Pigbytes Newsletter

Issue 13, May 2012

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News from Queensland

Alison Spencer Queensland

- Queensland DEEDI has undergone a name change and they are now the Department of Agriculture, Fisheries and Forestry.
- Stockperson competency reminder – experienced stockpersons wishing to apply for accreditation under a special provision in Queensland's legislation need to apply by 10th June 2012. Contact Dr Melanie Latter phone 07 5466 2298 or email melanie.latter@deedi.qld.gov.au
- Alison Spencer is leaving the Queensland department in early May. I have enjoyed working in various departmental roles with many industry people for over 32 years; I wish you all the very best. I will still be involved in some local agriculture.
- All Queensland pig extension enquiries should be directed to Sara Willis phone 07 4688 1214 or email sara.willis@deedi.qld.gov.au

With Alison's departure the Queensland pork newsletter Pig Pen Chat articles will now appear in PigBytes. Look for the Queensland logo on the next PigBytes July edition.

We all wish Alison the very best for this next chapter of her life. I am sure Sara will miss her support and we all will miss her friendly face at future pork industry events. Editor.

Case Study – Respiratory Disease in Growers

Amanda Lee NSW

As this case study shows even outdoor pigs can succumb to enzootic pneumonia, a disease that some associate only with indoor pigs. Ed.

In February 2012, Riverina Livestock Health & Pest Authority district veterinarian Colin Peake visited an outdoor piggery near Hay with a history of coughing, ill-thrift, and poor growth in pigs aged 10-14 weeks old.

Ten pigs out of a population of approximately forty grower/finisher pigs (25%) had died over a 3 week period.

Pigs were housed in large open-air wire mesh dirt pens with tin shelters. Younger weaner pigs had nose-to-nose contact with older pigs.

Two pigs that had died were selected for autopsy. Both pigs were in poor body condition and the lungs were found to have a severe pneumonia with multiple abscesses (see photo).

Figure 1: Pneumonia in the lung of a grower pig – photo courtesy of Colin Peake

Samples were taken and sent to EMAI, Menangle for diagnosis. Lab results confirmed a severe suppurative bronchopneumonia. *Mycoplasma hyopneumoniae* was identified by PCR. *Pasteurella multocida* and *Arcanobacterium pyogenes* were isolated from the lungs.

Tetracycline antibiotic therapy was initiated and the remaining pigs responded well to treatment.

Enzootic pneumonia is caused by *Mycoplasma hyopneumoniae*. As an uncomplicated infection in well housed and well managed pigs it has only a mild effect on the pig.

However, if there are other pathogens present (including *Pasteurella multocida* and *Actinobacillus pleuropneumoniae)* and environmental conditions are right the pneumonia can become more complex with serious effects on the pig.

In this situation, it had been colder and wetter than a normal summer in this region and these conditions are likely to have initiated clinical disease.

The continuous flow system allowed a large number of pigs of varying ages to be exposed to infection.

Clinical disease can also be associated with the following:

- Concurrent diseases
- High stocking rate
- Poor ventilation
- Variable temperatures
- High dust and bacteria levels in the air
- Pig movement, stress and mixing
- Poor nutrition and dietary changes at susceptible times.

If you think you have a problem with this disease complex in your herd, please discuss with your veterinarian.

Survivability seminars a squealing success!

Trish Holyoake

Recent seminars organized by the Bendigo Pig Health and Research Unit were judged a success by attendees and organizers. Approximately 160 pig producers attended the seminars, representing approximately 35% of producers and more than 90% of pigs in Victoria.

The seminars, entitled “Survivability – the key to success”, were held in Bendigo over two days. Attendees included farmers who were new to the industry, self-employed owner-operators from family farms, and managers and stockpersons from larger commercial operations. With such a variety of experience of attendees, the seminars were tailored to meet a range of needs and interests.

International speakers Drs John Deen (USA) and John Carr (UK) provided global perspectives on piglet and sow health and welfare. Local pig veterinarians Drs Trish Holyoake and Tony Fahy presented on reducing piglet mortality and preventing disease due to Haemolytic Colibacillosis.

The more formal talks of the seminar were interrupted by a series of hands-on demonstrations by the speakers. During demonstrations, participants were able to become involved in activities ranging from clinical examination of foot lesions from culled sows, manual delivery of "piglets" from a "sow", over-coming challenges for pigs post-weaning from the sow and using a heated crib and colostrum to support compromised newborn piglets.

The seminars were sponsored by Australian Pork Limited, Pfizer Animal Health and Boehringer Ingelheim. For more information on the seminars, contact Trish Holyoake on 0419231534 or Trish.Holyoake@dpi.vic.gov.au

"Survival" is not just about breathing and walking!

Trish Holyoake Victoria

This was the message from Professor John Deen from the University of Minnesota at the "Survivability" seminar during his recent trip to Australia.

He emphasized that herd productivity and profitability are compromised not only when a pig perishes, but also when it is culled, when it is sold under (or over) weight or when a pig space is not occupied and facility overhead costs increase as a result of reduced throughput.

He went on to emphasize that these losses vary among herds and contribute far more to a producer's bottom line than do growth rate and feed conversion efficiency.

He suggests that producers need to review how they monitor herd performance by focusing less on "average pig performance" and more on measuring the proportion of pigs that meet targeted growth and marketing specifications.

Professor Deen recommended monitoring treatment outcomes for sick and compromised pigs as a guide to determining future management decisions regarding whether these animals should be retained in the herd, culled or euthanized.

Four key messages for reducing pre-weaning mortality

Trish Holyoake Victoria

Many piglet deaths pre-weaning can be preventing by taking special care of the sow and her piglets in the first day or so of farrowing.

There are four key actions you can take to keep sows and piglets healthy and to keep pre-weaning mortality rates to less than 10%.

Firstly, monitor environmental temperatures for lactating sows to ensure they can be cooled if the temperature exceeds their upper critical temperature of 22C.

Many farrowing rooms are maintained at a comfortable temperature for staff but at a temperature that is too warm for sows.

Hot sows will be less comfortable during farrowing and are more likely to have stillbirths as a result. Sows that are reared in rooms >24C will also eat less, resulting in reduced milk production, increased loss of body condition and reduced subsequent fertility post-weaning.

Ensure that cooling mechanisms (drip coolers, cool cells, snout coolers etc) are set to come on when room temperature exceeds 24C.

The second message, and particularly important with winter approaching, is to ensure that piglets are kept warm (30-37C) to minimize energy loss and the risks of death due to cold exposure.

Cold pigs will be less active, meaning that they will be slower to access the sow's udder and drink colostrum and milk. As illthrift is a major cause of piglet death, it is important that piglets are provided with a warm, draft-free creep area that also attracts them away from the sow and reduces the risks of overlay.

The third "must do" is to ensure all piglets have access to colostrum from the sow in the first 24 hours to provide energy for survival.

Finally, supervise farrowing and assist interrupted farrowing when the inter-pig interval exceeds 30-45 minutes to minimize stillbirths and early deaths.

Look at the pigs and not just the thermometer.

Alison Spencer Queensland

The pigs' behaviour tells you the truth about their thermal comfort, not just the wall thermometer.

If piglets are cold they will huddle and heap, if too hot they spread out and lie with limbs extended.

The optimum range of temperature for younger pigs, at pig level, is quoted in the pig welfare code:

Piglets – newborn	27-35°C
Piglets – three weeks of age	24-30°C
Weaners	20-30°C in first week

These temperatures are a guide – pigs can be cold within these temperatures. The temperature that the pigs feel depends on factors such as the air speed, whether their skin is wet or dry, and the type of flooring material.

Weaners less than 4kg need special treatment - consider a higher room temperature.

If the pigs are cold, they are using feed to keep warm instead of growing.

To increase the pigs' thermal comfort, some options are

- Stop draughts e.g. block gaps, install barriers such as false floors, walls or full kennels, and baffle ventilation inlets so intake is not falling directly on the pigs. As a guide, air movement should hardly move the hair on the back of the head.

Every 8cm/sec increase in air movement increases the room temperature required by 1°C.

- Add insulation, including straw if suitable for the building
- Add a safe heat source.

Figure 2: These weaners are cold.

"Cold Scours" – a new problem caused by an old bug

Tony Fahy Victoria

At the recent "Survivability" seminar, Dr Tony Fahy, Manager of the Pig Health and Research Unit, spoke on diagnosis, control and prevention of Haemolytic colibacillosis in sucker and weaner pigs.

Tony introduced how the *E. coli* bacteria have changed over the past 10 years, and how the disease now affects older (10 days+) sucker pigs in addition to older weaner pigs.

Pigs with disease due to Haemolytic *E coli* are often labelled as having a "cold scour" as they may die suddenly due to acute septicaemia without showing diarrhoea.

Antibiotic control of this disease is problematic due to the sudden onset of disease and the resistance of many *E. coli* strains to antibiotics.

Tony focussed on how the *E. coli* bacteria need to attach to the pigs' intestine to cause disease and how there are effective vaccines that act by producing antibodies preventing this attachment.

The Pig Health and Research Unit in Bendigo is the National *E. coli* reference laboratory in Australia.

For more information on diarrhoea in piglets, contact Drs Tony Fahy or Trish Holyoake.

Try thinking like a piglet

Jayce Morgan NSW

At the survivability seminar Dr John Carr presented a workshop on how to get weaners to eat.

Weaning is very stressful to a piglet – they go from being one in a group of 10 to one in a group of hundreds. Piglets on a sow have their own feed space, a liquid diet, they eat as a group when the sow calls, and they sleep together.

When weaned they have some huge adjustments to make so Dr Carr suggested that we should think like a pig and train the piglets to adapt to their new situation.

Day 1

Do not have any feed in the feeders when piglets first enter the weaner space.

The piglets need to be stimulated to eat at weaning so you need enough trough space so all piglets can eat at the same time – at least for the first few days. Have troughs located in the middle of the pen.

Make a 50:50 gruel of water, milk powder and creep or starter feed. Allow about 2 litres of mix per 100 piglets – the idea is that all the feed is gone in about 10 minutes.

On entering the pen call the pigs, tap the troughs and put out enough feed for all the piglets to last 10 minutes.

Repeat every 2 hours and mark any pigs not eating. At the last feed of the day remove any marked pigs that have not eaten all day for special care.

At the end of the day sprinkle a little bit of dry feed into the feeders but do not fill yet.

Over the next 3-4 days repeat the process – calling piglets to eat, only enough feed for 10 minutes, reducing from 6 feeds through the day to 4 feeds and marking and removing non eaters.

Gradually reduce the moisture in the feed until pigs getting dry feed only and add more feed to the feeders. Make sure there is plenty of good quality cool water at all times.

People are the critical factor in successful weaning and a good manager or stockperson will be able to modify this approach to suit the circumstance on farm.

Another suggestion from Dr Carr was to wean on a Monday so you have the full week and a full crew of staff to make sure the weaners are eating.

PCVAD – Porcine Circovirus Associated Disease

Trish Holyoake

PCVAD is a relatively new disease complex associated with Porcine Circovirus Type 2 (PCV2).

Whilst the virus is present in virtually all pig herds worldwide, disease severity varies greatly from herd-to-herd. This is likely due to other factors including the presence of other pathogens, environmental and management stressors and/or an unidentified infectious agent.

Control of the disease is by improving management, but ultimately by vaccination of pigs against PCV2.

The decision on whether or not to start a vaccination program should be made in consultation with your veterinarian and should consider the cost of the vaccination and the anticipated performance benefits (reduced variation in weight gain, potentially reduced death rates).

Improvements may be subtle in the case of subclinical PCVAD, so vaccination should only be implemented in these situations when you can measure the growth response of vaccinated pigs against non-vaccinated pigs.

PigBytes Feedback

Jayce Morgan NSW

Feedback is welcomed for all content of this newsletter and there have been some interesting comments and anecdotes arising from previous articles and newsletters.

Paralysis Ticks (Issue 12) – Far from being a random problem on the odd pet pig, Paralysis ticks are a real issue for some coastal outdoor pig farmers and piglets are the main casualty. As a result of this valuable feedback we have put together a Primefact on Control of Biting Insects on Pigs with information on control of ticks, mosquitoes and biting flies. With the wet summer and floods, March flies and mosquitoes have also caused problems in some areas.

The Primefact can be found at http://www.dpi.nsw.gov.au/agriculture/livestock/pigs/health/biting-insects

Remember legislation on the use of pesticides and stock medicines varies between states so read the label and ask your vet if you have doubts.

Community mapping project for feral animals

Jayce Morgan

Feral animals cause over $720 million damage each year in Australia.

Feralscan.org.au is a website which allows farmers and landholders to record sightings and control measures practiced for feral animals.

Species that can be mapped include rabbits, camels, foxes, feral pigs, myna birds, cane toads, feral goats, wild dogs, and starlings. Coming soon will be sections for feral fish and deer.

The site has several dropdown menus giving more information on traps and other control methods, links to the Invasive Animals CRC and other community and government organizations interested in pest animal control.

If feral animals are a problem in your area visit http://www.feralscan.org.au/default.aspx

Feral pigs can carry any of the known pig diseases but most common are Leptospirosis and Brucellosis. Brucellosis has not been reported in feral pigs in NSW but as the following article shows pig dogs can become infected with Brucellosis.

Pig Dogs with Brucellosis pose potential threat to human health

Amanda Lee NSW

In Australia, swine brucellosis is mainly a recreational or occupational disease of feral pig hunters, farm workers, veterinarians, and abattoir workers.

Brucellosis infection in people can cause serious disease and spontaneous abortion in pregnant women. Clinical signs include intermittent fever, sweating, lethargy, loss of appetite, headaches, and back pain. The onset of clinical signs generally begins two to four weeks after exposure, but can occur up to six months later.

Brucellosis infection in three feral pig dogs in northern NSW has prompted human health warnings to recreational and occupational hunters.

Infected dogs are a potential source of infection for people, pigs, and other dogs through contact with urine, saliva, and reproductive materials.

A private vet saw one of the infected dogs, which exhibited the notable symptom of markedly enlarged testicles, but was otherwise bright and alert.

At this point, we don't know how long dogs remain infectious or what degree of risk they pose to people. Treating dogs is often ineffective, prolonged and expensive, relapses of infection can occur, and no treatment can guarantee a cure.

The Department of Primary Industries recommends that dogs confirmed as infected be euthanased to reduce risk to people.

Brucellosis is a notifiable disease in NSW and any suspect cases in animals should be reported to your local veterinarian, Livestock Health and Pest Authority district veterinarian, state government agency or the
Animal Disease Watch Hotline 1800 675 888.

Photo courtesy of Lowan Turton

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