



# PigTALES



Dr Jo Pluske, Dr Diana Turpin, Sam Sterndale, Dr Jae Kim, Dr Megan Trezona, Prof John Pluske and Dr Karen Moore caught up at the recent WA Industry Day

## Pork Innovation WA

is the new name in Western Australian pork industry research and development. A new era, with new funding arrangements, new ways of doing research, and some new faces, make it an exciting time to be involved in pork industry research, development and extension (RD&E) here in WA.

We've kept some things the same though, honouring the legacy of the former Department of Primary Industries and Regional Development's Pork Innovation Group, with a new-look Pig Tales newsletter to keep you informed of our news.

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## We thank you for your continued interest and welcome your feedback.

For those readers receiving a hard copy of Pig Tales, please let us know if you'd prefer to receive the newsletter via email. If you would like to be added to or removed from the mailing list, please contact Emalyn Loudon at [contact@piwa.com.au](mailto:contact@piwa.com.au).

## Changing of the guard for pork industry RD&E in Western Australia

The WA industry was faced with the challenge of developing a new model for supporting local pork industry RD&E following the WA Government's decision to divest from some aspects of agricultural R&D, which included the Department of Primary Industries and Regional Development's (DPIRD) highly regarded Pork Innovation Group.

A Pork Industry R&D Working Group was formed in 2015 to consult with stakeholders on their needs and explore opportunities and options for WA. The Working Group prepared a business case for establishing an incorporated association to manage RD&E on behalf of industry, and in November 2015, 'Pork Innovation WA Inc' was incorporated under the Associations Incorporation Act.

A Management Committee was appointed to oversee the strategic direction of Pork Innovation WA, or PIWA as it's now known, and

the following six months saw the consolidation of plans and processes for the operation of the new industry body.

DPIRD has contributed vital transition funding to support operational capacity during the interim phase while PIWA navigates its way towards a self-supporting funding model.

The two years since June 2016 when research staff were contracted has seen PIWA grow into a cohesive, adaptable research group, able to access industry and commercial RD&E funding and conduct projects on behalf of WA and Australian producers. The challenge going forward will be to obtain a secure funding base so PIWA can retain quality people and continue to attract research project funding.

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## Who's Who?

### Executive

Dr Rob Wilson, former Chair of the Working Group, is the Chair of Pork Innovation WA. Prof John Pluske of Murdoch University is Vice Chair and Emalyn Loudon is Secretary/ Treasurer.

### Members

PIWA has six members representing pork production in WA:

- Westpork, represented by Neil Ferguson, Chief Executive Officer;
- Craig Mostyn Group, represented by Peter Spackman, General Manager, Meat and Livestock;
- Milne AgriGroup, represented by David Plant, General Manager, Monogastric Production;
- West Australian Pork Producers Association, represented by Jan Cooper, Executive Officer;
- Portec Veterinary Services, represented by Dr Kim Nairn; and
- Dawson Bradford of Hillcroft Farms.

### Researchers

Following the closure of DPIRD's Pork Innovation Group, PIWA acquired the services of Dr Megan Trezona and Dr Karen Moore as independent contractors to PIWA. Some months later we were able to support a part time Research Fellow position at Murdoch University which was awarded to Dr Diana Turpin.

Megan has since taken a full time position with the Craig Mostyn Group but continues to contribute to industry-funded projects through an arrangement with Craig Mostyn.

PIWA is extremely grateful to have the capability afforded by this team of respected, local research scientists.

### Murdoch University

PIWA is also well supported by Murdoch University, providing technical assistance on experiments and strategic and operational input through Prof John Pluske. Other research capacity is contracted as needed.

### Ex DAFWA staff

Three of the five former DAFWA Pork Innovation Group have taken separate journeys, with Dr Jae Kim joining multinational animal nutrition company, AB Vista as Technical Manager ASPAC. Jae is based in Perth but spends much of his time travelling throughout Asia-Pacific seeing clients.

Hugh Payne is enjoying a well-earned retirement after 49 years with the Department. Not one to remain idle though, shortly after hanging up his pig boots Hugh completed most of the Bibbulmun Track, a 973 km walk between Kalamunda in the Perth hills to Albany on the south coast.

Matt Langridge opted to stay with DPIRD, joining Quarantine WA as a Quarantine Inspector.

Dr Bruce Mullan also remains with DPIRD as Director of Livestock Research, Development and Innovation.

## Medina Research Station

After nearly 50 years of operation, Medina Research Station has closed. The State Government had for some time earmarked the site for disposal, however the last pigs left the property on 5th April 2018.

PIWA was able to negotiate continued use of the pig facilities at Medina as part of the transition arrangement. During the 21 months between July 2016 and March 2018, PIWA and Murdoch University conducted 16 weaner experiments and four grower experiments at Medina.

Medina was one of the most regarded pig research facilities in Australia due to the ability to conduct highly controlled experiments in a clean environment. Some of Australia's ground breaking grower-finisher nutrition work was undertaken at Medina, including research into dietary lupin concentrations, immunocastration, amino acid requirements, and updating NIR calibrations to increase the accuracy of diet formulation. (continued next page)



### From the Chair

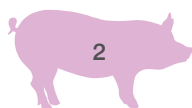
After two years of operation, the WA pork industry has been able to establish a short to medium term model for industry-led RD&E here in WA. The industry is supportive of PIWA and wishes to see the retention of an independent RD&E body, however PIWA's ongoing viability will depend on more secure, long term funding.

There are a range of opportunities for PIWA, including tendering for national RD&E project funding through Australian Pork Limited (APL) and the Australasian Pork Research Institute Limited (APRIL); accessing State funding through DPIRD's Agribusiness Innovation Fund and the Agricultural Produce Commission Pork Producers' Committee, and conducting commercial RD&E.

The challenge though is to establish a secure base which facilitates the retention of staff, access to research facilities and maintenance of essential governance processes.

PIWA is working on a collaborative funding proposal which will see joint investment in the medium to long term future of RD&E in WA. We will keep stakeholders informed of its progress as we continue to meet with the relevant parties.

**Dr Rob Wilson**





Medina Research Station closed this year.

Numerous studies investigating weaner gut health were conducted at Medina as well as work that resulted in the development of nutritional and management strategies to manipulate and provide consistent pork quality. Many of the outcomes have been implemented Australia wide.

Medina also housed the first straw-based shelters in WA, which led the revolution into low cost growing herd accommodation. There were some early attempts at loose housed farrowing sows, which wasn't as successful as planned and consequently didn't lead to a revolution in lactating sow accommodation!

Many researchers and technical staff will have fond memories of their time at Medina and are sad to witness the end of an era of government-owned pig research facilities.

### Alternative research facilities

The closure of Medina Research Station has put another challenge to the WA pork industry in that alternative facilities are needed for PIWA and Murdoch to continue conducting research experiments.

We are lucky in WA that the industry has invested significantly in commercial pig facilities over the last 10 years. We have therefore negotiated the use of Westpork's large, tunnel ventilated weaner and grower sheds at their farm near Gingin, as well as the Craig Mostyn Group's meat laboratory at their export abattoir at Linley Valley.

There may also be some opportunities at Murdoch University's South Street campus, and while these are being explored, we have the capacity to conduct small scale weaner experiments in their Isolation Animal House.

APL and APRIL have agreed to provide Base Funding for these three facilities through a two-year agreement which not only helps PIWA and Murdoch use these facilities but enables access for interstate research organisations.

Base Funding is an initiative introduced in 2010 as part of the National Pork Research, Development & Extension (RD&E) Strategy which identified that the industry should "Focus resources into fewer but better funded facilities that are critical to meeting the current and future needs of the industry; and provide certainty for these facilities by base funding them on a rolling two year basis."

APL and APRIL currently fund this model and APL maintains the contracts with facility providers.

PIWA has also had interest from other producers indicating that their farms could be made available for experiments if the type of facilities were required.



Professor John Pluske and Dr Diana Turpin at Diana's graduation ceremony.



Dr Karen Moore and Dr Bruce Mullan at Karen's graduation ceremony.

### Doctor Doctor!

PIWA is very proud of two of our researchers, both having graduated with their Doctor of Philosophy since PIWA's inception.

Diana Turpin graduated in October 2017 having completed her PhD on *The Gradual Weaning of Piglets: The influence of intermittent suckling and co-mingling on performance, the stress response, behaviour, and function and morphology of the gastrointestinal tract*. Diana received a Pork CRC scholarship while completing her studies at Murdoch University under the supervision of Prof John Pluske and Dr Pieter Langendijk.

Karen Moore commenced her PhD on a part time basis whilst employed at the Department of Primary Industries and Regional Development (formerly DAFWA). She graduated in April this year after her APL scholarship was novated to PIWA. Karen's thesis is titled *Producing quality pork by optimizing the on-farm production of pigs immunized against gonadotrophin releasing factor*. Karen completed her studies at the University Melbourne under the supervision of Prof Frank Dunshea and Dr Bruce Mullan.



## Current and completed projects

As part of the transition from the Department of Primary Industries and Regional Development (DPIRD), PIWA completed two existing Pork CRC projects and one APL project originally contracted to the Department. PIWA also took over DPIRD's Base Funding agreement with the Pork CRC which enabled continued access to Medina Research Station until its closure in April this year.

PIWA has been applying for new funding to ensure a continuum of projects being undertaken here in WA. Excluding DPIRD's transition funding and carryover projects, PIWA has attracted over \$1,000,000 in project funding to date.

Two significant projects awarded to PIWA are part of the Grower Group R&D Grants Program, a major component of the Agribusiness Innovation Fund, managed by DPIRD with Royalties for Regions investment.

### Free range

The first is titled *Establishing WA as the Australian centre for the production of high quality free range pork* which acknowledges WA's growing free range industry and will provide information to support new and existing producers.

The two year project incorporates six components:

- a desktop study looking at the drivers of demand for WA free range pork;
- a comparison of carcass quality attributes between free range and conventionally housed pigs;
- a study looking at the effects of essential fatty acids on sow reproduction to reduce the impacts of seasonal infertility exacerbated in free range systems;
- a farrowing hut cooling study looking at improving pre-weaning survival during summer;
- bioeconomic modelling of the findings; and
- production of a management toolkit.

A producer evening in the Great Southern is planned for later this year to share the findings from this project.

### Pork raised without antibiotics

The second project, titled *Pork raised without antibiotics: new opportunities for WA's pork industry*, will assess the potential for the development of systems and markets for pork raised without antibiotics (RWA) in Western Australia.

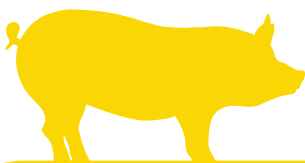
The WA industry has a proven track record of delivering safe and high-quality product to Singapore and is currently building significant capacity in free range production. A further opportunity for product differentiation exists through scoping the market potential for pork RWA.

The major challenge in producing pork RWA though is in reducing current antibiotic use as sick animals still require antibiotic treatment. Nevertheless, and with knowledge generated as part of this project regarding successful antibiotic-free systems elsewhere in the world, it is likely that barriers to pork RWA can be overcome.

The project comprises five components:

- a desktop study/literature review to define value chain systems of pork RWA, explore best practice and limitations along the value chain, determine costs and price premiums, and establish consumers' willingness to pay for pork RWA in other parts of the world;
- an assessment of international best practice in pork RWA production systems, including biosecurity protocols, disease management, antibiotic protocols and management practices;
- focus groups with all segments of the WA pork value chain to address any gaps from the first two components, and bioeconomic evaluation of the net benefits of raising pork RWA;
- an assessment of WA sow, farrow to finish, and nursery/grow/finish farms to ascertain current levels of antibiotic use and measures of antimicrobial resistance (AMR). This will contribute to a production plan with a focus on reducing antibiotic use and reduced risk of AMR in the food chain; and
- production of a toolkit capturing the project's findings.

Stay tuned to future issues of Pig Tales for outcomes from these and other PIWA projects.



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PIWA gratefully acknowledges the Department of Primary Industries and Regional Development's support and contributions to completed projects.

