

NATIONAL

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NSW Farmers Egg Committee update

THE past couple of months were incredibly busy for both NSW agriculture and the egg industry alike.

The recent weeks saw the return of the Labor Government to power, and the NSW Farmers Association and the Egg Committee welcomes the new Minister for Agriculture, Regional and Western NSW Tara Moriarty.

NSW Farmers was able to secure several commitments from Labor in response to our election platform and during our regional debate series, and we look forward to working with the new state government to secure outcomes for our members.

Labor's commitments include a legislated agriculture commissioner, a \$670 million emergency repair fund for regional roads, a legislated biosecurity commissioner, a good neighbour program for properties adjoining public land and

100 additional staff for the National Parks and Wildlife Service.

Over the 2022/2023 term, the NSW Farmers Egg Committee has been focusing on a range of key priorities.

The committee has been progressing interaction with industry and government on a balanced animal welfare regulatory framework in NSW that supports commercial animal production through the Standards and Guidelines for Animal Welfare - Poultry reform process.

We continue to raise concerns on perching requirements and work health and safety concerns, retroactive fitting, and the need for compensation packages to assist farmers with the transition from caged egg production by 2046.

In addition to this, another key priority for the committee has been ensuring industry biosecurity and food safety integrity

Langfield and Egg Farmers of Australia chair V Rada Rurka

is maintained.

This is done through advocating for the creation of regulatory framework, which requires a consistent biosecurity and food safety standard for all industry participants irrespective of size or production system.

The first Food Standards Australia New Zealand meeting for the review of the Primary Production and Processing Standard for Egg and Egg Product was held on March 1, 2023 with the committee chair Brett Langfield attending.

It was a constructive meeting with the majority of states represented and we look forward to further participation with FZANZ in later meetings to represent producers' interests.

With COVID-19 originally delaying the review of the 2015 Food Regulation, a committee priority has also been to engage with the NSW Food Authority on the review over the past year.

Feedback was provided through the Egg Industry Consultative Committee on the need for a consistent regulatory framework for all industry participants.

The review is expected to be finalised no earlier than mid-2023 and the Egg Committee looks forward to seeing the final review once completed.

The NSW Farmers Egg Committee is extremely grateful for the engagement had with Egg Farmers of



Commissioner for Modern Manufacturing NSW Lisa Emerson discussed her vision for manufacturing in the state at a recent event.

Meeting Commissioner for Modern Manufacturing

IN 2022, the NSW Government released its report 'Making it in NSW', which heralded the critical point in time for modern manufacturing in NSW.

The Modern Manufacturing Strategy is a major reset for what is now possible with technology, capability, vision and commitment to building a strong manufacturing base, particularly in regional areas.

Recently, NSW Modern Manufacturing Commissioner Lisa Emerson visited Armidale, with a view to exploring what else we can make in regional NSW and how can we best support new and existing business?

This event was complemented by a panel session, which included a number of people representing businesses in the region that are already experiencing growth.

Panellists included Anita Kauffmann, founder of Red 8, Bill Mitchell, founder of Optiweigh, Scot Mac-



by TAMSYN CROWLEY

Donald of Costa Tomatoes Guyra, Mark Sterbic from SMaRT@ UNSW, and Tung Ta from FPT Software.

The purpose of the NSW Commissioner for Modern Manufacturing is to drive innovation and growth in the manufacturing sector in the state of NSW.

The commissioner is responsible for developing and implementing strategies that promote the growth of advanced manufacturing in NSW, with a particular focus on industries such as aerospace, defence, medical technology and renewable energy.

In addition to attending the event, I was able to meet one on one with the commissioner to



discuss the importance of manufacturing in the Australian poultry industry.

I couldn't help point out that we were missing from the focus areas that the commissioner had highlighted and that manufacturing in Australia's agriculture sector was worth investing in.

Lisa was unaware of the poultry industry and was definitely keen to hear about how manufacturing plays a role, with the potential to support the industry further.

She was particularly interested in the role Poultry Hub Australia plays in supporting the industry through education, training and

research, as the commissioner works closely with industry stakeholders, research institutions and government agencies to identify opportunities for growth and investment in the manufacturing sector.

Her team also provides advice and support to businesses looking to expand or improve their manufacturing capabilities, and looks to promote collaboration between industry and academia to drive innovation.

The event was a great success and highlights the benefits of creating a vibrant and sustainable manufacturing industry that can compete on a global scale and provide high quality jobs and economic benefits for Australia.

Finally, I would like to invite you to save the date for the 2023 Ideas Exchange.

This year Ideas Exchange will be held in Adelaide on October 17-18, 2023.

We look forward to bringing you more details soon. 🦫



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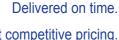


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Biosecurity-cleared turkey poults hatched at DAFF's state-of-the-art avian facility.



Staff will care for the poults during their mandatory 13-week stay in

Quarantined turkey poults nearly ready to fly the coop

AUSTRALIA'S stateof-the-art avian quarantine facility is filling the role of midwife to nearly 3000 turkey poults in Victoria.

The team at the Department of Agriculture, Fisheries and Forestry's Post Entry Quarantine facility in Mickleham together with industry experts have nurtured 2900 turkey eggs from Canada during their minimum 13-week quarantine period.

All poultry including chicken, ducks and turkeys can only be imported as fertile hatching eggs and are required to be hatched under biosecurity conditions in Australia to ensure they

do not carry any exotic diseases, such as highly pathogenic avian influ-

poults The were hatched from fertile eggs imported by a Victorian breeder who worked with the department to manage the birds' biosecurity risk to Australia.

The importer provided expert staff to ensure the poults were monitored around-the-clock in the first few days following hatching.

During their time at the quarantine facility, the poults will be tested for biosecurity diseases - such as highly pathogenic avian influenza before they are released to their owner.

Department of Agriculture, Fisheries and Forestry deputy secretary biosecurity and compliance Dr Chris Locke said imported eggs provide genetic diversity in breeding stock, critical for the growth of the Australian poultry industry.

"Our import requirements are rigorous with imports only accepted from countries that can certify freedom from HPAI, or from countries that have approved compartment schemes or zoning arrangements with Australia to avoid the risk of biosecurity concerns from imported eggs," Dr Locke said.

"These poults have

been the beneficiary of an excellent collaboration between our technical staff based in Canberra as well as biosecurity officers and department vets at PEQ and industry.

"Our biosecurity team at PEQ has worked closely with breeders and industry to ensure poultry imports arrive and leave our care in the best possible condition and we thank our partners for working with us to ensure pests and diseases such as HPAI stay out of Australia."

The turkeys are expected to grow up to 5kg in weight during their stay at PEQ and will only be released if test

results show no evidence of disease.

The poults will be the grandparents of birds that will be bred for turkey meat.

Each consignment of birds compromises different genetic lines that have highly specific desirable traits that will be expertly bred together by the importer to produce a bird specific for Australian conditions and the Australian market.

Avian influenza has been Australia's most frequently ring emergency animal disease, with eight outbreaks in Australian poultry farms since

NEWSPAPER

Poultry Industry Calendar of Events

2023

JUN 6-8 - AVI Africa, South Africa, www.sapoultry.co.za/avi-africa-2023

JUN 26-29 - European Symposium on Poultry Welfare, Prague Czech Republic, www.espw2023.org

JUL 10-13 - Poultry Science Association Annual Meeting, Pennsylvania USA, www.poultryscience.org/PSA-Annual-Meeting

SEP 4-8 – Congress of the World Veterinary Poultry Association, Verona Italy, www.wvpac2023.com

SEP 7-9 - European Symposium on the Quality of Poultry Meat, Eggs and Egg Products, Krakow Poland, www.eggmeat2022.com

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

poultrynews.com.au 17 3286 1833

Sleep cycle of three billion dollar birds matters

AUSTRALIA'S economy benefited from poultry farm production last year by \$3.149 billion.

Needless to say, Agri-Futures Australia is doing all it can to propel this value in the future via significant investments in research, development and extension.

These investments, outlined in the Agri-Futures Chicken Meat Program RD&E Plan 2022-2027, are currently being championed by stakeholders who share a vision to improve the chicken meat industry's long-term sustainability, produc-

Australia and Aus-

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moting our industry

and mitigating risks

to industry reputation.

regulatory and cost

of production pres-

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unites, and we look

forward to fostering

these ongoing rela-

The NSW Farm-

ers egg section an-

nual general meet-

ing will be held on

tionships.

With increasing

tivity and viability.

One such champion is Caleb Wellard, a Deakin University PhD student who was recently awarded the Gary Sansom Scholarship for 2023 to support his research into chicken embryo development.

Caleb's research is focused on discovering the impact and effect of circadian rhythm - the natural internal process that regulates the sleepwake cycle - on avian embryo development.

Early embryonic life is a sensitive period for a developing chick and, according to Caleb, dur-

July 17 this year and

we hope to have as

many producers in

the room as possible.

It is a fantastic op-

portunity to catch

up with other like-

minded producers

and hear about what

has been happening

annual conference

will be held from

July 18-20 this year,

with more details to

Bede Burke and

Brett Langfield

Farmers'

across NSW.

NSW

come.

Egg Committee update

ing this time the embryo can be influenced by external cues, which can have a harmful impact on their development.

An important outcome of the research will be to see if the welfare of chicks can be improved by replicating natural environmental cues to shorten the hatching window.

"Hatch windows can last anywhere from 24 to 48 hours, so reducing the time that those chicks have to wait to be taken out of the incubator and then moved to an area where there's food and water is quite important," Caleb said.

"Naturally, birds would time their hatching with those natural environmental cues, so we're hoping to replicate that in the lab.

"Adding lighting cues to the incubators will not only have a positive effect on the hatch window but will also impact the chicks after they hatch, so there could be some benefits in terms of how they grow or how they behave.

Caleb's research is three-phased and will be used to form a fundamental test of the role of light, dark and temperature cycles for avian embryonic development and development after it hatches. As part of the Gary Sansom Scholarship,

Caleb has been provided an industry mentor to guide him through his research and help him establish a career path within the industry.

Turosi Food Solutions poultry researcher Matthew Hilliar is Caleb's industry mentor.

He said the biggest threats to the poultry industry currently are economic, environmental, health and welfare related concerns, and that Caleb's research would be an important stepping stone for the industry to build a more sustainable and viable future.

"The fact that this project is using environmental stimuli to try and sync up the hatch window is something that is very easy to implement, and it could have a profound outcome," Mr Hilliar said.

Established in honour of the late Gary Sansom, a prominent leader in the industry and a strong advocate for encouraging new talent, the Gary Sansom Scholarship seeks to identify and nurture high-quality students who have a passion for the chicken meat industry.

The scholarship will provide Caleb with up

to \$35,000 in funding to support his research project, the opportunity to attend poultry industry conferences and participate in poultry industry activities.

After completing his studies, the AgriFutures Chicken Meat Program will also assist Caleb to build contacts with industry stakeholders and will provide networking opportunities to help him forge a successful

By supporting the next generation of chicken meat industry leaders, the Gary Sansom Scholarship aims to uphold Mr Sansom's vision of a respected and valued industry that contributes to the Australian community.

For more information, visit, agrifutures. com.au/rural-industries/ chicken-meat 🖔



Caleb Wellard, recently awarded the Garv Sansom Scholarship for 2023.



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So, what's the pecking order with brown and white layer hens?

Colourful caged hens debate

HAVING laid my eggs on the line, so to speak, when I advocated eggs from hens on pasture at best or free range at least rather than eggs from caged hens last month, I subsequently digested a February published US report into the pros and cons of caged versus free range.

The project, 'The effect of haveing any important.

The project, 'The effect of housing environment on commercial brown egg layer production, USDA grade and USDA size distribution', was conducted at North Carolina State University's Prestage Department of Poultry Science College of Agriculture and Life Sciences by Benjamin N Alig, Peter R Ferket, Ramon D Malheiros and



Cant Comment
by
BRENDON CANT

Kenneth E Anderson.

Essentially, the study aimed to determine differences in production from brown egg layers in various housing environments to better understand how these hens responded.

The authors found that commercial brown egg layers had optimum performance parameters in extensive environments such as free-range, whereas brown egg layers in intensive environments, such as barren colony cages, did not perform well.

"This information shows us that it is illadvised to house brown egg layers in conventional cages or barren colony cages, as these hens performed better in environments with enrichments such as enriched colony cages or the free-range environment," they said.

Consumer demand for

retail cage-free eggs is driving the layer industry towards greater use of extensive housing environments.

However, there had been limited research on how these environments affected egg production characteristics of brown egg layers.

Hence, five housing environments were evaluated under typical industry conditions, including conventional cages, enrichable colony cages, enriched colony cages, cage-free and free-range.

Three different brown egg laying strains were housed in the different housing environments and managed according to standard husbandry practices and stocking densities.

Data collection began at 17 weeks of age, with a base period of 28 days for feed weigh backs and egg quality assessments.

Housing environment had a highly significant (p < 0.0001) effect on all egg production characteristics measured, including egg production rates (percent hen-day and percent hen-housed), feed consumption (grams per bird per day), feed conversion (egg grams per feed grams), and mortality rate (percent), as well as percent grade A, B, and loss.

Previous research revealed better egg production metrics for white egg layers in caged environments than extensive

environments.

In contrast, the researchers observed brown egg layers had optimum production results for the free-range housing environments and the poorest performance in enrichable colony cages.

Recently, pressure from some consumer interest groups and subsequent governmental regulation constraints caused the US egg industry to conform to animal welfare demands and adopt alternatives to the conventional cage house systems.

States such as California have banned sale of eggs from standard cage systems within their state's borders.

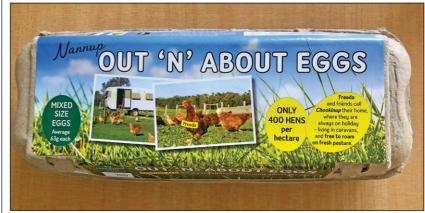
As an alternative, farmers in California now must exclusively use cage-free and free range environments and other states now favour colony cages and cage-free.

Further, it has been shown that consumers are becoming more interested in buying eggs produced in alternative housing systems, especially brown eggs, than they were previously.

Also, many US fastfood chains and large grocery retailers have committed to using only eggs from alternative housing systems in the future.

Regardless of demand for these housing systems, alternative continued P5





Locally, we can enjoy pasture-fed free range eggs such as these from brown Chookinup hens at Nannup in Western Australia's southwest.

Success in replicating poultry disease key to prevention

RESEARCHERS at the University of Saskatchewan's Western College of Veterinary Medicine are working to develop a vaccine for necrotic enteritis, a devastating disease that causes enormous financial losses for poultry producers.

enteritis, Necrotic an intestinal disease caused by the bacteria clostridium perfringens, primarily affects broiler chickens - poultry raised for meat - at a young age when their immune systems are immature.

The disease causes the death of their intestinal lining and severely compromises their health.

One of the most common infectious diseases of poultry, necrotic enteritis has a significant economic impact on the poultry industry.

University of Sas-Western katchewan College of Veterinary Medicine PhD student Hemlata Gautam said: "Every year necrotic enteritis costs the global poultry industry \$5 billion to \$6 billion because of reductions in performance and the cost of disease treatment.

Though necrotic enteritis had been previously controlled by adding antibiotics to poultry feed, Canada and several other countries voluntarily stopped the practice of adding preventive antibiotic drugs in feed.

That move was done in response to consumer preferences and to work toward reducing antimicrobial resistance.

re-emergence of necrotic enteritis, and multiple predisposing factors make it difficult to control the disease without their use.

Working with Dr Susantha Gomis – a professor in the WCVM's Department of Veterinary Pathology - Hemlata Gautam and other researchers are focused on understanding the mechanisms of necrotic enteritis so they can develop prevention strategies and establish costeffective alternatives for poultry producers.

"We are trying to develop prevention strategies such as vaccination and probiotic use while considering all aspects of the disease," Ms Gautam said.

Developing prevention methods that allow producers to protect their poultry from infection without affecting public health isn't an easy task.

In order for the researchers to study the clinical aspects of the disease, they first needed to develop an animal model that would consistently respond to infection in the same way a bird in the field would respond.

Developing an animal model was a difficult job that demonstrated the complexity of the disease and the factors that had to be taken into account while generating new control strate-

Ms Gautam and the research team spent a year performing live animal trials before they successfully developed an animal model for the disease.

"Through our animal

antibiotics has caused a that the disease could only be reproduced consistently in the lab after considering all of the factors together," Ms Gautam said.

She added that they had to consider multiple factors, such as the strain of the bacteria and the bird's immune status.

The group eventually produced a model where the birds were first infected with a virus that weakened their immune system and made them more susceptible to infection by clostridium perfringens.

Once the birds were exposed to the bacteria, they consistently developed a clinical infection similar to that which would occur in a poultry barn.

While the researchers were able to replicate the disease for research purposes, their next challenge lies in fully understanding how clostridium perfringens infects poultry and causes its devastating effects.

Though they have identified various toxins released by the bacteria and can see their effects in the intestine, the scientists are still working to understand the infection mechanism of the disease so they can use that information to develop prevention strategies.

It's not an easy task, and Ms Gautam pointed out that the difficulty of determining ways to prevent necrotic enteritis exemplifies the challenge of producing healthy animals without using antimicrobials to prevent disease.

"The development of a prevention strategy has limitations, not only on cost but also on labour and instrumentation," she said.

"The prevention technique has to be practically implementable in the field.

"This practical aspect does put constraints and consideration in research activity.

"Our lab is completely acquainted with poultry field conditions in Canada and is working towards providing practical and affordable solutions for producers."

University of Saskatchewan



While the researchers were able to replicate necrotic enteritis for research purposes, their next challenge lies in fully understanding how clostridium perfringens infects poultry and causes its devastating effects.

However, withdrawing trials, we understood Colourful cage debate from P4 researchers found that hens from the convenhousing systems are tional cage environmore expensive to manage than convenment had poorer protional cage systems

commonly used in the egg industry. As housing systems become less intensive superior production and more extensive, parameters, indicatthey require more la- ing that access to high bour and therefore are fibre forage from the more costly to operrange ate.

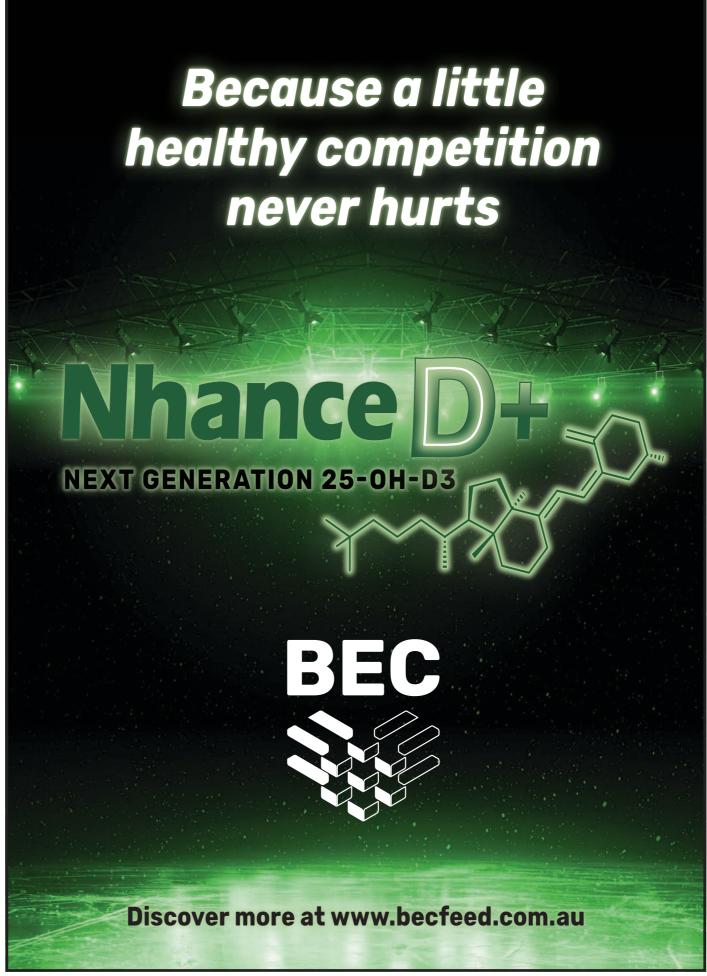
However, eggs from extensive housing systems can often be sold for higher prices due to consumer demand, which offsets the higher production costs compared with conventional cage

systems. Having originally hypothesised that hens in the conventional cage and free range environments would produce superior production characteristics, the

duction metrics. They also observed

that free range environments enjoyed light from the range and enrichments in the house can benefit the overall production of brown egg layers.

Note that last year, the Australian Government committed to phasing out battery cages for hens by 2036, a 14-year lead time for a reform that followed seven years of negotiation with the egg industry to update the animal welfare standards and guidelines for poultry.



Egg production better in extensive environments

THERE are ongoing concerns about the welfare of egg laying hens in conventional cages.

Demand for cagefree eggs is driving egg producers to consider alternative egg production systems.

The study, 'The effect of housing environment on commercial brown egg layer production, USDA grade and USDA size distribution' conducted in the US, reports to be the first controlled replicated study to evaluate egg production across different layer hen housing systems.

Hens of three different brown egg laying strains were allocated to five different housing systems:

 Conventional cages – 12 hens per 40.6 x 50.8 x 121.9cm cage/516sq cm per

• Barren colony cages – 31 birds per 53.3 x 66 x 243.8cm cage/516sq cm per

 Enriched colony cages - as for CS but with nest boxes, roosts and a scratching area

•Cage free - 60 birds per 2.43 x 3.05m pen/1141sq cm per bird

• Free range – simi-

lar to CF with indoor stocking density of 1141sq cm per bird plus access to a 18.3 x 18.3m outdoor pad-

Birds were managed according to industry practices.

For observation periods of 28 days each, beginning at week 17 and ending at week 92 of age, parameters were monitored including egg production rates, feed conversion efficiency, egg size and grade, and mortality

Overall, optimum production was achieved in freerange housing environments with enriched colony cages having the poorest performance.

While FR hens took longer to reach peak egg production, they had the highest hen-housed egg production rate, laid the heaviest eggs and maintained greater persistency of egg production.

Improved production in the FR system may be due to delayed sexual maturity, better reproductive development and opportunity to forage for more nutrients in the outdoor range.

Feed conversion ef-

ficiency in FR hens increased over time and overall, FR and CF hens had higher efficiency compared to CC hens.

FR and CF hens laid the most grade A eggs and lost the least eggs, possibly due to gentler nesting material.

CC laid the fewest extra-large eggs.

ECS hens had highest hen mortality rate, 36.9 percent, and FR had the lowest mortality rate, 6.7 percent.

To view the report in full, visit www. mdpi.com/2076-2615/13/4/694 🦃

RSPCA

AMR in Aussie chicken meat remains low

Chicken Meat Federation is proud to share the results of the latest national survey of antimicrobial resistance in Australian meat chickens.

Pleasingly, the report on the survey found that resistance to antimicrobials - and particularly to antimicrobials that are of critical importance to human health - remains low, consistent with the findings of the previous survey published in 2018.

Importantly, there was an overall decrease in the prevalence of AMR in this study when compared with the previous.

Over the past few decades, the Australian chicken meat industry has participated in several properly designed and nationally representative surveys for antimicrobial resistance in bacteria in chickens and chicken meat products.

In particular, two large-scale surveys have been completed in the past five years.

The report on the first of these - undertaken in collaboration with the then Australian Government's Department of Agriculture and Water Resources, with funding from the Animal Biosecurity and Response Reform Program - was published on ACMF's website in 2018.

The survey represented the most comprehensive data set to that point on the level of AMR found in bacteria in Australian meat chicken flocks.

The most recent sur-

Australian Australian Government's Department of Agriculture, Fisheries and Forestry and AgriFutures Australia.

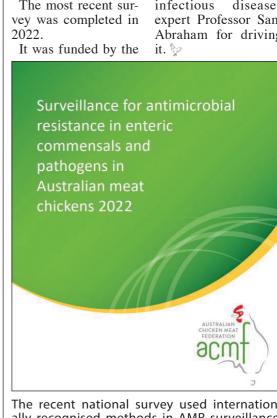
Murdoch University's Antimicrobial Resistance and Infectious Diseases Laboratory lead researcher Professor Sam Abraham said that this was pioneering and exciting Australian research that used internationally recognised methods in AMR surveillance, along with cutting edge robotics, mass spectrometry and genomics platforms.

The results of the previous survey were published in a number of peer-reviewed journal papers, and we look forward to seeing published papers from the 2022 report in future.

The results of both surveys show that the Australian chicken meat industry is in an enviable position globally with low and improved levels of AMR and importantly, low levels of resistance to antimicrobials that are priorities for use in human health.

By participating in surveys such as this, Australia's chicken meat industry gains valuable feedback on the effectiveness of its antimicrobial stewardship efforts to reduce, refine and replace the use of antibiotics.

The ACMF would like to thank DAFF and AgriFutures Australia for funding this comprehensive and valuable piece of work, and antimicrobial resistance and infectious diseases expert Professor Sam Abraham for driving



The recent national survey used internationally recognised methods in AMR surveillance, including cutting edge robotics, mass spectrometry and genomics platforms.







Cell-cultured chicken nuggets at Singapore restaurant, Madame Fan. Photo: GOOD Meat Facebook



Scientists versus farmers – lab-grown meat could soon be legally sold in Australia, but it's not without opposition.

Lab-grown meat on shelves in Australian supermarkets as early as 2024

AFTER a Sydney company's application to produce quail, Australia's food regulator is deciding whether laboratorygrown meat can be sold to consumers.

In a Sydney ware-house, with no animals, producers are trying to grow enough meat to feed tens of millions of people a year – scientists are growing the 'cultured' meat from cells.

However, it is currently illegal to sell cell-based meat in Australia.

In the first cultured meat application be-

ing assessed by the food regulator, this is something Vow Foods wants to change, with a bid to grow quail for consumers.

In its application to Food Standards Australia New Zealand, the company wrote, "The conclusion that Vow-cultured quail is safe for human consumption is based on a thorough safety assessment."

Sydney based startup Vow Foods has global ambitions, aiming to produce hundreds of thousands of tonnes of meat by 2030.

Vow Foods co-

founder and chief executive officer George Peppou said, "By the end of the decade, we want to be producing on a similar order of magnitude to the Australian beef industry, to export to global markets."

Why quail?

"It's easy to grow for one and tastes really good," Mr Peppou said.

Vow has its eye on seafood and other game animals too.

"We're not making beef or lamb or pork or chicken – we're basically inventing new forms of meat that solve problems that animals can't," he said.

"We have a long way to scale until we're even producing as much as a mediumsized commercial farm.

"What we're doing is so difficult, it's almost not worth being anything other than ambitious."

With plans to increase production from tens of kilograms of meat a day to 200kg a week by June, ambitious may be an understatement.

However, Vow's plans are not without opposition.

NSW Farmers Association said there were genuine concerns about the safety of synthetic food – often publicised as a replacement for natural food.

Head of policy and advocacy Annabel Johnson said, "We're talking about what's real – food grown by farmers – and the artificial 'alternative' that's grown by a scientist."

"People need to know that the food they're feeding their families is safe, and certainly the natural foods farmers have grown for thousands of years are safe to eat," Ms Johnson said. Industry research body Meat and Livestock Australia also has major reservations about both cellbased and plant-based industries.

Managing director Jason Strong said: "I think the issue we broadly have is that they promote themselves dishonestly by denigrating our products – by criticising the environmental credentials, nutritional values, sustainability of our products – with either no facts or unfounded claims."

Mr Peppou said the opposition to cell-based meat is in part driven by Australia's deep cultural links with farming.

"Anything new tends to be met with resistance and we're no exception to that," Mr Peppou said.

"I'm sure there will be objections.

"Fortunately, the food regulator is really only interested in risk assessment of a food and does that present a risk to human health."

Globally, the cell-based meat industry is gaining pace.

In 2020, Singapore became the first country to allow lab-grown meat to be sold to consumers.

Then in November 2022, the US Food and Drug Administrator gave approval for living cells from chickens to be used to grow food, while other countries including Japan have indicated support for cell-based meat.

The public will be able to make submissions to the Australian food regulator from August 2023 and, if approved, the product could be on the shelves by mid-2024.

First appeared on SBS News



Vow Foods co-founder and chief executive officer George Peppou.

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Kemin announces new appointment

WE are happy to announce that Greg Heeney has joined Kemin in a newly created role of Sales Manager – Monogastric and Milling, based in Australia.

This is an exciting development in the growth of Kemin Australia, where we are poised to seize further regional opportunities across the country.

After working with major international animal health companies previously in various



roles across Australia, and more recently in the organic mineral space, Greg is already well connected to many of our customers and industry partners.

Greg has an interest in animal nutrition and, to further reinforce his knowledge and career, has recently graduated from the University of New England Armidale with a certificate in Agriculture, Animal Science.

Greg is looking forward to being part of Kemin's global network and the opportunities that will arise to transfer his extensive knowledge and research to his local customer base.

Being based in Melbourne, geographically this is a good fit for Kemin, as many of our key customers have operations based in the region.





Greg Heeney has joined Kemin as the new Sales Manager – Monogastric and Milling.







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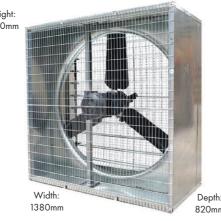


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Biosecurity officers secured about 38 tonnes of risk material – including

Biosecurity risk materials secured

A SIGNIFICANT risk to Australia's biosecurity was prevented by biosecurity officers securing approximately 38 tonnes of risk material — including boxes of turtle meat, frog meat, plant products, avian meat, pig meat, beef meat and raw prawns.

Recently, a Department of Agriculture, Fisheries and Forestry biosecurity officer noted suspicious boxes of goods at a routine inspection in NSW.

The observations led to the department executing a warrant at a western Sydney warehouse, where biosecurity risk products were uncovered.

Following this, the Australian Federal Police assisted the department by executing multiple warrants at various locations in NSW connected to the warehouse.

A number of warrants were executed to individuals and businesses

in relation to the investigation.

At the western Sydney premises, biosecurity officers examined approximately 250 tonnes of goods and determined that over 38 tonnes represented a biosecurity risk – including beef, chicken, duck, pig meat, geese, frog meat, raw prawns, plant products and soil.

Goods were removed from the site in seven 20' shipping containers and remain under Department of Agriculture, Fisheries and Forestry control.

Departmental secretary and Australia's director of biosecurity Andrew Metcalfe said anyone who intentionally tries to circumvent our biosecurity laws can face significant potential penalties of up to 10 years imprisonment and fines of up to \$1.375 million for an individual or \$6.875 million for a company.

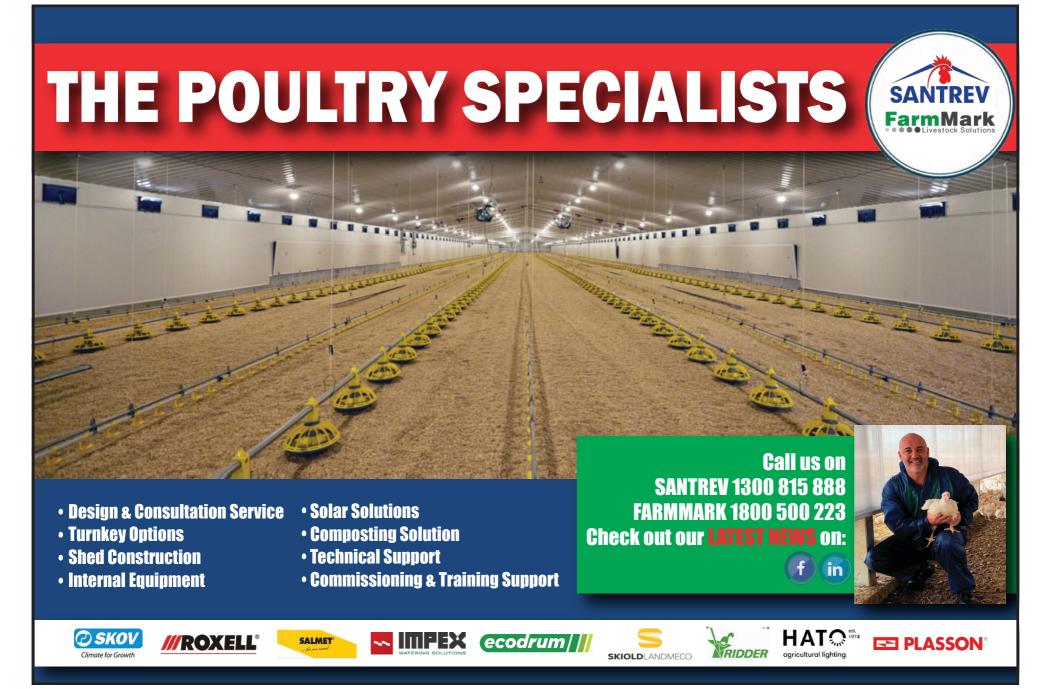
"The secured goods could have posed an unacceptable risk of introducing disease and pest for plants and animals alike," Mr Metcalfe said.

"In addition, diseases and pests from imported goods would severely impact our economy, and we will work hard to protect our agriculture industries and natural environment from these threatening diseases.

"The department takes its role in managing and enforcing Australia's biosecurity laws extremely seriously and the work of our biosecurity officers throughout this operation has been outstanding."

The investigation remains ongoing.

The department will continue to collaborate with the Australian Federal Police, Australian Border Force and all other relevant parties throughout the next phase of the investigation.





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Ag Jobs Queensland is a dedicated industry jobs platform for the Queensland agricultural sector.

It connects employers from every corner of agriculture across the state, with job seekers looking for their opportunity to work in what will arguably be one of the most exciting industries to be involved in over the coming decade and beyond.

Jobseekers, do you want to work in one of the most exciting industries in Queensland and contribute to producing the world's best food, fibre and foliage?

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For further information, visit agjob squeensland.com.au





What would happen to the world if animal agriculture stopped? Photo: Brett Jordan

Economical impacts of not eating animal products

THE following is an edited perspective by *Quora* contributor Russel Rhay Basiao on the impacts on the economy if we stopped eating all animal products.

In response to the question, 'What would happen to the world if animal agriculture stopped', these were his thoughts.

I suppose that by animal agriculture, you also mean the aquaculture or cultivation of marine life intended for food production, but also the natural marine biodiversity.

And including the culturing of insects for food related products such as bees for honey.

If this were the case, the first sector that would feel the impact is the processors of animal raw products, such as slaughterhouses, tanneries, barn yards, farms, poultry, piggery, fish and other marine producers and dairies – you get it.

As they are the ones directly handling animals, all those people will lose their jobs and income, hence there would be a dramatic increase in the worldwide unemployment rate.

And as these people would have no income, the gross domestic product of several countries would be greatly affected, thus economic performance ratings suffer.

As animal agriculture halts, most lands would be deemed unproductive, thus there would be a sudden increase in available land.

If the stoppage of animal agriculture continues for an extended period, there may be an unusual decrease in the monetary value of these lands, as some of the original owners would try to sell in the hope of gaining income and generating new capital to start a new venture other than animal agriculture.

In effect, many people would try to sell lands while competing in the market with other sellers, and prices would be reduced to sell and salvage it faster.

On the other hand, infrastructure builders would see the opportunity to use these lands for their projects.

And the unemployed might find their new job in construction.

And, if these happened, the GDP would possibly recover, as government spend is also a contributor to the GDP.

As economics deals with the proper allocation of scarce resources, our supply of animal products would decrease exponentially – as there would still be consumption by the people – hence the demand for these products would increase.

While the law of supply and demand tells us that the prices for these products would greatly increase, eventually there would be an isolated case of animal product inflation.

And if that continued, other goods and services would also be affected.

Compromises on the production of raw an-

imal products would consequently affect the manufacturing industry because most of them rely on animal raw products, and the prices of these would also grow, impacting the value of their capital.

As an example, food establishments would increase their prices due to a scarcity on ingredients.

Vegetarian restaurants would also be greatly affected, as their food is the possible substitute for animal products – hence the demand for their goods also increases, supply decreases and prices go

The labour force is also a concern to economics.

Workers would be affected by the dramatic decrease of food availability and their expected output would subsequently manifest a few days or weeks afterwards, thus overall output would be compromised.

That is until the economy in general learns to adapt, in producing double or triple its original plant production capabilities.

And there would be more vegans than ever

The effects could go on forever, but I have given the basics.

All aspects of economics, land, labour and capital would be affected.

Russel Rhay Basiao Let us know your thoughts on this or other topics, email editorial@collins. media your point of view.



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Check reasons for any drop in egg production

MOST modern breeds of hens maintain a steady lay rate for about a year, so if there's a drop in production, check the birds and the conditions.

You need to understand the cause of any decrease.

Changes in environment, nutrition and stress levels cause fluctuations in the rate of egg laying.

All these factors are under your control and understanding them will help resolve egg production issues.

Even slight variations in temperature can affect egg laying.

Extreme changes in weather can greatly affect chickens.

In colder months, the days are shorter and egg production will drop, while in summer, heat stress can lead to significant health and welfare problems.

The optimal temperature for egg laying ranges from 18C to 24C.

Overcrowding of layer houses is another common reason for hens to stop laying.

Keeping too many chickens in a small area can cause stress to the chickens, which will result in reduced egg production.

Chickens typically stop laying eggs during moulting.

Chickens lose their feathers and re-grow them over time, but they resume laying quickly if you maintain a high-quality

A broody hen sitting on eggs trying to get them to hatch can be a problem for about three weeks.

If you have no roosters, the eggs will not fertilise, so by removing and destroying them, the hen should resume laying.

Selective breeding has minimised the broody characteristic from modern breeds, so it's really only an issue with heritage breeds of hens.

Phil Westwood Freeranger Eggs



Slight variations in temperature can affect egg laying. Photo: Morgane Perraud

Different litter different behavio

CHICKENS use litter month, meat chicken to perform a range of behaviours.

In commercial chicken meat production, chickens are commonly provided with only one type of litter that may not be their preferred type and may fail to satisfy their needs.

The study, 'A buffet of litters - broiler chickens behave differently according to litter type and freshness' conducted in Norway, inens' litter preferences and the behaviours they perform in different litter types.

Two flocks of one to five-week-old mixed sex Ross 308 meat chickens (n = 17,000birds per flock) were given the choice of seven different types of litter – peat, peat mixed with sawdust, wood shavings, bark chips, straw pellets, coarse straw and fine straw.

Litter was presented in 1sq m trays to a depth of 3cm.

Once a week for a RSPCA

behaviours were observed – scratching, foraging, dustbathing

Meat chickens preferred different types of litter for different behaviours.

and resting.

In order of preference, the most ground scratching occurred in peat, mixed peat, wood shavings and fine straw.

Most resting behaviour occurred on wood shavings, mixed peat and fine straw.

Most ground scratching and dustbathing occurred in fresh litter.

Considering poultry welfare and environmental sustainability, the authors recommended that wood shavings with patches of fine straw should be the main litter types for meat chickens, with top-dressing to keep litter fresh.

The full study can be viewed at sciencedirect. com/science/article/pii/ S016815912300028X

Family-owned business calls for community support

A WESTERN Australian family owned-andoperated small business is urging customers to continue their support amidst upcoming shopping centre renovations.

Lenard's Victoria Park owners Sarah and Matt Borrett are reaching out to their loyal customer base, and the entire Victoria Park community as a whole, to remind them that Park Centre small businesses are relying on their continued business

and support. "We aren't going anywhere, and we need the community to rally together and continue supporting our family run small business," Sarah said.

The husband-and-wife team - previously butcher shop owners - are currently celebrating six years as Lenard's franchisees.

"We are truly a family-run business," Sarah

"We have three children, and our eldest who is 13 years old has just started working in the store."

With their previous butcher-shop experience and Matt's Master of **Business Administration** degree, the couple have always brought a strong business and customer service approach to the running of their Lenard's franchise.

"My favourite part of owning and operating our business is all of our regular customers who we have built relationships with over the years," Sarah said.

family - like aunties and uncles."

Many customers travel from far-and-wide to see the couple, the furthest being about 25 minutes from suburbs such as Forestfield and from southern suburbs as well.

"Our customers love that all of our products are made fresh, nothing is brought in frozen or sold frozen," Sarah said.

"They appreciate the quality and customer service."

Lenard's Victoria Park sells a huge selection of Lenard's favourites, with Sarah noting the store's most popular items as the spinach and pine nut sausages, mini strudels, enchiladas and cordon bleus.

Lenard's Victoria

"They're much like Park is located at Park Centre, 8A/789 Albany Hwy, Victoria Park, Western Australia, and now offers a Click and

Collect option, as well as delivery via Menulog.

For more information about Lenard's, visit: le nards.com.au 🦠



Lenard's Victoria Park owners Sarah and Matt Borrett are reaching out to their loyal customer base to remind them that Park Centre small businesses are relying on their continued business and support.









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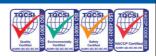
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