

POULTRY NEWS

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Mice research could have implications for the egg industry

A BREAKTHROUGH in gene-editing technology to create female-only and male-only mice could have welfare implications for the egg industry by eliminating the need for culling of male chicks, researchers have said.

Scientists from Kent's School of Biosciences and the Francis Crick Institute have created a new method that uses a two-part genetic system to inactivate embryos shortly after fertilisation, allowing only the desired sex to develop. They have had 100% success rate.

This genetically-based method to control the sex of offspring could drastically reduce culling in both the research and agricultural industries, the researchers claim.

James Turner, author and group leader of the Sex Chromosome Biology Laboratory at the Crick said: "This work could have immediate and valuable impact in scientific laboratories, as we've shown how it is safe and effective in mice, a common mammal used in medical and scientific research."

And Peter Ellis, author and senior lecturer in molecular genetics and reproduction at the University of Kent, said: "The implications of this work are potentially far-reaching when it comes to improving animal welfare, but it should be considered at ethical and regulatory levels.

"Before any potential use in agriculture, there would need to be extensive public conversation and debate, as well as changes to legislation."

He added that further research is needed, first to develop the particular gene editing toolkits for different species, and then to check that they are safe and effective.

The egg industry has been trying to find ways to eliminate the destruction of male chicks for many years and a number of in-ovo sexing techniques have been pioneered which allow eggs to be sexed and the male embryos discarded at an early stage.



Swabbing chicks to test for avian influenza

UK facing a difficult winter of bird flu 'flockdown'

POULTRY-KEEPERS NEED to be prepared to keep their birds indoors until March in the worst-case scenario, experts have said. The current avian flu outbreak is the largest to hit the UK, with 60 cases of highly pathogenic H5N1 virus in the UK since 26 October as *Country Smallholding* went to press. There had been 50 cases in England, five in Scotland, three in Wales and two in Northern Ireland. Another two cases were suspected in Northern Ireland. This compares with 26 cases last winter and 13 in the winter of 2016/17.

UK chief vet Christine Middlemiss has described the number as "phenomenal" and she warned that cases will keep occurring throughout the migratory season, which runs until March. This means that there is a chance that the mandatory housing order – instituted in November – could last for four months.

A Defra spokesman said: "The avian influenza measures are continuously under review and how long they will be in place is based on the latest scientific and veterinary advice. We cannot say that the housing order will be in place until March, but poultry-keepers may need to be prepared for it to last for an extended period."

With an extended 'flockdown' on the cards, poultry-keepers need to keep a close eye on their birds for signs of stress, bullying, parasites and "injurious

pecking" poultry vet Henrietta Kodilinye-Sims told *Country Smallholding*.

Ms Kodilinye-Sims, who teaches veterinary science at Surrey University and runs the Surrey Poultry Vet practice said: "The biggest issues are going to be abnormal behaviour linked to boredom and bullying. This can lead to [stress-related] peritonitis and injurious pecking."

She said that many henhouses are not big enough for the number of hens they are sold as being suitable for, and she would expect all backyard birds to also have access to a netted/covered run area.

Water and feed must be accessible to all the birds, so add extra and spread it out. Likewise, add more enrichment points – like hanging veg or foraging places – than usual so that low status birds aren't bullied away. You should also be testing for worms more regularly as your birds will be on the same ground constantly, she added.

Bird flu is a notifiable animal disease, and you must report suspicions of it immediately. Failure to do so is an offence. You can report suspected or confirmed cases: in England call the Defra Rural Services Helpline on 03000 200 301; in Scotland, tel: 03000 600703; in Wales, tel: 0300 303 8268; in Northern Ireland call the DAERA helpline, tel: 0300 2007840.

SUPERMARKET GIANT FEEDS INSECTS TO EGG LAYERS



MORRISONS WILL start to feed insects to hens at 10 of its largest free range egg farms in a bid to launch its own brand of carbon neutral eggs in 2022. The company has invested in Better Origin insect farms (*Country Smallholding*, Spring 2021, News Report) to grow black soldier fly larvae which will be fed to the hens as a replacement for soya-based protein. The insects will be reared on fruit and vegetable waste from within the retailer's supply chain in a 'circular waste' feeding scheme.

Research by the British Free Range Egg Producers' Association (BFREPA) suggests that traditional feeds account for up to 90% of emissions on egg farms.

Sophie Throup, head of agriculture at Morrisons, said: "Reducing soya from livestock feed is one of the key challenges for farms needing to lower their carbon footprint, and we wanted to help find a solution.

"An insect diet could suit our hens better — they seem to enjoy it — and the nutritional and added health benefits are notable.

"We're also finding a good home for our fruit and veg waste. We think that this could be part of the future of egg farming."

In October 2021, Sainsbury's announced it would be stocking carbon neutral eggs, from hens fed with field beans grown and milled on-farm.



Green-lipped mussels are regarded as a superfood and chickens are said to love them

MUSSEL WASTE HELPS TO KEEP KIWI HENS HAPPY

WASTE FROM the mussel farming industry is proving to be a useful addition to the diet of free-range hens for one New Zealand egg farmer. Rob Darby, who farms in Pukekoho in Auckland, started feeding his hens with waste from the green-lipped mussel industry and he found that eggshell colour improved, as did the omega-3 content of his eggs. His hens' feathers also started to look glossier and healthier.

The green-lipped mussel is regarded as a superfood, with anti-inflammatory properties and it contains a wide variety of vitamins, minerals, omega-3 fats, amino acids, antioxidants, enzymes and many more beneficial nutrients.

Mr Darby originally added the mussels to his birds' daily feed and the hens happily munched both the shells and the molluscs.

Since then, he has pioneered a way to dry the mussel waste — those shells deemed too big or small, broken or barnacle covered — before feeding it to his hens.

"When you put out the mussel, the more aggressive and dominant hens eat excess amounts. We knew that if we were going to balance the benefits for all hens the mussels would need to be added to their feed," Mr Darby told *Poultry World*.

Generous customers offer to replace children's flock

CUSTOMERS HAVE rallied to help young egg-trepreneurs whose entire flock was killed by a mink. Brother and sister Alfie, seven, and Ella Patrick, five, from Ballycassidy in Northern Ireland had a small business selling the eggs from their 70 hens. But they opened up the coop in late November to find that all of their chickens had been slain by the furry menace.

"They had a right wee business going on and they had a pile of customers and were making a sight of money," their father, Richard Patrick, told local media. "They had an honesty box outside the house and people would come and collect the eggs. They did deliveries and they brought eggs into school for teachers."

On hearing what had happened, the youngsters' customers were quick to get in touch, offering donations towards a new flock.

"Most of the customers have been looking to give donations to get them up and going again, but we said don't worry about it. We'll get them going," added Mr Patrick.



Cameron Clark

Vet students get hands on with BHWT hens

A GROUP of veterinary students at Glasgow University helped out at a Hen Welfare Trust (BHWT) rehoming day to get some hands-on chicken experience.

Cameron Clark (*above*), a first-year vet student, said: "It was a great opportunity to not only help with the rehoming, but also to get hands-on with the birds because at vet school we get little experience of handling poultry. Plus all the people there were so

knowledgeable about chickens and husbandry that it was great to speak with them and pull on some of the knowledge they had to offer.

Mr Clark added that he would love specialise in poultry or avian veterinary.

"I've had hens since I was nine, and I was given a few to start off with. I've been fascinated ever since."

The BHWT is working to improve veterinary knowledge of chickens as pets as well as farm animals. It has offered six grants of up to £3,000 to fund research projects by vet students.

There are two rounds of grants to apply for. The first was in December 2021, but the deadline for the second round is 15 July. *To find out more about the grants visit: www.bhwt.org.uk/improving-pet-hen-health/small-grants/*

'Massive strides' made towards cage-free egg production

THE BRITISH egg industry has been praised by Compassion in World Farming (CIWF) for making "massive strides" towards cage-free egg production. The latest CIWF report into the progress of cage-free — EggTrack — reports that there has been major progress made in the past year. Nearly 60% of the UK's 42 million laying hens are now cage-free — almost a 2% increase from 2019. The UK's major retailers have committed to phase out caged eggs by 2025 and already are nearly 66% towards this target, according to Defra. *Read the full report at www.compassioninfoodbusiness.com/media/7447936/2021_eggtrack_report-final.pdf*

Salmonella falls in British flocks

SALMONELLA IN British laying flocks decreased by 12.5% in 2020, the Animal and Plant Health Agency (APHA) has found. According to its report, 42 adult laying hen flocks, originating from 28 separate holdings, tested positive for salmonella under the statutory testing programme during 2020. In 2019, 48 positive flocks from 34 separate holdings were found to be positive. Over recent years, the UK egg industry has consistently had among the lowest incidence of salmonella in Europe.