

FEEDWORKS
"Performance through Science"

The complete Phytate Solution

David Cadogan : 0409 049 793 Stuart Wilkinson - 0414 487 882

DUPONT

Australian Pork

NEWSPAPER

STOCKYARD

Phone: 07 4697 3344 • Fax 07 4697 3532
www.stockyardindustries.com

Vol 19. No. 4 April 2015 Australian Pork Newspaper PO Box 387 Cleveland 4163 Phone (07) 3286 1833 Fax (07) 3821 2637 Email ben@porknews.com.au



A selection of butchers around Australia are celebrating Australian PorkFest by creating a limited-edition pink pork sausage in April. For more information, visit pork.com.au

PorkFest: get more pork on your fork!

PORK is his favourite ingredient and he's got a cheeky personality, so Colin Fassnidge was the perfect PorkFest ambassador.

The award-winning chef and pork aficionado has been sharing his tips and recipes as part of the campaign that encourages people to have fun with pork and try a new recipe.

"I love the flavour of pork," Colin said.

"I love its versatility and the variety of uses it offers.

"And, lastly, I love the nose-to-tail aspect of using the pig; it appeals to

my inner chef."

Colin's PorkFest recipes have been created using more traditional cuts, however, such as loin roast, shoulder, chop and mince, all in easy-to-follow recipes bursting with flavour.

Australian Pork Limited's Peter Haydon said Colin was the perfect choice as an ambassador.

"PorkFest is a celebration and provides people with new recipe ideas to help them expand their recipe repertoire and have a bit of fun," Peter said.

"Colin is known for having fun with his cooking

and that's why he's such a great ambassador for this program.

"We're encouraging people to try Colin's recipes, bring their family together and create great meals and memories."

PorkFest has been held since 2011 and this year runs from April 1-25.

In addition to Colin's recipes, many other chefs will be serving up special pork dishes in their restaurants and pubs, while butchers and retailers will be helping people find great fresh pork.

For more information, visit www.pork.com.au

Starting a conversation on industry transparency

OBSERVING the evolution of the Australian pork industry from being involved in producing pigs to marketing pork over the past decade has been an interesting and exciting journey.

What I mean by this is the industry's shift in focus has gone from just being pig farmers focused on growing pigs to farmers who are producing a food commodity called pork.

The realisation our industry has made in this time is that our success ultimately rests in the hands of our customers.

If they don't like what we do, or if they don't like our product, we will fail.

I really believe that our industry is ahead of many others in this shift in attitude.

There have been a number of drivers behind the change, including the leadership shown by some of our directors who have come out of the food industry (foremost being our chairman Enzo Allara, ex head of Unilever Australia).

I think the shift has also been facilitated through the consequences of our import competition – very few agricultural industries compete in their own market with imports.

This competition has taught us through the school of hard knocks what is really important to a prosperous future for our industry.

But leadership has



Point of View

by ANDREW SPENCER CEO



we believe in, what our values are;

- We can and do produce meat without cruelty;

- We want people to know that we care;

- We are consistent, united and coherent;

- We tell the same story, no matter who you are; and

- We are not afraid of others seeing what we do.

The last point is one we need to think long and hard about.

Nearly all our research with consumers tells us that people don't want to know a lot about what happens to produce their meat.

They do however want to be assured that people are doing the right thing in producing it.

Industry transparency, even if ultimately it is not accessed and exploited, is how to demonstrate our lack of fear of exposure.

We have started the conversation with some producers about how to take the next steps along a path of greater transparency of activities on pig farms.

We plan to make that a broader conversation across the industry because we believe the time is right to make ourselves accessible to those who would like to know more.

If we do it well, we can take pride in others looking over our shoulders any time of day or night, secure in the knowledge we're doing the right thing.

also come from those running the pig farms, whether marketing large volumes through our major retailers or presenting niche products to fine-dining establishments.

They have been prepared to take that leap of faith into a 21st century best practice business model.

And what are the symptoms of this change?

What is the difference between these two states of mind?

The voluntary sow stall phase-out, 'Shaping Our Future', is clearly one of our flagship initiatives, but it is not the only one.

Over 90 percent of our production now occurs through APIQ[✓] quality assured establishments.

We have agreed on our own standards for free range and outdoor bred production, avoiding the inconsistencies dogging some other livestock industries.

We have one of the best product integrity and traceability systems for our pork anywhere

in the world.

We have new research and development programs targeting the further improvement of the eating quality experience for our customers.

None of these attributes make doing what we do any easier – that is not their target.

What they do is improve the experiences, trust and confidence around Australian pork.

They come about as a result of asking the question: "What is the right thing to do for our customers?"

As an industry, we should never stop asking that question.

Trust in our product is not the same thing as trust in our production and perhaps this is the next area in which to do the right thing for our customers.

At the Delegates' Forum in Melbourne during November last year, I presented a set of principles for how I think our industry should aspire to relate to others.

It read as follows:

- We tell the truth;
- We speak about what



April 14-15

**Bendigo Exhibition Centre,
Prince of Wales Showgrounds,
Holmes Rd, Bendigo**



THE NEW EURO CRATE

- Made to proven European standards.
- Crate is hot-dip galvanised.
- Rear entry, front exit. Crate sides are easily removed.
- Stainless steel feeder, either Crystal Spring or bucket.
- Width at the front and rear can be adjusted without tools.
- Comes with stainless steel water pipe as standard.
- Plastic front corner creep cover.
- Various flooring options available.



Stockyard Industries
54 King Street,
Clifton QLD 4361
07 4697 3344

www.stockyardindustries.com

07 3286 1833

**Pig Industry
Calendar of Events**

2015

APR 14 - 15 – Victorian Pig Fair, Bendigo, VIC E: aileen@acelabservices.com.au

APR 14 - 15 – Science with Impact – Annual Conference, Chester, UK www.bsas.org.uk

APR 22 - 24 – European symposium of Porcine Health Management, Nantes, France www.esphm2015.org

MAY 13 - 14 – British Pig & Poultry Fair, Stoneleigh Park, Warwickshire UK www.pigandpoultry.org.uk

MAY 17 - 20 – Alltech Symposium, Lexington, US www.alltech.com

MAY 19 - 21 – VIV Russia, Moscow, Russia www.vivruusia.nl

JUN 4 - 6 – World Pork Expo, Des Moines, Iowa, US www.worldpork.org

JUN 11 - 13 – VIV Turkey, Istanbul, Turkey www.vivturkey.com

JUN 14 - 16 – Australian Pig Veterinarians Conference, Kingscliff, NSW E: apv@ava.com.au Ph: Rowan Wilson 0429 929 753

JUN 24 - 25 – International Symposium on Emerging and Re-emerging Pig Diseases, Kyoto, Japan www.emerging2015.com

AUG 9 - 12 – International Conference on Boar Semen Preservation, Illinois, US www.boarsemen2015.com

SEP 15 - 18 – Space 2015, Rennes, France www.space.fr

OCT 11 - 13 – Leman China Swine Conference, Nanjing International Exhibition Center, Nanjing, China www.cvm.umn.edu/lemanchina

NOV 22 - 25 – Australasian Pig Science Association conference, Melbourne, VIC www.apsa.asn.au

2016

JAN 27 – Centralia Swine Research Update, Ontario, Canada www.centraliaswineresearch.ca

FEB 16 - 18 – VIV MEA, Abu Dhabi, UAE www.vivmea.nl

APR 18 - 20 – Global Feed & Food Congress, Antalya, Turkey www.iff.org

MAY 10 - 11 – British Pig & Poultry Fair, Stoneleigh Park, Warwickshire UK www.pigandpoultry.org.uk

JUN 7 - 10 – International Pig Veterinary Society/European Symposium of Porcine Health Management, Dublin, Ireland www.ipvs2016.com

SEP 6 - 8 – VIV China, Beijing, China www.vivchina.nl

NOV 15 - 18 – EuroTier, Hanover, Germany www.eurotier.com

How to supply event details: Send all details to Australian Pork Newspaper, PO Box 387, Cleveland, Qld 4163, fax: 07 3821 2637, email: ben@porknews.com.au

porknews.com.au

Measuring RD&E industry impact

Absolutely necessary but not so easy

IN this issue I focus on the question of Australian Pork Limited research, development and extension investment and its impact on the industry bottom line.

Over the past seven years I have, with the invaluable assistance of numerous industry personnel, implemented a robust, transparent and effective RD&E process to ensure APL is investing the Australian pork industry's and public monies (via the RD&E matching contribution) to effectively reduce producer cost, increase producer revenue and mitigate industry risk.

It is a process that has stood up to and continues to stand up to significant scrutiny internally from



by **DARRYL D'SOUZA PhD**
Research and Innovation
General Manager



the R&D Advisory Committee and APL Board, external audits and is seen by other Rural R&D Corporations as a benchmark.

Rest assured that I above all still get the fact that we cannot rest on our work done to date, but we must ensure we continually look to improve our

RD&E systems.

One area I would love to improve is my ability to demonstrate the dollar return to pork producers, as a consequence of APL's RD&E investment.

The fact of the matter is it is not so easy to do.

It is even more difficult to demonstrate this return

on investment for small to medium producers.

Much of this difficulty relates to the issue around RD&E impact data.

I look on enviously at the APL Marketing Division and its ability to use point of sale 'scan' data and its methodologies to demonstrate the impact of its activities on various ROI key performance indicators.

The marketing team will also be the first to admit that even with scan data, demonstrating ROI to producers has been far from easy.

So let's take a general look at APL RD&E investment impact as a whole and also look at some individual projects to better understand the

issues around demonstrating producer ROI.

APL currently invests about \$6 million a year on RD&E projects.

Roughly 60-70 percent of this investment attracts an in-kind dollar contribution from research providers.

Presently, for every one dollar spent by APL, the corresponding in-kind contribution is about \$2.20, demonstrating that APL is effectively leveraging its RD&E investment to the tune of 1:2.2.

If we include the APL investment into the Pork CRC, this RD&E leverage ratio increases to 1:6.

In addition, APL has been reasonably successful

continued P3

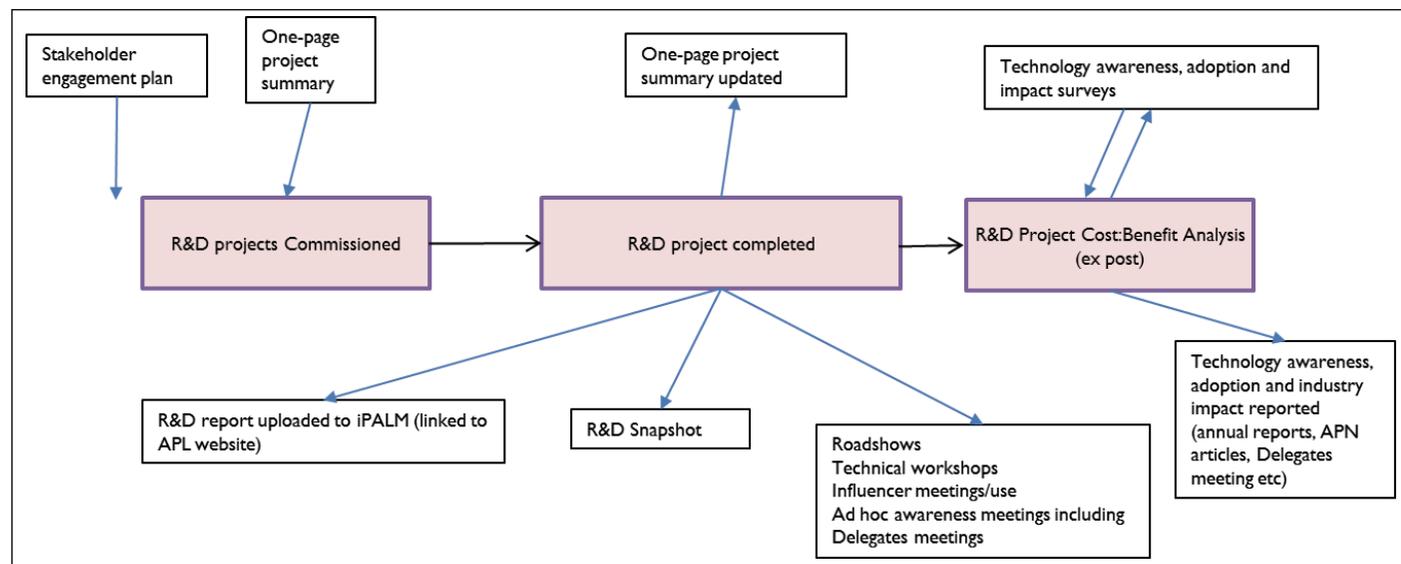


Figure 1

Project: Dietary requirements for finisher pigs

Benefit: The optimal lysine requirement for male and female pigs between 60kg and 103kg LW was estimated to be 0.61g to 0.64g available Lysine / MJ DE.

Adoption: >60 percent adoption.

\$ Impact: \$2.50/pig based on rate of gain, feed efficiency report by commercial facilities.

Project: Physi-Trace

Benefit: Cost-effective, rapid and enhanced traceability (paddock to plate for fresh pork and country of origin for processed ham and bacon); protecting industry from mandatory use of individual ID tags.

Adoption: 77 percent of all pigs slaughtered.

\$ Impact: Reduced sampling costs from \$0.23 to \$0.08/pig (to be ~\$0.05/pig by June 2015), Defence against RFID cost ~\$3/pig to ~\$0.08/pig for Physi-Trace system.

Other impacts: Compliance with on-pack labelling claims (fresh and processed); opportunity for retailer engagement; business continuity.

Project: Pork – Australian Export Meat Inspection System

Benefit: Ongoing science-based reform of AEMIS Pork model to manage cost imposts to industry – particularly risk-based abattoir monitoring frameworks, ante- and post-mortem inspection and condemnation feedback reporting.

Adoption: ~85 percent of all pigs slaughtered (all export abattoirs).

\$ Impact: Gross benefit to industry about \$1.8 million, mainly around export abattoirs not having to employ a food safety officer at each plant.

Other impacts: Supporting risk management for salmonella through processing interventions (not on farm); acceptance of Pork AEMIS model by competent authorities of importing countries to

support industry initiatives for market access/export development.

Project: Biogas (initially started by APL and then transferred to Pork CRC)

Benefit: Reduce energy costs; minimise odour emissions; minimise greenhouse gas emissions.

Adoption: 26 percent available production capturing biogas (10 percent total production); 18 systems (CAPs, mixed tank, hybrid lagoons). 55-plus case studies showing up to 70 percent greenhouse gas reductions on farm; 90-plus percent awareness of industry of biogas. 100 percent awareness of gas safety regulators.

\$ Impact: Over \$2 million in carbon credits delivered to industry; energy cost saving ~\$5000 to \$15,000 saving per month depending on farm.

Project: National Environmental Guidelines (conventional and outdoor)

Benefit: 'The' reference manual for piggery environmental management recognised universally by industry, regulators and retailers.

Adoption: 82 percent of producers (about 70 percent production) aware of the NEGP; 65 percent production have an Environmental Management Plan; 54 percent of production covered by a Nutrient Management Plan. ~40 percent of production have conducted a risk assessment.

\$ Impact: No data to quantify impact.

Other impacts: Facilitated the expansion of industry planning applications; adopted by NSW, Victorian, Queensland and Western Australian EPAs as an assessment tool;

driving regulations and reducing regulatory burden (adoption of industry standards rather than transference of onerous requirements such as the incorporation of NEGP in EPA SA Wastewater Guidelines); streamlined planning process (cost and time) and incorporation into APIQ standards. Set clear, defensible industry standards within APIQ.

Project: Animal welfare R&D

Benefit: Ability to define various pig husbandry practices on the basis of welfare.

\$ Impact: R&D outcomes used successfully by APL to defend use of sow stalls and keep pen space in 2007 Model Code of Practice review. This was estimated to save industry ~\$35-50 million.

Other impacts: Sow stall R&D outcomes used in industry defence following a range of 'attacks' from animal liberation organisations and media (60 Minutes; Voiceless campaigns and farm raids); information used in Shaping Our Future initiative (gestation stall free definition).

Project: Biosecurity R&D (PRRS & PED)

Benefit: Demonstrated industry EAD preparedness; science based defence supporting no need for import risk assessment review to maintain no fresh pork imports.

\$ Impact: Industry and regulator awareness; PEDv study basis of categorisation defence and AUSVET plan; PRRS reviews basis of AUSVET plan update.

Other impacts: Anticipated impact is 30-40 percent of industry will exit if fresh pork import contracts granted) or \$150 million risk avoidance.

Other impacts: PEDv notifiable and Category 4 classification; producer compensation – quantifying costs of EAD in naive herds – resource allocation and tangible and intangible costs.

Table 1

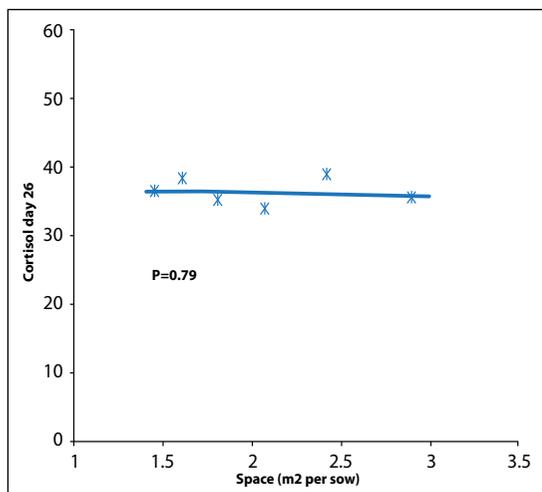
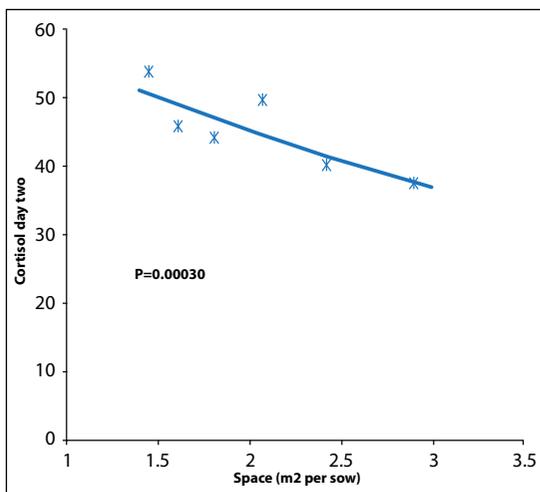


Figure 1: Effects of floor space on plasma cortisol levels measured at days two and 26 after grouping in sows mixed shortly after mating.

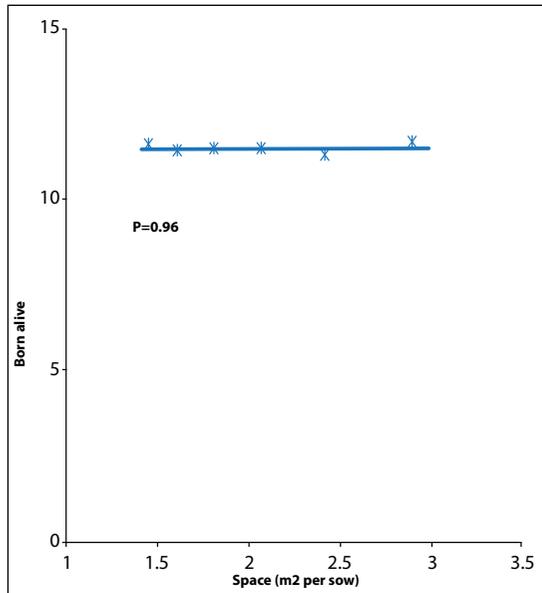
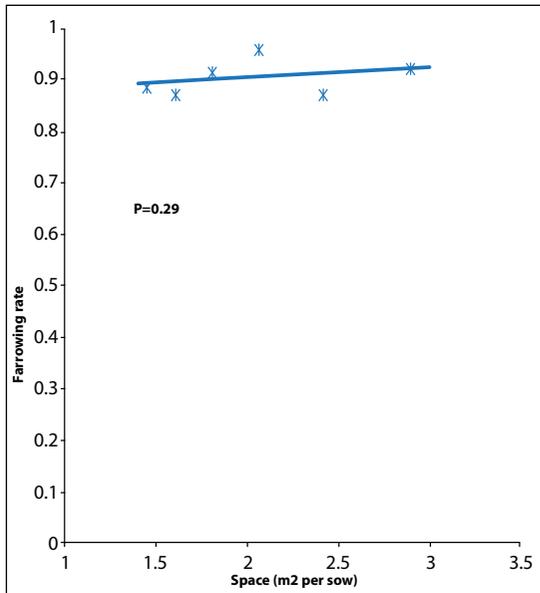


Figure 2: Effects of floor space on the farrowing rate and born alive litter size of sows grouped shortly after mating.

Measuring RD&E industry impact

from P2

ful in attracting external RD&E funds from a range of sources (mainly government programs) and this equates to more than \$3 million over the past seven years.

In 2009/10, APL implemented a Pork RD&E strategy in conjunction with the Pork CRC.

One of the main components of this strategy was to 'base fund' six R&D facilities.

These facilities were deemed to be critical for the pork industry's RD&E needs.

This focus on key facilities has brought about significant reduction in RD&E costs as a consequence of reduced project technical personnel cost and also upscaling of proof of concept R&D directly to commercial scale.

This base funding of R&D facilities has also brought with it other benefits including:

- R&D is now conducted in the most appropriate facility rather than the facility linked to research providers;

- Regional RD&E silos are now almost nonexistent;

- Greater collaboration between universities and state department of primary industries research providers (and students) and industry;

- In many cases the conduct of R&D at commercial facilities has increased technology adoption; and

- More industry to industry collaboration.

Before I talk about some specific examples of APL projects and their impact on industry bottom line, it is important that I provide an overview of how APL gets its R&D outcomes.

Figure 1 on the previous page is a very simple overview of the process undertaken by APL to facilitate the adoption of R&D outcomes.

This process starts with the Stakeholder Engagement Plan and ends with the reporting of R&D adoption and impact to industry and government.

In case you're wondering what on earth a Stakeholder Engagement Plan is, it is just a fancy name for an APL plan around who we need to speak to, how we get information to these influencers and in what format.

Using a simple example such as nutrition, we know we have to speak to between five and eight key nutritionists that cover about 85 percent of production to facilitate adoption of nutritional R&D outcomes.

Each R&D discipline is different but it would be fair to say the adoption of R&D outcomes for on-farm production management is by far the most difficult.

So getting back to some individual APL R&D projects to see if we can articulate an industry impact, let alone ROI.

The projects in Table 1 on the previous page are a small sample of APL's RD&E investment and are chosen on the basis that they have attracted relatively large investment (greater than \$100,000) but also across APL's R&D remit to highlight some key issues that we are currently grappling with in our bid to define ROI.

Looking at the projects outlined in Table 1, I would have no hesitation in saying all the projects have provided significant benefits to the pork industry.

Measuring adoption, while difficult, especially

for say the welfare and biosecurity areas, is doable in terms of: is this still able to be defined by a range of surveys that we conduct annually?

However, trying to articulate industry impact in terms of dollars is more difficult, and in the case of some projects it is downright impossible.

This also poses another set of issues in key performance indicators for APL R&D investment programs.

It is very difficult to identify a set of standardised impact KPIs across all APL's R&D investment programs.

So where to from here for APL?

While I would very much like to be able to articulate a dollar impact, I believe this simply undersells the impact of APL's R&D investment to producers, and we do not have the methodology to do this.

In case you are wondering, the pork industry is not alone in this dilemma.

Certainly in the case of the APL Research and Innovation Division, I aim to continue to do three things to inform industry and government of the impact of APL's R&D investment.

These are:

1. Continue to enhance our methodologies around our pre and post project cost benefit analyses.

There is much information to be gained from articulating a 'what's changed scenario' between pre and post CBAs.

We also have to overcome the fact that a single CBA number appears to suffer from a credibility issue.

It seems a CBA greater than 1:5 is not seen as real, while a CBA of about

1:3 appears to be considered valid but 'grey'.

I also believe a single CBA never tells the whole story.

Within these CBAs we will continue to look to articulate both tangible and non-tangible benefits; as well as private and public benefits.

Given the issues around a single CBA, maybe we need to change our methodologies to articulate a range.

2. Continue to enhance and measure technology awareness and adoption by industry.

This is not a case of more industry surveys.

We need to find a better way to capture this information.

3. Last, in terms of industry impact, continue to search for more appropriate measures.

However, in the interim look to capture a range of information that provides the basis for a description of industry impact that articulates both quantitative and qualitative outcomes.

I constantly badger the R&I staff for an 'elevator pitch', whereby they are able to articulate the benefit and impact of their R&D programs in less than a minute.

Maybe I have been too harsh on them and perhaps I need to give them two minutes each!

To the APN readership, I would love to hear from you if you have any ideas to improve our methodologies around demonstrating the benefit and impact of APL R&D investment to producers.

For further information on any of the topics discussed in this column, please do not hesitate to contact me on 02 6270 8804 or darryl.dsouza@australianpork.com.au

Positive reproduction and welfare outcomes from Pork CRC sow space science

A LARGE Pork CRC study (Project 1C-105) by Prof Paul Hemsworth, Animal Welfare Science Centre, University of Melbourne and scientists from Pork CRC participant Rivalea suggests minimal long-term impacts on reproduction and welfare from the higher cortisol levels and aggression exhibited by sows immediately after mixing at lower floor space.

After investigating how floor spaces between 1.45sq m and 2.9sq m affected the welfare and performance of sows grouped within four days of mating, Paul, like his AWSC/University of Melbourne colleague Dr Jean-Loup Rault in another Pork CRC study, found that aggressive interactions and cortisol levels at day two after mixing declined with increasing floor space, but there were no effects at day 26.

Our Pork CRC researchers, who lead the world in sow welfare, have now clearly shown that mixing sows at weaning or after mating has no long-term effects on welfare and excellent reproduction will be achieved if sows are appropriately fed and carefully managed.

Bottom line

So, though floor space between 1.45sq m and 2.9sq m had no long-term effects on sow welfare or reproduction, aggression and cortisol levels were markedly affected by floor space in the period immediately after mixing,



Initiatives

by DR ROGER CAMPBELL
CEO



but the effects had disappeared by day 26 and a corollary study showed that the effects had actually disappeared by day nine.

The effects of space and time on cortisol levels are shown in Figure 1 – aggressiveness followed the same pattern.

Effects of floor space on farrowing rate and litter size are shown in Figure 2 – both were excellent (for Australian sows) and unaffected by floor space.

In this study the sows were floor fed 2.5kg of

feed daily, spread over four feeds.

They were housed in pens without partitions and the study ran for 72 weeks to cover all seasons.

The results differ from a similar study by Australian Pork Limited at the same facility nearly three years ago in which the same effects of space and time on aggression and cortisol were observed and reported.

The difference was that farrowing rate improved

continued P4



Prof Alan Tilbrook, research chief, Livestock and Farming Systems, South Australian Research and Development Institute participated in Pork CRC Project 1C-105.



**Bendigo Exhibition Centre,
April 14 and 15**

Entry for producers and their employees is free. As with previous Fairs, in addition to the trade show the Pig Fair program will be crammed full of many different events including the seminar program, cocktail party and networking session.

For more information, call John Bourke on 0419 552 768.

Victorian Pig Fair ENTRY TICKET

Tuesday April 14, 1pm - 8pm

Wednesday April 15, 8am - 4pm

**Bendigo Exhibition Centre,
Prince of Wales Showgrounds,
Holmes Rd, Bendigo**

Name: _____

Piggery: _____

FARMERS and FEED MILLERS



SFMC
FeedSafe
Accredited

FOR ALL YOUR REQUIREMENTS OF:

- ◆ FULL FAT SOYA BEAN MEAL
- ◆ EXTRUDED WHEAT
- ◆ EXTRUDED CORN SOYA MEAL

Soya beans used in our meals are NOT genetically modified!

CONTACT:

SOYA FEEDS PTY LTD

Bennie St, Industrial Estate, Dalby

Ph (07) 4662 4333

A/Hrs (07) 4663 5534

We use whole soya beans not gradings to supply you with a quality meal

Positive reproduction and welfare outcomes from CRC sow space science

from P3

in a linear fashion with increasing space at mixing and this was particularly evident in summer.

In Pork CRC's study, farrowing rate was some 10 percent higher (90-plus percent v 80 percent) than in the APL study and unaffected by floor space.

Staff influence

Apart from changes in the animals' performance capabilities over time, the other difference between the two studies was that in the APL study the sows had never experienced group housing and the staff involved had never

managed sows in groups.

In the Pork CRC study, the sows had all experienced group housing, as had the staff and I imagine this contributed to better performance, though the behavioural and physiological effects were just about the same in both studies.

The results show there probably isn't an optimum or minimal floor space for group housed sows.

They adapt rapidly to mixing and reduced floor space.

It was also interesting in our study that removals due to non-reproductive reasons were generally low and unaffected by floor space.

The results show that aggression and cortisol levels immediately after mixing can be reduced by increased space and lend support to the mixing pen concept – that is where sows are given more space in the week after grouping and then can have their space allowance reduced.

Aggression at and immediately after mixing, however, can't be eliminated and feedback from participants is that floor space between 1.8sq m and 2sq m supports good performance.

We also know from this study that these space allowances will reduce aggression immediately after grouping, but it's also clear that space has no longer-term consequences on welfare or reproduction.

I will send a summary of this and two related reports to producers.

The final report (Project 1C-105) is available on

www.porkcrc.com.au

Simply go to the Research tab, then Program 1, then Projects & Final Reports.

US snapshot

I recently attended the Midwest Animal Science meetings in Des Moines, Iowa, US.

While Des Moines hasn't changed (over the 15 years that I've attended), the industry certainly has.

Last year, supply in the US was down due to the devastating effects of porcine epidemic diarrhoea virus on piglet survival (there was no survival) and price was up accordingly.

PEDv was mild over the latest US winter and supply is now up.

At this time last year, the pork price was \$US1.32/lb (\$US2.90/kg) carcass weight and it was a year of record profits.

This year the price is roughly \$US0.57/lb (\$US1.25/kg) and it's looking like a year of break even at best.

This just shows what an increase in supply can do to a market with flat demand, and the US will be looking for export markets wherever they exist.

Different sows

I heard a couple of interesting presentations by a Danish researcher on the performance of Danish sows (DanBred).

They investigated different valine:lysine ratios on sow performance during a 26-day lactation.

Litter size was adjusted to 14 and the lightest piglet in each litter was 1.5kg so they could test the sows' milking ability.

Valine had no effect on any aspect of sow or piglet performance, so we can, once again, forget that.

The sows (558 in total) weaned 13 pigs/litter and litter growth rate over lactation was just under 3kg/day.

Milk production was 11 litres/day.

Resilient sows

You might think this is not much different to our sows, except on average the sows lost 22kg (9.6 percent) of their postpartum body weight during lactation.

And while there was an effect of body weight loss and feed intake in lactation (averaged 6.1kg/day, but restricted to this level) on subsequent litter size, average weaning to oestrus interval was 7.1 days.

This is in line with the body weight loss, but 94 percent of sows remated and subsequent average litter size was 18.2 total born.

I think the DanBred sow is a little different to most of those available here and I'm not sure we could handle them, but maybe a cross breed or two might help.

The researchers concluded litter weight gain

and subsequent reproduction was positively related to feed intake in lactation.

Danish nutrition

The Danes' nutritional approach might also interest nutritionists.

The lactation diet, which is used commercially, contains 13MJ ME/kg and 0.71 percent SID lysine.

Is it little wonder, therefore, that the sows lost so much body weight and body protein in lactation?

You would think they'd have been better off investigating lysine levels, rather than valine in lactation.

There were a number of other papers on feeding sows in gestation and the outcomes were similar to what we saw in previous Pork CRC research: few positive effects of increasing feed intake, or even lysine levels, in mid and late gestation.

I will summarise this and other interesting events and research outcomes from the meetings and get them to you in the near future.

www.porkcrc.com.au

Solid-Liquid Separation Systems

Agricultural and Industrial

Distributors of:

- Submersible pumps
- Slurry Mixers
- PTO Slurry Pumps
- Bedding Recovery Units
- Bio-Gas Equipment



FAN Press Screw Separator

AUSTRALIAN WASTE ENGINEERING P/L

Ph: (08) 8738 2021

Fax: (08) 8738 2475

E: edan-awe@bigpond.com



Design of Effluent Systems our Specialty



MORE THAN 6.5 MILLION PIGLETS ARE BORN IN JYDEN'S LOOSE FARROWING PENS

Jyden will exhibit at the Victorian Pig Fair on April 14-15th, 2015 at the Bendigo Exhibition Centre.

Meet a farmer with practical experience with our pens, see our Danish pen models and get closer to your next sow project!

Farrowing pens for the future

- more animal welfare
- improved housing hygiene
- optimised working environment
- healthier production

Jyden

Idomvej 2

7570 Vemb - Denmark

T: +45 9748 4099

www.jyden.com

Full line solutions for all housing units!



Statement from PIC Grong Grong

THE tragic accident that occurred in February at the PIC Grong Grong piggery, in which about 500 healthy eight-week-old weaner pigs perished due to heat stress, was just that, a tragic accident.

Any loss of an animal's life on farm is to be avoided and is one of the many reasons why PIC places its staff through certified training courses.

This ensures the animals under PIC's management receive the very best of care.

Unfortunately, like natural disasters, this incident was literally a case of all things that could have gone wrong, did go wrong.

Electricity failure to the Grong Grong site caused part of the ventilation system of some sheds to cease operating.

The day in question was a warm Sunday when skeleton staff were on deck.

The drop-out mecha-



"The PIC staff through this whole saga have been nothing short of amazing.

"As you can imagine, the fallout from all this has led to a reassessment of PIC's emergency planning.

"In charting a positive way forwards we have had full co-operation with the power company and also the existing emergency back to base monitoring system."

PIC, under its Australian Pork Industry Quality Assurance certification, will be undergoing an audit in April to ensure all systems are operating according to APIQ standards.

Full co-operation has also been given to the RSPCA and the NSW Department of Primary Industries. 3

"It is very sad that some organisations and media outlets have tried to mislead the general public by turning this incident into an animal welfare issue, when it clearly was not," Mr O'Leary said.

University of New England Animal Genetics and Breeding Unit senior research fellow Dr Kim Bunter took part in Pork CRC Project 1C-105.



Great Southern WA pig farmers Steve Lyneham and Dawson Bradford, Massimo Valentini of D'Orsogna and Neil Ferguson, Westpork general manager.

Fresh take on west side story

WHILE fresh pork so often gets the glory gongs and basks in the spotlight of industry promotions aimed at upping pigmeat consumption levels, processed pork products, otherwise known as smallgoods, account for a very substantial proportion of the pigmeat produced on Australian farms.

Leading West Australian smallgoods manufacturer D'Orsogna has always prided itself on maximising its use of the best available, locally grown WA pork in its smallgoods products.

And that commitment has grown exponentially in the 30 years since D'Orsogna first invested, as a foundation shareholder, in Westpork.

Starting with a base



Cant Comment
by
BRENDON CANT

of 400 sows, the business now controls more than 10,000 sows at its well-run sites at Gingin, Serpentine, Kojonup and Mt Barker.

The D'Orsogna family has played a key role in the long-term success of Westpork, ever since Ken Boughton and D'Orsogna co-founder Tommaso D'Orsogna started with a vision of building a farm to supply D'Orsogna locally produced pork.

The vision has grown beyond this, with Westpork not only supplying D'Orsogna but a number of key fresh meat suppliers within WA.

But the D'Orsogna commitment remains, with cousins Marco and Eugene D'Orsogna being long-term board members of Westpork.

D'Orsogna is the second-largest shareholder.

The partnership delivers pigs to D'Orsogna of a set quality and weight

criteria 52 weeks of the year.

The consistency and long-term nature of the partnership has allowed both businesses to grow with confidence.

The openness of the relationship has enabled D'Orsogna to read changes in consumer demands and expectations and for this to be fed back to the production system, enabling D'Orsogna to remain at the forefront of producing premium-quality smallgoods.

D'Orsogna buys pigs on a weekly basis from Westpork and from well-respected WA Great Southern farmers Dawson Bradford and Steve Lyneham.

D'Orsogna's pork producer suppliers offer a range of production systems including:

- Outdoor bred,

where adult breeding sows live in open spaces with free access to paddocks;

- Loose housed deep litter systems;

- Environmentally controlled sheds based around large groups; and

- Intensive breeder units based on confinement limited to the first five days of gestation.

Westpork was the first WA pork producer to introduce electronic sow feeders, which allow sows to live in large groups while being individually fed and helping avoid aggression pressures at feeding time.

All Westpork pig feed is procured from Inghams and Wesfeeds, utilising local, WA-grown grain and as many local ingredients as possible.

Management systems don't define intensive versus extensive animal husbandry definitions

THE definition of intensive and extensive animal husbandry continues to generate debate when permitting outdoor production systems.

Australian Pork Limited standards and guidelines deem all pig farms as intensive farming operations.

This policy position is based on the carrying capacity of the land, not the piggery practice undertaken on farm.

APL's industry standards and guidelines are aligned with the planning regulations across Australia.

The intensive classification of piggeries is based on the ability of a pasture-based diet to provide adequate nutrients for pigs to thrive.

To be classified as extensive, the majority (greater than 50 percent) of pig nutrition must come from pas-

ture alone, and not be brought in from external sources.

Pigs are monogastric (single stomached) animals, meaning they are inefficient digesters of fibre.

In young pigs, the capacity to digest pasture is greatly reduced and should only account for between 5 and 10 percent of their diet.

It is not feasible for pigs to obtain more than 50 percent of dietary requirements from pasture alone, and therefore supplementary feeding is essential to maintain a nutritious diet.

Consequently, as stipulated in state planning codes such as the Victorian Planning Provision, all piggeries are intensive operations.

APL has made significant investment in best practice for outdoor piggeries, with

a particular focus on environmental impacts, which are different to that of indoor systems that have the potential for higher environmental risks.

It is for this reason APL has developed industry guidelines, APIQ \checkmark standards, factsheets, case studies, environmental management plan templates and research reports, which focus on odour, dust, noise and land/nutrient management (electromagnetic mapping).

These documents assist in minimising the risk of environmental and community amenity impacts and are widely recognised as guidance for assessment.

These standards and guidelines are scientifically based and reviewed frequently to ensure the latest up-to-date information is incorporated into the de-

sign and management of outdoor systems.

APL is supportive of approved (permitted) outdoor pig production systems because this means producers can ensure they are meeting the best environmental practice appropriate to their property and environment.

By ensuring you are following the standards set out in the National Environmental Guidelines for Rotational Outdoor Piggeries (2013) and the National Environmental Guidelines for Piggeries (2010), or are part of a quality assurance program such as APIQ \checkmark , applying for a permit from your local council should be a relatively straightforward process.

A number of consultants are available to assist with developing planning applications



on your behalf.

Utilising consultants can assist in the collation of the appropriate information councils need to make an assessment, thus avoiding a protracted process and possibly saving you time and money.

APL can also provide advice on planning requirements and direct you to information that may assist with your applications.

If you have any questions, please feel free to contact APL's Research and Innovation Manager Environment Janine Price on 02 6270 8827 or Janine.price@australianpork.com.au

Reduce piggery odour & sludge levels

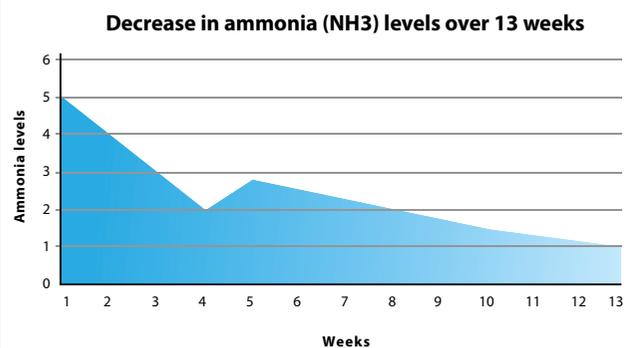


63,000 UNITS IN USE WORLDWIDE

Everyone hates odours, especially neighbours and the EPA. BioAmp resolves odour issues and reduces pond sludge at the same time. The unit delivers 30-trillion fresh, fully activated bacteria into your waste water stream every day. It is fully automatic and dispenses a super-high daily dose of bacteria on a preset schedule at a very low cost.

Highly effective for:

- Odour control and reducing waste water pond sludge levels
- Reduction of reportable KPIs (ammonia, nitrogen, BOD, COD, TSS etc)



Rent for just \$26.14 a day including bacteria supply

BioAmp is by far the lowest cost odour reduction system available. Monthly rent includes the unit AND all daily doses of bacteria. No minimum term required.



13 Harbourvue Court, Helensvale QLD
Tel: 07 5580 6857 E: info@bioenergizer.com.au

www.bioenergizer.com.au



Karen Moore

A taste of success from Moore work on boar taint

PORK CRC research into the performance and eating quality of entire male pigs and those immunised against gonadotropin releasing hormone using Improvac has revealed that androstenone and skatole, the compounds linked to boar taint, were significantly higher in the belly fat of entire males than in immunised males.

The study, by PhD candidate Karen Moore of the Department of Agriculture and Food, Western Australia also showed that androstenone was higher in entire male pigs grown out to heavier live weights (107kg v 74kg).

While no entire male pigs slaughtered at lighter weights had androstenone levels above the sensory threshold (>1ug/g), 18 percent of those grown to heavier weights did.



In contrast, 18 percent of light weight and 33 percent of heavy weight entire males had belly fat skatole levels exceeding the sensory threshold for skatole (>0.2ug/g).

Of pigs fed ad libitum, 38 percent and 43 percent of light and heavy entire males had skatole levels above the sensory threshold.

No immunised male ex-

ceeded the sensory threshold level for androstenone and only one heavy immunised male exceeded the sensory threshold level for skatole.

Consumer perceptions of eating quality of the loin steak reflected differences in boar taint compounds, with the percentage of steaks ranked by consumers as unacceptable, or below average, being 29 percent for entire and 20 percent for immunised males.

When asked about their repurchase intention, 39 percent of respondents ranked the loins from entire males as 'definitely would not repurchase or unlikely to repurchase'.

The corresponding percentage for the loin from immunised males was 27 percent.

According to Ms Moore, the results confirm im-

munisation against GnRH effectively reduces the incidence of boar taint, but slaughtering entire male pigs at light weights and at very light weights (64-73kg) does not.

"Clearly, improving the eating quality of pork requires a more proactive approach to managing androstenone levels and especially skatole levels in carcass fat," she said.

Immunising against GnRH had previously been shown to eliminate boar taint, provided pigs were not sold within two weeks of the second vaccination.

Ms Moore is now working on strategies to minimise the decline in feed efficiency and increase in back fat thickness that occurs in immunised males about three weeks following the second vaccination with Improvac.

www.porkcrc.com.au

Manure Spreaders



SPREADER SIZES: 6-40 TONNES

- Heavy-duty design and construction
- Ideal for all types of manure and compost
- Will also spread lime and gypsum
- Empties in less than 4 minutes
- Even spread width up to 24 metres



AXON Mob 0428 637 717
Ph 02 9974 2704
www.axonmachinery.com.au

Fuelling the breeding engine

SOWS are the engine room of any pig enterprise.

Research has proven the key to optimising reproductive performance is reducing body weight loss during lactation.

Overall farm feed conversion ratio drives farm profitability, with finisher pig performance and carcass weight directly related to piglet weight and health at weaning.

Modern sows are lean breeding machines with low feed intakes.

Recent focus world-

wide has been on meeting sows' increased requirements for net energy and digestible amino acids.

Overall sow health, particularly gut health is important to sow productivity and that of the offspring.

In the past 10 years, pressure on the feed ingredient market has led to the use of a diversity of grains, grain qualities, protein meals and by-product sources to formulate pig feeds.

Sow feed intake can be improved, reducing body weight loss by 20 percent and back fat loss by 24 percent in trials around the world utilising a multi-activity feed enzyme.

Rovabio Excel is traditionally highly regarded as a non-starch polysaccharide enzyme, has 20 activities and is proven to improve digestibility and utilisation of all grains (wheat, barley, corn, sorghum and rice), protein meals and by-products, releasing more starch energy and important amino acids to the sow.

Formulating for calcium and phosphorus balance can be assisted with use of the Natuphos phytase enzyme, which promotes the release of phytate-bound phosphorus in feed ingredients.

Rovabio Excel and Natuphos are cost-effective nutritional tools to improve feed values for sows.

Both are available in heat-stable forms suitable for pellets and meal diets.

Matrix values are available to allow feed formulators to account for the extra release of nutrients from the enzymes and reduce feed cost/breeder/year.

Fibre is a crucial ingredient in sow feeds and high-fibre diets are best suited for sows during gestation and pre-farrowing periods.

Pregnant sows are fed restricted amounts of feed.

Formulating dry sow diets with ingredients of high-fibre content allows sows to be in a state of satiety for a longer period.

This may reduce aggression among group housed sows and also improve sow welfare.

Opticell provides the opportunity to increase the fibre level in dry sow and pre-lactation diets at very low inclusion levels of 2-2.5 percent.

Opticell is a eubiotic fibre source that has synergistic levels of both fermentable and non-fermentable fibre.

It assists in management of constipation challenges in sows, reduces stress by stabilisation of blood glucose, shifts fermentation processes to colon and may shorten parturition time.

It is suggested that applying a separate diet during the peripartum period improves productivity.

However, due to logistical constraints a number of farms are unable to do this.

These farms normally change the diet from gestation to lactation upon the sow's arrival at the farrowing shed.

BEC Feed Solutions has developed a new product to support peripartum sows.

Sow Buddy is designed

to supplement nutritional requirements of sows during late gestation and early lactation stages.

It is a special formulation of unique raw materials that have synergistic effects in supporting sow health and help to counteract problems in farrowing sows.

These ingredients assist in maintaining microbial balance in the gut (prebiotic and probiotic), reduce instances of constipation, reduce farrowing duration, maintain normal gut activity (fermentable and non-fermentable fibre) and assist in glucose metabolism during late gestation.

Sow Buddy comes in a convenient 20kg bag that includes a scoop for easy application.

Feed 250g (a scoop) of Sow Buddy to your sow feed as soon as the sows are transferred to the farrowing shed until one week postpartum.

For more information about BEC products, please visit us at our stand at the Victorian Pig Fair from April 14-15.

Alternatively, contact the BEC Feed Solutions customer service team on 1300 884 593, 07 3723 9800 or send us an email at info@becfeedsolutions.com.au

BIOMIN Research & Development
Turning science into sustainable solutions

Our strong in-house research and development, and global cooperation with leading institutions and organisations form the basis by which innovative solutions are developed for our customers.

FIAAA
Code of Practice Accredited
Safe Feed for Animals

BIOMIN Australia Pty Ltd, PO Box 2344, Carlingford NSW 2118
Tel: 02-9872 6324, Email: office.australia@biomin.net
research.biomin.net

Naturally ahead

Biomin

BEC®
FEED SOLUTIONS

www.porknews.com.au

Benjamin Linn looks at *E. coli*

BENJAMIN Linn is in his final year of the University of Adelaide's Doctor of Veterinary Medicine program, having completed a Bachelor of Science (Veterinary Bioscience) in 2012.

Benjamin has always maintained a strong interest in pig production and from six years of age was even raising his own pigs.

He also has a strong interest in pursuing a career in veterinary consultancy in pig production following graduation at the end of this year.

Throughout his studies, his achievements have been recognised with a number of awards, most recently the Chris Richards and Associates Prize in the DVM program, the Australian Agricultural Scholarship, the Cowan Roseworthy Scholarship and the prestigious Audrey Abbie Veterinary Perpetual Prize.

In June 2013, Benjamin commenced a Pork CRC supported project as his DVM-1 clinical research project, evaluating the prevalence of antibiotic resistance in commensal *Escherichia coli* isolated from pigs.

Diarrhoea caused by enterotoxigenic *E. coli* is an important cause of morbidity and mortality in neonatal and post-weaning piglets, manifesting as two major conditions: neonatal and post-weaning diarrhoea.

The enterotoxins secreted by ETEC cause hypersecretion of fluids into the small intestine, resulting in watery diarrhoea and causing significant economic losses, decreased growth rates and treatment costs.

Due to the highly virulent nature of ETEC strains, treatment tends to be aggressive, but resistance is emerging to medications commonly used to treat neonatal and PWD forms.

In addition, treatment with antimicrobials may lead to colonisation of the gut with drug-resistant



Supervisors: Dr Sam Abraham, Assoc Prof Darren Trott and Prof Roy Kirkwood (all of University of Adelaide)

commensal *E. coli*.

The piggery chosen for this study had a history of outbreaks of diarrhoea, and the population of pigs chosen for study had been prophylactically treated with antimicrobials for prevention of ETEC infection.

Rectal swabs were taken from 105 randomly sampled pigs from the piggery at various stages of production.

Rectal swabs were obtained from pigs at one day of age (pre-treatment), at entry to the weaner (four weeks of age), grower (eight weeks) and finisher (13 weeks) phases of production, and just prior to market (18 weeks).

Samples were taken from two successive weaning batches, allowing for comparison between weaning groups.

The swabs were then grown on antimicrobial-impregnated media specific for *E. coli* growth.

Those that showed growth on this media underwent antimicrobial susceptibility testing using 18 antimicrobials commonly used in production animals and important to human medicine, as per Clinical and Laboratory Standards Institute guidelines.

These isolates were also tested for genetic relatedness and virulence genes, using Random Amplified Polymorphic DNA, PCR and ETEC pathotyping multiplex PCR respectively.

Those isolates resistant to antimicrobials of importance to human health were also screened to identify the genes responsible for the resistance.

In total, 86.7 percent of the swabs collected in this study exhibited multidrug resistance.

RAPD PCR demonstrated that the resistance isolates were heterogeneous

in nature, however PCR pathotyping revealed the absence of any ETEC associated virulence genes, confirming that they were commensal *E. coli*.

This Pork CRC project identified that antimicrobial treatment of piglets results in persistence of multidrug-resistant commensal *E. coli* in the gut into the growing and finishing period.

The resistant isolates were heterogeneous, indicating that more than one subtype of *E. coli* contains the resistance genes, which are most likely encoded on a plasmid.

The study indicated that the prophylactic use of antimicrobials in pig

production systems may predispose pigs to the development of resistance among enteric commensal *E. coli* populations in pigs.

Finding new ways to prevent/control ETEC infections in pigs will lead to less reliance on antimicrobial treatments.

The financial contributions of the Pork CRC and its support for this project are acknowledged.

Thanks must also be given to Hui San Wong and Tahlia Mitchell for their considerable contributions to this project.

For more information, email Benjamin Linn at benjamin.linn@student.adelaide.edu.au



Ben Linn received the Chris Richards and Associates Prize in the Doctor of Veterinary Medicine program, University of Adelaide.

Vets welcome new Biosecurity Bills

THE Australian Veterinary Association welcomes Bills about to be considered by the Senate that will strengthen disease control measures to better manage the risk of diseases entering and spreading in Australia.

AVA president Dr Julia Nicholls said veterinarians are involved at all levels of Australia's quarantine and biosecurity systems.

"In large-scale outbreaks such as the 2007 equine influenza outbreak, an army of government and private veterinarians is called on to take part in the emergency response," she said.

"Strong, effective protection against im-

ported pests and diseases is critical to our agricultural industries as well as the wellbeing of Australia's animals and people.

"We welcome these Bills that incorporate critical changes to the way we approach biosecurity risk, including advances in technology and transport that the previous legislative framework did not cover.

"Australia needs a more seamless biosecurity system, which these Bills will provide." The Biosecurity Bill 2014 is supported by four other Bills that are designed to help ensure the smooth transition from the Quarantine Act 1908.

Range, advice and service, that's our commitment!



See us at the Victorian Pig Fair, April 14-15

Proud Distributors Of:



Rovabio®

OptiCell®
EUBIOTIC FIBRE

SowBuddy
SUPPORTS HEALTH AND CONDITION

aromabiotic®
MCFA the original

natuphos®
THE ORIGINAL PHYTASE

Victorian Pig Fair 'Sow Buddy' DEAL!

BUY 1 GET 1 FREE

Visit us at the BEC booth to redeem your voucher!

Offer valid during the fair. Present this ad to receive the special. Maximum of 10 free bags per farm/company.



becfeedsolutions.com.au
info@becfeedsolutions.com.au
1300 884 593

BEC Feed Solutions
50 & 66 Antimony St, Carole Park Q 4300
PH 07 3723 9800 FAX 07 3271 3080
PO BOX 475 Goodna Qld 4300

Fresh focus for Stockyard

STOCKYARD Industries is at the forefront in the supply of pig and poultry equipment to Australian producers.

After more than 20 years as a market leader in the supply of equipment to the pig industry, Stockyard Industries has launched a new name and logo, signalling a fresh focus for the business.

Director Marcus Jones said, "Stockyard Industries will now be known as 'Stockyard'."

"In fact, many of our customers already refer to us as the Stockyard team."

"The new logo is intended to reflect Stockyard's continued growth in both the pig and poultry Industries by combining all facets of the business."

"The image of the shed portrays to our customers that we are committed to providing all aspects of a

building project from organising building drawings to installing equipment."

While its name may have changed slightly, Stockyard will continue to be a trusted supplier of innovative and reliable agricultural equipment at a competitive price.

Visit the new website www.stockyardindustries.com for more information.

Alternatively, meet the Stockyard team in person at the Victorian Pig Fair from April 14-15 at the Bendigo Exhibition Centre. 🐷



Business continuity plans for producers

AFTER assisting a small number of producers deal with the impacts of the recent cyclones and floods in the central Queensland area, I was left wondering how many producers are well enough prepared for a serious business interruption from a range of issues including floods, storms, fires and the like.

After contacting a small group of producers and getting answers such as: "Well I deal with those things when and if they come along," I have decided to challenge you to sit down and write up a small plan on how to deal with one of the above or any emergency, no matter how big or small your business.

You should start your plan by doing a risk as-

pork
QUEENSLAND INC.
President's Perspective

by JOHN COWARD



essment of the potential interruptions to each critical component of your farm's operation.

First, start with the structures: sheds, feed bins, feed lines, water lines and so on.

Second, identify the key inputs or support to your operations: water, feed, medications, genetics, power, labour, internet, phones and transport in and out.

Then consider what could affect each of these points and how long you could do with-

out them before their absence impacted on your business.

Quite often, in doing the risk assessment and potential causes you will identify a risk minimisation strategy, which is great.

However, for the big one that catches you off guard may I recommend you document a simple but useful tool that I refer to as a business continuity plan.

You should consider an alternative to each of the supports required to keep your business operating and if necessary make arrangements to bring those options into play when and if needed.

It may be an alternative power supply that is sufficient enough to get by, a number of tarps for shade protection or a back-up pump.

In your BCP you should nominate a list of key people in your business and the roles those people should take in an emergency.

Even if the nominated

persons are not available, the actions and steps you take will be pre-planned.

You should have a list of key contact and phone numbers, from emergency support to suppliers and alternatives.

A copy of the plan should be available at the farm and your office.

Like any living document it should be reviewed annually to ensure it is up to date.

I have noticed that when the pressure is on due to a major event, panic can reign supreme and most of us are all the same.

Having a well-planned and documented BCP provides you with a to-do list, who does what, the records to be kept and a work-around plan that you have thought out without any pressure.

It also helps when it comes time to renew your insurances because a BCP can reduce your recovery time and in turn reduce your losses and as such premiums.

It also provides your customers with greater confidence in your supply arrangements.

If you would like any further information or assistance in constructing a BCP for your business, please contact me by calling 0407 622 166 or emailing john.coward1@gmail.com 🐷

Global antibiotic use in animals estimated to increase significantly

A NEW study estimates that global use of antibiotics in food animals will be 67 percent higher in 2030 than in 2010, as agriculture intensifies to meet the growing demand for animal protein.

The study's findings call for initiatives to preserve antibiotic effectiveness while simultaneously ensuring food security in low and lower-middle-income countries, according to Simon Levin of Princeton University, US and co-authors from a number of international institutions.

In the paper 'Global trends in antimicrobial use in food animals' published in Proceedings of the National Academy of Sciences of the United States of America, Levin and his co-authors explained that demand for animal protein for human consumption is rising globally at an unprecedented rate.

They also state modern animal production practices are associated with regular use of antimicrobials, potentially increasing selection pressure on bacteria to become resistant.

Despite the significant potential consequences for antimicrobial resistance, the researchers say there has been no quantitative measurement of global antimicrobial consumption by livestock.

They have addressed this gap by using Bayesian statistical models combining maps of livestock densities, economic projections of demand for

meat products and current estimates of antimicrobial consumption in high-income countries to map antimicrobial use in food animals for 2010 and 2030.

The authors estimate the global average annual consumption of antimicrobials per kilogram of animal produced was 172mg per kg for pigs, 148mg per kg for chickens and 45mg per kg for cattle.

Using these figures as a baseline, they estimate that between 2010 and 2030 the global consumption of antimicrobials will increase by 67 percent from about 63,151 tons to roughly 105,596 tons.

They attribute up to one third of the increase in consumption to shifting production practices in middle-income countries where extensive farming systems will be replaced by large-scale intensive farming operations that routinely use antimicrobials in sub-therapeutic doses.

For Brazil, Russia, India, China and South Africa, Levin and his co-authors have calculated that the increase in antimicrobial consumption will be 99 percent, which is up to seven times the projected population growth in these countries.

The researchers call for better understanding of the consequences of uninhibited growth in veterinary antimicrobial consumption to assess its potential effects on animal and human health. 🐷

www.porknews.com.au

Smart Farming Needs Smart Storage

28 & 46 TONNE
NEW SIZES
POLY SILOS

Poly Silos are the unbeatable option for your feed, grain and fertiliser storage.

Get real value now while lasting for decades:

- Expandable storage solutions
- Rust and weather resistant
- High UV protection
- 1 - 46 tonne poly silos available
- Insulating properties
- Light, safe and easy
- Liquid storage option
- Finance available

The perfect companion for intensive farming.

• Poultry • Pork • Dairy



Take advantage of the Poly difference today.

FREECALL: 1800 502 267
EMAIL: sales@enmachind.com.au
VISIT: polysilos.com



Hunts happy with Emu Rock during borderline season

ON the lookout for a high-yielding, short-season wheat that offered a different flowering window to the other varieties in their program and which could handle a sharp finish, South Australian Michael Hunt, along with brother Roger and son Josh, decided InterGrain's Australian Hard variety, Emu Rock, was the one.

After experiencing a tough 2014 spring in the Cannawigara area west of Bordertown, SA and limited growing season rainfall of about 130mm and only 30mm in the spring period from a few sporadic 5-10mm events, Michael was hoping his Emu Rock would deliver at the business end of the season.

And he wasn't disappointed, with 300ha of Emu Rock yielding up to 3.45 tonnes/ha and averaging 2.8 tonnes/ha; a result he described as solid, in what was a tough season.

"Emu Rock might not be a showy or flashy wheat, but it's the tonnes of grain in the bin that counts, and it did the job for us," Michael said.

With protein at 12.2 percent, test weight 82 and screenings 2.4 percent, Emu Rock easily made the H2 specification.

"Some of our country can have screening issues in sharp finishes and fortunately Emu Rock lived up to InterGrain's claim of good grain quality,"

"We were quite happy with its performance and intend planting a similar area this season."

Though the 2014 spring was a tough one in the Bordertown district, the Hunts luckily escaped severe August frosts and then enjoyed very few hot

windy days, which meant their crops had time to adjust to declining soil moisture.

"We did have two areas quite badly frosted that only yielded 800kg/ha, but they were the first two paddocks sown to Emu Rock and were probably sown a bit early considering their paddock history," Michael said.

As the harvesters went in, the district's growers didn't know what to expect, but harvesting the Emu Rock was no problem according to the Hunts, with Josh commenting that because the crop was quite even in height and relatively easy to thrash, it was trouble free and efficient to harvest.

Like many growers in SA's medium rainfall areas, the Hunts had been repeatedly challenged by tight springs in recent seasons and these tended to come with higher frost risks.

After analysing local National Variety Trials data where Emu Rock was quickly identified as a high-yielding, high-quality short-season wheat that exhibited good grain quality and had been successfully grown locally by a number of growers, the Hunts opted for the InterGrain variety.

"Importantly, Emu Rock has a robust rust package, particularly for stripe rust, which is a concern locally in some years," Michael said.

Though he noted Emu Rock was susceptible to cereal cyst nematode, their rotation of pulses and canola meant CCN levels were comfortably managed with regular non-susceptible crops.

In 2014, unlike many surrounding areas, the

Hunt's farm 'Innisfallen' had received very little summer rain, and profile moisture leading into sowing was limited.

A solid break of 30mm fell at the end of April however and the season was shortly under way.

Emu Rock was sown at 110kg/ha in the second half of May on about 300ha, with a smaller area sown to the midseason variety Scout.

With Emu Rock's large seed size, sowing rates had to be kept up to ensure plant numbers were adequate and able to compete with ryegrass, which was always going to be a challenge.

"It is comforting knowing Emu Rock can be sown at the end of your program without compromising yield potential," Michael said.

At sowing, MES10 in-crop fertiliser was applied

at 65kg/ha, along with early foliar trace elements and UAN.

Additional nitrogen was top dressed in split application ahead of rain events.

The Hunts employ the crop modelling tool ProductionWise to help with management decisions, particularly nitrogen budgeting, as the software predicts crop outcomes.

"By the end of July, the Emu Rock crop potential was good and things were probably more advanced than usual, as the winter had been mild and our Emu Rock held reasonable colour all the way through, even in areas where nitrogen deficiency was creeping in by the end of July," Michael said.

The Hunts implemented a preventative rust fungicide program on their more susceptible wheats, but as Emu Rock has a

more robust rust profile and spring was dry, it was excluded.

According to InterGrain wheat breeder Chris Moore, growers should seriously consider Emu Rock to diversify their portfolio for effective disease and risk management.

"On the risk management front, Emu Rock fits well when growers near the end of their programs, as it has excellent grain size and lower tendency for screenings," Dr Moore said.

On the disease front, Emu Rock boasts a good disease package, offering growers stripe rust resistance diversity (MR-MS rating) and a useful level of crown rot resistance (MS).

A crown rot resistance rating of MS is among the highest commercially available.

www.intergrain.com



InterGrain's Emu Rock did the job for Bordertown wheat grower Michael Hunt, averaging 2.8 tonnes/ha across 300ha.

Thermal images used to detect disease in pigs

MEASURING the radiated temperature of a group of pigs by infrared thermography may be a useful tool for early detection of disease as some Canadian researchers discovered.

Infrared thermography technology is already being used in a similar way at airports to screen people for possible disease, but it also has a role in veterinary diagnostics.

It offers a way of measuring the temperature of animals without needing to handle or restrain them.

The researchers used vaccination as a model for disease, because it induces an immune response in the animals.

Groups of weaned pigs were either treated with an intra-muscular vaccine, injected with saline as a placebo or left untreated.

An infrared camera fixed to the ceiling directly above the pen recorded thermal images of the groups of pigs at five-minute intervals.

Higher temperatures were recorded when

the pigs clustered together, and this behaviour was seen more frequently in the groups of vaccinated pigs.

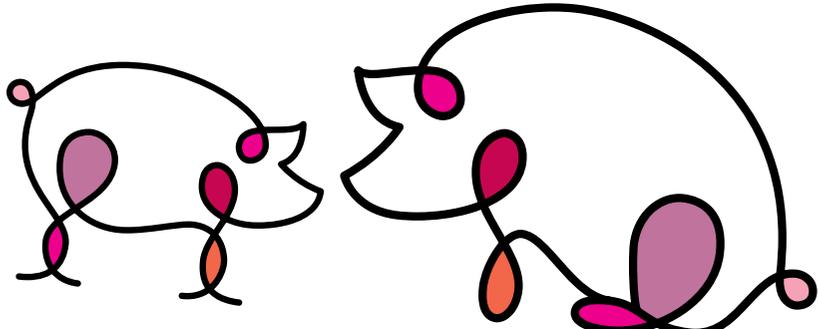
The maximum image temperature was significantly higher in vaccinated animals compared with control and placebo-injected animals.

Temperature increase in the vaccinated animals occurred as early as three hours post-vaccination, peaked at 10 hours and remained elevated for up to 20 hours.

The researchers also investigated the effect of prevalence of disease on the ability of IRT to detect a thermal response.

A thermal response to vaccination was detected in a pen of 24 to 26 animals when less than 10 percent of the animals were vaccinated.

These results suggest that measuring the radiated temperature of groups of animals could be a useful tool for detecting fever-inducing disease in pig barns, and IRT offers an automated way of doing this.



Difference through Innovation



- ZINCO-PLUS™** | Innovative Zinc Source
Innovative blend of zinc and vegetable fat specifically designed for pigs.
 - TETRACID 500™** | Acidifier
Innovative blend of organic acids specifically designed for pigs.
 - PORCINAT+™** | Acidifier + Essential Oils
Innovative blend of organic acids and essential oils specifically designed for pigs.
 - NUTRASE XYLA™** | Xylanase Enzyme
The unique bacterial enzyme from Nutrex.
- Products formulated and designed specifically for pigs.

Jefo Australia proudly celebrates 10 years working with and supporting producers in Australia and New Zealand. We thank you for your support and look forward to sharing many more years of success with you.

Jefo, exclusive distributor of EVONIK and HAMLET PROTEIN in Australia.



jefo.com | wbradshaw@jefo.com

Making genes fit for a pig

■ Pork CRC Projects 2B-101, 2B-102, 2B-103, 2B-104 in Subprogram 2B 'Healthy Robust Pig Genotypes'

SINCE arriving in Australia more than 20 years ago, Assoc Prof Susanne Hermesch has worked with industry to raise the level of understanding and increase adoption of genetic principles and strategies to improve performance of pigs.

Following an 'apprenticeship' as a 'farmer' and completion of her undergraduate degree at the Georg-August University, Göttingen, Germany, Susanne completed a PhD in quantitative genetics at the University of New England.

The PhD project produced the first set of genetic parameters for reproduction, performance, carcass and meat quality traits in Australia.

These were subsequently used by industry. Since then, Susanne has investigated a wide range of topics relevant to genetic improvement of producing pork, in collaboration with leading Australian pig breeding companies.

She has established an extension and adoption framework to foster adoption of genetic principles.

Information about research outcomes is available from the Animal Genetics and Breeding Unit's pig genetics web pages at http://agbu.une.edu.au/pig_genetics/in dex.html

International collaborations
Susanne leads a number of national and international research collaborations to develop selection strategies for robustness and disease resilience.

Consistent performance
Robust pigs are able to perform more consistently

across a range of environments.

Pork CRC Project 2B-101 established that environmental conditions varied considerably, even on farms with good health and management practices.

For example, environments differed by about 150g/day for growth and by more than 6mm for backfat across herds.

Most of this variation in environments was also observed within herds.

It was then established that breeds or progeny of sires differed in their response to environmental variation.

These results offer opportunities to select for less sensitive genotypes in purebred herds; an outcome that is currently being investigated further.

New models
Economic models were developed in collaboration with Dr Peter Amer, AbacusBio, New Zealand to establish new breeding objectives for maternal and sire lines (Pork CRC Project 2B-102).

It was shown that maternal genetic effects, which represent the genes of dams, were the second most important trait in maternal breeding objectives.

This finding is significant because maternal genetic effects do not require any additional investment in data recording by breeding companies.

Further, post-weaning survival was identified as the economically most important trait for sire lines.

This trait has not been investigated in detail yet despite the fact that information about survival post weaning is available on most farms.

Genetic analyses of post-

weaning survival will lead to genetic models that enable breeders to include this important trait in their selection decisions.

A key aspect of these economic models is their simplicity, because economic benefits of improving each trait by one unit are derived via independent sub-models.

For example, the economic value for feed conversion ratio (\$/pig to improve FCR by 1kg/kg) is simply feed price (\$/kg) times live weight (kg).

These models are very simple for most traits and can be adopted easily.

Disease resilience
Genetic improvement of disease resilience leads to genotypes able to maintain productivity when challenged by infection.

This topic was discussed at a workshop in Armidale, NSW as part of Pork CRC Project 2B-103 and led to the publication of a book, *Breeding Focus 2014 - Improving Resilience*, which was co-edited by Susanne.

A keynote speaker at the meeting was Dr Andrea Doeschl-Wilson from Roslin Institute, University of Edinburgh, Scotland, who works with Susanne on developing genetic models for disease resilience and its underlying mechanisms, disease resistance and disease tolerance.

Robust productivity
Evaluating the consequences of selection for feed efficiency on robustness and developing practical selection strategies that lead to more consistent performance of pigs across environments is the emphasis of collaborative research with

Dr Hélène Gilbert from INRA, France as part of Pork CRC Project 2B-104.

Hélène investigated the response of divergent selection lines selected for residual feed intake to variation in environmental conditions.

It had been believed that selection for efficiency and productivity had unfavourable consequences for robustness.

However, contrary to expectations, the low residual feed intake line, the more efficient line, was less sensitive to variation in environmental conditions for growth rate.

These findings indicate that more efficient pigs may be able to derive nutrient resources more efficiently to face stresses when needed.

Further, it raises the question of whether the resource allocation theory is too linear compared to real physiological process.

Alternative selection strategies for the new breeding objectives developed in the previous Pork CRC project are currently being investigated.

The breeding objective sets the direction for genetic improvement of pigs by multiplying the estimated breeding value of each trait with the corresponding economic value.

Economic values are also known as marginal economic values because they quantify the change in profit due to changing a trait by one unit, while keeping all other traits in the breeding objective constant.

As such, economic values are essential for genetic improvement, however economic values can also be used to evaluate

the economic implications of changing a husbandry practice.

Susanne outlined these aspects to industry in a recent series of webinars about PigEV, which were well received by participants.

Fostering adoption
Susanne conducts her research in close collaboration with Australian breeding companies.

Therefore, the research itself is part of the adoption process.

Genetic gains achieved in purebred populations in traits describing productivity, robustness and survival will eventually be passed on to the commercial level.

Outcomes from these projects have been extensively published at industry events, conferences and in scientific journals.

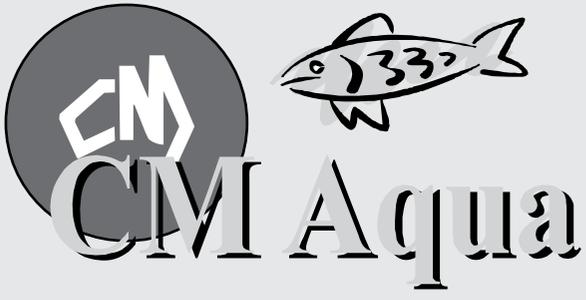
Publications and further information about PigEV, which is available to Australian pig producers, may be obtained from Susanne by emailing Susanne.Hermesch@une.edu.au or calling 02 6773 2055.



Assoc Prof Susanne Hermesch



Research collaborators Dr Hélène Gilbert, INRA, France; Assoc Prof Susanne Hermesch, AGBU, University of New England, NSW; and Dr Andrea Doeschl-Wilson, Roslin Institute, University of Edinburgh, Scotland.



CALL WENDY NOW & ASK FOR A CM AQUA PACK

Importers of pure tuna fish meal

"Supplying a high quality protein fishmeal"

PURE WILD CATCH TUNA

That's what CM Aqua's made of!

CM Aqua in your pig feed — you just can't do better

Available Australia wide - 25kg bags

For further information call us today
Craig Mostyn & Co Pty Ltd
Wendy Laycock Phone: 03 9695 4116
Stephen Cooke Phone: 03 9695 4103
 Mobile: 0417 272 885 Mobile: 0419 348 492

Global pork prices decline

HAVING risen to record levels through the middle of 2014, global pork prices had returned to more normal levels by the end of the year.

The price hikes were driven by the impact of porcine epidemic diarrhoea virus on global supplies, affecting one major exporter (US) and several key importers (Japan, Korea and Mexico, among others).

This took the average export price for pork (based on figures from the four major global exporters: EU, US, Canada and Brazil) to \$US3.50 a kg during the middle of last year, 13 percent higher than the previous

record of \$US3.12. However, with the impact of PEDv waning and signs of production expanding in 2015, prices have subsided once again.

By December, the average export value was down to \$US2.95, in line with levels for much of 2012 and 2013.

EU prices were largely unaffected by the rises elsewhere, mainly due to the Russian import ban, so EU pork was the cheapest in 2014, which was the opposite of the usual position.

Brazilian export prices also fell rapidly at the end of the year as the depreciation of the Russian rouble decreased the

amount Russian buyers were willing to pay in US dollar terms.

Therefore, by December, US pork was the most expensive among major exporters.

However, further falls in domestic prices in the new year, taking them to a five-year low, have brought the US into line with the other exporters.

Coupled with the US dollar strengthening against the euro, Canadian dollar and Brazilian real, this suggests that further falls in the global average price, in US dollar terms, are likely in early 2015, possibly taking values to their lowest level in over four years.



Here's my Card

THIS is a quick and easy way to locate the right people for any number of specialist services and facilities in the pig industry. Whatever the job you need to accomplish, here's a group of business cards that guarantee you the best available.



Mitchell Kann
Operations Manager
Mobile: 0400 035 112

PO Box 451
Salisbury Qld 4107
ABN: 38 099 241 595

Ph: 07 3277 9785
Fax: 07 3277 9246
Email: mitchell@total-insulation.com.au

Neil GANNON - 0458 634 554
Charlotte WRIGHT - 0499 171 010
Greg STUART - 0499 287 710
Bernard CHUAH - 0414 610 889



BIOMIN Australia Pty Ltd
PO Box 2344, Carlingford NSW 2118
Tel: 02 9872 6324, Fax: 02 9872 5139
email: office.australia@biomin.net

www.biomin.net



ABN: 92 115 191 056

ACE Laboratory Services

12 Gildea Lane Bendigo East, Vic 3550



AQIS QC2 Containment Facility

APVMA Licensed Manufacturer

PH : (03) 5443 9665
FAX: (03) 5443 9669

Email: info@acelabservices.com.au
PO Box 6101 White Hills, Vic 3550



Fabian Barcelo B.AnVetBSci (Hons)

ADM Animal Nutrition
Account Manager

ADM Australia Pty Ltd
Suite 1003 Level 10, 1 Newland Street
Bondi Junction 2022
Sydney Australia
fabian.barcelo@adm.com
www.adm.com/australia

T (02) 9387 2255
F (02) 9369 1170
M 0409 758 106

A MEMBER OF ARCHER DANIELS MIDLAND COMPANY



John McLeish

ADM Animal Nutrition
Sales Manager

ADM Australia Pty Ltd
Suite 1003 Level 10, 1 Newland Street
Bondi Junction 2022
Sydney Australia
John.McLeish@adm.com
www.adm.com/australia

T (07) 5570 6222
F (07) 5570 6333
M 0419 740 814

A MEMBER OF ARCHER DANIELS MIDLAND COMPANY

EASTERN
genetic resources

"Belmont"
MS 360
Bell Qld
Australia 4408

Brenden McClelland

Phone: 07 4663 1279

Fax: 07 4663 1395

AI Centre: 07 4663 1071

Mobile: 0409 064 806

email: belmont.360@bigpond.com

website: www.easterngenetics.com.au

David Sherwood

B.AppSc.(Agriculture)
Sales Manager



Unit 2, 84-92 Barnes Street
Tamworth NSW 2340

MOBILE: 0487 777 089

ORDERS

TEL: 1300 791 009

FAX: 1300 798 005

david@ccdanimalhealth.com.au
www.ccdanimalhealth.com.au

EFFLUENT PUMPS & IRRIGATORS

DAIRIES - PIGGERIES - ABATTOIRS
Proudly designed & manufactured in Australia

NO BEARINGS OR SEALS UNDERWATER
Can run dry indefinitely without damage

HIGH HEADS AND HUGE OUTPUTS
Ideally suited for travelling irrigators

UNIQUE NON CLOG IMPELLER



B.R.REEVE
ENGINEERING

(03) 9699 7355
www.reevegroup.com.au



INSPIRED MOLECULAR SOLUTIONS™

Matt Henry

Country Manager (AgriFood Australia)

mob: 0439 136 602
matthew.henry@kemin.com

Kemin (Aust.) Pty Ltd

Suite 6-7, 694 Pacific Highway, Killara NSW 2071,
Sydney, Australia & New Zealand
Phone: 61 2 9844 5700 | Fax: 61 2 9418 2544

www.kemin.com



INSPIRED MOLECULAR SOLUTIONS™

Rick Carter, PhD

Technical Services Manager - Pacific

mob: 0412 888 485
rick.carter@kemin.com

Kemin (Aust.) Pty Ltd

Suite 6-7, 694 Pacific Highway, Killara NSW 2071,
Sydney, Australia & New Zealand
Phone: 61 2 9844 5700 | Fax: 61 2 9418 2544

www.kemin.com

CPyke
Pty Ltd

Christian Pyke
Managing Director

M: 0428 233 200
E: info@cpyke.com.au
PO Box 3350
Port Lincoln South Australia 5606
www.cpyke.com.au

Supplier of
high performance
ingredients for
aquatic and
animal nutrition

Australian Agent / Distributor for:



LIENERT

powered by **Altech**

Regional Sales Representatives

Shane Nicholson (Qld)
Tel: 0427 200 262
Shane.Nicholson@lienerts.com.au

Matt Lahm (Vic)
Tel: 0437 056 369
Matt.Lahm@lienerts.com.au

Linda Scotts (NSW)
Tel: 0428 972 599
Linda.Scotts@lienerts.com.au

Vin Modra (SA)
Tel: 0407 723 679
Vin.Modra@lienerts.com.au

1800 649 231
(Toll Free Number)

Lienert Australia Head Office: 8 Roseworthy Rd, Roseworthy 5371, SA, Australia

www.lienerts.com.au

Michael Pritchard MTB
Biosecurity Manager
michael.pritchard@lienerts.com.au

LIENERT
powered by **Altech**

Lienert Australia Head Office
8 Roseworthy Rd, Roseworthy 5371
SA, Australia
T 02 6851 6200
M 0407 764 850
F 02 9144 4574

www.lienerts.com.au

World Leaders in Pig Genetics

PIC Australia

To contact your local
PIC Sales Representative visit
www.picaustralia.com.au/contact

Tel: +61 2 6956 2105
Fax: +61 2 6956 2203
Email: info@picaustralia.com.au

PIC

PIC Australia
PO Box 39
Grong Grong
NSW 2652

NEVER STOP IMPROVING

AFSystems



Andrew Kimball
Agricultural Sales & Service

Mobile: 0428 609 611
Email: afs@activ8.net.au

PO Box 4009 Nemingha NSW 2340 Australia

Altech

ALLTECH AUSTRALIA
64-70 Nissan Drive
Dandenong South, VIC 3175
Tel: +61 (0)3 9767 2800
alltechaustralia@altech.com

Altech.com.au @AltechAP



Wayne Bradshaw

Managing Director
Australia & New Zealand
T +61 (0) 7 4630 1500
M +61 (0) 429 301 500
wbradshaw@jefo.com
www.jefo.com

TETRACID 500™ PORCINAT™ ZINCO-PLUS™

FarmMark
Livestock Solutions

Luigi Di Clemente

FarmMark P/L Livestock Solutions
2/19 Success Street Acacia Ridge Queensland 4110

Freecall: 1800 500 223
Phone: 07 3274 6372 Mobile: 0412 934 892 Fax: 07 3274 2372
Email: luigi@farmmark.com.au
Website: farmmark.com.au

Australian
Pork
NEWSPAPER

Advertise your
business card here
call 07 3286 1833

Now available
in colour,
great value at

\$274
for 4 months

porknews.com.au • ben@porknews.com.au

Alan Smith
B. Ag Sci.
Managing Director



minitube

Minitube Australia Pty Ltd
P.O. Box 1
135 Brooke Street, Smythesdale
Victoria 3351
Australia

Tel: +61 3 5342 8688
Fax: +61 3 5342 8788
Mobile: +61 414 432 790
asmith@minitube.com.au
www.minitube.com.au

BEC
FEED SOLUTIONS

Craig McCann
SALES MANAGER

MOB +61(0) 488 025 555
FAX +617 3271 3080

c.mccann@becfeedsolutions.com.au

50 & 66 Antimony Street
Carole Park Qld 4300

PO BOX 475, Goodna Qld 4300

www.becfeedsolutions.com.au

1300 884 593
Customer Service

BEC
FEED SOLUTIONS

Dr. David Isaac
DVM MRCVS
ANIMAL HEALTH, INNOVATION
& RESEARCH MANAGER

MOB +61(0) 400 603 483
PH +617 3723 9844 FAX +617 3271 3080

d.isaac@becfeedsolutions.com.au

50 & 66 Antimony Street
Carole Park Qld 4300

PO BOX 475, Goodna Qld 4300

www.becfeedsolutions.com.au

1300 884 593
Customer Service

Mundigo
DELIVERING EFFICIENT SOLUTIONS

Mike Andersen
Managing Director
BE(Agr.) Hons.

Private Bag 2
20 Cleggett Road
Bordertown SA 5268

P 1800 100 820
M 0427 230 350
E mike@mundigo.com.au

www.mundigo.com.au

CHRIS RICHARDS & ASSOCIATES

Swine Veterinary Consultants

- Health, Production and QA Services
- Disease Eradication and Repopulations
- Servicing all areas of Australia

www.chrisrichards.com.au • 1800 426 142 • F: 03 5443 3829

CHRIS RICHARDS & ASSOCIATES

Dr Chris Richards 0429 843 184
Dr Hugo Dunlop 0428 129 053
Dr Bernie Gleeson 0428 270 091
Dr Andrew Morris 0437 011 818
Dr Sarah De Greef 0429 049 708
Dr Kirsty Richards 0407 282 592
Dr Yvette Miller 0428 479 000
Dr Sarah Jenkin 0409 715 559
Dr Hong Lin 0409 540 212
Dr Erin Borrow 0438 111 713

Mundigo
DELIVERING EFFICIENT SOLUTIONS

Richard Boshoff
Sales Manager
MBA

Private Bag 2
20 Cleggett Road
Bordertown SA 5268

P 1800 100 820
M 0427 230 380
E richard@mundigo.com.au

www.mundigo.com.au

Suppliers of Elite nutrition and solutions

NATIONAL
FEED SOLUTIONS Pty Ltd

Kym Miller Mobile: 0439 066 054
Luke Steinborner Mobile: 0439 066 006
Bill Steinborner Mobile: 0499 009 293

Phone: 02 9609 7922
Fax: 02 9609 7923
admin@nationalfeedsolutions.com.au
www.nationalfeedsolutions.com.au
PO Box 6370 Wetherill Park BC NSW 2164

PORK STORKS
Australia

Delivering Excellence in Swine Reproduction

Lethbridge, Victoria
Freecall: 1800 647744
Facsimile: (03) 5281 7547
Mobile: 0408 855 875
Email: bridget@porkstorks.com.au

Glencoe, Queensland
Phone: (07) 4699 3011
Facsimile: (07) 4699 3055
Mobile: 0400 672 418
Email: glencoe@porkstorks.com.au

IRRIGATORS AND SPRINKLERS

FOR WATER AND EFFLUENT ON CROPS AND PASTURES

Volume capacity – 18m³/hr to 90m³/hr
Spray width to 36m and runs up to 330m

REEVE B.R.REEVE ENGINEERING (03) 9699 7355
www.reevegroup.com.au

VAUCLUSE & APS

117 Chapman Rd, Inglewood, SA 5133

David Reu
MOBILE: 0427 791 734
EMAIL: davidreu@vauclose-aps.com.au

Gabby Brooke
MOBILE: 0419 695 126
EMAIL: gabby@vauclose-aps.com.au

PH: 08 8380 5672 FAX: 08 8380 5176
www.vauclose-aps.com.au

zoetis

Dr Timothy Ahern B. Sc. (Hons) B.V.Sc. (Hons) Dip.Reprod.Sci
National Pig Business Manager
Intensive – Monogastric
Zoetis Australia Pty Ltd
Level 6, 5 Rider Boulevard, Rhodes NSW 2138
PO Box 6066, Silverwater NSW 2128
M 0418 124 664 E Timothy.Ahern@zoetis.com
F 02 8876 0444 W www.zoetis.com.au

zoetis

Bruce Hunt
Professional Sales Representative - Intensive Livestock
Zoetis Australia Pty Ltd
Level 6, 5 Rider Boulevard, Rhodes NSW 2138
PO Box 6066, Silverwater NSW 2128
M 0438 352 443 E bruce.hunt@zoetis.com
F 02 8876 0444 W www.zoetis.com.au

George Hassan GENE CENTRE MANAGER
Rob Nicholls BREEDING & TECHNICAL MANAGER

CEFN

Gene Centre Murray Bridge SA
M: 0427 567 722

PO Box 520 Junortoun VIC 3551
M: 0428 753 880
P: 03 5439 4233
F: 03 5439 4233
E: rob@cefn.com.au

www.cefn.com.au

Predictable Outcomes Through Advanced Cefn Genetics

zoetis

Fred Schwenke
Business Unit Director Intensive
Intensive – Monogastric
Zoetis Australia Pty Ltd
Level 6, 5 Rider Boulevard, Rhodes NSW 2138
PO Box 6066, Silverwater NSW 2128
T 02 8876 0378
F 02 8876 0444 E Fred.Schwenke@zoetis.com
M 0417 844 231 W www.zoetis.com.au

zoetis

Tom Cowper
National Account Manager - Intensive
Zoetis Australia Pty Ltd
Level 6, 5 Rider Boulevard, Rhodes NSW 2138
PO Box 6066, Silverwater NSW 2128
M 0418 246 675 E tom.cowper@zoetis.com
F 02 8876 0444 W www.zoetis.com.au

SLURRY PUMPING AND COMPOST SPREADING

- Servicing QLD and Northern NSW
- Best rates and excellent payment terms

Growup ORGANICS

Jason Reimers 0437 885 309
E: growuporganics@bigpond.com
www.growuporganics.com.au

Supplying the Piggery Industry with tarpaulin

- Shelter covers
- Blinds • Liners
- Thermal Covers

POLYTEX
TARPAULINS

Phone: 1300 059 003
Fax: 1300 858 626
Email: info@polytex.net.au
www.polytex.net.au

zoetis

Darryl Meaney
National Sales Manager Intensive
Intensive – Monogastric
Zoetis Australia Pty Ltd
Level 6, 5 Rider Boulevard, Rhodes NSW 2138
PO Box 6066, Silverwater NSW 2128
T 02 8876 0355
F 02 8876 0444 E Darryl.Meaney@zoetis.com
M 0419 594 922 W www.zoetis.com.au

MYORA FARM
ABN 78 008 025 563
"Breeders of quality stock"

JEFF BRAUN
MANAGING DIRECTOR

Telephone: (08) 8725 0411
Facsimile: (08) 8725 8784
Mobile: 0409 091 678
Email: myora@myora.com.au

PO Box 550 Mount Gambier South Australia 5290

CRAIG MOSTYN GROUP
FOOD & AGRIBUSINESS

Warren Kehli
Trader
Protein Division

Level 1
49 - 51 Stead Street
South Melbourne, VIC
3205 Australia
Phone: +61 3 9695 4116
Fax: +61 3 9699 5283
Mobile: +61 477 555 008
wkehli@craigmostyn.com.au
www.craigmostyn.com.au

CRAIG MOSTYN GROUP
FOOD & AGRIBUSINESS

WENDY LAYCOCK
Operations Manager
Sales Protein Division

Level 1
49 - 51 Stead Street
South Melbourne, VIC
3205 Australia
Phone: 03 9695 4116
Fax: 03 9699 5283
Mobile: 0417 272 885
wlaycock@craigmostyn.com.au
www.cmaqua.com.au www.craigmostyn.com.au

New system delivers revolutionary method of odour control for piggeries

WASTE water technology provider BioEnergizer Australia has announced an agreement with international supplier Chemsearch to distribute its revolutionary BioAmp waste water bacterial delivery system to the piggery and abattoir markets.

BioEnergizer has serviced these markets for almost 10 years with a range of products designed to effectively reduce sludge and odours in effluent ponds.

BioEnergizer already supplies a wide variety of markets including water authorities and mining, dairy and food processing industries, but this is the company's first foray into the piggery and meat processing market with a fully automated bacterial delivery system.

BioEnergizer CEO Marc Middleton was genuinely excited when he first saw a BioAmp unit at a facility in southern NSW.

"I drove out of that facility as quickly as was respectfully possible, parked on the side of the road and immediately called the manufacturer, telling them



I wanted to add the system to our range," Mr Middleton said.

"I was immensely impressed with this system.

"Compared to the existing range of bacteria that we, and indeed other providers, have had in our product ranges, I had never seen anything like it.

"Simple, easy to manage, fully automatic (which means no manual mixing, stirring, brewing or dosing) and yet it delivers huge colonies of pure bacteria into the waste water stream every day at an astonishingly low cost per unit."

There are over 63,000 BioAmp units in use around the world and Mr Middleton expects the take-up in Australian markets to reflect the appeal of the ease and sheer volume of microbial application.

"This system undercuts

the costs of current bacterial dosing methods in Australia, including our own, by a huge margin," he said.

Bacteria for waste water systems is rated in colony forming units per gram, which is basically the number of bacteria delivered into a waste water facility at a time.

Most are rated in billions of CFUs per gram, but Mr Middleton said BioAmp is rated in trillions.

"Thirty trillion to be exact," he said.

"One small daily dose of FreeFlow bacteria is equal to about five 200-litre drums of other products that could cost up to 10 times as much."

The unusual aspect of getting BioAmp systems into the market is that BioEnergizer doesn't sell the system.

Instead, the unit is supplied on a rental basis at a

cost of just \$26 a day, which includes the daily dosage of the bacterial product.

"This way the client has zero capital requirement or risk, and in fact, we don't even expect our clients to commit to a long-term rental agreement with us," Mr Middleton said.

"We're so confident in the system's ability to get rid of odour and accelerate sludge reduction that a contract really isn't necessary."

The final key to the success of the system is that the bacteria are 'live and active' when they enter the waste water stream, and so are ready to digest the organic waste at the moment of dosing.

BioAmp pellets contain five different strains of bacteria that break down the organic waste, including solids, and convert it into water and CO2.

This in turn aids in meeting EPA effluent parameters (BOD, COD, TSS, VS and FOG) and H2S reduction, resulting in lower odour levels.

For more information, call BioEnergizer on 07 5580 6857 or email info@bioenergizer.com.au

Seven reasons to be cheerful

THE pork industry overwhelmingly drove Australian Pork Limited to help create profitable growth for producers between now and 2020.

While Queenslanders are suffering a grain cost premium of about \$60/tonne, everyone else should be doing OK with the profitable bit right now.

So all is good on the home consumption front right?

Well it's probably looking a bit better than that.

Here are seven reasons to be hopeful about the immediate future:

1. On the growth front, we have good news right now. Per capita annual fresh pork consumption was 9.57kg per Australian resident in February 2015, up from 9.2kg in February 2014.

2. Currently, retailers and wholesalers are growing their prices and margins faster than producers are growing theirs because there is slightly more demand than supply.

So the whole supply



Marketing Matters

by **PETER HAYDON**
General Manager Marketing



chain is profitable.

3. Australian pork's farm gate price continues to rise and display minimal seasonality.

4. Lamb and beef farm gate prices rose steeply in November and December and are both significantly more expensive than this time last year, making pork at farm gate great value.

5. Australia is growing its population at about 400,000 people a year, so there is more demand from new Australians.

6. In the longer term, fresh Australian pork per capita consumption has grown by 182g a person per year over the past five years, so that's

more demand from existing Australians.

7. Christmas saw a bump up in consumption that was the result of a good Christmas for pork. Since then fresh pork volume sales have stayed high despite pork being much more expensive to consumers since Christmas.

Through a combination of good management, hard work and no doubt some luck, as an industry we have managed costs and demand, and by the sum total of individual producer decisions grown volume a little.

Our next challenge is how to accelerate profitable growth.

Here's my Card ■ Here's my Card ■ Here's my Card

FEEDWORKS
"Performance through Science"

David Cadogan
B.Ag.Sci, MRurSc, PhD.
Technical Services Manager
Monogastrics

M 0409 049 793
P +61(0)3 5429 2411
F +61(0)3 5429 2433
E david.cadogan@feedworks.com.au
13 High Lancefield
Victoria Australia 3435

www.feedworks.com.au

FEEDWORKS
"Performance through Science"

Stuart Wilkinson
Technical Services Manager
Monogastrics

M 0414 487 882
P +61(0)3 5429 2411
F +61(0)3 5429 2433
E stuart.wilkinson@feedworks.com.au
13 High Lancefield
Victoria Australia 3435

www.feedworks.com.au

FSA CONSULTING

Eugene McGahan
Senior Consultant

PO Box 2175 (11 Clifford St)
Toowoomba Qld 4350

B Eng (Ag) MEng RPEQ MASABE Cert IV
Assessment and Workplace Training

P 07 4632 8230
M 0428 328 233
F 07 4632 8057
E Eugene.McGahan@fsaconsulting.net
W www.fsaconsulting.net

Delivering solutions for today's agriculture

Sam Custodio
Technical Services and Sales Representative

Boehringer Ingelheim

Boehringer Ingelheim Pty Limited
Animal Health Division
78 Waterloo Road
North Ryde NSW 2113
Mobile: 0409 493 368
Tel: 1800 038 037
Fax: 02 8875 8715
samuel.custodio@boehringer-ingelheim.com

Phillip Marr
Senior Technical Services and Sales Manager

Boehringer Ingelheim

Boehringer Ingelheim Pty Limited
Animal Health Division
78 Waterloo Road
North Ryde NSW 2113
Mobile: 0428 270 494
Tel: 1800 038 037
Fax: 02 8875 8715
phillip.marr@boehringer-ingelheim.com

John Glassbrook
Bsc. Agric (An.Sci)
Senior Technical Services and Sales Manager

Boehringer Ingelheim

Boehringer Ingelheim Pty Limited
Animal Health Division
78 Waterloo Road
North Ryde NSW 2113
Mobile: 0408 459 356
Tel: 1800 038 037
Fax: 02 8875 8715
john.glassbrook@boehringer-ingelheim.com

COAT-O-FOAM Pty Ltd
Specialising in Polyurethane Foam Application

•Coolrooms •Tanks •Condensation Control
•Poultry & Pig Sheds •Internal & External Coatings

Gavin Forsyth
Sales Manager

PO Box 83, Hallam, Victoria, Australia 3803
Ph/Fax: 03 9736 2448 Mob: 0409 514 363
Email: coatofeam@optusnet.com.au
Website: www.coatofeam.com.au

Meg Donahoo
B.An.Vet.Bio.Sc(Hons), M.Sc.Vet.Sc
Technical Services and Sales Representative

Boehringer Ingelheim

Boehringer Ingelheim Pty Limited
Animal Health Division
78 Waterloo Road
North Ryde NSW 2113
Mobile: 0411 330 493
Tel: 1800 038 037
Fax: 02 8875 8715
meg.donahoo@boehringer-ingelheim.com

Shaun Megson
Key Account Manager, Australia and New Zealand

Boehringer Ingelheim

Boehringer Ingelheim Pty Limited
Animal Health Division
78 Waterloo Road
North Ryde NSW 2113
Mobile: 0408 233 227
Tel: 1800 038 037
Fax: 02 8875 8715
shaun.megson@boehringer-ingelheim.com

A.P.S. AUSSIE PORK SUPPLIERS PTY LTD

James Bredhauer

8 King St
PO Box 1187
Kingaroy Qld 4610
Email: jamesb@aussieporksuppliers.com.au

Ph: 07 4162 2233
Fax: 07 4162 4804
Mob: 0427 549 373

RIVERINA STOCKFEEDS

Hannah Gunter 0429 919 700 hgunther@riverina.com.au
Cookie Jeffrey 0428 682 555 cookie@riverina.com.au
Tony Grob 0402 511 316 agrob@riverina.com.au

Feed Mills at:
Oakey 07 4691 4691
Casino 02 6662 7400
Murgon 07 4168 2555
Warwick 07 4660 2666
Loganlea 07 3200 6366

Branches at:
Oakey 07 4691 4500
Kingaroy 07 4162 1699

"More than just a feed company, a partnership for your business"

Amanda Vardanega
National Swine Specialist
MSD Animal Health

Intervet Australia Pty Ltd
91-105 Harpin Street
Bendigo East VIC 3550
Australia
PO Box 2800
Bendigo Delivery Centre
VIC 3554
Customer Service 1800 033 461
M 0427 011 579
F 1800 817 414
amanda.vardanega@merck.com

MSD
Animal Health
The Science of Healthier Animals

Farrowing pens for the future



A COMMON issue among pig producers is the difficulty of combining loose housing systems and better animal welfare while also being competitive and maintaining a high level of pig production.

For most pig producers, farrowing pens for loose nursing sows are obviously linked to an increased investment, and the main concern is probably the risk of greater piglet mortality.

At the same time, animal welfare is an important topic, which farrowing pens for loose nursing sows will address.

Scandinavian experience is trend setting

To facilitate animal welfare and the focus of piglet mortality, Denmark and the Nordic countries have been moving forward in the process of creating farrowing pens that will take these factors into account.

Turning the eyes of Scandinavian countries such as Norway and Sweden, legislation has required that sows are loose in farrowing units, meaning that this kind of pig production has been established for decades – and with success.

Though there are many different models of farrowing pens, the loose farrowing system has been integrated in pig production as a functional housing system.

The Danish Pig Research Centre (board member of the Danish Agriculture & Food Council, Pig Production) is in charge of research and development tasks related to live pigs and communicating knowledge obtained through these activities.

Among these activities are production systems and environmental technology focusing on effort areas such as animal welfare, animal health and food safety.

In 2014, the Danish Agriculture & Food Council dedicated several million Danish krone for establishment of farrowing pens for loose sows.

The support for this type of housing systems has resulted in research and development of farrow-

ing pens for loose nursing sows.

The Danish Pig Research Centre, several suppliers and relevant organisations have identified the natural behaviour and needs of the sow and piglets to determine the pen design that would meet the needs of sow and piglets as well as fulfil usability needs for staff.

Danish investment improves loose farrowing housing

Danish company Jyden, which specialises in the development and production of animal housing systems, has dedicated a huge amount of know-how and resources to developing farrowing pens for loose, nursing sows.

Jyden sales director Jesper Bech said, “We feel a certain responsibility to pig production in general – and that’s why we want to be in front of development for optimal production systems that can meet both legal and consumer requirements.”

“From our point of view, it requires that we are proactive and contribute with our experience, expertise and know-how.

“It is not without reason that we have supplied the largest number of farrowing pens for loose sows.”

One of the key features of Jyden’s farrowing pens is they are designed with the knowledge that the sow will be loose while nursing.

The pen design then makes it possible to protect the piglets during the first critical days right after farrowing (when piglet mortality is greatest).

It is essential to Jyden that the design is focused on a farrowing pen (for loose sows), with the possibility to use the integrated protection wings, and not just to open a traditional farrowing crate.

With this in mind, it will be possible to achieve production results in line

with traditional farrowing pens.

More solutions

Jyden has not only one but many solutions for farrowing pens for loose sows, depending on different needs.

Jyden’s most popular farrowing pens are the JLF10 (without protection wing), the JLF10 SWAP (with protection wing including base plate), the AP LF14 (square pen with protection wings including base plates) and the JLF14 (with protection wings without base plates).

At the Victorian Pig Fair from April 14-15, Jyden will be showcasing the JLF10 SWAP pen.

Worldwide interest

Jyden has designed the pens to leading Dan-

ish principles, and these pens will provide good opportunities on the international market as well.

Jyden export manager John Kongsgaard said, “Danish pig producers are known and taken seriously for their quality in pig production – and Denmark is a good model to many other pig producers worldwide.”

“For that reason, we experience huge interest in our housing systems for loose sows, which have given us more attention on the markets abroad.

“We have supplied large export orders worldwide, such as to England and Australia where there is great consumer demand for pork that is produced with animal welfare in mind.”

www.jyden-direct.com



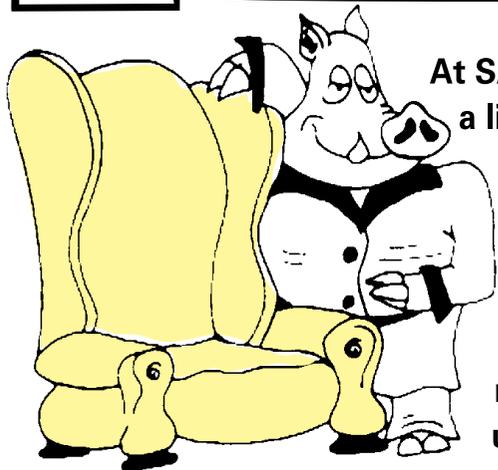
SABOR



SABOR SOUTH AUSTRALIA
ARTIFICIAL BREEDING CENTRE

Visit our New Website...

www.sabor.com.au



At SABOR, we have a limited number of spaces available. You pay enough for your boars, why not maximise the use of them?

For more information on boar entry or semen sales, contact Graham Reu SABOR Ltd. PO Box 413 CLARE S.A. 5453
Phone 08 8843 4315 • Fax 08 8843 4358 • Mobile 0427 842 628

SABOR Your choice - Your boar - Your future

PIGGERY WASH DOWN

AUSSIE BLASTER CLEARANCE

AUSSIE TOP QUALITY BLASTERS

Pro machinery wash down
Bertolini triplex pump
Huge 21 lpm flow
Honda 13HP GX390
3+3 year warranty
Gearbox drive
Hot dipped gal frame
Aussie built
Pro accessories
Electric drive options



Scud 351/GX390

GREAT VALUE

\$2,674+GST

Full Blaster Blitz catalogue online

Aussie Pumps
www.aussiepumps.com.au

02 8865 3500

National Farmers' Federation supports call for rational debate on tax reform

THE National Farmers' Federation has welcomed the Government's release of its taxation discussion paper.

NFF CEO Simon Talbot said the paper would encourage debate and an examination of ideas, which would assist the development of sector-specific policies to take to the next federal election.

“The tax system needs to be simplified,” Mr Talbot said.

“There are 130,000 farm businesses – and most of them are small to medium-sized enterprises.

“They don't have time

to waste on excessively complex taxation.

“Australian farmers need a tax system that is fair, efficient and in the national interest.

“It must encourage investment, innovation and job creation to deliver economic growth.

“In the NFF's 2015-16 Budget submission, we stated our support for a substantial shift in policy settings – so that the level of economic growth can increase and a return to surplus can be achieved.”

Mr Talbot said together with NFF member bodies, the NFF will be carefully reviewing the taxation discussion pa-

per; looking at issues such as the depreciation of assets and the role of taxation in encouraging innovation through research and development incentives.

“We look forward to outlining the agriculture sector's views on tax policies ahead of the next election,” he said.

“There are important policy considerations coming from the Government that are of interest to the farm sector. “Taxation is one.

“The release of the Government's Agricultural Competitiveness White Paper is another, as is the review of competition policy.”

Cutter chops piggery waste

EFFLUENT pumps in piggeries are susceptible to choking when oversized, fibrous material gets flushed into the waste system.

One solution is to install a cutter pump to chop waste material and prevent clogging.

Tsurumi Pump, the world leader in submersible pump development, has produced a range of cutter pumps called the C Series that is designed to handle such waste.

Aussie Pumps product manager Craig Bridgement said, "Tsurumi's breakthrough cutter impeller chops through sewage, rawhide, plastic, aluminium and other materials in seconds."

"We've seen Coke cans, wallets and various unmen-

tionables handled by these extraordinary pumps."

The C Series incorporates a large open-channel impeller with a cutter mechanism.

A sintered tungsten carbide alloy tip is brazed on the impeller vane.

As the impeller rotates the vane slices against the serrated edge of the suction cover, chopping fibrous matter into small fragments that won't clog.

The three-phase heavy-duty pumps range from 50mm bore to 100mm.

The largest pump in the range has an enormous capacity of 2750l/pm and a maximum head of 26m.

Search 'Tsurumi C Series' on YouTube to find a terrific video that shows the pump's cutting ability.

"It's amazing to watch

what these unique pumps do," Bridgement said.

"You'll never believe it until you see it.

"The demo even shows the pump swallowing nylon rope."

Conventional submersible pumps choke on fibrous materials such as rope or cord.

The Tsurumi cutter makes mincemeat out of it.

Like all Tsurumi submersible pumps, the C Series includes features that extend the life and enhance reliability of the pump.

Significant design details make a big difference.

These include an anti-wicking cable entry that prevents water from entering the motor if the power lead is damaged or nicked.

A double silicon carbide seal is standard on all models.

Both seal surfaces are submerged in an oil chamber, away from the pumped liquid.

This ensures lubrication and protects against ingress of foreign materials.

The mechanical seal design features a patented Tsurumi Oil Lifter that increases seal longevity.

The lifter ensures both the upper and lower seals are lubricated and cooled, even if the oil level in the chamber is low.

"These features virtually knock out the biggest failure points on any submersible pump," Bridgement said.

"Better products, lower operating costs and Tsurumi's 'total quality' philosophy make this product particularly suited to piggery waste management systems."

Further information on the complete range of Tsurumi cutter pumps is available at www.aussiepumps.com.au and from Aussie Pumps distributors throughout Australia.



Aussie Pumps product manager Craig Bridgement explained the efficient cutter mechanism on the Tsurumi C Series pump to Phoebe Michaels.

Behind every healthy pig is a healthy partnership.



MSD Animal Health. The Australian pig farmer's partner.

Our products have been used successfully for decades by Australian pig farmers.



MSD Animal Health
91-105 Harpin Street, Bendigo East VIC 3550
Free Call: 1800 033 461
www.msd-animal-health.com.au

THE SCIENCE OF HEALTHIER ANIMALS

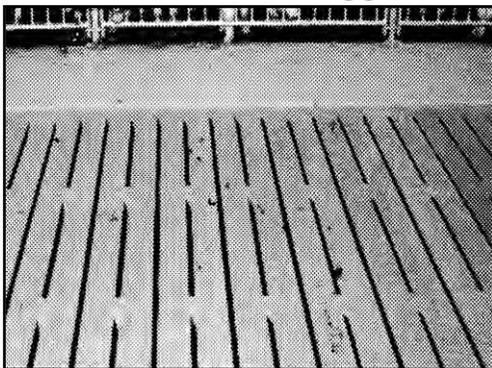


Anti-slip Self Supporting Triangle Hot Dipped Galvanised Flooring

100% Australian made in Australia

Excellent quality Concrete Slats for Piggeries

Galvanised flooring in all sizes up to 2.8m



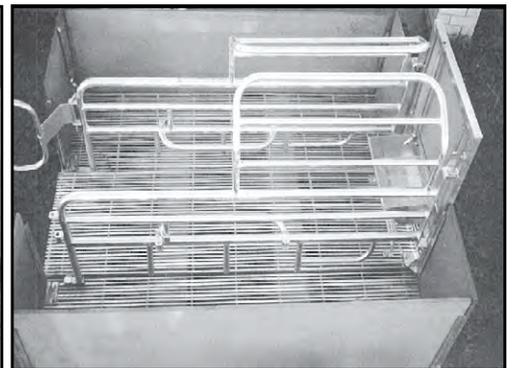
■ Farrowing and weaner crates, growers and baconer pens. ■ Feed hopper with stainless steel trough.



■ Farrowing flooring with a 10mm gap; weaners flooring with a 12mm gap; and growers flooring with a 15mm gap.



Diagonal Farrowing Crate.



Straight Farrowing Crate.

Vereyken Brothers Pty Ltd

Ph (02) 6644 6065 – Fax (02) 6644 7568
– Mobile 0437 431 901

2 Clark Rd, Junction Hill • PO Box 421, Grafton NSW 2460

ALL FLOORING IS MADE TO SIZE AT NO EXTRA COST

Head Office: Vereyken Bros. Pty Ltd, ABN 18 156 169 876
Fx (02) 6644 7568

Anytime or (02) 6644 6065
Mobile: 0437 431 901

Victoria: Ben Slots (03) 9462 4266
Freecall: 1800 999 245

Fax (03) 9718 1896
Mob 0418 388 842

Proven efficacy against PCV2 without compromising safety.



Over 18 million
doses sold

With Ingelvac CircoFLEX[®], you're in good hands.

- First and leading PCV2 piglet vaccine globally and in Australia.
- One dose from 14 days of age onwards is all it takes.
- **Unique combination of PCA[™] and ImpranFLEX[™] – that's the reason why!**



New Zealand: Boehringer Ingelheim (NZ) Limited, Animal Health Division, Level 1, Unit 9, 42 Ormiston Road, East Tamaki, Manukau 2016. Toll free: 0800 802 461. Restricted Veterinary Medicine. Access is only through a veterinary authorisation. Australia: Boehringer Ingelheim Pty Limited ABN 52 000 452 308. Animal Health Division, 78 Waterloo Road, North Ryde NSW 2113. Toll free: 1800 038 037. Ingelvac CircoFLEX[®] is a trademark of Boehringer Ingelheim Vetmedica GmbH, 55216 Ingelheim/Rhein.