section of her newly-purchased gilt's udder.

The gilt was otherwise bright and alert, eating and drinking and was apparently normal at the time of purchase. She was housed outdoors in a sheltered paddock.

Approximately 2 weeks after it was first noticed, the lump burst, with a small amount of yellow exudate (presumably pus). The farmer consulted a

veterinarian, who visited the farm and made a presumptive diagnosis of a localised infection.

Figure 6: Gilt with egg-sized udder lump on the right side of the udder.



The burst abscess was flushed with saline and the gilt treated with Penicillin by injection. At the time of the farm visit, a second lump (approximately 5 cm diameter) was observed, also at the rear of the udder on the opposite (left) side.

Upon palpation, the lump was firm and attempts to aspirate fluid (pus or cystic fluid) were unsuccessful. The farmer was advised to continue Penicillin treatment and to observe the lump for any changes.

The next day after the farm visit, the farmer contacted the vet and advised her that the lump had grown dramatically in size and appeared to consist of 3-4 egg-sized lumps. Given this gilt was selected for breeding; the advice was to cull the gilt as her long-term prognosis as a breeding sow was poor.

Figure 7: More lumps developed on the left side of the gilt's udder.



A lump is just a lump until you do further diagnostics. Pigs may develop lumps filled with fluid (abscesses, cysts, hematomas, localised bite

reactions, hernias) and/or solid tissue (neoplasms, fat). It is unlikely that solid lumps grow quickly.

In this case, the most likely cause of the lump on the right side was an infection.

One likely cause is *Actinomyces suis*, which causes "lumpy udder" in pigs, characterised by small abscesses containing thick, yellow pus surrounded by a wide zone of dense connective tissue.

The abscesses may be very deep and fistulate (break open), with spread to other body organs. A diagnosis is confirmed by identifying the bacteria on culture.

Unfortunately, the prognosis for pigs with "lumpy udder" is poor with antibiotics unable to penetrate through infected tissues. The cause of the lump on the left side was not resolved.

Take home message: If you see a lump on your pig, try to get an idea of what's in it by how it feels and how quickly it has grown. Talk with your vet about diagnosis, treatment and likely prognosis.

Pig Breeding and AI workshops

Jayce Morgan

Two pig breeding and AI (artificial insemination) workshops will be held in NSW in September at Forbes (Rugby Club) in central west NSW on Wednesday 10th September and at Wollongbar Research Station on the North coast of NSW on Wednesday 17th September.

Presenters at the workshops will be Graeme Pope of Graeme Pope Consulting in South Australia and Paul Noone from PIC Australia.

The workshops are free and open to all pig producers – large or small. The day will be as practical as possible with time for questions.

The workshops are designed for producers or employees to refresh their knowledge and to get and understanding of why they may not be getting the good results in the breeding herd that they expect.

Producers need to register by 3rd September. Certificates of attendance will be issued for inclusion into training portfolios. All slides will be given as handouts on the day.

Please provide contact details such as telephone and email when registering so you can be notified if there are any late changes.

Contact Jayce Morgan Phone 02 6763 1257, mobile 0428 416 518 or email jayce.morgan@dpi.nsw.gov.au

NSW DPI Pig Industry Group

Jayne Morgan
Development Officer 02 6763 1257

Dr Amanda Lee
Senior Veterinary Officer (Pigs & Poultry)
..... 02 4640 6308

Tim Burfitt
Manager Dairy & Intensive Livestock Industry
Development..... 02 6391 3729

Victorian DEPI Pig Industry Group

Dr Trish Holyoake
Principal Veterinary Officer – Pigs....03 5430 4412

Karen Moore
Senior Research Scientist.....03 5430 4534

Patrick Daniel
Manager Pig Health Monitoring Service
(PHMS)03 5430 4570

Queensland DAFF

Sara Willis
Senior Extension Officer.....07 4688 1214

PigBytes is a newsletter from the pig industry teams at NSW DPI, Victorian DEPI and Queensland DAFF.

Editor: Jayce Morgan
jayce.morgan@dpi.nsw.gov.au

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ISSN 1836-974X

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Published by the Department of Primary Industries.

Reference number PUB 14/135