

Vol 5. No. 12 December 2022 National Poultry Newspaper PO Box 162 Wynnum 4178 Phone (07) 3286 1833 Email ben@collins.media

## Food safety tips for holiday season How to keep salmonella away from festive meals

THE 2022 holiday season is near and as such a Clemson University food systems and safety agent has some tips to help keep people safe from foodborne illnesses.

Turkey is a popular dish served for Christmas celebrations, but it is also a source of possible food poisoning, such as salmonella infections.

To help keep people safe, US-based Clemson Cooperative Extension Service food systems and safety agent Samantha Houston has some advice.

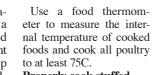
"There are at least three tasty options for cooking a turkey," Ms Houston said.

"These are roasting, smoking and frying. "It is important to make

sure a turkey is fully cooked before it is eaten to avoid salmonella or other bacteria-related infections.' Bacteria can survive on

foods that are not properly cooked.

The colour of meat and poultry does not show if it is safely cooked.



#### Properly cook stuffed turkeys

Cooking a stuffed turkey at home can be riskier than cooking one that is not stuffed.

If the stuffing is not thoroughly cooked, foodborne illnesses could occur.

To properly stuff and cook a turkey, Ms Houston advises to safely prepare the stuffing.

Moist and dry ingredients can be prepared separately ahead of time.

Store moist ingredients such as butter or margarine, cooked celery, onions, broth and such in the refrigerator.

Both moist and dry ingredients should be combined immediately before the bird is stuffed, never in advance, even if refrigerated. Use only cooked ingredients, such as sautéed veg-

etables, cooked meats and seafood, including oysters.

If eggs are used, Ms Houston said it's best to use pasteurised liquid eggs and not raw shell eggs.

Pasteurised eggs have undergone heat treatment to kill bacteria, particularly salmonella. Raw eggs have a higher

chance of having bacteria. This is for added insurance because heating the whole thing to 75C will kill the bacteria, Ms Houston

said. Moist stuffing is better than dry stuffing as heat destroys bacteria more

rapidly in a moist environment. Properly stuff the bird loosely stuff both the neck

and body cavities. Use about 1.5 cups of stuffing per kilogram of turkey.

As an example, no more than 13.5 cups of stuffing should be used in a 9kg bird.

Cook at the proper temperature - put the stuffed turkey immediately in a preheated oven set no lower

than 165C. Cooking overnight at a low setting - 90C to 120C - is unsafe because bacteria can easily grow under these conditions

Use a food thermometer always check the stuffing temperature to ensure

it is done. Even if the turkey has reached 75C in the innermost part of the thigh, the stuffing might not have reached 75C in the centre. All parts of the stuffing

must be cooked to 75C for safety.

If purchasing pre-stuffed whole poultry is part of the plan, Ms Houston said to remember pre-stuffed birds are highly perishable and should only be purchased if the package includes a mark of inspection.

This means the turkey has been processed under controlled conditions

Never thaw a pre-stuffed frozen bird before cooking. Always cook from the frozen state.

Follow package instructions to ensure a safely cooked product. Prevent cross-contami-

nation When cooking poultry, Ms Houston said it is important to prevent cross-

contamination. Always wash hands thoroughly with hot soapy wa-

ter before preparing foods poultry.

juices touch ready-to-eat foods, either in the refrigerator or during preparation.

on the same plate that previously held raw poultry.

have touched raw poultry with hot soapy water before using them for cooked poultry.

Wash counters, cutting boards and other surfaces raw poultry have touched.

It is best not to rinse the poultry before cooking because the rinse water could contaminate the sink and, if water is splashed, the counter and other surfaces around the sink could be contaminated as well.

Cooking the turkey to a safe temperature - 75C or hotter - kills bacteria on the surface of the turkey.

Live turkeys contain a diverse array of bacteria and other organisms on their feathers, skin, feet and intestinal tract.

Of the microorganisms that make people sick called pathogens - the most common bacteria turkeys contain in their gastrointestinal tract and on exterior surface are salmonella, campylobacter and e coli generic.

Wild turkeys carry more bacteria than domestic turkeys.

continued P2



Zealand, visiting the Australian High Commission.

# Industry interactions

MERRY Christmas to

The mad rush to the end of the year is upon us and I can definitely say that I am looking forward to a break, and I'm also looking forward to 2023.

We are excited to be able to fit in a few webinars before the end of the year, including an industry and researcher webinar that will focus on some of the challenges industry currently faces.

The aim of these interactions is not only to facilitate industry and researcher dialogue, but also to seed some fantastic new ideas for PHA's 2023 funding call.

Last month, I had the opportunity to finally graduate from the Australian Rural Leadership Program.

It was a long time coming, however was well worth the wait.

The last session was held in New Zealand, and I was lucky enough to have had time to catch up with a few fellow poultry scientists, and also to chat to a number of academics at Lincoln University about sustainability and

circular economy. I see that the poultry

gratulate the successful industry has a huge head researchers and to en-



Director

start in this area and I

am keen to explore some

newfound ideas in the

The program has so far

delivered on challenging

me to think about my

leadership style and be-

haviours, and I am con-

fident that I will be able

to apply these learnings

for the benefit of the in-

Interestingly, previous

graduates of this course

assure me the real learn-

A huge shout out to Ag-

riFutures for sponsoring

me to be part of this ex-

The PHA team have

been busy working to en-

sure our latest research

projects are all signed off

and ready to go in the

I would like to take

this opportunity to con-

ings are yet to come.

citing experience.

new year.

new year.

dustry.



courage others to apply for future funding.

It's also a great time of year, while thinking of new research ideas, to apply for our Researcher in Industry Program.

This program enables researchers to test their ideas directly with industry by immersing themselves on farm or in a poultry business.

Check out our website or contact us if you would like to know more poultryhub.org/

Î hope you are all safe and well and encourage you to reach out - we are always looking for ways to support industry and farmers and would welcome any suggestions of how we can be of assistance.

If you have an idea or would like to chat all things poultry, contact our office on poultr yhub@une.edu.au 🐓

It is important to make sure poultry is fully cooked

and after handling raw Don't let raw poultry or you all. Don't put cooked foods

Always wash utensils that







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### **Poultry Industry Calendar of Events**

#### 2023

FEB 6-8 – Australian Poultry Science Symposium, Sydney Australia, www.apss2023.com.au

FEB 8-9 - Australian Veterinary Poultry Association Scientific Meeting, Sydney Australia, www. avpa.asn.au/event

JUN 21-24 - European Symposium on Poultry Nutrition, Rimini Italy, www.wpsa.com

SEP 4-8 – Congress of the World Poultry Association, Veterinary Verona Italy, www.wvpac2021.com

### Trust in egg industry strong as environment takes centre stage

NEW data has revealed community trust in the nation's egg industry remains strong, with a significant number of Australians agreeing the sector has a lower impact on the environment compared to other industries. The latest round of

Australian Egg's Sustainability Framework Community Survey shows 85 percent of Australians support the nation's egg indus-try, while 64 percent of respondents have expressed trust in the industry to act responsibly, which has increased almost 10 per-

cent since 2018. Australian Eggs managing director Rowan McMonnies, who recently presented at the

International Egg Conference in the Netherlands, said the results were very pleasing. "As the industry

continues to navigate changes to supply chains in the wake of COVID, the results from this year's survey shows the industry has remained steadfast and demonstrates the value of the industry to the nation," Mr McMonnies said.

"The research also presents a call to action for the industry to demonstrate it is using environmental resources responsibly.

"The significance of environmental management as a driver of trust has increased

significantly this year, reflecting increasing community interest in this area, and the industry needs to demonstrate improvement in order to align with community expectations.

The survey, conducted by research company Voconiq, engaged more than 5000 Australians, and is the fifth time the survey has

been undertaken. It forms a central part of Australian Eggs' Sustainability Framework, which aims to explore community attitudes and perceptions

of the egg industry. Voconiq chief executive officer Dr Kieren Moffat said the survey said. shows continual improvement for the industry. "Despite community concerns and challenging conditions, public trust in the egg industry has remained strong this year and a key driver of this has been industry's responsiveness to environment and food safety practices," he said. visit "Almost 70 percent of Australians agree the industry is listening

and responding through actions, which can be improved even further by aligning with community expectation."

Mr McMonnies said the results from the Sustainability Framework Community survey will inform change on-farm, industry research and development and policy.

"The results from these surveys assist in defining where we need to improve and where our research and development focuses need to be," he said.

Industry-wide carbon reduction is one of these focuses, with 50 percent of the industry's carbon footprint linked to feed consumption.

"Increasing the efficiency of hen diets and identifying substitutes for higher carbon feed ingredients such as soybean meal are real opportunities for the industry and are being investigated," Mr Mc-Monnies said.

Australian Eggs is also focused on onfarm carbon reduction and has invested significantly in research to conduct carbon assessments of the supply chain.

"This body of research has found that overall, eggs remain as one of the lowest carbon animal proteins, which is supported by industry's adaption of renewables," Mr Mc-Monnies said.

Days Eggs, South Australia's largest egg producer, is now exploring carbon reduction and range regeneration for their farms in pursuit of improved environmental sustainability.

Days Eggs' managing director Dion Andary said environmental sustainability should be top of mind for all in the industry.

"We have looked at a number of different regeneration strategies and we are now testing their effectiveness across our free-range farms," he said. "Action on environ-

mental management is critical for the industry," Mr McMonnies



Egg Farmers of Australia staff and board members John Coward from Queensland, Ian Wilson from Western Australia, Ruth Drinkwater from South Australia and Tasmania, chief executive officer Melinda Hashimoto, administration and engagement officer Kylie Jackson and Bede Burke from NSW. People are urged to post photos of their family using Aussie eggs in their Christmas cooking under the #WeEatAussieEggs on their social media platforms.

# **Count your eggs and** blessings this Christmas

Egg Farmers

of Australia Inc.

by MELINDA HASHIMOTO

CEO

the domestic appetite for

eggs - equating to 6.3

Eggs also account for

one of the most afford-

able proteins available to

It is surprising how

many Christmas food

traditions involve the use

All feature eggs as

a key ingredient - the

plum pudding and bran-

dy custard, traditional

Christmas cake, pavlova,

turkey stuffing, Grand-

ma's trifle, ice-cream

billion eggs a year.

Australian families.

of eggs.

IN your household, how many traditional Christmas foods can you name that use eggs?

That's the question Australia's egg farmers are asking people to answer on social media during the festive season, along with using the hashtag #WeE atAussieEggs on their posts.

The campaign aims to encourage Aussie families to spare a thought for the nation's egg farmers when they gather in the kitchen to prepare for Christmas.

Farmers are encouraging people to snap a photo when the family gets together to make Christmas goodies and post it on social media with #WeEatAussieEggs to flag their support for Australian-grown eggs.

Australia's commercial farmers produce 17.9 million eggs daily to satisfy

# Festive food safety tips

#### r from P1

Clemson Department of Food, Nutrition and Packaging Sciences professor Julie Northcutt said health officials see an increase in the incidence of foodborne illness at this time of year.

causing bacteria grow In most cases, these

by a foodborne illness, especially when they are so easy to prevent. "No one should ever eat meat without prop-erly cooking, properly holding and correctly storing it."

The

two hours and then continue cooling from 20C to 5C within another four hours for safety.

An easy way to reduce the risk of salmonella infection and ruining a family holiday is to wash all surfaces touched by poultry with hot soapy water,

rinse well and sanitise

with a bleach solution

made by mixing one

Another option is



and egg-nog.

Crack an egg, snap a photo and whack it on social media as a shout out to our egg farmers.

Egg Farmers of Australia also take this opportunity to wish all Australians an 'egg-cellent' Christmas.

Egg Farmers of Australia is the peak voice of the nation's leading freerange, barn-laid and cage egg farmers.

Most producers are from family-run farms.

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 07 3286 1833

And over the next 12 months, Australian Eggs will be working to ensure the community understands how environmental management is being improved across the egg industry." For more information and to read the full Sustainability Framework survey report, australianeggs. org.au/assets/Austral ian-Eggs-2022-Single-Page.pdf 🦙

increases in foodborne illnesses occur because people get distracted. "Most of us are very busy at the holidays, with friends or relatives visiting us as we cook, but we need to be mindful of where the dangers are when handling raw food, such as meat and poultry," Prof Northcutt said. "You wouldn't want your holiday or someone else's to be ruined

best is called the 'temperature danger zone'. This zone is between 5C and 58C.

range at which disease-

temperature

teaspoon of regular Prof Northcutt said plain bleach with 1 licooks will want their tre of water. food to "pass through" this temperature danto mix the solution in ger zone as quickly as the kitchen sink, soak possible.

reasonable amount of

It is best to cool foods

from 58C to 20C within

time," she said.

items for one minute and then allow items to "This gets the food out of that temperaair dry. Sanitiser solution can ture danger zone in a

be mixed in a squirt bottle, spritzed onto washed surfaces and allowed to air dry.

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If hatched as a female, happy life. Hatched as a male, not so happy – unless you're a hipster Kipster.

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# **Roosters reviving as Kipster hipsters**

WHILE Kipster rhymes with hipster, that's not where the similarity ends.

With 'hipster' defined along the lines of a person who follows the latest trends and fashions, especially those regarded as being outside the cultural mainstream, the Kipster farm is very hipster.

In Dutch, 'kip' means chicken and 'ster' means star, hence the name of the company.

Kipster's website states that its chickens are more than the sum of what they consume and release: "They are beings with desires and feelings – they both suffer and enjoy."

Headquartered in the Netherlands and with operations and egg and meat poultry farms there and in the US, Kipster is refreshingly ending the habit of culling male chicks by letting the 'brothers' of egg-layers grow up to become an alternative meat source.

Now, as an old rooster myself, that's good news. In the US alone, around 300 million male chicks are killed every year in the egg industry.

It's basic biology – when layer hens are born, an equal number of roosters are also destined to hatch.

Unfortunately, these male chicks are discarded as if they are worthless, since they don't lay eggs.

They are also leaner and don't gain weight as efficiently as their 'cousins' in the meat industry. So, they are killed.

It is an inconvenient truth that 50 percent of



all newborn chicks in the US are killed as part of egg production.

I understand that the first Kipster roosters, at 15 weeks of age – traditional meat broilers live around six weeks – are now being processed into meat products for humans.

Kipster, a newcomer to the US egg market, is not willing to wait until technological solutions become available that can identify and kill males while they are still in the egg. Instead, they are rais-

Instead, they are raising them. According to Kipster's

US managing director Sandra Vijn, Kipster is accepting the responsibility now.

"We let the roosters live," Ms Vijn said.

"If people choose to eat chicken, then why not the rooster brothers of our hens? "As a result, fewer

broilers will be needed for meat." It seems obvious that

roosters and spent hens from egg farmers are an untapped source of meat. Layer hens become meat after around 90 weeks after their laying period ends.

According to Nancy



tor of corporate policy and animal science with American Society for the Prevention of Cruelty to Animals, the conventional egg industry has justified everything from immobilising hens in cages to destroying millions of newborn chicks as the

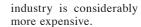
cost of doing business. "Kipster's welfarecentred approach to egg production shows that suffering is not an inevitability when businesses marry compassion with innovation," Ms Roulston said.

"The ASPCA hopes food companies recognise the incredible opportunity Kipster offers to improve animal welfare in their supply chains."

Weighing up the relative attributes of layers versus broilers, goes a bit like this – the layer is a marathon runner, needing to lay as many eggs as possible for as long as possible.

Broilers are more sprinters – they need to gain as much weight as possible in the least amount of time. Of course, layers and

roosters carry less meat on their bones, which means meat from the egg



However, waste not, want not, according to Hillary Dalton, senior research manager of Compassion in World Farming.

"Currently almost all male layer chicks in the US are placed in a macerator immediately after hatching, where they are ground up and killed," Ms Dalton said.

"Their painful and inhumane deaths represent an immense amount of unnecessary suffering and a waste of resources to incubate millions of eggs of unwanted male chicks.

"Compassion in World Farming USA believes male roosters and laying hens deserve the opportunity to have full and enriched lives.

"We are thrilled to see Kipster's expansion into the US and their pioneering efforts to eliminate the greatest welfare and waste problems in the US laying hen industry." As a game-changing system for egg production, Kipster combines a

whole range of inaugural innovations on their farms, besides eliminating male chick culling:

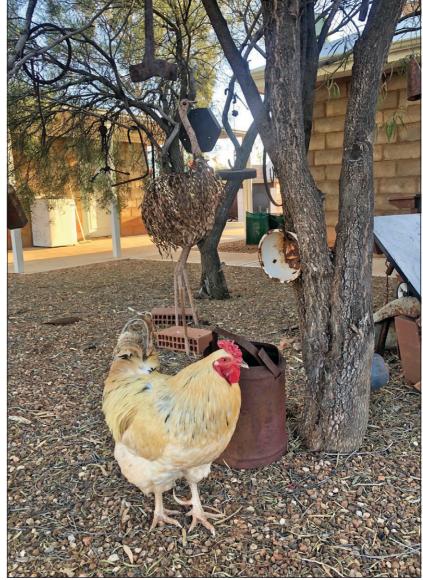
• Barn design centres around the instincts and needs of the chicken

• Eggs are carbon neutral

• Chickens eat feed that includes a large amount of upcycled food products, with minimal environmental impact and limited competition with human food.

While personally being decades away from being a hipster, I support being Kipster.





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**1.** Rodriguez-Gonzal E et al. Anthelmintic Benzimidazoles in Eggs. Chapter 44 in Egg Innovations and Strategies for Improvements (ed. P. Hester). Elsevier. 2017. **2.** Lacey E. et al. The role of the cytoskeletal protein, tubulin, in the mode of action and mechanism of drug resistance to benzimidazoles. Int J Parasit. 18 (7):885-936. 1988. **3.** Chassaing C. et al. Highly Water-Soluble Prodrugs of Anthelmintic Benzimidazole Carbamates: Synthesis, Pharmacodynamics, and Pharmacokinetics. J Med Chem. 52:1111-1114. 2008. **4.** Committee for Medicinal Products for Veterinary Use. Flubendazole (extrapolation to poultry). Summary Report (4). European Medicines Agency. July 2006. **5.** Froyman R. & De Keyser H. Flubendazole: safety regarding egg production and reproductive performance of breeder chickens. Av Dis 27:1 (43-48). 1983.

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AgriFutures Chicken Meat Program research manager Annie Lane. Photo: Kenji Sato

### Materiality assessment identifies priorities for future investment

A COMPREHENSIVE assessment of the priority areas for Australia's chicken meat industry has provided crucial input to the development of the AgriFutures Chicken Meat Program research, development and extension plan for the next five years.

The results of the assessment highlighted the increasing importance of food safety, animal welfare and food security to industry participants and stakeholders alike.

During June 2022, a diverse range of industry stakeholders responded to a materiality assessment survey, designed to help inform and support the AgriFutures Chicken Meat Program's focus and delivery on key objectives.

Sustainability services firm Point Advisory managing principal Alan Dayeh led the materiality assessment process with key input from the Australian Chicken Meat Federation.

"A materiality assessment provides a systematic means to determine what topics - issues and opportunities - are most important to an industry and its stakeholders," Mr Dayeh said.

"The approach aims to identify any existing or potential economic, environmental and social impacts on the industry, identifies priority areas for action and informs public-facing communications, including investor information.

The materiality assessment incorporated findings from a range of research as well as perspectives from industry stakeholders, including those operating in the chicken meat value chain, and industry trends both regionally and globally. "To determine the 'material topics' applicable to the chicken meat industry, we considered the significance or impact of the topic for the industry and the influence of the topic on stakeholder decision-making," Mr

These results reinforced the need to continue to prioritise the wellbeing of chickens raised for meat production throughout their life cycle and to ensure chicken meat remains safe for Australian consumers.

They also highlighted the importance of topics related to food security, cost of living and the stability of prices and supply chains.

The industry plays a crucial role in feeding Australians.

Australians currently consume on average 49kg of chicken meat each year, equating to roughly twice as much chicken than beef and pork, and six times more than lamb. Maintaining this stability and security will be important for the industry's sustainability into

#### the future.

**Assessment results** drive future industry research development and extension efforts AgriFutures The

Chicken Meat Program's purpose is to invest in RDE to foster an innovative, adaptive and valuable chicken meat industry in Australia.

ÄgriFutures Chicken Meat Program Advisory Panel chair Katherine Balding said the results of the assessment were integral in informing the short and long-term strategies, objectives and key performance indicators of the program.

AgriFutures The Chicken Meat RDE Plan (2022-2027) has undergone extensive industry consultation and is due to be released soon. "Its vision is to grow

the long-term prosperity of the Australian chicken meat industry," Ms Balding said. I ne top Tive pr1orities for the industry analysing and combining individual stakeholder rankings on priority topics. "We reflected on this aggregated list of priority the new RDE plan, which aims to protect the lon-Australia."

were identified through topics as we developed gevity of the industry in

"The industry plays a particularly significant role in supporting employment and economic output across Australia's regional and rural communities," Ms Balding

three decades.

said. For her, one of the highlights arising from the study was the importance of food security to survey respondents.

"We wouldn't have expected to see food security as one of the highest material topics five years ago - we believe this is a direct response to COVID-19," she said.

"The industry has a relatively low carbon footprint and provides an affordable, nutritional and locally grown source of protein for Australian consumers."

AgriFutures Chicken Meat Program research manager Annie Lane noted the importance of the materiality assessment.

"A range of livestock industries have carried out, or are in the process of carrying out, materiality assessments," Ms Lane said.

"It is important to capture the key elements of what industry sustainability means to our industry stakeholders.

"Stakeholders are increasingly interested in sustainability strategies and actions of businesses and industries, and in seeing the topics that inform these strategies."

Ms Balding noted that the relatively high scores for topics relating to the environment, such as climate change mitigation, adaptation and resilience, feedstock and sustainable packaging were also noteworthy.

"Not only do the results help drive the plan for the industry and guide research investment, but they also help develop a 'score card' that allows us to communicate back to stakeholders on issues that are important to them," she said. will "These results prove vital in developing a comprehensive score card that allows us to build confidence and trust across the breadth of our stakeholder relationships." The full materiality assessment report can be read at agrifutures.com. au/produt 📎

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Dayeh said. The results of the assessment revealed that most 'material' topics facing the Australian chicken meat industry are food safety and animal welfare, followed by food security, biosecurity, climate change and health, safety and wellbeing.

The Australian chicken meat industry contributes \$7.9 billion to the Australian economy and sustains 58,000 jobs across the country.

The industry has grown consistently at 4 percent per annum over the past

www.poultrynews.com.au

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## Upgrade for safer aeration

AJ BUSH and Sons operate the largest capacity rendering facility within Australia and are located within the state development area of Bromelton in Queensland.

Meat by-products are processed through six different rendering process lines and the company is the recipient of a Climate Alliance Business Leadership Award for site emissions reduction.

#### The issue

Not a company for resting on its laurels, when the treatment lagoon was not responding to the installed surface aerators, plant engineering manager Byron Boyers contacted Hydro Innovations for advice.

#### The solution

Hydro Innovations recommended using two of its Gorman-Rupp Echo-Storm Venturi Aerators.

These are bank mounted aerators that use selfpriming pumps to 'drive' them

Venturi Aeration system

Ease of access is one feature of the Echo-Storm

The required pump to drive these units was a Gorman-Rupp self-priming T10 – Super T Series - pump.

This was perfect for Mr Boyers because he was able to re-purpose a pump the plant already had on its asset list, and AJ Bush and Sons was already a Gorman-Rupp pump user. The benefits

Mr Boyers said that one of the first considerations for the company when selecting equipment is ease of access, and that this was the beauty of the Echo-Storm Venturi Aeration system.

He also said that due to unimpeded access, installation was a "breeze."

The results Mr Boyers and his team were extremely happy with the outcome of the project.

"The visual colour of the water and surrounding odour has significantly improved within a week after installation," he said. Gorman-Rupp EchoStorm Venturi Aerators are available in four sizes 50mm, 75mm, 100mm and 150mm - and are proving very popular with companies and organisations wanting to improve safety and reduce maintenance costs associated with running their aeration systems. More information on these systems can be obtained from Hydro In-

novations at info@hydro innovations.com.au 📎

#### **Collaboration on bird and pig disease prevention** THE World Organisa-"ASF and avian influ-

tion for Animal Health is holding an expert meeting on African swine fever, avian influenza and other avian technology. diseases in the Asia-Pacific region for the first time in three years,

ian government. Australian chief veterinary officer Dr Mark

according to a press re-

lease from the Austral-

Schipp said the five-day in-person event will see international experts share scientific information and discuss new diagnostic and vaccine

"Australia is proud to be hosting this meeting as a country free of the world's worst animal diseases, such as ASF and avian influenza H5N1," Dr Schipp said.

enza are highly contagious viral diseases affecting wild and domestic pigs and birds." "Animal pests and dis-

eases are a major threat to Australia's livestock and poultry industries and an outbreak could impact on our access to export markets, undermining livelihoods. "Along with strong na-

tional surveillance, biosecurity and preparedness measures, international collaboration is essential in preventing the spread of these diseases and sharing global expertise. "Australia is a strong contributor to WOAH processes to protect our animal health status and substantial trade in animals and animal products." 🦻



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The addition of sugarcane bagasse and other fibre sources to the diet has been demonstrated to improve performance due to their action on gastrointestinal functionality

### Response of broilers to insoluble fibre and exogenous enzymes in low protein diets

THE Australian poultry industry is focused on developing a successful low crude protein feeding program for broilers.

Reduced CP broiler diets have the potential to provide a number of benefits, including enhanced environmental outcomes, increased bird welfare and reduced input costs. However, as dietary

CP is reduced, growth performance is often impaired, body fat and fat pad weights are increased, and gut health is negatively affected.

These effects are more prominent in broilers fed a wheat-based diet compared to a maize-based diet, and this brings a further challenge to the Australian industry as broiler diets in Australia are based on wheat.

The decreased performance of broilers associated with feeding a low CP diet cannot be fully recovered by supplementation of essential amino acids.

To restore the performance loss in broilers associated with feeding a low CP diet, the use of specific non-essential AA, whole grains and enzymes has been explored, but with limited success. The addition of sugarcane bagasse and other fibre sources to the diet has been demonstrated to improve performance due to their action on gastrointestinal functionality, such as improved gizzard development, increased digestibility of nutrients and modulation of diges-

tive enzyme production

and nutrient transporters

in the digestive system. However, whether this improves the performance of broilers fed a reduced protein diet remains unclear.

This project investigated the effects of insoluble fibre and protease as a nutritional strategy to improve growth performance and gut health of broilers offered low CP diets supplemented with crystalline AA.

The key finding was that a 20g/kg or less reduction of dietary CP in a wheat, sorghum and soybean meal-based diet negatively affected growth performance of broilers. This was characterised by lower feed intake, lower weight gain, higher feed conversion ratio and higher abdominal fat pad, even if low CP diets were

supplemented with crystalline AA.

Thus, performance loss in broilers fed low CP diets may not be fully recovered by supplementation of essential AA and glycine.

Sugarcane bagasse at 20g/kg in both normal and low CP diets decreased FCR and increased weight gain and relative gizzard weight of birds.

The performance loss in broilers associated with 20g/kg reduction in dietary CP can be fully restored for FCR and partly restored for body weight by including bagasse in the diets.

For the full publication, visit agrifutures.com.au/ wt 📎

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Incoming Australian Chicken Meat Federation chief executive officer Dr Mary Wu.

### **Australian Chicken Meat Federation** welcomes new CEO

THE Australian Chicken Meat Federation, Australia's peak coordinating body for participants in the chicken meat industry in Australia, has welcomed a new chief executive officer.

Dr Mary Wu comes to the chicken meat industry from the Australian Meat Industry Council, where Dr Wu was general manager of processing and export.

A registered veterinarian, Dr Wu brings significant protein industry experience to the ACMF, having worked in senior management roles in the red meat industry.

While at AMIC, Dr Wu was responsible for managing and driving a diverse portfolio advocating for the ongoing sustainability and prosperity of the livestock industry supply chain. Previously, Dr Wu held senior roles within the Department of Agriculture, Fisheries and Forestry, particularly in trade and market access. Outgoing ACMF executive director Dr Vivien Australia's favourite Kite said, "We are excited to bring Mary into the world of chicken meat." "She has highly relevant experience representing the red meat

industry on a range of

issues that are common to the chicken industry, including access to a sustainable workforce, animal health and biosecurity, animal welfare. food safety and sustainability.

"Mary is held in high regard by our colleagues in the red meat industry and comes to us with pre-existing strong relationships and networks within government, at both state and Commonwealth levels," Dr Kite said.

Dr Kite will continue in her role as executive director of the Australian Poultry Industries Association until her retirement at the end of May 2023, allowing for a significant handover period to Dr Wu.

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This is an important milestone for the chicken meat industry as it works to manage the challenges and opportunities that are currently facing agricultural industries," Dr Kite said. "I am confident in Mary's ability to continue to drive the industry forward as it keeps successfully delivering meat to dinner tables across the country. "On behalf of our industry, I welcome Mary to this role and look forward to working with her over the coming six

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months." 🦻

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# **Australian Animal Welfare Standards and Guidelines for Poultry**

Welfare Standards and

Guidelines for Poultry can

be downloaded from agri

culture.gov.au/sites/default/

files/documents/poultry-

standards-guidelines-2022.

The Decision Regulation

Impact Statement can be

downloaded from agricul

ture.gov.au/sites/default/

files/documents/decision-

regulation-impact-state-

The Addendum to the

from agriculture.gov.au/

sites/default/files/docu

ments/attachment-e-poul

If you have difficulty ac-

cessing these files, visit

agriculture.gov.au/about/

commitment/accessibility

The Australian Animal

Welfare Standards and

Guidelines for Poultry

should be read alongside

trv-dris-addendum.pdf

for assistance.

ment-poultry.pdf

Downloads

pdf

THE Independent Poultry Welfare Panel commissioned by all Agriculture Ministers in 2019 has completed its work on developing new Australian Animal Welfare Standards and Guidelines



The poultry standards follow an extensive process of stakeholder consultation and consideration of contemporary animal welfare science and community expectations. Photo: Wolfgang Mennel

COCCIPROL

for Poultry – the poultry standards.

This follows an extensive process of stakeholder consultation, and the consideration of contemporary animal welfare science and community expectations.

territory considering implementation options during 2022, with further discussions by all Ministers in early 2023. The poultry standards are one of a suite of Australian

Commonwealth

states and territories have

worked together to agree to

release the poultry stand-

ards, with each state and

The

Animal Welfare Standards and Guidelines that aim to harmonise national animal welfare legislation, providing clarity and consistency to industry, consumers and trading partners.

Standards are the animal welfare requirements that will be put into effect in state and territory legislation and must be met under law for farm animal welfare purposes. Guidelines are voluntary

are recommended and practices to achieve desirable animal welfare outcomes

the Decision Regulation The Australian Animal Impact Statement.

The DRIS considers the impacts of the poultry standards on businesses, individuals, governments and the public.

The DRIS can also be found on the Office of Best Practice Regulation website - obpr.pmc.gov.au/ Improvements to poultry welfare in Australia

The most significant improvements to poultry welfare in the standards and guidelines made by DRIS can be downloaded the independent panel include:

· A phase-out of conventional layer hen 'cages' over 10 to 15 years - at the latest by 2036 - depending on the age of current infrastructure

• A requirement to provide environmental enrichment for meat chicken breeders

• Changes to the minimum light intensity and required periods of darkness, ventilation and temperature parameters for all species

• A requirement to provide breeder ducks with access to bathing and dunking water.

The Australian Animal Welfare Standards and Guidelines for Poultry replaces the now outdated Model Codes of Practice, which were voluntary.

**The Regulation Impact** Statement and addendum

In accordance with Council of Australian Governments guidelines, a formal Decision Regulation Impact Statement was produced by an economic consultant.

The DRIS considers the financial and regulatory impacts of four policy options, centred around adoption of the standards.

These options represent a refinement to those originally presented in the 2017 Consultation Regulation Impact Statement and reflect the decisions of the panel.

A supporting addendum was also developed to address feedback provided back to the economic consultant.

#### Independent panel

The poultry standards were developed by the Independent Poultry Welfare Panel - commissioned by Agriculture Ministers from all jurisdictions in October 2019.

The panel completed its work in late 2021, which followed an extensive stakeholder engagement process that attracted significant public interest and included input from a Stakeholder Advisory Group.

For further information, visit agriculture.gov.au/ag riculture-land/animal/wel fare/standards-guidelines/ poultry 🐧

### Gary Sansom Scholarship applications close Dec 12

ARE you a postgraduate student interested in making a real difference in the Australian chicken meat industry?

The Gary Sansom Scholarship aims to foster career pathways into the Australian chicken meat industry while supporting industry research relevant to AgriFutures Chicken Meat Program priorities.

This scholarship was established in honour of the late AgriFutures Chicken Meat Advisory Panel chair and Australian Chicken Meat Federation president Gary Sansom, who was a great leader of the chicken meat industry. Mr Sansom was a long-standing supporter of programs encouraging new people into the chicken meat industry and championed several communication and training initiatives vital to the industry.

This scholarship in his honour aims to do just that, encourage new people into the chicken meat industry and support them to build a thriving career in the industry.

Postgraduate students enrolled in Australian universities who are interested in conducting industry relevant re-

will receive the following support and opportunities: • Up to \$35,000 for

living expenses while undertaking a research project

• Attendance at poultry industry conferences and inclusion in Poultry Hub activities • An industry supervisor coordinated by AgriFutures Australia who will provide career pathway support and insights into the industry

· Career pathway assistance post-scholarship and studies.

To be eligible, applicants must be an Australian citizen or resident, enrolled or eligible to enrol at an Australian University undertaking postgraduate study, be willing to have a member of the Australian chicken meat industry as a supervisor and have the desire to contribute to the Australian chicken meat industry in the long term.

Applications close Monday December 12, 2022 at midnight Australia eastern daylight savings time.

Applicants are encouraged to read the Gary Sansom Scholarship terms and conditions before applying.

For more information. visit agrifutures.com. search are encouraged au/people-leadership to apply. scholarships/garysansom-scholarship/ Successful recipients



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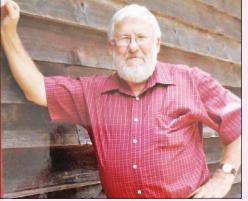
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E.Acervulina.





The late AgriFutures Chicken Meat Advisory Panel chair and ACMF president Gary Sansom.

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# Global outlook reinforces need for AI vigilance

BIOSECURITY Oueensland is reminding Queenslanders who keep birds to have good biosecurity measures in place as highly pathogenic avian influenza continues to spread overseas.

In 2020 and 2021, more than 60 countries were affected by HPAI, with losses of close to 60 million poultry reported.

More recently, substantial wild bird mortality events have been recorded abroad, including several globally threatened species.

While the overall risk of HPAI being introduced to Australia through migratory birds' annual flight paths has been considered low, the current global situation means the risk is now considered higher.

Australia is free from HPAI and we want to keep it that way.

An outbreak could have serious social and economic impacts.

It is important for anyone with birds to look, report and protect.

#### Look

Look for and know the

Hemorrhagic skin visible on the unfeathered head regions of a chicken with avian influenza

signs of emergency animal diseases such as avian influenza.

Report

Report suspected cases of emergency animal disease to your veterinarian and the Emergency Animal Disease Watch Hotline on 1800 675 888. Protect

Protect your birds and your livelihood.

Have a biosecurity management plan in place and ensure it is being followed by everyone who visits your property, even if you have backyard chooks.

#### About avian influenza Avian influenza is a viral

disease of birds. There are many strains of avian influenza virus that can cause disease of different severity.

These range from low pathogenicity - or mild - to highly pathogenic strains associated with severe disease and high mortality.

Chickens, ducks, geese, turkeys, guinea fowl and quail are some of the more than 140 species that are susceptible to avian influenza virus infection.

#### Many species of wild birds including waterfowl and seabirds can also carry the virus and are considered reservoirs – or hosts –

for avian influenza viruses. Spread from wild birds to domestic birds occurs

by either direct contact with infected wild birds or through indirect contact such as pasture, water and feed that have been contaminated by infected wild birds.

Birds with avian influ-

enza may display the following signs:

• Sudden death Depression

• Difficulty breathing

- Coughing, sneezing, rattling lung sounds
- Swelling and purple discolouration of the head,

comb, wattles and neck • Decreased egg produc-

tion • Reduced appetite and

water intake • Ruffled feathers

Closed eyes

#### Diarrhoea. Any suspicion of this disease must be reported as a priority.

If you suspect avian influenza in birds, you should notify your veterinarian and the Emergency Animal Disease Watch Hotline on 1800 675 888 immediately.

Veterinarians can submit bird samples to the Biosecurity Sciences Laboratory for avian influenza virus testing. 🤤



Hemorrhagic skin visible on the feet of a chicken with avian influenza. Photos: Dr David E Swayne

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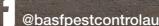
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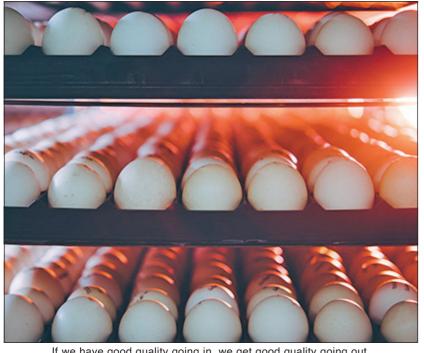
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If we have good quality going in, we get good quality going out.

## POULTY NEWSPAPER



NPN would like to thank all producers, advertisers and contributors for their support in 2022.

We also wish everyone a safe and merry Christmas and happy New Year.

# Hatchery details are key to maximising chick performance

A BACK to basics approach toward managing, handling and storing eggs can help maximise the quality and hatchability of chicks being produced for broiler flocks.

According to Scott Martin, an independent poultry consultant specialising in hatcheries, it can be tempting to set every egg delivered to a hatchery.

But if bird performance and farm profitability are to be optimised, staff need to make sure that only the best eggs make it to the hatcher - even if that means rejecting more eggs than they're used to. "We need to remember we're in the meat-production business not the egg business, and we need to produce the best quality chick we can for the customer," Mr Martin said at an American College of Poultry Veterinarians workshop.

To maximise performance, he said producers need to go back to basics and look at practical measures that enable consistent chick production – starting with egg collection and storage. While daily delivery to

while daily derivery to the hatchery offers the highest level of chick consistency, most operations collect and deliver eggs to the hatcher twice a week, operating on a three or four-day pick up, he said. That means farms need to be able to store eggs properly, ensuring a gradual cool-down of the eggs once they are laid and proper ventilation to reduce condensation buildup.

"Storage duration, temperature and relative humidity will all affect the hatch," Mr Martin said. At lay, the egg's temperature is about 50C and it should slowly come down to a final resting temperature of 20C.

"Allowing it to fluctuate at any time can cause embryonic mortality in the first week of incubation," he said.

Similarly, storing eggs for too long will also impact hatchability, with batches stored for longer than six days likely to see reduced hatching rates. Egg flows

Monitoring temperatures during transportation is another important factor, as eggs should not be warmed prematurely before they reach the hatcher, Mr Martin said. "Turioally delivery

"Typically, delivery trucks are refrigerated, but doors can be left open during collection and drop-offs – we're taking chances on fluctuating temperatures.

A plastic curtain at the back of the van can retain temperatures and keep things consistent, he said. On arrival at the hatchery, eggs should ideally be transferred to a temperature-controlled egg

holding room.

If they are delivered to an unventilated receiving room, they should be moved out of it as quickly as possible and never left there overnight.

When it comes to setting the eggs, pre-warming rooms should have good ventilation to allow air to circulate.

"Often people will leave eggs outside the hallway in front of incubators, and that's fine if that's all you have," he said.

"But regardless of where the eggs are prewarmed, we need circulation... and we need to keep the temperature correct."

#### Checking egg quality

Another important factor in egg management is the age of the flock, as shell density, egg size and hatchability can reduce as bird fertility drops.

"We need to be especially careful with olderflock eggs, as we typically get more rotten eggs due to thinner shells and larger pores," Mr Martin said.

"Transfer eggs from older flocks last, prevent them from sweating and don't set ones that are dirty."

While many hatcheries carry out rigorous egg assessments, failure to check batches for hairline cracks, round eggs or dirty eggs can lead to serious problems in hatchability.

"I've heard lots of peo-

ple say dirty or bloodstained eggs will be fine, but you don't want to take the chance of setting them," he said.

"If you set them, you know the consequence – you won't get the same quality."

Similarly with floor eggs, there's no way to be certain that eggs are not contaminated – even if they've been rinsed off. "People might say they marked the dirty eggs and set them at the bottom, but they could be contaminated, and if they explode, the bacte-

ria spreads through the incubator. "Some people even have a separate incubator for dirty eggs, but we really should be fixing problems at the root, not making concessions and

changing hatchery procedures because of them." Ultimately, Mr Martin said it's important egg producers and hatchery facilities do the best they can with the tools they have and avoid complacency when it comes to

monitoring quality. "We would like to set every egg we produce, but that doesn't always bring the best outcome," he said.

"We need to realise if we have good quality going in, we get good quality going out.

"But you can't take a bad egg and make it good."

Poultry Health Today



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