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It's a Wrap: foodpro 2023 In Focus: Preventing Recalls The Innovators: AMPC



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Find a Word Winners

Win a copy of *Guga – Breaking the Barbeque Rules.* See page 31



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PO Box 415, Richmond 3121

Telephone (03) 9421 2855 Mobile 0427 366 720

PRODUCTION TEAM

Publisher/Editor: Athol Economou athol@ausmeatnews.com.au

Managing Editor: Stephanie Flynn M: 0467 299 675 stephanieann.flynn@hotmail.com

Advertising: Athol Economou M: 0427 366 720 athol@ausmeatnews.com.au

Layout & design: Jocelyn Harvey

Find-a-Word: Jo Edwards

CONTRIBUTORS

Deborah Hill

Susan Webster

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D'Orsogna Appoints New Managing Director

Jason Craig, an internationally experienced agribusiness leader with more than 25 years operating in all parts of the food supply chain, has been appointed Managing Director of leading Australian smallgoods producer, D'Orsogna Limited.

Mr Craig takes up his appointment in January next year and replaces current Managing Director, Greig Smith.

Announcing the appointment, D'Orsogna Chairman, Tony Iannello said the transition would effectively be seamless.



Mr Jason Craig bas been appointed D'Orsogna's new Managing Director

"Greig has decided to pursue new challenges, having led D'Orsogna for six years and we appreciate his ongoing commitment to enable a smooth transition," Mr Iannello said.

"During his tenure he successfully managed significant challenges including workplace and supply issues surrounding the 2020 incursion of COVID-19 and the development of our state-of-the-art facility which opened in Victoria in 2019," he said.

Mr Iannello described Mr Craig as a dynamic business leader, experienced in leading a large and complex business in tandem with a quality, outcome-driven management team.

"D'Orsogna's Board saw these critical qualities as the right match for where our company is positioned at this time and where we see it moving in the future," Mr Iannello said.

Ready-made for Butcher Shops

A new range of ready-made meals for distribution through butcher shops has been launched by online store 'To Be Frank'.

The home-cooked meals, which serve two to four people, include curries and soups as well as a range of Italian favourites such as Bolognese and meatballs.

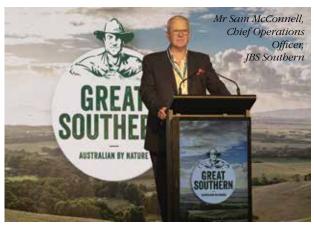
The range has prepared by Gemma Quartuccio whose love of food sparked the enterprise.



Ready-made meals range for butcher shops includes soups

The 'To Be Frank' range of ready-made meals is currently sold through butcher shops across Sydney and the company is looking to expand its distribution nationally.

Butchers interested in carrying the range can contact the company through their website at www.tobefrankreadymeals.com.au.



Awards Celebrate a Decade

Over 500 farmers from the stable of 3,000 JBS Farm Assured properties gathered to celebrate the 10th anniversary of the Great Southern Producer of the Year Awards in June.

Great Southern recognised and awarded its prominent producers for exceeding the highest standards of safety and sustainable beef and lamb production.

JBS Australia's Southern division, which operates the Great Southern brand, produces a range of premium beef and lamb products.

Chief Operations Officer of JBS Southern, Mr Sam McConnell, said the awards night recognised the commitment of Great Southern and its top performing producers to providing Australia with the highest quality red meat.

"Our goal is to guarantee customer confidence that our meat is responsibly sourced and sustainably produced from grass-fed, free-range livestock across Southern Australia," Mr McConnell said.

"Our awards night is about recognising and rewarding our producers for sharing this goal and passion with us," he said.

Final Call for Pie Comp Entries

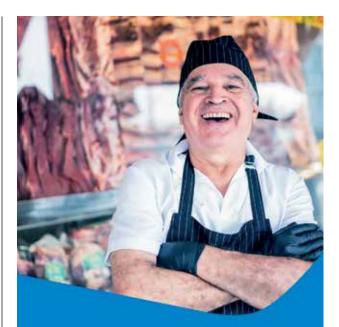
The Aussie Pie Council has included butchers in their final call for entries into the nation's longest running official pie competition.

Pies, sausage rolls and pasties can be entered into the 34th Official Great Aussie Pie Competition for which the closing date is 28 August.

Australian Pork Limited has continued its support for the event as sponsors of the Gourmet Pork Pie category.

This year will see the introduction of the new title, 'Official Great Aussie Pastie', along with the usual titles claimed by the makers of Australia's greatest pies and sausage rolls.

The judging for the Competition will take place at Fine Food Australia in Sydney between 11 and 14 September.



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Slow Progress on Workers' Visas Contributes to Food Price Hikes

Australia's top food industry bodies say limited progress on attracting workers to the nation since the Jobs & Skills Summit last September is weighing on both GDP growth and the cost of households' weekly shop.

A statement released in June by the National Food Supply Chain Alliance (NFSCA) says that the food supply chain is operating at reduced capacity due to workforce constraints.

The NFSCA represents over 160,000 businesses and peak food industry bodies including the Australian Meat Industry Council and the National Farmers Federation as well as those representing distributors, transport and food service.

The NFSCA says that labour shortages are, from a 'cost of business' perspective, one of the contributing factors to food price increases to the consumer as well as the ability to process and move food along the supply chain. According to the collective of peak bodies, the food supply chain urgently requires a suite of solutions including the reduction of barriers to work and the provision of suitable Visa pathways to welcome overseas workers, with a particular focus on ASEAN countries for schemes which service the sector.

The Alliance is of the view that food price inflation is one of the few cost of living pressures that Government can influence and achievements can be made by working constructively with industry to stabilise the myriad of everincreasing input costs.

The NFSCA has also called for the Government to develop, as a matter of urgency, a National Food Supply Chain Resilience Strategy to reduce the impact of the multiple long-term disruptors from natural disasters to future global challenges.

Potential Food Processing Pilot for the North

A Charles Darwin University research group has revealed the findings of a 15-month project into what would be required to build a food manufacturing industry in the Northern Territory.

Speaking at a Food Futures Conference held in Darwin, Northern Australia Food Technology Innovation (NAFTI) Project Manager, Dr Warren Hunt, said that the research project has enabled the understanding of the complexities and volumes in Northern Australia's supply chain.

"In Northern Australia food processing is limited to small niche businesses with most of Australia's food processing located in Southern Australia," Dr Hunt said.

"Our food supply chains in the north are 3,000 to 4,000 km long and highly vulnerable to interruptions.

"Regional food stabilisation capabilities to support northern population centres must be given more attention by Governments as a matter of urgency.

"We are now in a position to narrow down the best options in terms of food science and technology that could go into a pilot facility," Dr Hunt said.

The project has highlighted the different types of shelf-stable foods that offer the most potential in being produced in Northern Australia.

According to Dr Hunt, the research has shown that the most viable consumer segments are those requiring ready-to-eat or ready-to-use food, snacks and ingredients.

"There is also significant potential for NT-processed shelfstable red meat products such as ready-to-eat meals as well as functional beef ingredients used in numerous grocery products," Dr Hunt said.



Dr Warren Hunt, Project Manager, Northern Australia Food Technology Innovation

"We have also determined that there is an opportunity to produce buffalo meat products here in Northern Australia as it is one of the healthiest red meats and is an ideal protein powder source.

"This study is investigating the function that novel shelfstable food technologies offer, for example, they can deliver food nutritional and sensory outcomes to past processing practices," he said.

The next stage of the project includes furthering ideas on the development of a small-scale food-grade facility.

The plant would include several different processing lines with the ability to manage multiple feedstocks including red meat, horticulture and seafood.

It would be dedicated to de-risking future potential commercial expansion by undertaking market and product testing as well as building a trained workforce in food processing operations.

Food Manufacturing on Show at Foodpro

Foodpro was back in 2023 in Melbourne for the first time in six years with more than 400 exhibitors displaying the best in new automation and innovation for a broad range of industries, including meat.

By Deborah Hill

he origin of foodpro was as a meat industry trade show and, in 2023, the sector still contributes a substantial portion of the exhibitors.

Held at the Melbourne Convention and Exhibition Centre in July, the exhibition trade show brought visitors a vast range of products and innovation for everything from carcase breakdown through to the latest in cultures for smallgoods.

Industry experts and leaders discussed the latest trends, challenges and issues in manufacturing and processing.

Food safety, sustainable packaging and traceability were just some of the topics.

Next door, the Australian Institute of Food Science & Technology annual conference was in full swing to discuss the science behind our food.

For Australian Meat News readers, many familiar faces were present, with many of the leading processors and supply chain stakeholders attending to learn what is new to the industry and to make deals.

CBS Foodtech

Labour saving through automation is the focus for CBS Foodtech in terms of equipment.

Ingredients also form part of the business as well as the latest in cultures for smallgoods and a new range of Italian spice mixes now available.





Thompson Meat Machinery

Australian owned, Thompson Meat Machinery are synonymous with their own designs of equipment to suit major processors through to the butcher.

A recent innovation is a range of mixers that can hold up to 1,000kg or a cutter that is aimed at frozen product.

Collinsons

Chris and Matt Collinson have working hard to develop the machflex brand of shrink wrap equipment that can be plain or printed.

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The latest addition to the Collinsons range is the HenkoVac A5000 automatic packaging line which reduces handling between the processing line and packaging.

Barnco

Great to see Chris Lawson and son, Brad, who have been around the industry for many years.

The latest product that Barnco brought to foodpro was a bandsaw with a detection system that stops if there is an obstruction at the blade – like fingers.

The optical detector senses the obstruction and stops the blade before contact is made.

Ennio

Ennio are focusing attention on providing string bags and netting that are compostable for both the meat and fruit & vegetable industries.

Perfect timing for those Christmas hams!



Kerry Tastesense aims to lower salt and sugar while maintaining flavour

Kerry Ingredients

Kerry has long been a supplier of ingredients and flavourings and is recognising the need for ingredients to the vegan market as well as the need for lowering salt and sugar content.

For the meat industry, glazes such as the maple sriracha glaze for chicken, which has only 2.76 percent sugar, and 347.58 mg/100g of salt, utilising the Tastesense technologies.

CSB Engineering

CSB Engineering provide some pretty smart software to improve business resilience and streamline processes.

Markus Witor and Daisy Dong were happy to walk through a turnkey solution with visitors.



Vemag

One of the bigger stands this year, Vemag brought in 90 pieces of equipment to show with one of the biggest being a sausage maker, capable of up to 400 sausages a minute with alginate casings.

Also on show was a new burger machine capable of producing 350 burgers a minute.

In case you are wondering, the 'meat' used for the display was playdough!

Viking Food Solutions

Plenty of conversations for marketing manager, Donna Fenech, chatting about swing lid equipment and Dry Ager cabinets.

While at foodpro, Viking introduced the Viking Logo Printing for shrink bags that are simple and easy to use.



Viking food systems



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Meteoric Rise to Success

Putting everything on the line to open their first butcher shop in January last year, Rachael and Richard Dobbie found a gap in the Darwin meat marketplace and have since grown Dobbie's Butchery in Nightcliff to effectively supply five stores. It has been a meteoric rise to success but there is no easy road and such success has required a good grounding in the butchering trade, broader experience in the economics of business management, vision and, of course, the willingness to

work long hours.

By Stephanie Flynn

A fter looking at butcher shops around the country and noting there was a gap in the availability of value-added lines the Darwin market, Rachael and Richard decided that the trend to heat and serve meals could be something they could capitalise on.

They decided to sell everything they owned and establish a butcher shop in the heart of Nightcliff's shopping centre, starting their first day of operations with just \$300 remaining in their trading account after having to pay cash to wholesalers for their initial stock.

Their value-added lines proved to be such a success that the pair realised they would need to expand their space to capitalise on the demand and commenced funding the construction of a larger store in the shopping centre from their turnover.

Just 18 months since opening, Dobbie's Butchery now supplies three independent supermarkets and their own online store as well as the retail shop which they are looking to expand once again.

Theirvalue-added lines, predominantly the creative province of Rachael, occupy half of their store's cabinet displays and have been such a catalyst to Dobbie's success that a team of 10 people is needed to keep up the stock to meet demand.

"My uncle, who is my mentor, told me of three good principles – customer service, freshness of product and



Richard and Rachael Dobbie. Photo: Nakita Pollock Photography

being honest with the customers – and we have built the business on these principles," Richard said.

"Transparency is important to me, the customer needs to know what they are buying, how much they are spending as they go along.

"With this in mind, we have purchased registers that show the customer how their spending is going as they are buying, people do not want to feel embarrassed by having to ask, you need to be mindful of the different socio-economic groups in your community," he said.

After completing his apprenticeship in Adelaide, Richard moved to Darwin when he was 19 and has been working in butchering in the northern city ever since, with the exception of a 10-year stint in Victoria.

He also spent 10 years with each of Coles and Woolworths where he did

not stay in the meat section but went into management working with economics and costings, training he says has been invaluable in understanding how to successfully run his own business.

"We went to South Australia to visit the suppliers we had selected to brief them on what we wanted in terms of quality, we do not buy on price, this approach allowed us to get a good price for the product we wanted," Richard said.

"It is a difficult industry, the meat, to get the best out of it, has to be turned over in three or four days and you have to have multiple uses for your product, value-added is a good example of how to make that so," he said.

The approach Dobbie's Butchery has taken draws customers from the broader Darwin metropolitan area, regional centres and even offshore, with one customer residing in Singapore, having visited the store while in Darwin, now has an order sent to him by air each month.

Rachael and Richard are very civic minded and set aside a budget each year to support sporting groups and community projects, which they are keen to emphasise is not about attracting customers but about contributing to the local community.

The pair would like to formally tie the knot but, given the gruelling hours required to continually grow the business, they believe they would have to hold the ceremony at the butcher shop to find the time!



Value-added lines, created by Rachael, occupy half the store's cabinets. Photo: Nakita Pollock Photography

Butcher's Pies Take-out Baking Awards

By Susan Webster

here's the butcher, the baker ... and then there's Gary Read – who is a bit of both.

He and his wife Julie and their team were among the winners at the recent national Australia's Best Pie and Pastie Competition run by the Baking Association of Australia.

It was the third year that the team of Brisbane-based butchers had entered the nation's top baking contest.

"There weren't too many other butchers there, the bakers were telling me 'a butcher can't make a pie, you wouldn't know how to make pastry'," Gary said.

But he does.

"A baker showed me years ago and I gave it a go, I thought it was going to be hard, but when you've done it a few times you get the hang of it," he said.

Gary, who started as a butcher's apprentice in 1974, also knows about meat.

The combination of those two skills has delivered numerous honours for his Meat U @ Home team.

Their chunky Tasmanian lamb pie and the gluten-free, chunky grass-fed beef were triumphant with a silver award



Gary Read, a butcher whose pies win national baking awards

each, the free-range creamy chicken pie grabbed a bronze award, the plain chunky beef pies scored a bronze and merit awards while the cheese and bacon received a merit prize.

Their pies were among the more mainstream offerings, others among the 1,700 entries included camel meat, lambs fry and satay seafood.

News of the Reads' success saw pies flying off the shelves at their shop at The Gap, a northern Brisbane suburb, pie sales went up four-fold.

"It's unbelievable, I go home in the afternoon and by the time I get back to the shop the next morning – they've

gone, every second person must be buying a pie," Gary said.

He can't recall how many pies he has made since he started Meat U @ Home in 2015 selling free-range grassfed meat and poultry ... and pies.

Most popular are the potato pies.

Gary said he has learned to offer the old faithfuls alongside a few experimental flavours.

"We don't need to give people too many more flavours because if you give people too many flavours you can't sell them all, it gets too itty-bitty," Gary said.

"I think the popularity of pies is like prepared meals, it's the way the meat industry is going, working people are time-poor, so they love that they can just grab a pie," he said.

The trick is consistency of product, and it's something he drills into the staff for whenever he's away. On the receiving end of his instructions are his staff Dylan Clarke, Peter Hartog, Les Croucher, Louise Jacobs and seven casuals. And if they're smart, they'll listen to the pieman.

He obviously knows his stuff ... although Julie claims it's her cooking skills that she has taught him over their 38-year marriage.

MAKE TACO NIGHT A DINNER WINNER WITH PULLED PORK

IL X NY



Get some Pork on your fork

Test Kitchens to Prove an Idea

When you buy a new car, you want to learn about it, take it for a drive, see what specs it has. Why should a purchase of meat processing equipment be any different? A 'test drive' in a dedicated test kitchen, can make the difference in the purchasing decision.

By Deborah Hill

A n investment in new machinery needs careful consideration to ensure that the equipment does what you need it to do or that it can produce the product you have been developing on a commercial scale.

CBS Foodtech have had a fully functioning wet test kitchen since 2008, providing customers with an opportunity to see the latest technology available, test a new product idea and conduct in-house product development for their own line of ingredients.

Situated next to the traditional showroom, the test kitchen incorporates all the equipment needed to provide customers with an overview of how each machine can work together in a process line, or as individual item.

"We have available everything from a blast freezer through to a smokehouse, and all the mince, slice, dice, mix, portion and crumb equipment in the test kitchen, plus we can easily bring in another piece of equipment from the showroom," says Andy Schurger of CBS Foodtech.

"If a customer just wants to see how efficient a vacuum filler can be for sausages, we can show them.

"If someone is developing a new salami recipe and not able to do a small batch in their own factory, they can do it here," he said.

By taking a more holistic view of equipment sales, CBS Foodtech can work with customers to ensure that the equipment they are looking for is actually what they need.

As an example, if a butcher is looking to add crumbed products to the shop,



A test kitchen provides an opportunity to try a new piece of equipment, process or ingredient

but not sure what equipment is needed, a portion cutter, tenderiser and crumbing unit can easily be demonstrated.

By seeing firsthand how a vacuum filler works compared to a piston filler, butchers can readily see that it is a labour-saving device, which does not require a fully qualified butcher to operate.

With a small amount of training, an apprentice or a semi-skilled worker can produce the same volume of sausages, with an improved consistency, in a fraction of the time.

"In-house, we use the test kitchen to test the equipment ourselves, to become familiar with it, and fully understand the strengths and weaknesses of each unit," Mr Schurger said.

"We recently tested an alternative nitrate ham and bacon product in the test kitchen to see how it would work, and then manufactured products for customers who make ham and bacon to taste and try.

"Rather than giving them a sample of the ingredients to make it for themselves, which can be a problem in a busy production environment, we can go straight to the end product, produced exactly as the manufacturer has designed and allow them to see for themselves the results of the ingredients, which is ultimately what will go to the consumer," he said.

The test kitchen can also be used by customers who want to do their own product development.

For many food manufacturers wanting to make ready meals or value-add products, halting production in the factory to do a small batch of a new product can be very difficult.

Using a test kitchen, that has commercial scale equipment, gives an opportunity to test the recipe at a smaller volume and for the sales and

continued on page 14

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marketing team to assess market acceptance before going into full production.

"For some customers, testing a recipe is only part of the puzzle," Mr Schurger said.

"To produce a new product may require bigger considerations than just a new bowl cutter. It may need other processing equipment, a packaging line, and how it will fit in their current location.

"Proof that the product has potential in the market means that those investment decisions can be made with a degree of confidence," he said.

For some customers, product development may mean going from small batches, mostly made by hand, to commercial contracts, that would not be economically viable done by hand.

"We had one customer making vegan cheese pretty much by hand, the product became so popular that they were awarded a major contract," Mr Schurger said.

"By seeing how it could be made in the test kitchen with a bowl cutter and vacuum filler, the product could be made 10 times faster, and far more efficiently saving them labour, and increasing profits," he said.

During the pandemic, livestream demonstrations of the equipment in the test kitchen were initiated, so customers could still assess the merit of a machine, within the confines of COVID-19.

That capability is still available, to give remote or time-poor customers an opportunity to see firsthand how the machine works on its own, or as part of a process.

"From our perspective, it means we can work directly with the customer and be sure that what we sell, is what they want," Mr Schurger said.

"Ultimately, it comes down to butchers talking with each other. A good experience in our test kitchen to get a really good understanding of what a machine can do in their facility, is what we want," he said.

BOOK COMPETITION WINNER

Congratulations to Peter Ward, who won a copy of *The Butcher's Cook Book, Volume 2*, by Shannon Walker.

Peter trained as a butcher and now Peter and his family own and operate Wendouree Wholesalers. Located in Ballarat Victoria, the business supplies ingredients and packaging for meat, bakery and confectionary production to retailers and food service operators.



Thanks for entering our competition, enjoy the book and good luck with future entries to competitions that attract your attention.

PEAL Changes on the Horizon

By Deborah Hill

n February 2021, Food Standards Australia and New Zealand (FSANZ) announced that new legislation would be in place regarding labelling of allergens, to come into effect in February 2024.

With six months to deadline, the new legislation around allergen labelling for food products, called Plain English Allergen Labelling (PEAL), will require a change to how ingredients labels are presented.

Previously allergens needed to be listed as part of the ingredients list, they will now need to have those ingredients printed in bold, as well as a separate line to identify them specifically to enable consumers to clearly find and see what allergens may be present.

"The new legislation requires that the allergens are highlighted with a bold font," said Wedderburn Retail Business Manager, Kevin Bayley.

"With the new legislation, the allergens still need to be in the ingredients list, but also a separate summary line of all the allergens must be listed below it.

"The rules around food labelling and compliance are complex, and we recommend that businesses check the FSANZ website for clarification.

"The bottom line is, however, if you are labelling with ingredients, you will need to comply with PEAL and this may include butchers serving pre-packed ready meals and other value-added products," he said.

For newer point of sale and labelling equipment that has a PC user interface, it may be straight forward to upgrade the ingredients panel, but for older systems, it may not be possible.

According to Mr Bayley, for existing Wedderburn customers using the software management system, Atria, it may be possible to perform the upgrade through a Cloud environment or, alternatively, field technicians can attend in person to complete the upgrade.

"If, however, the equipment is too old to meet the PEAL requirement, we can work with you to determine the best method to comply with the legislation," Mr Bayley said.

"With any change to business systems, giving yourself plenty of time to determine what you need, implement it and train staff will make the transition a lot smoother," he said. ■

Inspection Systems Prevent Recalls

Statistically, the risk of a foreign object in our food may be small, but the ramifications for the meat industry for a food recall can be enormous. Using inspection systems is an insurance policy that can be easily adopted by butchers and manufacturers.

he number of food recalls for meat and value-add products in recent years has been relatively small, but the effect on business and reputation can be far reaching, not just for the butcher or manufacturer for whom the incursion occurred, but for the greater industry sector in question.

A foreign object in meat products can range from metallic objects such as broken machinery pieces and cable ties to unwanted bone fragments.

Finding the proverbial needle in the haystack is dependent on assessing the risk and using the right tools for inspection.

Assessment of the risk of a foreign object through protocols such as Hazard Analysis Critical Control Points (HACCP), will identify where in the process line contamination is likely to occur.

For most butchers, where the majority of the meat handling is for mincing, sausages and portioning, a lot of foreign objects may be picked up with visual inspection and the risk is likely to be fairly low. When machinery and packing products are used for producing ready meals, the risk may increase.

In retail, the supplier specifications may require that the meat industry include inspection points as part of the supplier contract, or a statement of risk assessment that concludes that the risk is low, and inspection is not required.

The most common forms of product inspection systems are X-Ray and metal detection.

Metal detectors will look for items that contain metal such as nails, parts of machinery (including aluminium or stainlesssteel equipment) or even the car keys.

X-Ray is better suited to 'seeing' irregularities that may be foreign objects as the result of a contamination, such as bone fragments in mince or the sausages.



Calibration of metal detectors to recognise different metal types and size, is an important part of the detection system

"Inspection systems are normally incorporated into the processing/packing line and often combined with a weight checking and measurement system – usually the last point where there is any handling of the produce," says Julian Horsley, A & D Australasia.

"It may be required for compliance for a particular customer, or it may be necessary if a risk assessment indicates that there may be a hazard.

"Either X-Ray or metal detection will normally satisfy the inspection requirement, so which system is chosen is dependent on what the foreign object is likely to be," he said.

The size and type of the foreign object also needs to be considered.

For example, meat products have a naturally high iron and moisture content which raises the trigger point of the detector, so it is necessary for the equipment to be programmed to detect metal levels above the product itself.

As a consequence, it may be difficult to detect small pieces of metal in meat products.

"It really comes down to the risk assessment..."

X-Ray detectors take a 'photo' of the product but are more effective if the produce is in one layer, as subsequent layers may obscure any objects – particularly objects that have a high moisture content.

"Plastic has a very low density (SG), which means if it is buried in the meat, it may not be detectable," Mr Horsley said. *continued on page 16*

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"If the produce goes through the X-Ray in smaller pack formats with less layers, such as tray of steaks it has a better chance of detection and the product rejected.

"Most butchers would rely on inspection by hand to look for larger foreign objects and are likely to be picked up at that point.

"However, if it then goes through a packing machine, and a piece of machinery breaks, the metal detector will pick it up before it is shipped to the distribution centre or the customer.

"It really comes down to the risk assessment, a large piece of metal in a bulk pack of diced steak is certainly not an ideal situation for the consumer and a poor reflection on the brand, but the risk to human health is likely to be low.

"However, a small metal spring in a meat pie with a high risk of being consumed certainly needs to be screened prior to sale," he said.

"The case of the metal in the meat sparked a nation-wide alert..."

In 2008, there were four instances of metal found in meat products bought at four supermarkets in Queensland, NSW and Western Australia.

The metal pieces, up to 6cm, were found in uncooked, prepackaged meat and frozen products purchased through Coles, Woolworths and Bi-Lo.

A police investigation was undertaken, with the greatest fear being copycat activities and a nation-wide alert was issued.

Again, in September 2018, needles in strawberry punnets became a police investigation for sabotage, highlighting the risks of foreign objects in produce and how to manage consequences of an incursion.

With one act of sabotage, followed by several copycat incidents, the needle in strawberries case highlighted that many growers had no inspection equipment in place for foreign object detection.

In addition, how the incident affected strawberry growers in the wake of the incidents highlighted that handling of media, traceability and consumer confidence needed to be reviewed.

"Many of the larger commercial growers were able to continue with business as usual, as there were detectors used routinely, with regular audits and calibration carried out as part of their HACCP and risk assessments," Mr Horsley said.

"However, for smaller, often family-based operations, many had a check weigh system in place, but had not incorporated X-Ray or metal detection into the packing line and, consequently, investigations took longer to complete, impacting their productivity and reputation with customers," he said.

Being able to trace a particular tray of meat or ready meal assists with the rapid identification of a product's origins either back to the butcher, abattoir, or manufacturer.



Investment in barcode and QR code technology at the point of packaging, not only can show the date it is packaged, but potentially the source farm and paddock and, from a marketing perspective, the provenance of the product.

For industries such as wine, cherries and beef, traceability also provides a level of protection against food fraud.

There is no doubt concern for public health is top of mind when detecting for foreign objects in our food.

"In 2022 alone, there were 75 product recalls..."

When it comes to how a recall is managed, and the communications required to alert consumers, the metal object in meat and the strawberry needle case highlighted that social media in particular can be harmful to the industry.

Poorly handled communications can mean that the entire industry is affected by the recall, with consumers not purchasing that product for an extended period of time, and the butcher or manufacturer's brand experiencing a lack of trust.

It can also extend across all manufacturers of that ready meal, creating a much larger distrust by consumers.

"A detection system won't necessarily provide efficiency improvements, but it is an additional insurance policy should a contamination event occur, to protect your business and your reputation," Mr Horsley said.

According to Food Standards Australia New Zealand (FSANZ), 791 recalls were undertaken between 2013 and 2022, with 75 just in 2022.

Most of the recalls are precautionary and initiated by food businesses to ensure that potentially unsafe food is removed from distribution and sale.

Processed foods, which include long-life packaged food and manufactured items with multiple ingredients, recorded the most at 150 incidents, while meat and meat products accounted for 12 recalls.

For more information and protocols for food recalls, consult the FSANZ website: https://www.foodstandards.gov.au/ industry/foodrecalls/Pages/default.aspx

Innovation: the Hallmark of AMPC

Managing a funding budget of close to \$40 million annually invested in some 300 projects at any one time, Chris Taylor sits at the helm of Australian Meat Processor Corporation (AMPC), the meat processing industry's peak research and development body.

With a background in finance, Mr Taylor has been focused on growing the funding pool since taking up the role as Chief Executive Officer of AMPC four years ago and has successfully navigated the management of a range of investments across the five pillars identified by as priorities for its focus.

A keen advocate of the need for the industry to effect a positive change in its narrative at a time when there are strong forces in the public domain working against it, Mr Taylor spoke with *Australian Meat News* about the achievements of AMPC's considerable recent investments and the direction being taken for future development.

By Stephanie Flynn

istorically, the nation's meat processing industry has been one of the great quiet achievers in regional Australia.

Few appreciate the innovative and progressive nature of the industry and its efforts, behind the scenes, on matters of global importance from technological development and food science to sustainability and renewable energy.

"When I was growing up it was said that if you did not study, you would end up working in the local meatworks, a lot of projects we have been working on in recent times have been about changing that narrative," Mr Taylor said.

"It is a fantastic industry, contributing \$21 billion to the national economy and, while it has shied away from talking about itself for decades now, with the different ideological perspectives we see on the horizon, it is the right time to be telling the positive industry story.

"There is no question that as an industry we significantly punch above our weight, while we might be a small producer on a global scale, we are the top lamb exporter in the world and in the top five beef exporters, so we are out there providing high quality food safely and reliably to the world.

"Large processing companies in small towns are contributing significantly to the local economies, supporting around 138,000 jobs around the country, but also are major contributors at the national level from an export perspective, there is something significant in that," he said.



Mr Chris Taylor, Chief Executive Officer, AMPC

"More to Meat making positive impacts..."

One of AMPC's key endeavours over the last year to promote the industry's contributions has been the instigation of its 'More to Meat' campaign which has centred on promoting these positive stories, with an objective of increasing the understanding in local communities of its value and contributions in terms of the economy and employment.

The campaign, which will run for several more months, has included a series of television and radio commercials, billboards and social media activities as well as regional events.

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Filming for AMPC's 'More to Meat' campaig.

According to Mr Taylor, there are some 300 towns around the country impacted by having a processing plant in the region and the campaign has delivered some positive impacts with people in these regions starting to appreciate the contribution of the processing industry.

AMPC's role is two-fold, covering industry marketing projects such as the 'More to Meat' campaign and significant investment into research and development with a view to boosting the sustainability, profitability and competitiveness of the industry.

Its funding, raised through an industry levy which has averaged \$18.5 million over the past 10 years and matched dollar for dollar by the Federal Government for eligible R&D activities, is invested across five pillars that AMPC and its stakeholders have identified as priorities for the industry.

The five pillars centre on advanced manufacturing, sustainability, people and culture, technical market access and markets as well as product and process integrity.

Within its advanced manufacturing remit, one of AMPC's key recent investments has been the development of an Artificial Intelligence (AI)-driven automated beef scribing robot which was implemented as pilot in a Queensland processing plant this year.

Believed to be one of the first implementations of this technology globally, AMPC has invested over \$5 million in its development which is an automated solution to the hazardous manual operation of a circular saw to make the initial four main boning cuts in the side of a carcase.

Where manual cutting can cost a processor hundreds of thousands of dollars in lost opportunity if manual cutting is a few millimetres off, the AI-driven system uses cameras to identify where the cuts need to be made, stabilises the carcase and uses a robotic saw drawing on AI data to make the cuts.

"Over the years the industry has worked with X-Ray and various forms of automation, in some cases this technology has been adopted and in others not," Mr Taylor said.



AMPC's investment into bio-resource recovery has seen the development of a Dual-fuel Biomass Boiler

"We are now at a tipping point where we have all the cutting and sensor technology and AI is sufficiently advanced to really take it to the next level, which is super exciting," he said.

"Dual-fuel Biomass Boiler uses local waste streams to provide energy..."

But AMPC's investment in technology is not limited to advanced manufacturing with investments in research and development projects spanning sustainability now underway including bio-resource recovery projects and a Dual-fuel Biomass Boiler to use local waste streams to provide renewable energy for processing plants.

Over the last decade, covered anerobic lagoons have been established at processing plants to capture biogas from the waste water treatment process, according to Mr Taylor, whilst they proved effective to a point, AMPC's research shows that they are not optimised and this research is driving further investment projects to recover value from waste.

Over the next few years, AMPC will be working with the Race for 2030 CRC in progressing an advanced technology pilot to develop future applications in this space.

The Race for 2030 CRC is an industry-led research centre, established in 2020, with the goal of reducing energy costs



The first water recycling unit developed by AMPC.

and carbon emissions and is funded by both the Government and private sectors.

Given the high use of energy from a range of sources – coal, gas or grid – there is a major push within the processing industry to move towards sustainable, clean and efficient energy sources.

Driven by this impetus, over the last two years AMPC has been trialling Dual-fuel Biomass Boiler which, unlike traditional boilers which are fed with fossil fuels, can potentially use natural sources of fuel derived from the local region in which a processing plant is based to drive its operation.

"Bioenergy has overtaken coal as major energy source..."

According to Mr Taylor, the husks from Macadamia nut shells, for example, are known to contain sufficient energy content and are dry enough to be fed into the Dual-fuel Biomass Boiler to reduce the reliance on coal or gas as a mechanism.

"There is a real enthusiasm within the industry toward using the energy that is actually produced by the processing plant from waste streams back in-plant so it becomes a circular economy in itself," Mr Taylor said.

"Last year bioenergy, for the first time, overtook on-site coal consumption as the third largest source of energy used in processing plants in Australia.

"It is an outstanding achievement by the industry and shows the determination to get things right," he said.

Currently, AMPC also has a trial underway to recycle water used every day in processing plants.

"Water recycling unit will bring benefits..."

The Class A Water Recycling pilot is a series of shipping containers which contain different kinds of water filtration membranes and technologies and are being located at various plants around the country to test the success of water filtration under differing water sources. Once relevant Hazard Analysis Critical Control Point processes are complete, AMPC will have sufficient scientific data to gain approval for recycling water for use in specific applications within processing plants, solving a significant challenge for the industry in a nation subject to considerable periods of drought.

Mr Taylor believes that investment in these areas is crucial to international trade as increasingly trade agreements impose green-house gas emissions and deforestation tariffs on imports.

"This is particularly important to processors because in the very near future, exporters to the European Union may be faced with the Carbon Border Adjustment Mechanism which means that tariffs will be placed on any imports into Europe that do not meet the emissions requirements and neutrality that particular market sets," Mr Taylor said.

"So, I think there is a really heightened sense that we have to be really good at this so that is why we are making these types of investments.

"It is not just things like emissions coming into trade agreements but also things like deforestation, so we have engaged a research partner to conduct a market scan of all the different requirements that are on the horizon to enable us to understand what the implications are," he said.

"A change of skill sets in workers on the horizon.."

AMPC's work is also being applied to the processing industry's key issues of attracting people to work in the industry and training.

According to Mr Taylor a change of skill sets in workers will be required as processors increasingly implement the new technologies currently in the research phase.

He believes that the big shift on the horizon of which the industry needs to be aware is that the type of employee that is needed to maintain an AI-driven robot is substantially different to a traditional boning room operator.

AMPC has recently received a grant to support women in trades and is building a learning programme and platform to showcase the wide range of roles that are available to women, who comprise a third of the meat processing workforce.

Mr Taylor is of the view that the people and culture aspects are very important to the industry and AMPC has been working on a range of technologies that assist in everything from training to job orientation as well as Cobotic and safety devices.

"Virtual reality goggles developed for training and recruitment..."

Over the last two to three years AMPC has developed virtual reality training, through the use of goggles which have a three-dimensional capability, workers and job candidates can

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be fully immersed in a simulated environment for training in the use of new equipment.

One of the modules developed has been for training in beef scribing but has also been adapted to train and provide an orientation for overseas job candidates in-market.

"The industry has a strong requirement to fill all the jobs available with people, a migrant workforce is one of the solutions to that but, with an investment of \$20,000 or more required per candidate, it can be costly for processors if the role does not meet the worker's expectations," Mr Taylor said.

"This type of investment will help get that part of the recruitment process right as well as being a tool we can use in training here in Australia," he said.

AMPC has a long history of investing in the meat science discipline, according to Mr Taylor, and he sees it as a continuing top priority as the industry faces a global push toward plant-based foods as being a viable alternative.

Attending a conference of over 600 globally renowned scientists in Dublin last year, Mr Taylor said that the science supporting meat for human health and as being a benefit to the environment was unquestionable.

"If there was no meat in the world, for example, we would not be able to feed everyone, there is not physically enough space on the planet to grow enough plant-based food to feed



AMPC has invested considerably in automation and robotics for the processing industry

everyone and have their nutritional requirements met," Mr Taylor said.

"There is no question that humans have evolved, in terms of our digestive system, to have a high proportion of lean meat in our diets, interestingly, the structure of our digestive system is almost indistinguishable from that of a wolf according to science.

"We will be investing in this space into the future because the science is there, we want to play a key role in promoting that science in an intelligent way and, while we respect the life choices of others, we need to bring some balance back into the narrative and public discussion," he said.



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Global Economy in Rough Shape

The World Bank has revised its projections downward for global economic growth for the remainder of 2023 and forecast only insipid growth in 2024 while warning of a high possibility of recession within the next year if the banking stress in advanced economies expands into widespread financial turmoil.

In his Foreword to the World Bank's 'Global Economic Prospects' report released in June, Chief Economist and Senior Vice President, Mr Indermit Gill, also warns that potential growth – the maximum growth the global economy can sustain without igniting inflation – will fall to a three-decade low over the remainder of the decade.

While headline inflation is decelerating as a result of interest rate rises globally and there is an easing of supply chain pressures, the World Bank forecasts core inflation to remain entrenched throughout 2024.

A fter a positive end to last year and start to this year as post-pandemic consumer spending buoyed trade, the global economy is set to end this year with a substantial slowdown to 2.1 percent growth, after recording a 3.1 percent growth rate in 2022.

As consumer spending fades, the outlook for 2024 is anticipated at a marginal improvement of 2.4 percent.

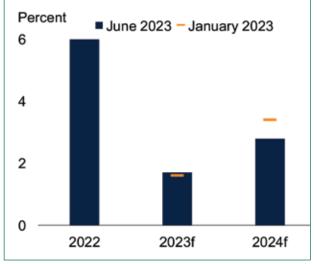
The projected tepid growth next year is highly dependent on the assumptions that the banking sector stress experienced this year does not reignite and become more widespread spilling over into emerging market and developing economies (EMDEs) as well as inflationary pressures not prompting more intense interest rate hikes by central banks around the world.

"The global economy is in rough shape..."

According to the Report, the world remains at risk of a serious downturn or even a global recession if there is an intensification of advanced economy banking stress.

Global trade is expected to grow marginally to 2.8 percent next year, after slowing to 1.7 percent this year following a 6 percent growth in 2022.

The World Bank cited the rotation of demand to tradeable goods away from services as a major cause of slowing trade growth.



Global trade is expected to remain below 2022 levels Source: World Bank

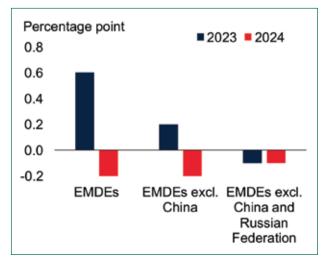
Growth in advanced economies is set to decelerate steeply for 2023 as a whole to 0.7 percent and remain feeble throughout 2024 as a consequence of a range of factors including continued monetary tightening, less favourable credit conditions and still-high energy prices.

While in EMDEs, with the exclusion of China, growth is expected at 2.4 percent next year, after recording a 2.9 percent growth for 2023 as a whole, both projections being a

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Growth forecasts for EMDE's have been revised downwards Source: World Bank

considerable slowdown on the 4.1 percent growth recorded last year.

According to Mr Gill, despite this anticipated growth, per capita income growth in around a third of EMDEs will remain below what it was on the eve of the pandemic.

"Besieged by high inflation, tight global financial markets and record debt levels, many countries are growing poorer," Mr Gill said.

In a damning assessment, Mr Gill said the global economy is in rough shape and the extraordinary series of severe economic shocks and serious policy misjudgements are both to blame.

"Years before COVID-19 arrived, Governments had already been turning their backs on free and fair trade and had developed an appetite for huge budget deficits," Mr Gill said.

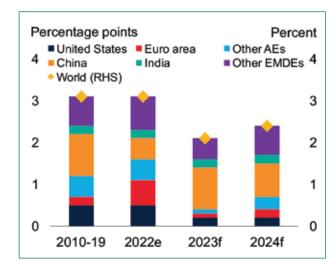
"They had turned a blind eye to the dangers of debt-to-GDP ratios.

"If a lost decade is to be avoided, these failures must be corrected now not later," he said.

Furthermore, Mr Gill pointed out that all the major drivers of global growth are expected to weaken over the remainder of this decade.

According to the Report, the weak growth prospects for the global economy and heightened risks in the near term compound a long-term slowdown in potential growth for EMDEs, which has been exacerbated by the combined shocks of the pandemic, the Russian Federation's invasion of Ukraine and the sharp tightening of financial conditions.

The World Bank is of the view that reversing the decline in potential growth requires decisive structural reforms and reflects underlying long-run trends, the contributing causes to which include slowing growth rates of labour force, investment and productivity.



Contributions to global growth by region Source: World Bank

Furthermore, the tight financial conditions combined with the expected subdued external demand are expected to place even greater constraints on growth in EMDE's.

"Growth is slowing in all major economies..."

This situation has implications for global trade with advanced economies, including Australia, relying on growth in EMDEs for developing export markets.

Advanced economies are expected to be hit hard by slowing consumer demand due to higher borrowing costs and tighter financial conditions weighing on household spending.

Growth is slowing in all major economies, including the US and Europe, and while expected to record a marginal growth rate in 2024, the projected rate of growth is considerably less than recorded in 2022.

"Core inflation is expected to remain above targets in 2024..."

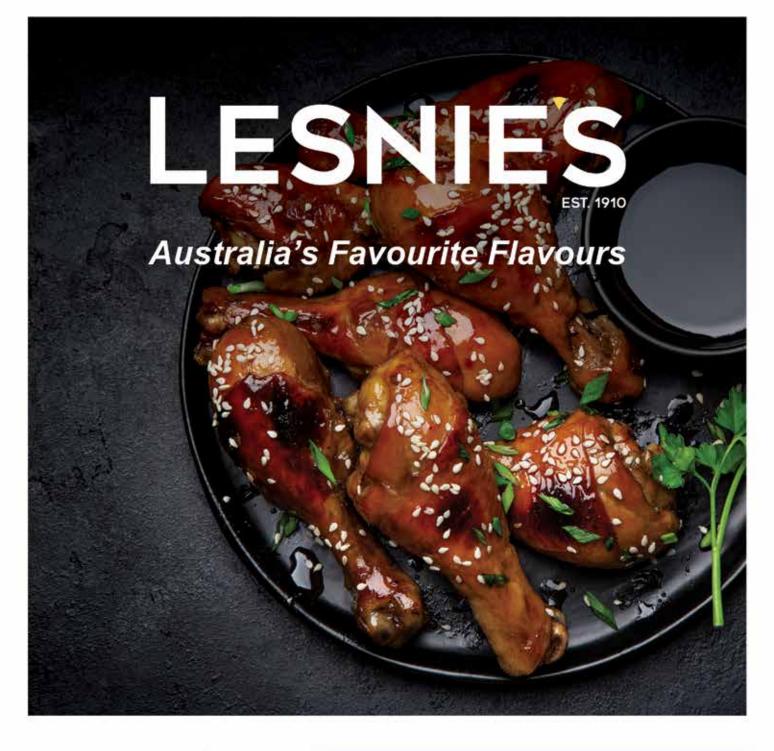
The rate of growth in China is also expected to slow in line with slowing growth rates in other major economies as weak external demand dampens growth, although a 4.6 percent rate of growth is anticipated in 2024.

Nevertheless, the Report warns that China's economy faces considerable downside risks heading into 2024 including a sharper than expected downturn in global trade and growth as well as continuing stress in its real estate sector.

According to the World Bank, inflation is expected to continue to be above its pre-pandemic level beyond 2024.

Global inflation is projected to gradually ease as growth decelerates, labour demand in many economies softens and commodity prices remain stable.

But core inflation – the rate of inflation that does not include food and fuel prices – is expected to remain above central bank targets in many countries throughout 2024.



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Lesnie's Gluten-Free Marinades								
Product Code	Description	Size						
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LES0800107	Honey Chilli & Garlic Marinade Gluten-Free	4L						
LES0800204	Curry Marinade Gluten-Free	4L						
LES0800218	Steak Diane Marinade Gluten-Free	4L						
LES0800124	Rich Italian Marinade Gluten-Free	4L						
LES0800211	Italiano Marinade Gluten-Free	4L						
LES0800212	Italiano Marinade Gluten-Free	10L						





Confusion Reins on Halal Poultry

By Susan Webster

two-year study into poultry stunning has deemed the practice non-halal, throwing the Australian market into confusion.

The Australian National Imams Council (ANIC) in May ruled that the common poultry slaughtering process was haram – forbidden.

The ruling sees the nation's two major Muslim councils expressing opposing views over Australia's poultry production and slaughtering processes.

What is halal?

- Animals must be free from illness and disease, must be slaughtered humanely with a sharp tool, and must not die before slaughter.
- A prayer must be said at the start of slaughtering.
- Slaughter must be supervised by a person of Muslim faith.
- The facility must be accredited. Several Islamic groups issue certification for a fee.



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The ANIC deems that controlled atmospheric stunning (CAS) that gasses poultry actually renders the bird lifeless and, therefore, haram.

Islamic rules stipulate that animals must be alive and healthy at the time of slaughter.

According to the report, the lack of signs of life was indicated by the absence of reflexes, heartbeats, pulse, breathing activity, chest movement and wing flapping.

In a statement the Council said that ANIC engaged with vets to conduct the relevant and necessary tests and assessments including the absence of vital signs and ECG indications.

The findings led the Australian Fatwa Council to announce that consumption of CAS-treated poultry was impermissible according to halal standards.

As a result, halal certifications of CAS stunning facilities are invalid pending further assessment of each facility and its processes.

But the Australian Federation of Islamic Councils (AFIC), another of Australia's halal certifiers, raised concerns about the report, saying that ANIC had only been able to visit one facility on one day, during its investigation.

In its report ANIC noted "the resistance of some CAS-stunned facilities to engage".

An AFIC statement disagreed with the report's conclusions.

"We find the conclusions drawn in the fatwa to be problematic on many levels and did not expect to see such a fatwa," the statement said.

The ANIC has contacted the Australian Competition and Consumer Commission (ACCC) to discuss measures that could be taken against the alleged false advertisement and labelling of halal products.

The ACCC said people concerned about the integrity of a halal-certified product should contact the relevant halal-certification body.

Under Australian law, poultry must be stunned to become immobile or unconscious before slaughter.

The CAS process exposes birds to a variety of gas mixtures, leading to a gradual loss of consciousness.

An alternative is water-based stunning – passing the birds through a water bath containing an electric current.

Flexibility Golden Key to Inclusion

Meat Business Women has recently released the findings of its second independent survey on gender inclusion in the global meat industry workforce. The research shows that progress has been made in increasing the inclusion of women in senior leadership roles since the release of its initial benchmark survey in 2020 but has stalled in gender inclusion in skilled and first-line management roles. A lack of flexibility in working arrangements and a 24/7 working culture were found to be the key impediments to furthering gender inclusion in the industry.

he global study into gender inclusion, conducted by UK-based Niteo Development, draws on international data from more than 50 major meat organisations, indepth interviews, focus groups and over 400 survey responses.

It compares the findings for progress against an initial survey conducted in 2020 on five key themes: changing perceptions in the industry, inclusion, tackling the broken career ladder, networking and role modelling as well as changing the way we work.

In introducing the findings Ms Laura Ryan, Global Chair of Meat Business Women, said that the report shines a light on the current state of gender balance within the industry and offers insights into the perspectives of both men and women on the industry's present condition

"The data tells us that inclusion is no longer 'nice to have', but rather a necessity if the meat industry is to thrive in the years to come," Ms Ryan said

"Whilst there is greater disparity in the industry than there was in 2020, there is a huge opportunity for further precompetitive working on best practice and key workforce policy issues," she said.

A key finding of the survey is the rise in women's representation in senior leadership roles at 23 percent of board level director roles, up from 14 percent in 2020, and 3 2 percent of high-level leadership roles rising from 22 percent in 2020.

On the theme of perceptions, the study found that 63 percent of people in the industry thought that it is changing perceptions and making opportunities more visible but that the breadth of opportunities remain largely unknown to individuals outside the industry.

The 2023 survey found that 53 percent of respondents thought that inclusion, the second theme under which data was compared to the findings of 2020, had since moved up the agenda in key business strategies.

Driving the change are individual leaders, pressure from investors, major customers and Governments as well as labour shortages which are forcing a rethink of roles and work patterns.

But the meat industry employs a lower percentage of women than most other industries with mining and agriculture faring worse. Women make up around 33 percent of the workforce in businesses that participated in the study.

While a small rise was recorded in middle management roles being held by women, progress in skilled and first-line manager levels has stalled at 30 percent and 27 percent respectively.

Rising child care costs and a lack of working hours flexibility are cited as the major barriers to younger women progressing to first-line manager roles.

The 2023 survey found that 60 percent of people working in the industry thought that there were more opportunities for women to network and that role models were more visible, an improvement on the 2020 finding that there were few opportunities for networking and an absence of female role models.

But younger women want to see more relatable role models including men and women who are balancing senior roles with parenting as well as more people in senior roles who are working flexibly.

Flexible working is ranked as the number one enabler of gender inclusion in the industry.

The reorientation of businesses to hybrid and flexible working arrangements since the pandemic of 2020 heralded a major benefit with school hours shifts, part-time shifts and job share working on shifts now being more commonplace.

Among the strategies highlighted for businesses to drive the inclusion benefits are the identification of ways to normalise flexible working across a wider range roles and challenging the long hours and culture of 24/7 availability.

Sustainability: Progress Despite Challenges

By Deborah Hill

he Annual Update of the Australian Beef Sustainability report, released in early June, provides the latest data for 50 indicators for sustainability based on animal care, environmental stewardship, resilience, people and community.

The 2023 report is the third to date, working under the guidance of the Australian Beef Sustainability Framework (ABSF) Steering Group.

Chair of the Group, Mr Mark Davie, said that three years on, the data for the key metrics gave a better understanding of the industry's successes and rate of improvement, and where more attention is needed.

To tell the Australian beef story, the Beef Sustainability Framework aims to:

- promote industry transparency and progress to customers and community
- · inform industry investment for continuous improvement
- · help protect and grow access to financial capital
- · foster relationships to work collaboratively

The Framework is based on metrics from a breeding property or livestock finishing through the supply chain and transport to the consumer in retail and food service.

Snapshot of the Industry

The red meat industry continues to grow, with on farm cattle continuing to rise, however, the number in the feedlot and processed sees a downward trend, suggesting that re-stocking is continuing. The heady days of 1191 c/kg in recent years are over.

On-farm	24.4 million cattle in 2021, up 3.9% from 2020
Feedlot	2.8 million cattle in 2021, down 3% from 2020
Saleyards	EYCl reached a record high 1191c/kg cwt in January 2022, as of May 2023 it was back to 685c/kg cwt 3,784,496 cattle passed through the saleyards for 2021-22
Processing	5.9 million head in 2022, down 16% from 2020 1.9 million tonnes carcase weight in 2021, down from 2.1 million t in 2020
People	191,700 direct, 239,000 indirect employees in the meat and livestock sector
Value	\$67.7 billion red meat and livestock turnover for 2020-21

Highlights from the past year include greater support to Indonesia for the management of Foot and Mouth Disease, the Australia-UK Free Trade Agreement for tariff-free beef to



The Australian Beef Sustainability Framework's four pillars

the UK market and further reductions in carbon dioxide emissions.

Under environment stewardship, the Update reports that 43.7 percent of grazing land is actively managed for biodiversity for weed and pest management, revegetation and soil remediation. Water usage per kilogram of liveweight gain is also down in the past five years by 18 percent.

This is set against an environment of floods and drought forcing changes to herd management. Labour shortages in the meat industry, like most of the ag sector, remains a challenge while cost of production continues to increase.

There are four pillars that the Framework aims to improve – Best Animal Care, Environmental Stewardship, Economic Resilience, People & The Community – which are underpinned by key metrics by which the industry measures its performance.

THE FINDINGS

Best Animal Care

Animal Care has been a focus for many in the industry, with some cattle breed breeding for poll genetics (no horns) to resolve the issue of de-horning. Recent biosecurity incursions such as Foot & Mouth Disease and Lumpy Skin Disease highlight the need for on-farm biosecurity plans.

Environmental Stewardship

On-farm biodiversity, soil health and improving tree cover to provide a lower overall carbon footprint are in alignment with the goals to lower carbon emissions through livestock production and processing.

The current Update shows that biodiversity land management and increased groundcover remain steady on previous years. Overall CO2e emissions have reduced by 64 percent since 2005 and continue to improve.

Water usage continues to improve, however, waste management is on the decline.

Economic Resilience

The goal for the beef industry is to double products and services on 2020 levels by 2030 to give a profitable and resilient industry.

The total factor productivity (TFP) measures the efficiency of the industry over time but can be heavily impacted by seasonal variability.

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CATEGORY	INDICATOR	DATA	TREND
Animal Husbandry	Percentage of industry using pain relief for invasive husbandry practices	35% (2021)	Improving
	Percentage of national studbook genetically polled	71.9% (2022)	Improving
Biosecurity	Percentage of Australian cattle properties covered by a documented biosecurity plan	86% (2022)	Steady
Processing Practices	Percentage of cattle processed through an establishment accredited under the Australian Livestock. Processing Industry Animal Welfare Certification System (AAWCS)	97% (2022)	Improving
	Percentage of cattle processed through an Exporter Supply Chain Assurance System (ESCAS) accredited establishment	100% (2022)	Improving
Livestock Transport	Work has begun with domestic transport operators to develop this indicator		
Health & Welfare	Percentage - producer awareness of the Australian Animal Welfare Standards for Cattle	100% (2022)	Improving
	Percentage - compliance with National Feedlot Accreditation Scheme (NFAS) Animal Welfare	88.02%	Steady
	Percentage - feedlot capacity with access to shade	63%	Improving
	Vaccination rates for clostridial diseases	77%	Steady

CATEGORY	INDICATOR	DATA	TREND
GHG Emissions and Carbon Capture	Percentage total CO2e reduced by beef industry from a 2005 baseline Net emissions: Mt of CO2e emitted by the beef industry Kg CO2e emitted per kg liveweight when raising beef Kg CO2e emitted per tonne HSCW when processing beef Percentage CO2e captured and reused in processing Carbon sequestered in on-farm vegetation (Mt CO2e)	64.07% 45.21 13.1 476 10.5 28.42	Improving Improving Improving Steady Improving Steady
Water	Litres of water used per kilogram of liveweight for raising cattle Kilolitres of water used per tonne HSCW when processing beef	400 l/kg 8.3	Improving Steady
Waste	Kilograms of solid waste per tonne HSCW when processing beef Tonnes of food waste recovered along the supply chain	12.7 2.39m	Declining N/A

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The current Update shows that the TFP is holding steady for climate change resilience and productivity.

Farm profitability is a five-year rolling average and shows the rate of return including capital appreciation and is remaining steady.

According to the Update, technical or non-tariff trade barriers (NTBs) such as the use of import restrictions, labelling, failure to grant export clearance, or unnecessary sanitary rules can impose

significant delays and additional costs on Australian beef exports.

Alleviation of NTBs is therefore critical in improving international competitiveness.

Analysis shows that the cost to producers for technical trade barriers is improving.

People and Community

Under People and Community, the goals are to provide a safe and inclusive workplace, while providing nutritious quality food.

The workforce across farm, feedlot and processors is approximately based on one third female to two thirds male employees.

The age group of 65+ continues to have the highest percentage at 21 percent, while the age groups 25-34, 35-44, 45-54 and 55-64 range from 16-19 percent.

Training through apprenticeships and traineeships or industry specific training continues to improve.

CATEGORY	INDICATOR	DATA	TREND
Food Safety & Quality	National Average MSA Index Overall compliance with the National Residue Survey Australian and International Standards for Cattle	57.37 (2021-22 FY) 99.96% (2021-22 FY)	Steady Improving
Work Health & Safety	Notifiable fatalities (five-year totals)	Farms – 32 Feedlots – 1 Processing – 3	Improving
	Lost time injury frequency rate (number of claims per million hours worked)	(2017-21) Farms – 9 Processing – 17.1 (2020-21)	Steady
Community Contribution	Total people employed directly or indirectly in the red meat and livestock industry Beef farming, feedlot, and processing contribution to Gross Domestic Product	428,000 (FY21) \$13.5bn (FY21)	Steady Improving
Capacity Building	Number of trainees and apprentices	(Commenced / Completed) Farms – 1443 / 739 Feedlots – 67 / 15 Processing – 5377 / 1386 (2022)	Improving
	Percentage of industry workforce with a higher education qualification	22.4%	Steady
	Number of participants undertaking MLA, LiveCorp, AMPC, or peak industry council training	15,125	Improving

Smoke Rings: Barbie-dolls of the Barbie

By Susan Webster

ood to look at but somewhat useless ... BBQ smoke rings are the Barbie-dolls of the barbie.

People have sweated over them, swore at them and – in the US – a university professor has made them the subject of academic study.

A smoke ring is a pink area of meat, measuring about 8-10mm deep, just under the surface crust of BBQ meat.

To some it is the hallmark of a wellsmoked brisket. In reality, they are simply evidence of a controllable chemical reaction.

And to competition BBQ expert, Pam Kavanagh from Melbourne-based The Que Club, they are a distraction from the real business of the BBQ.

"I run low-and-slow classes and everyone is saying 'smoke ring, we want to do a smoke ring' but I tell them it's better to spend your energy on a tender and juicy piece of meat," Ms Kavanagh said.

"A smoke ring might be pretty but it's a bit of myth, it's best to go for the tenderness and the flavour, you can be there with your nice little smoke ring, but it doesn't do you any good," she said.

According to Ms Kavanagh, a smoke ring doesn't score highly in international BBQ competitions.

"In competitions you get judged on appearance texture and flavour," Ms Kavanagh said.

"Appearance is weighted only one of the scores, texture is two and flavour is three, so, at best, the smoke ring is going to get you one point," she said.

A smoke ring is created when the red pigment in the meat – called

myoglobin – meets nitrogen dioxide (NO2), a gas produced from wood or charcoal.

The gas infuses through the surface of the meat and reacts with water in the meat, producing a chemical called nitric oxide.

This binds to the still-red myoglobin, blocks oxygen and prevents the meat from browning.

The layer of meat retains its pink colour, even when cooked.

A smoke ring signifies how slowly the meat has been smoked, and how much NO2 was incorporated into the meat.

The depth of the smoke ring depends on how deep the smoke manages to penetrate.

Generally, water-soaked wood produces more NO2 in the smoke than dry wood, but only by a small margin, both produce about 200 parts per million of NO2.

Charcoal produces less, and propane and electric smokers far less again.

Green wood is considered better than seasoned and Ms Kavanagh says cherrywood is the best variety.

A wet, sticky meat surface will hold more nitric oxide.

Mopping or spraying the meat will enhance the smoke ring or place a pan of water in the smoker to keep moisture condensing on the meat.

Acids like vinegar or lemon juice can prevent the smoke ring from developing.

Removing fat from the surface of the meat also exposes the meat to the smoke and will allow more gas into the meat.



Ms Pam Kavanagh: "You can be there with your nice little smoke ring, but it doesn't do you any good"

Cooking the meat at a low and slow temperature, between 107-121 °C, will allow the nitric oxide to penetrate more before the meat's temperature turns the myoglobin brown.

Contrary to the usual advice of allowing the meat to come to room temperature before smoking, meats that are still-chilled offer the temperature differential that promotes smoke rings.

Dr. Greg Blonder, a professor of design and product engineering at Boston University has done the research and reported that wood bark contains more nitrogen than either sapwood (the next layer in of the branch) or the heartwood (the centre portion).

Or you can just buy it as a rub. Commercial products containing sodium nitrate and/or sodium nitrite, keep meats pink – just like corned and cured meats like pastrami.

Pretty, but fake. Like Barbie.

FIND A WORD

Enter the competition to win one Khabin 10-inch Cimetar Steak Knife & 12-inch Steel. And one of five Khabin 6-inch Granton-edge Boning Knives.

The words in the list below are all hidden in the grid. They may be found in straight lines running horizontally, vertically or diagonally. Some of the letters are shared by more than one word.

When you have found all the words in the list, there will be



KHABÌÌ

32 letters remaining, these form the answer to the competition.

When complete, send your copy by mail or email. Include your name, address and phone number to go in the draw for another great prize from BUNZL.

Results will be published in the next issue of Australian Meat News. Entries close 13 October 2023.

For last issues' winners, see page 31

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Post:	Post: Australian Meat News. PO Box 415 Richmond VIC 3121 Email: athol@ausmeatnews.com.au															
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AUGUST 2023

PHONE:

EMAIL:

'GUGA' – Breaking the Barbeque Rules

Author: Gustavo Tosta Distributor: Penguin Random House, Australia

f you are a fan of the barbeque, chances are you have come across Brazilian Churrasco specialist, Guga, AKA Gustavo Tosta.

An internet sensation, his YouTube channel 'Guga Foods', launched in 2015, has over four million subscribers across the world.

Now living in Miami, Florida, Guga is well known for his experimental approach to all things barbeque and smoking.

The Brazilian-born cook travels extensively and has incorporated barbeque styles and flavourings not only from his native Brazil and South American countries but also other nations famed for grill and barbeque-based dishes within their cuisines like Japan and Korea.

This is no ordinary cookbook but rather an educational enterprise, opening with detailed chapters on the types of grills (or barbeques) – fired by coal, gas or wood – as well as the range of smokers, BBQ tools and equipment.

He shares his knowledge of cooking techniques and methods of grilling, smoking, frying and baking using the equipment.

The educational approach continues throughout the beef, poultry and pork recipe sections with cuts and breeds of each protein each receiving more than an honourable mention.

Although published in the US, all recipes have measurements and cooking temperatures applicable in Australia.

There are over 90 incredibly detailed recipes and feature interesting and unorthodox combinations of ingredients as well as barbequing methods.

Mouthwatering recipes for burgers, tacos and sandwiches are also featured in their own section.

Extras such as roasted bone marrow as well as lamb, fish and pasta dishes of unparalleled creativity have earned their own feature section.

Let us not forget the all-important seasonings, rubs and sauces recipes which are also included in this high-quality and exciting offering to the art of barbeque cooking and smoking.

Available online and instore through leading book retailers

Recommended Retail Price: Hard Cover A\$49.99

WIN WIN

To enter our competition to win 'Guga – Breaking the Barbeque Rules' by Gustavo Tosta (\$49.99).

Answer the question below.

Send your answer and name, address

and phone number to:

Australian Meat News Book Competition

Email: athol@ausmeatnews.com.au (preferred)

Or by post: PO Box 415, Richmond VIC 3121

Question: *In which city and at which venue was foodpro 2023 held?*

Entries Close: 13 October 2023

Winners June 2023 Find a Word



Congratulations to the winners and thankyou to our sponsor BUNZL. Bunzl will contact all winners and make arrangements to deliver their prize.

Khabin 10-inch Cimetar Steak Knife and 12-inch Steel Alex Pinyon, Plaza Quality Meats, Berri SA

Khabin 6-inch Graton-edged Boning Knife

Isabella Princi, P Princi Food Service, Bicton WA

Sue Barritt, Ken's Kepnock Butchery, Bundaberg Qld Marty McLeod, Manor Farm Meat Services,

Salisbury East SA Kenrick Beuth, PROCOM, Kingston ACT

Patrick McDonald, Freddy's Meats, Condell Park NSW



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