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Preparing your feral pig management plan

THE damage from feral pigs can reduce productivity and profitability for businesses through decreased yields, livestock predation, increased costs and disease transmission.

Many land managers respond reactively to remove them, often without having a property pest management plan in place.

However, it's important to have a pest management plan within your biosecurity strategy – as dull and time-consuming as it may be.

Feral pigs are adaptable and mobile within their home range.

The National Feral Pig Action Plan recommends coordinating and collaborating with neighbours across a large area and applying integrated, strategic management approaches.

This increases the chances of removing the local population of feral pigs and preventing frequent re-incursions.

Acting alone and relying on only one method of control is likely to be more time consuming, frustrating and relatively ineffective.



NATIONAL FERAL PIG ACTION PLAN

by **HEATHER CHANNON**
National Feral Pig Management Co-ordinator



So, what's involved and where do you start?

There are four key steps to work through and document:

- Define the problem – what is the problem, where is it, who is affected, what are the impacts?
- Develop a feral pig management plan
- Implement the plan
- Monitor and evaluate progress.

As a first step, the Pest-Smart website pestsmart.org.au gives land managers the tools to develop a feral pig management plan.

A template to help with this will be available on the National Feral Pig Action Plan website soon.

Land managers are also

recommended to find a group of land managers in their area to work with on the issue.

The NFPAP continues to build an information hub and links with other organisations – such as local and state governments, natural resource management entities, recognised biosecurity groups and Landcare Australia – to assist land managers with this.

It is important that an individual property strategy aligns with the local management group plan.

All participants should be able to agree on the perceived benefits to take ownership of the management strategies proposed.

continued P2



A snapshot of an indoor finisher shed featured in the virtual tour.

Virtual tour of the pork supply chain launches

IT'S no secret that the consumer is a major driver of economic growth.

The food industry invests heavily to understand natural fluctuations of consumer behaviour to meet those needs on the shelves.

Now, in a time where our purchasing choice is one of the only ways to express social responsibility, sales of ethical and sustainable produce are ever increasing.

Consumers not only want pork on their forks, they want to know where it's come from, how it's made and what impact their food choice has on the environment around them.

In Australia, at least 90 percent of commercial production systems raise their pigs indoors and our producers are proud to be part of an industry that has some of the highest food safety standards and animal welfare practices in the world.

But in the face of biosecurity threats and the COVID-19 pandemic, navigating open discussions with consumers from behind closed doors is the greatest challenge of all.



Point of View

by MARGO ANDRAE CEO



In response to this, Australian Pork Limited has been working with producers and broader industry to explore new ways to promote a progressive and transparent pork sector.

After two years in the pipeline, we've launched a new virtual tour of the pork supply chain as a producer-led initiative that tells their stories from piggery to plate.

The tour is publicly available on the APL website and invites anyone interested in how pigs become pork to put on their virtual gumboots and take a peek.

It's the next best thing to being there, with a 360-degree view of the facilities and processes that produce the high-quality pork products on our shelves.

The tour has been designed to complement a wide range of primary, secondary and university level curriculums.

By getting students 'on farm' without the challenges of biosecurity or travel, we're also enabling greater exposure to future career options.

APL are currently working closely with Primary Industries Education Foundation Australia to develop educational resources to accompany the tour.

These will help teaching staff manage conversations that may arise with students and provide curriculum-aligned classroom activities to get the most out of the tour.

This resource would not have been possible without the courageousness and support of industry.

A big thank you to everyone who opened their businesses to allow filming, interviews, research and endless editing – which will no doubt make its mark over the years to come.

To take a peek, go to australianpork.com.au/virtual-tour



Feral pigs captured in a trap. Photo: Daniel Lewer of Hunter Land Management



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Pork Industry Calendar of Events

2021

OCT 11-14 – 14th SafePork Conference 2021
www.safepork-conference.com

OCT 27 – QPCG Industry Day 'Building Resilience in a Changing World' Toowoomba

NOV 3 – PQI 2021 AGM (Virtual)
john.coward1@gmail.com

NOV 10 – APL 2021 AGM (Virtual)
nikki.watson@australianpork.com.au

NOV 15-18 – Australasian Pig Science Association (APSA) Conference
www.apsa.asn.au

NOV 21-23 – AVAMS21, Gold Coast
www.avams2020.com.au

How to supply event details: Send all details to Australian Pork Newspaper, PO Box 162, Wynnum, Qld 4178, call 07 3286 1833 or email: ben@collins.media

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Visit **www.porknews.com.au** to view the current edition as a digital flip book.

Preparing your feral pig management plan

from P1
Defining the problem sounds easy. It's often not. Ensuring the problem is correctly defined is essential to determining appropriate management strategies.

The impact of feral pigs in any given season can be unpredictable.

This is further exacerbated by a lack of understanding of the relationship between feral pig density and their impacts.

Therefore, deciding how much to invest in feral pig management is largely based on perceptions of economic significance of pig damage, risks that they may present and the degree to which the damage can be reduced by economically feasible and practicable control measures.

These factors can also influence whether a land manager chooses to get involved in a local management group or not.

Estimating the point where the costs of feral

pig management equals the benefits is complex for many land managers, largely due to lack of information.

This lack of data was also highlighted in the NFPAP 2020 stakeholder survey, which found that very few land managers regularly measure and record data on productivity or profitability losses – crop damage and livestock losses.

Most data captured is on the number of pigs killed, which is not necessarily useful if there is no knowledge of feral pig populations present.

These data also do not inform outcomes achieved on targeted assets being protected.

Outcomes of some economic studies conducted to evaluate impacts from feral pigs to agriculture will be addressed in a future article.

To manage impacts from feral pigs, land managers need to consider their feral pig management options – local eradication, strategic management,

crisis management or no management.

Several local eradication programs are currently underway, including on Kangaroo Island in South Australia and Moreton Island in Queensland.

The NFPAP is focussed on strategic long-term management through sustained reductions in feral pig populations to lessen their many impacts.

To achieve this, feral pig populations will need to be reduced annually by at least 70 percent over long periods of time to prevent their recovery.

The best practice management methods available for feral pigs are:

- Baiting – using 1080 sodium fluoroacetate or Hoggone
- Aerial shooting
- Trapping
- Ground shooting
- Exclusion fencing.

Combining or integrating these best practice management methods is recommended as it is much more successful than any technique used alone.

The options that may be available for use and how they can be applied do vary between states and territories, geographical location and habitats.

Please refer to the Pest-Smart website to access the 'Model code of practice for the humane control of feral pigs', as well as standard operating procedures for these best practice management methods.

Tips and tricks to apply these techniques will be discussed at our next free NFPAP stakeholder forum held virtually on Monday October 11 at 1.30pm.

Please get in touch at contact@feralpigs.com.au for details.

The key to success of any management program is in the recording and use of information.

This may include what was done, where, by whom, at what cost, what assets were protected, numbers of pigs killed per unit effort and the number of pigs remaining.

This should then be used

by groups of land managers to better understand what works, what could be done better and how the program can be adapted to improve its effectiveness and efficiency.

Increasingly, feral pig management strategies are being informed using technology, including field cameras, GPS collars and aerial surveillance via helicopters and drones to help improve and measure their outcomes.

We don't have all the answers and there are many gaps that need to be filled – not only to coordinate and better support land managers working together on the ground but to also ensure their feral pig management activities are as effective as possible.

These are key priorities of the National Feral Pig Action Plan.

Please feel free to contact me on heather.channon@feralpigs.com.au or call 0423 056 045 to discuss your feral pig management issues and any information presented in this article. 🐷

Notice of meeting AGM 2021



PORK Queensland Inc announces the 2021 annual general meeting will be held as a Microsoft Teams video meeting on November 3, 2021 at 2.00pm.

The meeting will address:

- The election of directors, including the statutory reporting requirements
- The appointment of a policy officer
- Annual report, including the latest on COVID-19 updates and African swine fever preparedness

plus a summary of 2021 representative activities

• The future plans for Pork Queensland Inc.

All current members will receive an invitation by email prior to the date with the Teams communication platform link and more details on key issues.

Membership

Pork Queensland Inc welcomes new members to join the organisation and add to the strength of the representation offered to pork farmers.

Help us help you and

our Queensland industry.

For more information on joining PQI, call president John Coward on 0407 622 166 or send an email to john.coward1@gmail.com

Reminder

PQI AGM on November 3, 2021 via Teams invitation.

New members should contact president John Coward for registration details.

Current membership fees are \$300 per year.

John Coward
Pork Queensland Inc
– President 🐷



Concise notice of AGM 2021

NOTICE is hereby given that the Annual General Meeting of Australian Pork Limited ABN 83 092 783 278 – APL or the Company – will be a virtual AGM on Wednesday November 10, 2021 at 3.15pm.

The complete Notice of Annual General Meeting, including relevant registration and proxy forms and a

link to the 2020-2021 Annual Report, will be available from australianpork.com.au no later than October 13, 2021.

If you have any questions about this process, please contact APL corporate and governance liaison Nikki Watson on 02 6270 8814 or by email at nikki.watson@australianpork.com.au 🐷

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UQ is looking for high calibre PhD candidates interested in pig nutrition and digestive physiology

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Further information e.roura@uq.edu.au

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ACCC concerned about JBS buying Rivalea

THE Australian Competition and Consumer Commission has now outlined its preliminary competition concerns about JBS Australia Pty Ltd's proposed acquisition of Rivalea Holdings Pty Ltd and Oxdale Dairy Enterprise Pty Ltd – together Rivalea – in a statement of issues it published on September 16.

In my August column I wrote that it was predictable that the JBS acquisition of Rivalea, announced on June 8 by Rivalea owner QAF, was now subject to the ACCC and Foreign Investment Review Board's determinations before the \$175 million bid could proceed.

Cant Comment

by BRENDON CANT



NSW meat wholesaler BE Campbell – family owned since 1969 – was the unsuccessful bidder, and it had pre-approval from the ACCC for the purchase.

Responding on September 16 to the ACCC's statement that day, managing director Ted Campbell expressed the company's appreciation that the ACCC had recognised competition concerns in the proposed acquisition.

"We welcome the ACCC's decision to continue to investigate the potential negative impact on competition in the Australian pork industry should the JBS deal proceed," Mr Campbell said.

"We look forward to making a submission to the ACCC and encourage others who share our concerns about JBS's increased market power to do the same."

Below is the ACCC's September 16 statement of issues.

JBS is Australia's largest meat and food processing company.

Rivalea farms and processes pigs.

If the acquisition proceeds, JBS will have a significant presence in pig farming, export accredited pig abattoirs and smallgoods through its Primo brand.

ACCC deputy chair

Mick Keogh said: "The ACCC's preliminary view is that while JBS and Rivalea do not compete closely, the proposed acquisition may give rise to vertical integration concerns."

Rivalea's Diamond Valley Pork abattoir currently provides service kills to third parties.

The ACCC is concerned that post-acquisition JBS may have the incentive, particularly due to its ownership of Primo, to frustrate service kills at that abattoir by increasing prices, offering less favourable terms or foreclosing access.

The ACCC is also concerned that JBS may increase the price of fresh pork or reduce supply to competing smallgoods

producers and pork wholesalers.

The ACCC is considering whether rival smallgoods producers and wholesalers' reduced access to fresh pork or increased costs may also impact retail supply.

"We are concerned that JBS' existing interests may give it the incentive to restrict access to service kills at the Diamond Valley Pork abattoir, as well as frustrate access to fresh pork for its downstream rivals in smallgoods production and pork wholesaling," Mr Keogh said.

"Our concern is not limited to JBS potentially denying access to processing facilities, it's also about the price and terms on which access would be provided."

The ACCC believes the proposed acquisition is unlikely to raise horizontal overlap concerns in relation to the acquisition of slaughter weight pigs, supply of service kills or pork processing, as JBS and Rivalea do not compete closely.

The ACCC published a statement of issues and is seeking further information from interested

parties by September 30, 2021.

When questioned on ABC Victoria Country Hour on September 22 about the possible market competition ramifications of the JBS takeover of Rivalea, Federal Agriculture Minister David Littleproud said, "We see in the supermarket space, where we've got two or three big players – they are controlling a lot of the market with respect to groceries and that hasn't been, in my mind, all that good for particularly primary producers in the past."

"So that's why it is good to have competition.

"It gives our producers the opportunity to send their product into competitors as quickly and as effectively as they can.

"I want to make sure our producers have opportunities to spread their risks, to use as many markets as they can to get the fairest price that they want.

"Farmers don't want charity – they just want a fair price, they want a fair market.

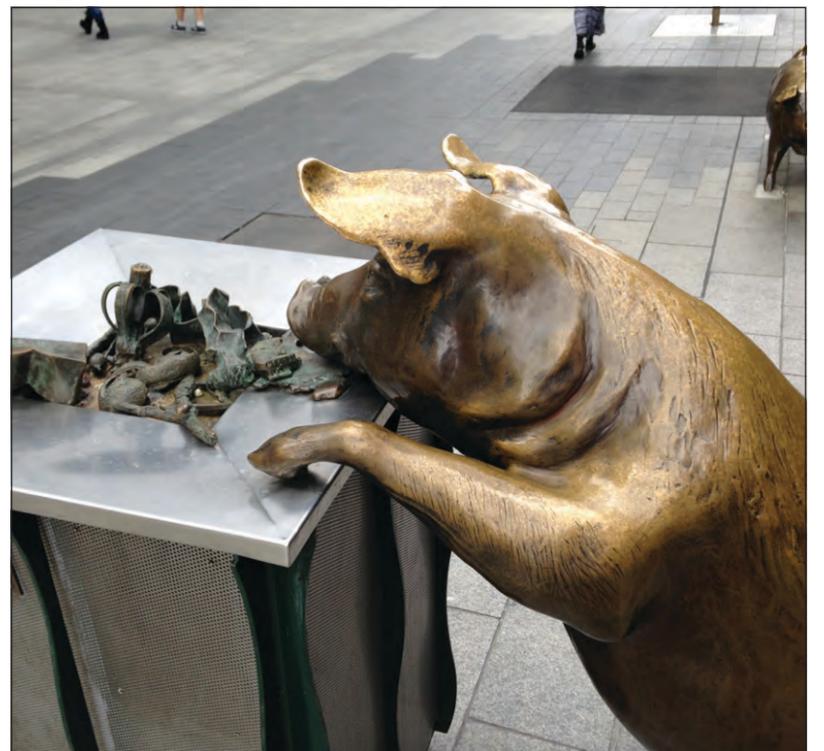
"And that's what the ACCC will ensure in any determination that can be provided into the future."

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Contact Brendon Cant

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ACCC has a lot to go through in determining if JBS is to be the successful bidder for Rivalea and who will be left behind.

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APL 2021 webinar series

AUSTRALIAN Pork Limited is hosting a series of webinars in October to update on current industry projects and priorities for the future.

All producers and industry stakeholders are welcome, with topics covered informing discussions with APL delegates in November.

The webinars include: **Emergency animal disease preparedness**

On-farm biosecurity planning and traceability – Wednesday October 13 from 3-5pm.

Valuable provenance
APL's sustainability framework – results of the Adelaide smallgoods trial and country of origin labelling update – Thursday October 14 from 3-5pm.



Driving innovation
New research and innovation portfolios, research extension and adoption – Friday October 15 from 3-5pm.
Registration
We encourage attendees to join all three webinars, however ses-

sions will be recorded and shared post event to provide maximum flexibility and accessibility for attendees.

To register, visit australianpork.com.au/events or email events@australianpork.com.au



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Mark these dates in your calendar

15th - 18th November 2021

The Australasian Pig Science Association is pleased to announce that the 2021 APSA Biennial Conference will be held at the Sofitel Brisbane, QLD, Australia and online

Registrations Open

REGISTRATION TYPE		Early Bird	Full
APSA MEMBER	Full	\$825.00	\$1,125.00
	Day	\$455.00	\$555.00
	Student	\$380.00	\$430.00
	Virtual	\$495.00	\$595.00
NON MEMBER	Full	\$1,025.00	\$1,325.00
	Day	\$555.00	\$655.00
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It is precision farming at its best, optimising energy utilisation and reducing production costs.

Energy values are rapidly obtained by scanning whole grains with near infrared technology.

We can now track pig DE values as they come into the mill and formulate accordingly.

Knowing more about your grain is an enabler. Diets become more cost effective with production flows, more uniform and predictable.

How we got here is a good story and involves industry foresight, excellent science and the application of NIR technology.

Early days of grain assessment for livestock

Traditionally, feed grains have been traded on the basis of their protein content, test weight kg/hl and screenings content.

However, energy assessment was not part of grain quality assessment and therefore not closely associated with traditional trading measures.

We know that DE values of cereal grain vary widely within and between grain types.

Assessing the DE value of cereal grains in the mid-1990s involved a calculation applied to the Grain Trade Australia test weight measure, or a prediction equation developed from the chemical composition of the grain.

Both measures had their limitations.

The test weight is a measure of density and low-density grains have low faecal DE content, which made sense as this is likely due to low starch and high fibre content.

However, for grains higher than the GTA target weight there was very poor differentiation of faecal DE values between samples.

Using prediction equations based on chemical



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APRIL

composition of the grain over predicted the energy value of low faecal DE grains, as well as not discriminating between grain type or grain samples – as an example, the National Research Council of USA 2012 calculation.

The intensive livestock industries required accurate measures of grain quality in order to purchase consistent high-quality feed grains.

The Premium Grains for Livestock Program began in 1996 and one of its goals was to determine a more rational procedure to accurately predict the available energy content of cereal grains for livestock.

The agricultural industry had adopted NIR technology in the early 1980s and in 1996, with the aid of a Foss 6500 NIR instrument, the PGLP began its first pig DE study to develop the in vivo energy calibrations that would transform how we assess grain quality today.

A little over 100 grain samples were used to establish the PGLP calibrations – which were acquired by the Pork CRC – and continued to add to the data set through a series of pig DE studies.

Today, the current AusScan Online calibrations are the most accurate method of predicting pig DE values for cereal grains.

And believe it or not, there is more to do.

Not just another pig DE study

The University of Melbourne, supported by the Australasian Pork Research Institute Limited, is about to start the thirty-fourth pig DE study.

Yes, there have been 33 earlier studies!

The individual experiments are linked by grain samples used in earlier experiments.

These are known as connectivity grains and comprise about 30 percent of tested samples per experiment.

This study design helps reduce the variation due to experimental conditions.

To date, the pig DE calibrations contains six different grain types from approximately 400 different samples tested on three pig genotypes in four different research institutions.

The UM study will add to a large complex experiment, each study joined by connectivity grains.

This experimental design allows for continuous updating of the calibration to ensure the latest grains fed to pigs are included in the calibration. **Grains are carefully selected for each experiment**

The effect of environment – growing conditions – on the energy value of grains for livestock is often greater than the effect of cultivar.

The original PGLP calibrations contained only a few representative samples of weather damaged and pinched grains, and no triticale or maize samples.

Subsequent experiments by the Pork CRC contained a wider range of cereal grains from Australia, including triticale and maize as well as natural and artificially weather damaged grains.

These upgrades served to improve the robustness of the calibrations.

In the UM study we are looking to include more maize samples as international use of the cali-

bration is still growing and regions such as North America, Latin American and Asia predominantly use maize in pig diets.

Data collection consistent over the past 25 years

For ileal and faecal DE assessment, pigs are surgically fitted with a simple T-piece cannula.

To facilitate the collection of ileal digesta and faeces, pigs are transferred into metabolism cages.

The samples of digesta and faeces undergo subsequent chemical analysis and gross energy measurements.

The pigs – about 25kg – are on test for approximately 70 days and in that time are fed different treatments diets.

Treatment diets are cold pressed pelleted and consist predominantly of the test grain with a mineral vitamin premix.

The grain samples will be sent to the NSW Department of Primary Industry in Wagga Wagga for NIR scanning using the same machine from previous experiments.

The spectrographs from each sample, the associated wet chemistry and gross energy values will be analysed by a statistician and grain reference values will be prepared for the calibration upgrade.

Today, a feed mill receives a delivery of wheat, a sample is taken to be NIR scanned, the spectre file uploaded and read by a computer and before the driver is back in his seat to dump the load, the AusScan Online energy calibrations appear on a computer screen.

Surely that is impressive.

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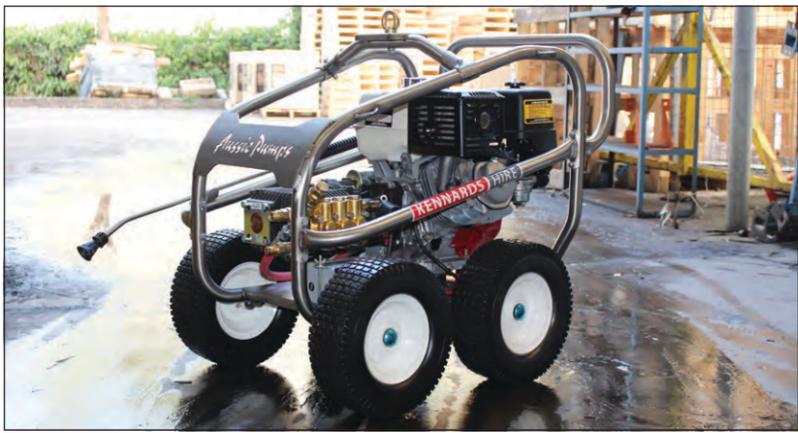
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The combination of flow and pressure on the stainless-steel 'Scud' pump is designed to move waste material fast.

Aussie Pumps Asian export action

ONE Australian pump manufacturer that is focussed on the pork industry is Aussie Pump Industries.

Nicknamed 'Aussie Pumps', the company is focussed on providing the industry with the most cost efficient, practical and reliable products.

For the past 18 years it has supplied high pressure cleaning equipment to the biggest piggery in the Singapore, Malaysian and Indonesian area – located on Batam Island.

The farm ships 1000 live pigs across the straits to Singapore every night for processing.

The machines – tried and proven over a period of years – are a 'piggery special' developed by Aussie Pumps.

Built into a unique ergonomically designed frame made from stainless steel, the pressure cleaners are powered by either Honda 13hp petrol engines or Yanmar 10hp diesels.

The pumps produce a great combination of pressure and flow designed to move waste material fast.

The farm runs around 20 of these machines fitted with pumps that have the capability of up to 21L/min flow and 2600psi pressure.

Aussie Pump's product

manager Mood Ellahi said: "They use Aussie Pumps' turbos as part of the kit, which effectively doubles the pressure of the machine and cuts cleaning times dramatically."

Another practical product that Aussie Pumps brings to the pork industry is a range of corrosion resistant 316 stainless-steel cast pumps that have the ability to pass solids in suspension.

"These pumps are designed with big open impellers and will self-prime through a vertical lift of up to six metres," Mr Ellahi said.

"They are also available in a cast iron semi-trash configuration, which means that they have a front opening port for easy clean out in the event of a choke."

"Those cast iron pumps are often fitted with 316 stainless-steel impellers, providing longevity and reliable low cost operation."

A new entry in the pump range is a high head semi-trash pump that does a massive 70m head but will still handle solids in suspension up to 19mm.

"It has taken a long time to develop this product, but coming out with a self-priming pump that will do 1000L/min as

maximum flow and at the same time a maximum head of 70m means real efficiency at the farm," Mr Ellahi said.

"It has the ability to move effluent liquids long distances over horizontal surfaces where required."

The company doesn't only make pumps and pressure cleaners.

It also actively campaigns for water security for regional Australia.

"This huge country that has made me feel at home could feed the world," Mr Ellahi said.

"All it needs is the government to provide farmers of all types of ag, food and fibre with water security."

Further information, including stories about water security for regional Australia, is available from Aussie Pumps at aussiepumps.com.au or on 02 8865 3500.



Aussie Pumps' high head semi-trash pump handles solids in suspension up to 19mm.

Meat industry in the dark on Melbourne workforce caps

THE Australian Meat Industry Council is again calling on the Office of Victorian Premier Daniel Andrews, Victorian chief health officer Professor Brett Sutton and the DHHS to consult directly with the industry on the current workforce caps in place for meat processing and manufacturing in metropolitan Melbourne.

On Saturday August 21, the Victorian Premier Daniel Andrews announced at a press conference that abattoir and meat processing facilities in metropolitan Melbourne would be subject to workforce capacity restrictions, stating "things like abattoirs, meat processing centres and very large supermarket distribution centres, cool stores, things of that nature, will be under new arrangements to limit the movement and to limit wide-spread infection in Melbourne."

"We will reach out and speak with all those industry stakeholders and make sure they're fully briefed," Premier Daniel Andrews said.

Neither the AMIC – nor any AMIC meat processing or manufacturing member operating in metropolitan Melbourne – was contacted by the Premier's department or DHHS prior to or immediately following the Premier's announcement.

AMIC were advised via the Premier's website then Agriculture Victoria that it would be a 20 percent reduction in workforce, as well as increased surveillance testing with no clear direction on that process.

AMIC chief executive officer Patrick Hutchison said, "While

shocking to see the outcomes of the response to construction industry interventions by this government, the Premier has mandated vaccination for the construction industry, stating there are more cases in construction than there are people in hospital with COVID."

"If the DHHS have industry stats, are they able to provide the number of meat workers that have the virus which has ensured we need these workforce caps?"

"We have not been informed nor consulted on these statistics, nor have our vaccination rates been considered."

"We believe that there are no sites that have had any onsite cases."

"This would no doubt be due to 25 percent of sites having more than 80 percent of workforce fully vaccinated and almost 50 percent having between 50-80 percent fully vaccinated, according to AMIC member data."

"The same data ignored by Premier Andrews, the DHHS and the Health Minister," Mr Hutchison said.

As at September 22, AMIC had still not heard from the DHHS, the Victorian Health Minister nor the Victorian Premier's department.

AMIC has written to the Health Minister jointly with the Australian Chicken Meat Federation and Seafood Industry Victoria.

Again, there has been no response to date.

In another 'ruse' from this government on consulting with the industry, a statement released by Premier Andrews on September 20, titled 'Business consultation helps shape path out of pandemic', named

AMIC as having been consulted with and invited to a roundtable of "industry leaders" with Minister for Small Business Jaala Pulford.

In fact, AMIC was part of a group of 250 associations and individuals invited to a briefing by Department of Jobs, Precincts and Regions.

This is not industry consultation.

Leader of The Nationals Peter Walsh has also called on the Andrews Labor Government to work with industry.

Meat supply at risk after processors overlooked in Victoria's 'roadmap'

For every day these workforce reductions are in place, there is a growing impact on the supply chain including farmers, producers, processors, manufacturers, wholesalers, cold stores, independent local butchers, and supermarkets.

AMIC's processing and manufacturing members in metropolitan Melbourne have reported the need to spread their workforce up to a seven-day week, with tens of thousands of dollars being paid in penalty rates, loss of large contracts due to not being able to guarantee supply, with one reporting that over 100 tonnes of Christmas hams have been diverted away due to processing constraints.

"We have nervous smallgoods manufacturers in metro Melbourne right now," said Mr Hutchison. "They have said it all comes down to labour, if they can't be certain they have the labour, they can't forecast to meet the Christmas ham demand."

Currently storage stocks are being used to meet orders, however the real impact on the sector will be felt in four to six weeks if workforce restrictions continue, which will also provide uncertainty for farmers and producers.

With Australia's major spring lamb 'flush' now fully in operation, Metro Melbourne lamb processors and Victorian and Australian lamb farmers, will be impacted severely.

Meat and Livestock Australia analysis – mla.com.au/prices-markets/market-news/2021/impacts-of-victorian-abattoir-restrictions – has pointed out that if this continues to Melbourne Cup Day there is a potential lamb surplus of 250,000 lambs.

At a time when Victorian and other Australian farmers can finally obtain benefit from a good season, Premier Andrews will be taking this away from them.

This will impact prices and there is not enough capacity to take up the surplus.

"We are also seeking clarification on what the 'further obligations' mean in the roadmap with regards to meat processing – will we as the peak industry body be consulted on these obligations?" said Mr Hutchison.

"What is the Victorian Premier's message to farmers and meat industry supply chain workers while these workforce restrictions continue?"

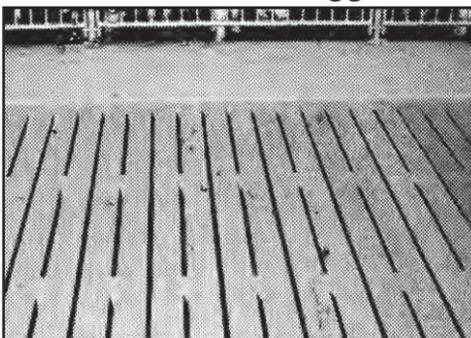
"What is the message to consumers as we manage a reduced food processing industry in Melbourne coming up to Christmas?"

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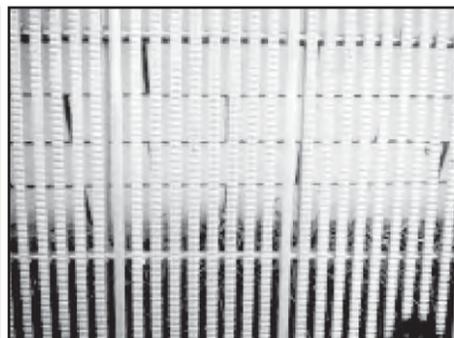
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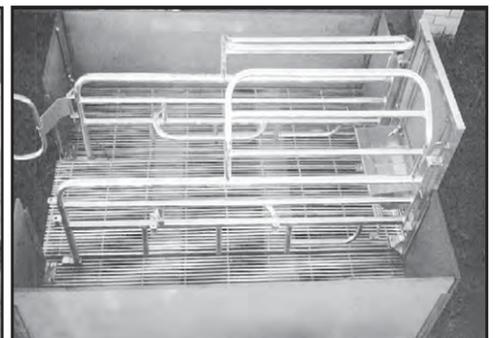
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PorkStar's Colin Fassnidge was one of the notable chefs who curated extravagant three-course Aussie bacon lockdown menus.

APL reclaims International Bacon Day

AN initiative by Australian Pork Limited to reclaim International Bacon Day has created a stir across the nation.

In the lead up to September 4, the tongue in cheek campaign dropped the 'Inter' to celebrate 'National Bacon Day' as a reminder to shoppers to do the 'Aussie check' for the country-of-origin label when buying smallgoods.

And in a show of allegiance to Australian pork producers, supply chains across the nation rallied behind the cause.

PorkStar's Colin Fassnidge and Chefs on Wheels' Paul Baker were among the notable chefs who curated extravagant three-course Aussie bacon lockdown menus.

Butchers nationwide celebrated all things smallgoods with in-store promotions and online giveaways.

APL partnered with retailer Harris Farm to create an 'Aussie bacon pack', showcasing some of the finest Australian bacon products available.

Harris Farm reports selling so many bacon bundles it has gone on to make them a permanent offer to online customers.

Bacon Day fell on the same weekend as Father's Day, which saw Australians queuing around the block at local cafes and restaurants to savour bacony treats made especially for the day.

Participating cafes and restaurants reported strong social media engagement, with one cafe's post shared 600 times.

The message about imported pork on Australian shelves echoed resoundingly in news media, with over 35 pieces of local and national coverage across print, online, social and

broadcast platforms.

Highlights included ABC Radio, *Sunday Telegraph* Eat Street, the *Herald Sun*, *Good Food*, *Delicious*, *Time Out Sydney* and *Weekend Today*.

On the day, engagement with APL's social media reached 340,000 with over 700 new followers on APL's Instagram page alone.

Food influencer Emmylou Loves and Masterchef's Conor Curran created bacon recipes to further amplify social reach of the campaign.

Overall, the campaign reached over 2.5 million Australians, which is no mean feat in a media cycle dominated by COVID-19 impacts.

The focus for media and socials will remain on Australian bacon until we shift to Australian Christmas ham season in November.

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Boehringer Ingelheim

Industry leads the way on innovation investments

AN ambitious strategy is underway to broaden the scope of innovation at Australian Pork Limited. The new innovation plan was designed to support the implementation of APL's strategic plan launched in 2020 by driving an approach that takes on challenges and opportunities in the pork supply chain.

As part of the innovation process, APL has engaged with a group called Methodry to help facilitate consultation with the wider pork industry on three key areas of investment.

These include improved animal health, lower feed costs and higher weaned per sow areas, which sit under the strategic theme of reducing the cost of production and processing.

Solutions to reducing COPP were developed during consultation.

The best opportunities were then presented to industry stakeholders for feedback via focus groups.

These included producers from a variety of production systems and sizes, industry consultants such as veterinarians and nutritionists, supply chain representatives and researchers.

It is one of the most important steps in the process to determine what and how levy payer funds will be invested in research and development.

To date, the highest-ranking opportunities for improving herd health and reducing feed costs that were deemed worthy of industry investment have been developed into request for research proposals.

Decisions were guided by key principals, including is it innovative and new, is it a game changer, will it make a difference and, is it realistic?

Three specific priorities were identified for improving herd health, forming the basis of the request for research proposals, including:

- Develop and commercially demonstrate smart health monitoring systems which act as early warning alerts

- Develop and demonstrate improved efficacy of single dose vaccines for producer confidence

- Develop industry resource material and commercial demonstration of the latest technology in pen cleaning, pen decontamination and long-

acting disinfectants to reduce pathogen load between cleaning cycles.

Innovative proposals were received from a wide variety of researchers from within and outside the pig industry.

Several proposals have sufficiently addressed the targeted priority areas and are being contracted to commence as research projects from October 2021.

These projects will be highlighted in future articles.

The top four priorities for reducing feed costs included:

- Accelerated genetic gain in biological feed efficiency

- Innovative solutions to address the 'transition' period immediately after weaning

- Human food waste as pig feed

- Agricultural waste or by-products as an alternative feed source for pigs.

A request for research proposals around the first two priorities will be released this month.

APL will continue to network for cross collaborative and wider funding opportunities for solutions in the human food waste,

agricultural waste and agricultural by-products for use as safe consistent pig feed ingredients.

Projects will commence in late 2021.

A similar process will be applied to the third area of investment – number of pigs weaned per sow.

At the time of writing, over 40 APL members had participated with overwhelmingly positive feed-

back about how rewarding the process has been.

Presentation of the concepts are clear and simple to understand, with a maximum of five participants in focus groups from similar production systems, there is ample opportunity to contribute.

Consultation takes slightly over an hour via video conference and can be conducted at times to

fit your schedule, after hours included.

If you would like to be involved in the upcoming focus groups on increasing the number of pigs weaned per sow in late October or early November, now is your chance.

Please contact APL manager production innovation Dr Rebecca Athorn at rebecca.athorn@australianpork.com.au or on 0436 655 015.

0436 655 015.

For more questions about the overall research and development investment process and innovation plan, please contact APL general manager research and innovation Dr Rob Smits at rob.smits@australianpork.com.au or on 0418 648 293.

Dr Rebecca Athorn,
Production Innovation Manager, APL



An online industry review group with consultant Melissa Gilson (top left) discussing the future innovation needed to reduce feed costs long term for the pork industry.

Westpork

Pig Farm Manager

WESTPORK is Western Australia's largest pork producer with over 150 employees spread across 13 sites. Due to the retirement of one of our farm managers and the expansion of a new facility, two exciting opportunities have arisen for experienced Farm Managers.

Westpork is currently seeking self-motivated candidates to join our management team. The successful candidates will be reliable, enthusiastic individuals with strong written and verbal communication skills.

To be successful in this role, the candidates will need to:

- have a sound knowledge of livestock breeding and production;
- be able to meet and exceed company production targets and KPIs;
- have exceptional stockperson skills and the ability to apply the highest of animal welfare standards expected by the business;
- demonstrate the ability to work in a team-based environment and manage and direct staff accordingly;
- the ability to be proactive and hard-working and to develop a strong team around them; and
- the ability to apply mandatory OHS and QA standards required by the business.

If this seems like you, expressions of interest should be emailed with attached résumé to Richard Evison at jobs@westpork.com.au

Piglets pay the price of mum's heat stress

PIGLETS born to heat-stressed sows may carry the burden of their mom's discomfort later in life in the form of health complications and diminished performance.

Now, this so-called 'in utero heat stress' may also hypersensitise the piglet's immune system, potentially doing more harm than good to the young animals, a team of Agricultural Research Service and university scientists has learned.

Pigs are more susceptible to heat stress due to an inability to sweat.

This places them at greater risk of health and production problems that can add up to millions of dollars annually in revenue losses to swine producers.

Research has shown that pigs experiencing heat stress during pregnancy can predispose their offspring to complications later in life that can lead to diminished performance, including efficient feed use, growth rate and ultimately, pork production.

However, based in Indiana in the US, ARS Livestock Behaviour Research Unit animal scientist Dr Jay S Johnson noted that less is known about how this heat stress affects their offspring's innate immunity, or first-line defence against disease-causing bacteria and other pathogens.

Pigs that experience heat stress while pregnant can predispose their offspring to health complications and diminished performance later in life.

To learn more, Dr Johnson teamed with his ARS laboratory colleagues and scientists from the Purdue University in West Lafayette Indiana, the Oak Ridge Institute for Science and Education in Oak Ridge Tennessee and the University of Missouri in Columbia Missouri.

Following established animal care and welfare guidelines, the team evaluated two groups of piglets.

The first group consisted of 16 piglets born to mothers exposed to stressful temperature cycles ranging from 26-36C during the first half of pregnancy.

The second group of 16 were born to mums exposed to a 'comfortable' 17C.

The researchers then simulated a pathogen attack on the piglets using lipopolysaccharide, a molecule found in the cell walls of some bacteria.

Blood samples were drawn to monitor certain markers of the piglets' innate immune response, including glucose, insulin, non-

esterified fatty acids, cortisol (a stress hormone) and cytokines (markers of inflammation).

These, along with white blood cell counts, were compared to a lipopolysaccharide-free group of piglets used as controls.

Among their findings, reported in the December 2020 issue of the *Journal of Animal Science*, the researchers observed:

The core body temperatures of the in utero heat-stressed and non-stressed piglets given the lipopolysaccharide were about the same.

However, in utero heat-stressed piglets had higher levels of the stress hormone cortisol.

These same piglets also had greater cytokine (markers of inflammation) levels in response to the lipopolysaccharide challenge, which provided evidence of a hypersensitive immune response.

The researchers worry this could translate to greater risk of pain, infection, organ

failure and other complications in such piglets under real-world production systems.

Dr Johnson said their research dovetails with increasing concern over the potential impacts of global climate change on swine welfare and management – especially in regions of the world prone to frequent or prolonged drought and heat waves.

With support from USDA's National Institute of Food and Agriculture, the team is also taking a genomic approach to pre-empting the effects of in utero heat stress on piglets.

Of particular interest is using genomic markers to flag traits for improved heat tolerance in sows used for breeding.

"To achieve this goal, we are partnering with two major swine breeding companies," Dr Johnson said.

"Our hope is that completion of this project will provide swine producers with a cost-effective strategy to reduce the negative impact of in utero heat stress on swine."



Research has shown that pigs experiencing heat stress during pregnancy can predispose their offspring to complications later in life. Photo: Christina Abken

Management info for pig biosecurity

RESOURCES are available for all levels of pig keeping and production – whether you have one or two pet pigs, a farm stay operation, hobby farm, keep pigs for your own consumption or are a small or large commercial operation and may be quality assured APIQ accredited.

The single biggest threat to the pork industry's sustainability is an outbreak of an emergency animal disease.

African swine fever continues to spread globally and in neighbouring countries.

New more subtle strains make the detection of ASF more challenging.

All pig owners and producers need to remain vigilant and report any unusual signs of disease or death to their veterinarian or government agency.

An outbreak of ASF could cost up to \$2 billion, over many years to control and will impact pet, hobby and commercial operations alike.

The pig biosecurity management planning toolkit has been developed to support pig owners and producers to safeguard their pigs against the biosecurity threats posed by unwanted pests and diseases.

The biosecurity management planning toolkit was developed as part of a NSW Department of Primary Industries led initiative, part-

nering with Charles Sturt University's Graham Centre to better understand the practices, experiences and biosecurity needs of pig owners and producers, Local Land Services, Australian Pork Limited, the Australian Pork industry and Commonwealth ASF liaisons, and SunPork Farms to develop and field test a biosecurity management planning toolkit.

The pig biosecurity management planning resources were developed in consultation with the NSW Small Commercial Producer Group, Queensland Department of Agriculture and Fisheries, Agriculture Victoria, Department of Primary Industries and Regions, South Australia, Rivalea, Holyoake Consulting and all the pig owners and producers who were part of and provided feedback in field testing activities.

The resources in the pig biosecurity management planning toolkit will be reviewed early 2022 by industry and the state departments of agriculture to ensure it continues to be fit-for-purpose.

If you would like to leave any constructive feedback for inclusion in this review ahead of time, visit farmbiosecurity.com.au/pig-biosecurity-management-resources/

Note, all feedback is anonymous and no identifiable information is sought. 🐷

New agriculture worker visa in the pipeline

THE framework for a new Australian agriculture visa has been put in place by the Federal Government to address workforce shortages in the agriculture sector.

Announced in August this year, the broad-ranging visa is part of the government's commitment to support Australia's primary industries.

It builds on the success of existing Pacific Island labour programs by providing access to skilled, semi-skilled and unskilled workers for agriculture initially from member countries of the Association of Southeast Asian Nations.

It's a welcome announcement in light of continued stories from producers struggling to operate with persistent



by ANGELA BRADBURN



staff shortages, exacerbated by COVID-19 and border closures.

Edwina Beveridge at Blantyre Farms near Young in NSW has all but given up on trying to fill vacancies.

"We're currently advertising for two labourer positions and have received only one application who is not appropriate," Ms

Beveridge said.

"We would also take 1-2 more pig hands if available but have received so little interest lately that we don't currently have this advertised."

Despite the implementation of the new framework in September, workers will not yet be available under the new visa.

Work under a prelimi-

nary phase is being done however to expedite the arrival of a new cohort by the end of 2021, with increasing numbers in 2022.

Implementation of the visa and development of full details on eligibility arrangements, permanent residency pathways and other participating countries will continue.

In addition, other visa parameters such as portability – ability of the worker to move around – and sponsorship arrangements are being finalised.

Australian Pork Limited has worked alongside other industries to support calls for a dedicated agriculture visa for the past few years and will continue to liaise with producers to understand their workforce needs.

As a first step, the work-

ings of the agriculture visa were considered by the APL policy reference group last month.

APL is currently consulting with government directly and via its memberships of the National Farmers' Federation and Australian Meat Industry Council.

This ensures initial trialling of the visa and finalisation of the program design will meet industry needs.

A government website providing information about the new agricultural visa will be launched shortly.

In the meantime, producers with questions or feedback are welcome to contact APL policy analyst Angela Bradburn at angela.bradburn@australianpork.com.au 🐷

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Small pigs show big potential in new AFBI research

OVER the past four years, pig researchers at the Agri-Food and Biosciences Institute have been working to understand the implications and challenges of the increasing number of small pigs born in large litters.

The project, 'Understanding and overcoming the barriers posed by small pigs', was co-funded between UK's Department of Agriculture, Environment and Rural Affairs and Pig Regen Limited.

Its main aim was to better understand the implications – for the farmer and for the animal – of having to deal with the increased number of small pigs born in large litters.

A further aim was to identify management and nutritional strategies that could boost the performance and welfare of small pigs.

Lastly, the project also studied a new feeding system – similar to liquid feeding but only mixing water and diet at

the point of delivery to the animals – that had recently been installed in both the nursery and finisher facilities at AFBI Hillsborough.

The work generated some interesting results which will be of significance to farmers and the wider pig industry.

These results have been compiled into technical reports and a series of eight presentations, which can be viewed through AFBI's YouTube channel.

In this first instalment,

three presentations aligned to Dr Samuel Hawe's PhD work are highlighted.

Presentation 1, 'What is the significance of compromised pigs on commercial farms?', overviews the findings from Samuel's work which quantified the performance of piglets born with low birth weight on four Northern Irish farms.

The study showed that piglets born with low birth weight (<1.0kg of live weight) were almost 10kg lighter at slaughter than their counterparts.

The study showed that most of the mortality among low birth weight piglets occurred pre-weaning, suggesting that improving lactation nutrition should be a primary focus of intervention.

In addition, the study found that during the nursery stage the difference between low birth weight piglets and their heavier counterparts was bigger than in any other stage.

This finding suggests that nursery stage should be the target stage in order to improve low birth weight piglets' performance.

Following from the first study, Presentation

2, 'Growth response of low and average birth-weight pigs to sow lactation feed intake,' studied the benefits of increasing sow lactation feed intake on the pre-weaning growth rate of the litter.

The study showed that sows in Northern Ireland have the capacity to reach average feed intakes of 8.6kg/day (peak daily intake of 11kg), 2kg above the national average.

In addition, the increased feed intake by the sows resulted in low birth weight piglets reaching weaning weights of ~7.9kg, similar to their counterparts from sows with a national average feed intake.

Finally, Presentation 3, 'Tailored post-weaning feeding regime for low birthweight pigs', followed animals from weaning to finish.

Two different post-weaning feeding regimes for low birth weight piglets were compared.

The conventional regime, in which post-weaning diets are introduced to pigs based on age, was compared with a 'tailored regime' where post-weaning diets were introduced to pigs based on their

body weight, allowing the animal to reach the necessary development before being fed a lower quality diet.

First, the study found that the positive impact of higher lactation intake by the sows on piglets' weaning weight was not maintained post-weaning.

Highlighting the need to introduce further measures post-weaning.

Second, the study found that allowing the pigs to reach a desired body weight before introducing a new diet resulted in improved performance of small pigs.

Grouping your pigs in pens by body weight and allowing the smaller ones extra time to reach the target weight before introducing the next diet could be a simple solution to improve overall performance without the need of introducing new diets on the farm.

Agri-Food and Biosciences Institute head of the monogastric research group Dr Ramon Muns said, "In most of the cases, farmers know that better nutrition and better feeding management will improve the performance of their pigs and especially of the smaller ones."

"However, farmers are

constrained by work-force, time and production costs.

"Hopefully, the results reported in this series of presentations will help farmers target their efforts in such a way which maximising the return on investment.

"For instance, if you don't have time to spend increasing the feed intake of all the sows in the farrowing room, gather the small piglets in a few sows and focus on those reduced number of sows.

"If you can afford to introduce higher specification diets for your small piglets but not across all the rearing process, focus on the nursery stage.

"If it is not possible to introduce extra or higher specification diets, work with the same ones you have but don't follow blindly a set allowance or calendar, look at the animals before changing diets, be sure they all have reached the desirable weight before introducing the next diet."

More information, AFBI's YouTube channel and links to the presentations can be found by visiting afbini.gov.uk/news/new-research-findings-optimising-potential-small-pigs



The project studied a new feeding system, similar to liquid feeding but only mixing water and diet at the point of delivery to the animals.

Westpork

Boar Stud Manager

WESTPORK, Western Australia's largest pork producer, is currently seeking a detail oriented and dependable person to manage a new boar stud facility north of Perth in Western Australia.

In early 2022, a new facility will be established. The boar stud manager will be responsible for all day-to-day tasks while overseeing and assisting a small team to maintain the efficient operations of the boar stud and laboratory including:

- all tasks required for superior quality semen production;
- the collection, processing and packaging of semen;
- animal husbandry and health management;
- accurate record keeping; and
- maintenance of the facility and equipment.

The manager must maintain effective communication with all farm staff, customers, veterinarians and the extended management team. This role must ensure that strict adherence to all established biosecurity policies and the Australian Pork Industry Quality Assurance program is maintained.

To be successful in this role, candidates will need to:

- have experience in the swine industry or livestock reproduction environment;
- have excellent people, communication and leadership skills;
- have appropriate knowledge of computer systems and electronic data collection; and
- be a dependable and self-motivated person with heightened attention to detail.

If you are ready to take the next rewarding step in your career, apply for this position by sending a current résumé and cover letter to Richard Evison at jobs@westpork.com.au



The project aim was to better understand the implications for the farmer and for the animal of having to deal with the increased number of small pigs born in large litters.



Agri-Food and Biosciences Institute head of the monogastric research group Dr Ramon Muns.

Agreement targets PRRS-resistant gene-edited pigs

RESEARCHERS and commercial partners will continue to collaborate on developing pigs resistant to porcine reproductive and respiratory syndrome.

The Roslin Institute and animal genetics company Genus have signed an agreement to produce pigs that are resistant to PRRS, a respiratory disease that costs around A\$3.4 billion each year in the US and Europe alone.

The university and Genus hope the licensing agreement will lead the way to gene-edited, disease-resistant pigs being available to global pork-producing markets.

With the signing of the agreement, facilitated by the Roslin Institute

Edinburgh Innovations commercialisation service, Genus will continue planned work for testing multiple generations of pigs and conducting studies required for approval by the US Food and Drug Administration.

PRRS causes breathing problems and death in young animals and can result in pregnant sows losing their litter.

Vaccines have predominantly failed to stop the spread of the virus that causes PRRS, which is endemic in most pig-producing countries worldwide.

The Roslin Institute has produced pigs that can resist the disease by editing their genetic code.

The research received funding from Genus and the Biotechnology and Biological Sciences Research Council.

Project leaders say that by partnering with Genus, the Roslin Institute will benefit from

its existing relationship with the FDA, insights into the pork sector, its established supply chain and its distribution channels in the world's biggest pig markets, including China, Europe and the US.



The Roslin Institute has produced pigs that can resist PRRS by editing their genetic code.

Protecting pigs from exotic animal diseases

GOOD biosecurity means taking action to protect your pigs from impacts of pests and diseases, including African swine fever.

Regardless of the size of your enterprise or hobby farm, all pig owners play a vital role in maintaining the health and welfare of livestock and providing quality pork products to consumers.

The introduction of exotic diseases such as classical swine fever and African swine fever would cause serious production losses to Australia's pig industry and jeopardise export markets for pig products.

There are a number of requirements for pig owners that are monitored by government and industry authorities.

Resources available

Resources for download contain important information about keeping pigs healthy and biosecurity responsibilities for pig owners, and are available by visiting dpi.nsw.gov.au/biosecurity/animal/info-vets/african-swine-fever/brochures

Resources cover topics including eight 'must do's' for pig owners – information about registering your property,

identifying your pigs, registering on the Pig-Pass database, ensuring pigs moving on-farm have a travel document, being welfare compliant, training in pig husbandry, keeping your pigs healthy and starting a quality assurance program.

Recognising exotic diseases of pigs – information about the signs and symptoms of exotic pig diseases, and the importance of reporting sick or dead pigs immediately to the Emergency Animal Disease Watch Hotline on 1800 675 888.

Swill feeding – information about what not to feed to pigs.

The practice of feeding meat products or food that contains or has been in contact with meat products to pigs is known as 'swill' feeding.

This is illegal in Australia and can make pigs very sick.

Responsible disposal of food waste – information about preventing the spread of exotic pig diseases but ensuring food scraps are thoughtfully and securely disposed of in waste bins and not fed to pigs.

For more information, visit dpi.nsw.gov.au



There are a number of requirements for pig owners that are monitored by government and industry authorities.

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ASF virus detected in Hong Kong wild pig

A WILD pig found dead in Hong Kong has tested positive for the African swine fever virus.

The region had been free of the disease since May and it is the first detection in a wild animal in the region.

According to the official report to the World Organisation for Animal Health, a carcass was found last week in the Siu Sai Wan park near the southeastern tip of Hong Kong Island.

Previously, abnormal mortality among the wild pigs in the area had been reported.

However, *South China Morning Post* reported that the discovery has sparked fear there may be a resurgence of the disease in Hong Kong.

Up to 74,600 pigs are kept on 40 or so farms in Hong Kong.

Local farmers have expressed concern for the health of their animals as well as trade restrictions if the virus infects domestic pigs.

While local officials have stated that ASF poses no threat to human health, there have been calls for the government to encourage hunting to reduce the wild pig population.

Numbering between 1800 and 3000, the wild animals are common in rural areas in the region, and at least six carcasses had been reported in recent weeks by hikers.

In February, about 3000 domestic pigs were culled at a farm in Yuen Long district after ASF was detected in the area.

Four months later, the ASF situation in Hong Kong was reported to be "resolved."

Vaccination advice in NFF workplace guide

THE National Farmers' Federation has recently released an update to its COVID-19 workplace guide, which includes advice on vaccinations and the workplace.

First released in April 2020, the guide contains practical information including quarantine requirements for new workers, social distancing at work and financial support, as well as work health and safety and industrial relations considerations.

NFF president Fiona Simson said, "Farmers and farm workers have a responsibility to keep themselves, their team and their

communities safe." "Employers also have legal obligations and the NFF COVID-19 workplace guide is a valuable first point of reference as to how these responsibilities relate to preventing the spread of COVID-19."

Ms Simson said the document had been updated to reflect the most up-to-date health guidelines and changes in the understanding of the virus and how it's spread, and also included a section on vaccinations.

"Vaccination is the key to all parts of Australian life returning to normal, including agriculture,"

Ms Simson said. "The NFF continues to support the roll out of the vaccine and encourages eligible farmers and workers to get vaccinated as a matter of priority.

"As employers, farmers have an important role to play in facilitating vaccination for their workers.

"The guide now includes practical information on what steps employers can take to encourage vaccine uptake in their workforce."

Keeping workers safe and navigating complex border rules is front of mind for many farmers.

The NFF recently wrote to National Cabinet calling again for a national approach to border crossings.

Ms Simson said as a starting point all states should adopt the National Agricultural Workers Code.

"At its next meeting, National Cabinet must affirm the essential nature of food and fibre production and take action to recognise this," Ms Simson said.

"Farmers are committed to doing their bit to keep their families, workers and at-risk communities safe.

"Especially in peak times, farmers need certainty so we can keep doing what we do best – keeping supermarket shelves stocked, supporting rural communities and powering the national economy."



A highly contagious haemorrhagic viral disease of pigs, ASF is responsible for serious economic and production losses worldwide. Photo: Elsa Tonkinwise

African swine fever global update

AFRICAN swine fever can be spread by live or dead, domestic or wild pigs and pork products, and due to the high environmental resistance of the virus, transmission can occur via contaminated feed and fomites such as shoes, clothes, vehicles, knives, equipment and so on.

A highly contagious haemorrhagic viral disease of pigs, ASF is responsible for serious economic and production losses worldwide.

Further ASF outbreaks reported by Malaysia

Recently, Malaysia's veterinary authority registered 13 further ASF outbreaks in Sabah state on the island of Borneo with the World Organisation for Animal Health.

Directly affecting 19 wild pigs and 142 domestic animals, these cases occurred between early March and August 8.

Eight of the outbreaks were in backyard herds in villages across four districts in the state.

Each herd comprised up to 54 pigs.

At the end of August, three districts in the

neighbouring state of Sarawak were declared ASF control zones.

Other recent ASF outbreaks in Asia

Late August, three new outbreaks of ASF were recorded by Russia's veterinary authority in the far eastern federal district.

According to the report to the OIE, backyard herds of between nine and 47 pigs in different districts of Amur oblast were affected.

They bring the number of outbreaks in Amur to eight since July.

In addition to seven outbreaks in a total of 112 backyard pigs, one wild boar in the area had also tested positive for the ASF virus.

ASF outbreaks have also been recorded in recent weeks in Khabarovsk oblast and Primorsky krai in the same federal district of Russia.

In South Korea, the number of wild boar infected with ASF since October 2019 had risen to 1584 as of the end of August.

According to the United Nations' Food and Agriculture Organisation, all

the latest cases were in the two northern provinces where the great majority of previous cases had occurred.

However, a primary case in the Sokcho city region of Gangwon province has been reported by local media.

Philippines kick-starts return to backyard pig raising

In two regions of the Philippines, the Department of Agriculture has taken measures to support former pig owners whose animals were culled as a result of ASF.

Around 6000 sentinel pigs will be offered to chosen farmers in 60 areas of Central Luzon previously hit by ASF.

To qualify, premises must be disinfected and test negative for ASF virus.

A local official said the aim of providing the sentinels was to kick-start backyard pig production again, restoring the livelihood of affected farmers, increasing domestic pork production and bringing pig meat prices down.

In the Soccsksargen region on the island of Mindanao, a similar scheme has been initiated.

Former pig farmers in two villages in the province of North Cotabato are set to receive the first of up to 90 sentinel animals.

If these pigs survive for at least 90 days, controlled repopulation will start.

No cases of ASF have been reported in the province since January.

At each location, premises are inspected for safety standards.

Adherence to strict biosecurity protocols is a requirement for participants.

ASF was first detected in the Philippines in July 2019.

According to the OIE, 622 outbreaks were officially reported across many provinces as at February 2021.

At the time, direct losses of pigs were put at almost 427,000.

At the beginning of September, the Department of Agriculture stated that new cases of the disease are in sharp decline.

Six new outbreaks in South Africa

At the end of August, South Africa's animal health agency registered with the OIE a further six outbreaks of ASF in domestic pigs.

The largest of these outbreaks was in a village in the Chris Hani region of the Eastern Cape.

Two of the 3000 pigs in the village died as a result of the outbreak at the end of July.

ASF was also confirmed at four locations in Cape Town in the Western Cape from mid-July to early August.

Directly affected were a total of 452 pigs in herds ranging from 25 to 207 animals.

Of these, 96 died. In the province of Gauteng, a backyard herd of 59 pigs tested positive for the ASF virus in mid-August.

Of these, 29 animals died with the others destroyed.

Together 106 outbreaks affecting more than 46,600 pigs have been reported to the OIE in the three ongoing ASF outbreak series in South Africa.

At the end of last month, the Western Cape state veterinarian expressed concerns over the spread of ASF in the Cape Town area and poor biosecurity practices by many pig owners.

Food for Mzansi reported the disease present in six districts at that time and ASF was suspected in a seventh.

Despite the disease risks, infected pigs are not culled in South Africa.

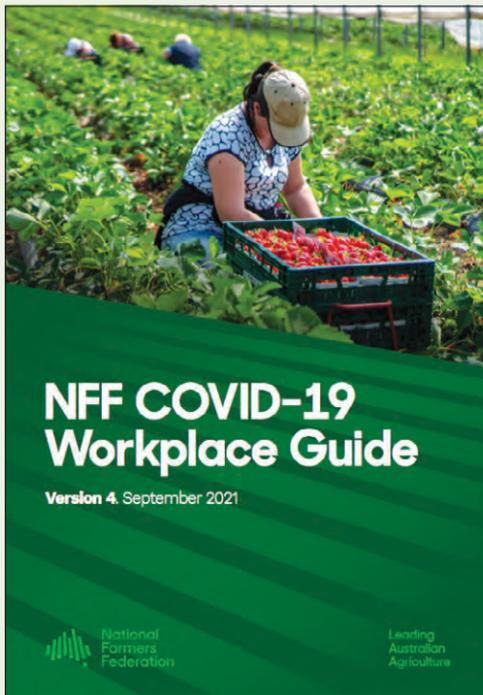
This is against the policy of the national department of agriculture, according to the veterinarian.

There is no financial compensation for animals that are culled for this reason, and farmers instead bury their dead pigs on site using lime.

No further cases of ASF have been recorded on South Africa's commercial pig farms to date.

These have high biosecurity standards but some are located within 2km of known ASF outbreaks.

Despite being quarantined, some pig owners still move infected animals off their premises.



The NFF COVID-19 workplace guide contains practical information including quarantine requirements for new workers, social distancing at work and financial support, as well as work health and safety and industrial relations considerations.

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Keep cool for the summer: how to treat heat stress in pigs

WITH the numerous health and environmental challenges disrupting the pig industry at present, the summer heat is one seasonal condition that pig farmers cannot afford to let stifle their profitability.

Heat stress can take a serious toll on pig performance, especially in breeding herds and finisher pigs.

Heat and wide fluctuations in temperature are often immensely stressful for the animals, resulting in diminished performance, health problems and eventually economic losses for the farmer.

Why are pigs so sensitive to heat stress?

Pigs are extremely sensitive to changes in temperature because they do not have functional sweat glands and therefore do not have a way of efficiently cooling themselves.

In addition, pigs have relatively small lungs for their body size, making it difficult for them to remove excess internal heat.

Alltech US swine business leader Russell Gilliam said, "Even during the hottest time of the day, pigs are still producing additional body heat from eating and moving around the barn."

"Since pigs have few sweat glands, cooling off by perspiration is not much of an option.

"Respiratory rates begin to increase at around 21C and with high humidity, it becomes difficult for pigs to find relief from the heat on their own."

Temperature fluctuations that continue from the summer into the fall season produce additional challenges.

Wide variations in temperature between night and day can compound the stress that the animals already experienced as a result of increased temperatures.

What are the symptoms of heat stress in pigs?

One of the negative effects of heat stress is reduced feed intake.

When pigs eat less, they convert less feed into muscle, thus reducing average daily gain and potentially increasing their days to market.

In turn, this can also lead to a heightened risk of health challenges and ultimately additional costs for producers.

Other symptoms include:

- Increased respiratory rate – panting
- Excessive water intake and increasing loss of electrolytes
- Reduced activity
- Lying stretched on the floor, often separated from others.

Six management strategies to reduce heat stress in pigs

Though stress cannot be completely avoided, the goal should be to minimise it as much as possible.

Below are some quick tips for reducing heat stress and its negative effects:

- Control the temperature, and make sure the temperature only shifts a

few degrees in the barn

- Ensure that each pig has enough space and ventilation

- Coincide feeding times with the cooler parts of the day (e.g., earlier or later in the day)

- Provide pigs with unlimited access to fresh and cool drinking water

- Move and transport work pigs early, keep them in groups and let them set the pace, and spend time with them prior to the move to ease their stress

- Tailor their diets to include technologies that will support them during stress.

Balancing temperature, ventilation and humidity

When pigs are kept at temperatures above their comfort zone, feed intake is sure to decrease, as are daily gains.

In modern swine barns, pigs are at a greater risk of experiencing heat stress than cold stress.

Ensure that all fans, sprinklers, cool cells and other cooling equipment are adequately maintained, so that they will function properly during the hot summer months.

In addition, make sure that your barn is properly ventilated to provide pigs with an optimal environment.

Even if the thermostat reading falls within the pigs' comfort zone, what they are actually experiencing may still be stressful.

Effective temperature is a concept similar to wind

chill and heat index.

For example, 15C is a favourable temperature for a 125-pound pig.

However, 15C combined with a high air speed of say 30m per minute would be cold and consequently the pig would be forced to divert energy away from growth to maintaining its body temperature.

The temperature within the shed needs to be adequately adjusted to account for the additional heat production from the growing pig.

For every 26-37kg of gain, the pig will produce an additional 200Btu of heat every hour, so the cubic meter per minute must be

properly adjusted to account for the increasing heat production.

Effects of humidity

Humidity is also an important indicator of proper ventilation.

During warmer months, when the outside temperature exceeds the set point, increasing ventilation rates will not decrease humidity in the shed because warm air has a higher water-holding capacity than cooler air.

Pigs can develop heat stress at much lower temperatures when the humidity is high, so humidity, along with temperature, needs to be carefully regu-

lated in the shed.

It is recommended to operate at a relative humidity of 65 percent or less, as this level of humidity will decrease condensation and wet floors in the barn.

Tailoring diets to support stress

Data has shown that offering pigs a combination of organic acids, electrolytes, enzymes and probiotics, such as those included in Acid-Pak 4-Way, can support young animals during times of stress.

Organic acids promote probiotic growth in the gut and enzymes can help enhance intake and digestibility.

Electrolytes keep the animal hydrated, especially in

times of heat stress.

Addressing heat stress and being prepared for its effects can have a major impact on the performance and overall value of your pigs when you take them to market.

It can also help reduce the cost of added days on feed and additional health costs.

In times of stress, pigs can be more susceptible to disease and health challenges.

It is essential that your pigs' nutrition is bolstered by technologies that build their natural immunity.

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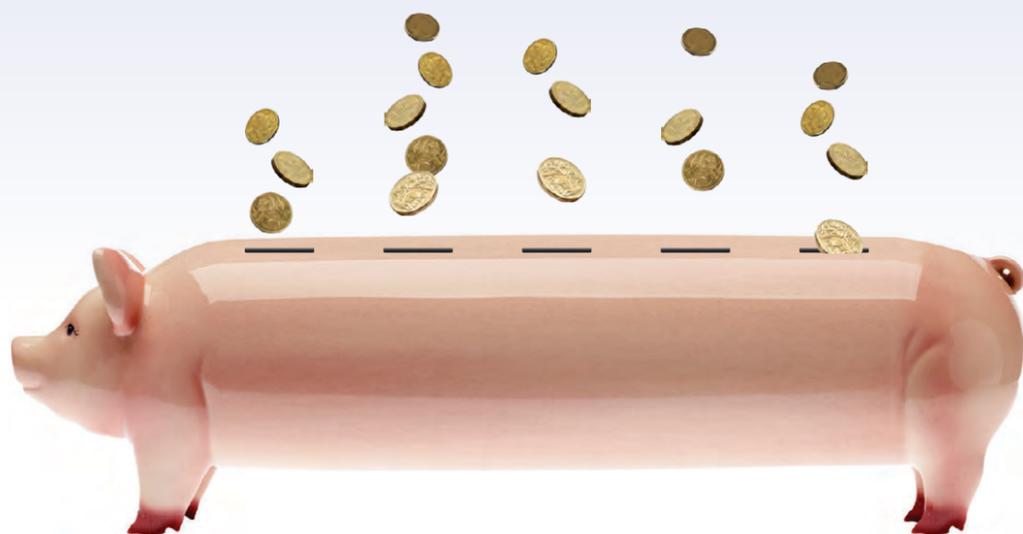


Heat and wide fluctuations in temperature can often cause immense stress for the pigs, resulting in lower performance, health problems and economic losses for the farmer.



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A dynamic range of speakers for the 2021 APSA Conference

The eighteenth Biennial Australasian Pig Science Association Conference is shaping up to be like no other. With the ever-changing situation around COVID-19, the 2021 APSA Committee has had to be adaptive in its planning while ensuring the value for delegates, speakers and sponsors is maintained.

APSA seeks to bring together the latest pig research from around the world, and while this year's invited speakers won't all be able to join us in person, we look forward to their presentations and interaction over the virtual platform. The conference incorporates a blend of basic and applied research covering every aspect of pig science.

The 2021 APSA conference will be held between 15-18 November at the Sofitel Brisbane in Australia and virtually using the Pheedloop platform. For registration information, visit apsa.asn.au/conference/registration

Registrations are now open to all delegates. Visit yrd.currinda.com/register/event/1246 to complete your conference registration. Questions about registration can be directed to YRD Event Management.

Delegates should keep up to date with relevant travel restrictions within Australia by visiting the various state government COVID-19 websites. Australia's borders are currently closed to international travellers, except for Australian citizens, permanent residents, immediate family members, or travellers who have been in New Zealand for at least the 14 days before the date of departure (subject to suspension).



Pork's role in the 2030 Agenda for Sustainable Development

Dr Mark Stafford Smith

Dr Stafford Smith will deliver this year's Dunkin Memorial Lecture focussing on the Australasian pork industry's role in addressing sustainability challenges. The lecture will consider the United Nations' 2030 Agenda for Sustainable Development, a plan of action for people, planet and prosperity, and seek to bring together the industry's commitment to global sustainability.

Dr Mark Stafford Smith is now an Honorary Fellow with CSIRO, where he continues to contribute to climate adaptation research, and interacts regularly with national and international policy issues around adaptation and sustainable development. His significant international roles include past vice-chair of the International Geosphere-Biosphere Programme's Scientific Committee; co-chair of the 2012 Planet Under Pressure: New Knowledge Towards Solutions conference on global environmental change in the lead up to Rio+20; and chair (2013-17) of the inaugural Science Committee for Future Earth, which helps to coordinate research towards global sustainability worldwide, and is now a senior advisor to the Global Environment Facility's Scientific and Technical Advisory Panel in Washington



Improving the performance of neonatal piglets

Dr Chantal Farmer

Newborn piglets have a great incidence of pre-weaning mortality that is not only associated with low birthweights but also with the presence of intra uterine growth-restricted (IUGR) piglets. Such IUGR piglets are commonly seen in litters from hyperprolific sows and are largely due to insufficient placental transfer of nutrients. Dr Farmer will outline the nutritional strategies which can be used in gestation to enhance fetal development, and during the transition period to reduce the duration of farrowing and increase colostrum yield. She will also cover various other approaches, such as optimising the farrowing environment, performing farrowing supervision and handling of piglets, using cross-fostering techniques, providing nurse sows, and providing artificial milk. Even though research advances have been made in developing feeding and management strategies for sows in order to increase performance of their newborn piglets, much work still remains to be done to ensure that maximal assistance is provided.

Dr Chantal Farmer is a Research Scientist in swine lactation biology working at the Sherbrooke Research and Development Centre of Agriculture and Agri-Food Canada. She obtained her Bachelor of Science from McGill University (1980), her Master of Science from the University of Saskatchewan (1982) and her PhD from Pennsylvania State University (1986). Dr Farmer's research goal is to increase sow milk yield and she was a pioneer in studying mammary development in gilts and sows.



The tale of the Finnish pig tail – how to manage non-docked pigs

Professor Anna Valros

Tail biting is a serious behavioural problem in pig production, causing impaired animal welfare and economic losses. In most countries the detrimental effects of tail biting are counteracted by docking pigs' tails. Finland is one of the few countries where tail docking in pigs is totally forbidden. Professor Valros' review will focus on features of pig production in Finland to understand how Finnish producers rear non-docked pigs, including larger space allowances, partly slatted flooring, use of manipulable materials, good animal health status and meal feeding from long troughs. Experiences from Finland show that even though tail biting is still a challenge, it is possible to rear non-docked pigs in intensive production.

Professor Anna Valros has a Master of Science in Zoology (1998) and a PhD in animal behaviour and welfare (2003) from the University of Helsinki, Finland. Since 2008 she has been appointed as Professor of Animal Welfare at the Department of Production Animal Medicine, Faculty of Veterinary Medicine, University of Helsinki. Her main research area is behaviour and welfare of pigs, with a focus on tail biting prevention and aetiology.



Smart agri-systems for the pig industry

Professor Lisa Collins

The projected rise in the global human population and the anticipated increase in demand for meat and animal products, but with a greatly reduced environmental footprint, offers a difficult set of challenges to the livestock sector. How to produce more, but in a way that is healthier for the animals, for the public and for the environment? Implementing a smart agri-systems approach, utilising multi-platform precision technologies, internet of things, data analytics, machine learning, digital twinning and other emerging technologies can support a more informed decision-making and forecasting position that will allow us to move towards greater sustainability in future. Professor Collins will explore such opportunities and their barriers, using a case study of the National Pig Centre, a flagship pig research facility in the UK, to consider how a smart agri-systems approach could be used to consider alternative future systems for production and to monitor these systems in practice.

Professor Lisa Collins is Head of the School of Biology, Professor of Animal Science, N8 Agrifood Chair in Agricultural Systems, Director of the National Pig Centre, and Deputy Director of the Global Food and Environment Institute at the University of Leeds. Her research focusses on the development and application of smarter agricultural systems through multi-disciplinary approaches including technology development, systems modelling and data analytics.



The Five Domains model and promoting positive welfare in pigs

Dr Nikki Kells

The Five Domains model is a prominent welfare assessment framework that facilitates the structured, systematic and comprehensive evaluation of animal welfare risks and opportunities for welfare enhancement. Dr Kells' review will provide an overview of the development of the Five Domains model and a description of the current model's structure and its practical application to animal welfare assessment. Dr Kells offers an explanation of the scientific basis for inferring subjective affective experiences in animals and considers how the most recent iteration of the Five Domains model can be used to identify areas of potential welfare risk and opportunities for welfare enhancement in commercially farmed pigs.

Dr Nikki Kells is a Senior Lecturer in Animal Welfare in the Animal Welfare Science and Bioethics Centre at Massey University. She completed a Master of Science looking at gas alternatives to carbon dioxide for on-farm euthanasia of pre-weaned piglets, and a PhD investigating acute and chronic pain associated with tail docking of piglets, along with strategies to mitigate this. Dr Kells' current research interests include evaluation of affective states in animals using electrophysiological and behavioural paradigms, improved techniques for humane slaughter and killing of farm and companion animals, development of prolonged acting analgesia for animal husbandry, and development of welfare assessment tools for farmed animals.



What have we learned about the effects of heat stress on the Australian pig industry

Dr Fan Liu

The projected rise in the global human population and the anticipated increase in demand for meat and animal products, but pig production faces seasonal fluctuations. The low farrowing rate of sows mated in summer, increased carcass fatness of progeny born to the sows mated in summer and slower growth rate of finisher pigs in summer are three economically important impacts identified in the pig industry. Dr Liu's review will examine advances over the past decade in understanding the mechanisms underlying the three impacts associated with summer conditions, particularly heat stress, and provide possible amelioration strategies. Ultimately, a better understanding of the underlying mechanisms and continuous investment in developing commercially viable strategies to combat heat stress will benefit the pig industry.

Dr Fan Liu is a Research Scientist at Rivalea Australia. As an industry-based researcher, Dr Liu conducts a broad range of research to improve production efficiency in the Australian pig industry, with a focus on mitigating negative impacts of summer conditions in pig production. Before joining in Rivalea, Dr Liu completed his PhD on developing nutritional strategies to reduce heat stress in pigs at the University of Melbourne, and his Bachelor and Masters degrees at Nanjing Agricultural University, China.



What will we feed our pigs - heat stress impacts on crop production

Professor Richard Trethowan

Climate change may impact the distribution and productivity of traditional Australian cereal and pulse crops, with implications for the diets of pigs. C4 summer crops such as sorghum and millet may replace or augment wheat, barley and pulses in diets as temperatures rise and the incidence of drought increases. Such changes will have implications for pig nutrition as heat stressed grains and the grains of better adapted crop options may be less nutritious. Professor Trethowan will explore how improved agronomic management will continue to lessen the impacts of a more hostile production environment and the opportunities for genetic improvement of heat tolerance of traditional cereals and pulses. Ultimately, optimisation of cultivar x environment x crop management interactions will slow changes in crop distribution due to climate change and will lessen these impacts on pig diets.

Richard Trethowan is Professor of Plant Breeding and Director of the Plant Breeding Institute at the University of Sydney. He has 33 years of experience breeding crops with tolerance to abiotic stresses both internationally and in Australia. His research interests include the development of new plant breeding technologies, enhancement of high-temperature tolerance of cereal and leguminous crops and development of grain crops with enhanced nutritional value.



Future consequences of climate change for European pig production

Dr David Renaudeau

Climate change is already a reality for livestock production but the effects have been examined mainly in ruminant species and less is known about the impacts and the vulnerability of the pig sector to climate warming, particularly from a European Union perspective. Dr Renaudeau will review the potential effects of climate change on EU pig production and forecast the future effects based on climate modelling. Provision of realistic projections of climate change impacts on the EU pig sector is a prerequisite to evaluate its vulnerability and propose effective adaptation strategies.

Dr David Renaudeau is a Senior Research Scientist in the Physiology, Environment and Genetics for the Animal and Livestock Systems joint research unit between INRAE and AGROCAMPUS OUEST. Dr Renaudeau has 20 years expertise on swine nutrition and on the adaptation to thermal heat stress. He is conducting research programs aiming to better understand the mechanisms underlying heat adaptation in pigs and to propose innovative strategies for better coping with thermal heat stress.



Can early-life establishment of the piglet intestinal microbiota influence production outcomes

Ms Tanya Nowland

The gastrointestinal tract microbiota is involved in the development and function of many body processes. Studies demonstrate that early life microbial colonisation is the most important time for shaping intestinal and immune development, with perturbations to the microbiota during this time having long lasting negative implications for the host. Piglets face many early life events that shape the acquisition and development of their intestinal microbiota. Ms Nowland will outline research in this area which has either provided solutions to industry problems or is generating information targeted at addressing relevant industry issues, with a focus on studies demonstrating causation where possible. This review will provide a basis for the development of new studies targeting an understanding of how to better support initial intestinal microbiota colonisation in order to improve piglet health and survival.

Ms Tanya Nowland is Research Scientist working in pig reproduction and welfare at the South Australian Research and Development Institute. She has a background in animal science and her research interests include sow reproduction and welfare and how that relates to piglet health and survival. Specifically, her research has focussed on the development of non-antimicrobial industry applicable practices to help support healthy intestinal microbiota development and improve pre-weaning piglet performance. Ms Nowland is completing her PhD on development and manipulation of the piglet intestinal microbiota.

Indicative 2021 Conference Program

Monday 15 November 2021	
10:00 - 16:00	Student Workshop
11:00 - 17:15	Industry Workshops
18:00 - 18:10	Official Opening
18:10 - 19:10	AC Dunkin Memorial Lecture
19:10 - 21:10	Welcome Reception
21:10 - 23:00	Post Welcome Reception Drinks
Tuesday 16 November 2021	
8:30 - 15:25	Reviews & Abstracts
15:25 - 17:30	Posters
15:45 - 16:30	APSA AGM
19:00 - 23:00	Conference Dinner
Wednesday 17 November 2021	
9:00 - 16:30	Symposia, Reviews & Abstracts
16:30 - 17:30	Posters
19:00 - 21:30	Networking Function
Thursday 18 November 2021	
9:00 - 12:15	Reviews & Abstracts
12:15	Award Presentations
12:45	Close

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Industry backlash to ACCC labelling submission

WORD definition is the fundamental issue behind labelling product as meat-based when the protein is non-animal derived.

Whether a consumer is confused or misled by the label comes back to the wording used to describe the product.

A pulled pork burger made from plants and labelled using the word 'pork' indicates pork is used in the product, so many submissions provided to the Senate inquiry into the definition of meat suggest.

However, a submission from the Australian Competition and Consumer Commission indicated plant-based 'meats' were not likely to mislead an ordinary consumer.

The ACCC's role includes enforcing the Australian Consumer Law.

The ACL is an economy-wide law of general application that focusses on fair trading and consumer protection.

It is intended to provide a baseline standard for all businesses across all products and services.

Among other things, the ACL prohibits businesses from engaging in conduct that is misleading or deceptive or likely to mislead or deceive, or from making a representation that is false or misleading about the quality, quantity, composition or origin of products, including food products.

It is important to highlight the fact that only a court, not the ACCC, can determine whether the ACL has been contravened.

The test applied by the court as to whether the labelling of a plant-based substitute product would be misleading under the ACL is to assess the overall impression conveyed to a reasonable consumer by the labelling and packaging.

When undertaking this assessment, the court takes the full context and circumstances into account.

This includes matters such as specific statements made and images used and their relative prominence, placement and size.

Broader contextual matters such as where the products are sold and their placement within supermarkets will also be relevant.

The courts' consideration does not hinge on the use of any particular word, such as 'meat', or any particular image.

The ACCC had not received information to demonstrate that the labelling of plant-based substitute products was an issue causing consumer detriment.

The ACCC received very few reports about consumers being misled by the labelling used for plant-based substitute products.

The few received were reports from consumers and industry stakeholders in sectors that produce meat or dairy products raising concern that plant-based substitute products

use animal product related descriptors – 'meat'; 'burger'; 'milk' – or pictures of animals on their labelling.

However, in general the information provided demonstrated that these contacts had not been misled by the labelling of the products, as they were fully aware of what the relevant product was made of when viewing it for sale.

These reports were more in the nature of enquiries as to whether the products were allowed to use animal product related descriptors or animal pictures on their labelling.

Over the period January 2020 to June 2021, the ACCC received only 11 such reports out of around 564,000 total contacts over the same period.

The ACCC has reviewed the reports received about labelling of plant-based substitute products using animal related descriptors or animal images.

In each case it considered that a court would view the overall impression conveyed by the labelling of these products as unlikely to mislead an ordinary consumer.

Nationals senator Susan McDonald, who is facilitating the inquiry with the rural and regional affairs and transport committee, said she had heard a different story to the ACCC.

"I have been flooded with people who have contacted me to say they have bought a product that they didn't intend to," Ms McDonald said.

"Primarily these are people who are elderly, English is not their first language, disabled people and people who are just busy in the shops."

Senator McDonald said she was going to ask the ACCC for more information about the complaints it had received when the inquiry has its hearings.

The Australian Government, through the Australia New Zealand Food Standards Code – Standard 4.2.3 – Production and Processing Standard for Meat (Australia only), as administered by the Department of Health through Food Standards Australia and New Zealand has clearly defined the following terms:

- Division 1 (1) – 'meat product' means a food containing no less than 300g/kg of meat.

- Division 2: – 'meat' means any part of a slaughtered animal for human consumption, and – 'meat producer' means a business, enterprise or activity that involves the growing, supply or transportation of animals for human consumption.

These definitions provide clear explanation of what the terms mean – and therefore what they do not mean – and objective measures by which to assess compliance with these definitions.

They have been developed using a rigorous, scientific methodology and remove any ambiguity as to what 'meat' is.

The standards in the Australia New Zealand

Food Standards Code are legislative instruments under the Legislation Act 2003.

They have been developed by FSANZ to lower the incidence of food-borne illness, thereby assuring consumers that food is safe to eat.

Interestingly, in Australia the Code is enforced by state and territory departments and local councils and the DAWE, currently regulating to these definitions.

According to FSANZ, the Code requires certain foods for sale to bear a label.

For these foods the label must include the name of the food (paragraph 1.2.1–8(1)(a) of the Code).

The name of the food stated on the label must be sufficient to indicate the true nature of the food unless the Code requires a prescribed name to be used instead (subsection 1.2.2–2(1) of the Code).

There are no prescribed names in the Code for meat analogues.

The Code provides that certain foods sold with a specified name or representation must satisfy compositional requirements.

For meat and meat products these foods (as defined in subsection 1.1.2–3(2) of the Code) are:

- Sausage
- Meat pie
- Dried meat
- Cured and/or dried meat flesh in whole cuts or pieces
- Manufactured meat
- Processed meat.

In these circumstances, section 1.1.1–13 of the Code requires that these compositional requirements must be satisfied in any sale in which a purchaser is likely to assume that the food being sold was one of the foods listed above – a sausage as an example – unless the context makes clear this is not the intention.

For instance, the Code requires that a food that is sold as sausage must be sausage and:

- Contain no less than 500g/kg of fat free meat flesh, and
- Have a proportion of fat that is no more than 500g/kg of the fat free meat flesh content.

For this purpose, the term 'sausage' is defined by the Code to mean 'a food that:

- Consists of meat that has been minced, meat that has been comminuted or a mixture of both, whether or not mixed with other foods, and which has been encased or formed into discrete units, and
- Does not include meat formed or joined into the semblance of cuts of meat.'

These compositional requirements include the requirement that the product contains meat.

In this regard, the Code defines 'meat' to mean meat from animal sources.

As such, the above compositional requirements do not apply to meat analogue products labelled and sold as 'meat-free

sausage', 'vegetarian sausage' or 'soy sausage'.

It is clear that such a product is not a sausage containing meat from animal sources.

Nor is it being sold or intended to be sold as a sausage of meat from animal sources.

Therefore, compositional requirements in the Code that apply to food sold as a sausage of meat from animal sources do not apply.

Section 1.1.1–13 of the Code does not apply to meat or meat products other than those listed above – minced beef and ribeye steak for example.

For those foods, the requirement for the name of the food to indicate its true nature applies (subsection 1.2.2–2(1) of the Code).

As for all foods, consumer protection legislation also applies.

Section 1.1.1–13 is not just applicable to meat and plant-based foods, it applies across the food supply – a beverage named as 'ginger beer' does not need to comply

with Code requirements for beer, as 'ginger' provides the context of the beverage.

The National Farmers' Federation remains concerned that the current use of animal protein language and animal images on plant-based products has the impact of conveying the nutritional equivalence of animal-based products when often these products are not nutritionally equivalent.

Australian Pork Limited submitted that Australian pork producers, similar to those involved in red meat, poultry, eggs and dairy production, pay levies towards research and innovation, marketing and strategic policy development to ensure the pork that Australians enjoy every day is safe, nutritious and affordable.

APL stated, "The investment of these levies assists our producers to care for their animals and the environment in line with community and market expectations."

"Our industry has

worked hard to establish our reputation as a trusted provider of nutritious and ethically produced protein.

"The survey also found that about 50 percent of respondents believed that plant-based products shouldn't be allowed to use terms such as 'pork' or 'bacon'.

"APL continues to support the wider success of Australian agriculture, but it is important that consumers have access to labelling that ensures consumers are not inadvertently misled by labelling and all proteins on our shelves meet the same compliance standards that the meat and dairy sectors currently adhere to.

"It is crucial that regulations under the Food Standards Australia and New Zealand (FSANZ) and Australian Consumer Law (Competition and Consumer Act) deliver this outcome.

"APL firmly believes that truth in labelling supports an even playing ground for Australian pork producers and the ability of Australian consumers to make informed purchasing decisions."

"This clarity and certainty supports Australians in making informed purchasing decisions.

"A recent survey conducted by APL shows that 50 percent of Australians upon initial view of package labelling of a 'plant-based roast pork' believed the product was made of pork.

"This confusion poses an unacceptable risk to the reputation of our industry and its products, as a trusted provider of



Former butcher and Nationals Senator Susan McDonald leads the inquiry into the labelling of non-animal protein.



Funding to help SunPork improve future animal welfare practices across the industry.

Grant to grow industry welfare standard

SUNPORK has received a \$2.89 million grant to help improve animal welfare practices across the industry.

Federal Member for Farrer Sussan Ley said the federal grant would help SunPork, Australia's largest pork producer, work towards eliminating the practice of tail removal from pigs.

"On this proposal SunPork will join with its research partners at pig farms across Australia's eastern states, including Farrer producers PIC Australasia in Grong Grong and Rivalea just outside Corowa," Ms Ley said.

SunPork chief executive officer and managing director Robert van Barneveld said pigs traditionally had part of

their tail docked soon after birth to prevent tail biting later in life.

He said this was a substantial reputational risk that could threaten the sustainability of Australia's \$5.3 billion pork industry.

"Eliminating docking will provide significant welfare benefits, enhancing people's confidence in our industry, which then leads to

improved market opportunities and returns for producers," Dr van Barneveld said.

Project participants also include the Australasian Pig Research Institute, Animal Genetics and Breeding Unit at the University of New England, University of Melbourne, University of Queensland, Australian Pork Ltd and the RSPCA.



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Biosecurity to protect our industry's bacon

WHETHER you own a commercial piggery, 10 sows or a pet pig, we are all part of the one community – the Australian pig community.

To ensure that our community is protected against diseases, we must all do our part in maintaining good biosecurity on our properties.

Biosecurity can be simple and practical while still being cost-effective.

Here is a practical checklist for all pig producers to ensure you are doing all you can for your pigs and the Australian pig community.

Register for a property identification code

Each and every property

with a pig must have a registered PIC with their local state agricultural department.

Here are the contact details to register for a PIC:

- NSW – apply for a PIC through Local Land Services, lls.nsw.gov.au/i-want-to/apply-for-a-property-identification-code

- Queensland – when you register as a biosecurity entity with Business Queensland you will be allocated the PIC that is associated with the land where you keep your animals, business.qld.gov.au/industries/farms-fishing-forestry/agriculture/land-management/pic

- Victoria – apply for a PIC through Agriculture

Victoria, pic.agriculture.vic.gov.au

- South Australia – apply for a PIC through Department of Primary Industries and Regions – note PICs require re-registration every two years, pir.sa.gov.au/biosecurity/animal_health/property_identification_code_pic

- Western Australia – register as an owner of livestock and obtain a PIC through the Department of Primary Industries and Regional Development's Brand Office, agric.wa.gov.au/livestock-movement-identification-and-movement-western-australia

- Northern Territory –

apply for a PIC through Department of Industry, Tourism and Trade nt.gov.au/___data/assets/pdf_file/0005/226643/nt-pic-registration-form.pdf

- Tasmania – apply for a PIC through Department of Primary Industries, Parks, Water and Environment, [dpipwe.tas.gov.au/agriculture/animal-industries/identifying-selling-moving-livestock/about-livestock-identification-property-identification-code-\(pic\)-registration](http://dpipwe.tas.gov.au/agriculture/animal-industries/identifying-selling-moving-livestock/about-livestock-identification-property-identification-code-(pic)-registration)

- ACT – apply for a PIC through the Environment, Planning and Sustainable Development Directorate, ablis.business.gov.au/service/australian-capital-territory/registration-of-a-property-identification-code-pic-/32538

Register your pig brand or purchase NLIS accredited pig tags

Registering your pig brand (also called a tattoo) is easy, simply contact the office in which you applied for your PIC.

Alternatively, NLIS accredited pig tags can be purchased through any agricultural reseller that sells cattle and sheep tags.

When do you need to use a brand or a NLIS accredited pig tag?

This differs in each state – PigPass has a detailed explanation of the legislation in each state.

Register with PigPass

Every pig that will be moved, sold or processed must first be identified with a brand or NLIS accredited pig tag and then recorded on the PigPass database, pigpass.australianpork.com.au/faq

The PigPass database is Australia's national tracking system that provides real-time information on all pig movements.

If you are moving pigs, you are required to fill out your PigPass National Vendor Declaration – available from PigPass – and when you are purchasing or moving pigs onto your property it's your job to complete the movement history on the PigPass website.

Consider how you can protect your pigs from pests and diseases

Having a biosecurity plan for your property or being involved in the Australian Pork Industry Quality Assurance Program, managed by Australian Pork Limited, is the best assurance for your pigs.

Information about how to develop a biosecurity plan and how you can ensure the great work you're doing is gold standard can be found on the Farm Biosecurity pig industry webpage, farmbiosecurity.com.au/industry/pigs/

The right feed for your pigs

"We are what we eat," this old saying applies to our pigs too!

Many commercial producers possibly have nutritionists helping them design a productive ration, but if you only have a few pigs or maybe a pet pig, what resources are available to you?

The NSW Department of Primary Industries' Prime Fact on pig nutrition is a great place to start.

Feeding a commercial pig feed is a good way to ensure that you are matching your pig's needs with the quality of feed.

It is illegal to feed your pigs any swill – also called prohibited pig feed.

Swill is meat, meat by-products or products that may have come into contact with meat.

Feeding swill is illegal as it's a high-risk practice that can lead to outbreaks of exotic diseases such as African swine fever, foot and mouth disease and Aujeszky's disease.

If Australia had an outbreak of any of these diseases, the ramifications could include a total pork industry shut down, or worse, a shutdown of the sheep and cattle industries as well in the case of a FMD outbreak.

Have the number of a pig veterinarian or local district veterinarian saved

It's always good practice to ring for help if you notice any signs of illness or something unusual in your pigs.

Remember good biosecurity will save our pig community's bacon in the long run.



Whether you own a commercial piggery, 10 sows or a pet pig, we must all do our part in maintaining good biosecurity on our properties.

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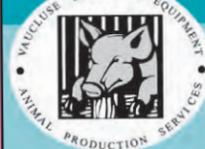
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CLOSTAT™ does not create any antibiotic resistance or residue concerns and it fits well under the Change Management Concept. Change Management reduces antibiotic use in pig farms¹. Use CLOSTAT™ from day one to get a good return on investment from your pigs.

1. Australian Veterinary Journal Volume 97 No 7, July 2019



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VACCINATION IS NOT AN ART.

Protection, with proven safety, is.

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With our one-shot oil-free vaccines, you can feel confident that your whole herd is protected.



**Ingelvac
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3 billion pigs protected globally with **Ingelvac CircoFLEX**, which means more experience and data than any other comparable PCV2 vaccine.

Ingelvac CircoFLEX provides effective PCV2 control with the convenience of a one-shot vaccine and proven safety for the whole herd makes **Ingelvac CircoFLEX** customers' No.1 choice globally and locally in PCVAD control.



**Ingelvac
MycoFLEX®**

1 billion pigs protected globally with **Ingelvac MycoFLEX**, provides proven safety, efficacy, and rapid onset of long-lasting immunity against *Mycoplasma hyopneumoniae* for the whole herd.

- Up to 26 weeks of immunity demonstrated in a field study¹
- Contains the innovative **ImpranFLEX®** adjuvant technology that provides rapid onset of immunity as well as a low risk of adverse reactions in pigs

WHEN YOU DEMAND PERFORMANCE, TURN TO THE PRODUCTS YOU TRUST

Whole herd protection starts with a single injection

 **Ingelvac CircoFLEX®** +  **Ingelvac MycoFLEX®** =  **FLEXcombo®**

Reference: 1. Piontkowski M., et al (2008) Ingelvac MycoFLEX® provides at least 26 weeks duration of immunity against *M. hyopneumoniae*. Allen D. Leman Swine Conference – Recent Research Reports. p26. Boehringer Ingelheim Animal Health Australia Pty. Ltd. Level 1, 78 Waterloo Road, North Ryde NSW 2113. ABN 53 071 187 285. *Ingelvac CircoFLEX, Ingelvac MycoFLEX, Ingelvac ImpranFLEX, and FLEXcombo are registered trademarks of Boehringer Ingelheim Vetmedica GmbH. All rights reserved. AU-POR-0024-2021