



WELSH PRODUCERS WIN PRESTIGIOUS FREE RANGE AWARD

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A decade of growth and innovation meant they stood out to the judges for their 'strong focus on technology and innovation to drive resilience, welfare and efficiency'.

The farm has tripled in size while consistently

improving performance and efficiency, and Martin attributes a large part of this to their unique automated packing system, enabling more time to be spent with the birds.

Farming Family

Martin said: "My parents worked hard to make the farm pay but there came a time when the best thing for them to do was rent it out. I was working for a fencing contractor at the time, and one day we were fencing around a free range unit and I thought to myself 'I can do that'. So I went home to my father, put a



business case together – he was convinced – and allowed Nikki and I to borrow against the farm to put up our first shed.

“We are lucky to have complementary skillsets meaning we can run the business efficiently together, without outsourcing tasks. Nikki is responsible for all administrative duties on top of organising the household and caring for our two daughters. This has allowed me the time and flexibility to concentrate on expanding the family business and look to the future for us all.”

Martin began with 22,000 birds on a flat deck system, originally contracted to Bowler Eggs but now supplies Anglia Free Range on a flock-by-flock contract and sources feed and pullets from Humphrey’s.

Room for growth

Strong performance from their initial flock proved a solid foundation for expansion, and their flock size has tripled in the past four

years. In 2015 Martin erected an additional 16,000 bird multi-tier system.

Martin said: “When the multi-tier sheds evolved with less emissions, I realised there was the potential for more birds on farm enabling me to be as efficient and productive as possible, while still keeping the focus on the birds and getting the production in return.

“We got more birds on site with higher efficiency, as well as other benefits such as improved feather cover and easier management.” he said. They extended the 16,000 shed to a 32,000 and converted the original 22,000-bird flat deck to a 32,000 multi-tier system as well bringing total hen numbers to 64,000 hens over two multi-tier units.

Martin explained: “We have Big Dutchman Natura Nova 264 multi-tier system, installed by Newquip, in both sheds. I felt this was the best one for us in terms of manageability. I’m



able to see the birds from every angle, and looking to the future I feel I'll still be able to manage it when I'm getting a bit older! It offers the best for what I want from a multi-tier system."

Martin has installed automatic flush systems as well as automatic bird weighers and egg counters throughout the sheds.

He said: "We used a DraperVENT consultant for training on how to use the ventilation system, and adapt it to suit our individual farm needs which made big improvements to litter quality. We also use the big farm network for constant and ongoing monitoring to compare how our general performance is measuring up.

"We continue to learn from each flock and develop innovations that have transformed our business, not only in terms of flock size but also productivity. It is a difficult mix to

balance expanding your farm while improving performance at the same time, so for us to achieve this year on year is something I am extremely proud of.

"We've been keeping Lohmann Classics for the majority of our time, and although we've tried other breeds we've always come back to these. They're a reliable bird and work well for our set-up, they have a high rate of lay and are good for producing large eggs. We've also noticed a big improvement in the last couple of years which we put down to both genetic and management advances."

Flock Performance

Martin said: "Over the past decade we have pushed the genetic potential regarding overall performance, mortality, egg mass and feed conversion and delivered a year on year increase in eggs per bird from 283 to 335 at 72 weeks. Our focus has been on using all the tools in our box to create a stress-free



A ROBOT PICKS UP FOUR STACKS AT A TIME, INSERTS A DIVIDE BETWEEN EACH LAYER, AND EVENTUALLY FILLS THE WHOLE PALLET

environment for the hens to increase productivity. Our most recent flock achieved 335 eggs per bird to 72 weeks with 2.8% mortality and 121.9g feed.

"I maintain that you work your day around the hens, not the other way around. This has meant early starts in the winter to ensure the hens are rising when they would naturally do so, to encourage them into the nest boxes. Through my years of being a free range producer I have learnt that if you're in the shed when the hens wake up you can observe bird behaviour and maximise performance by ensuring as many as possible lay in the nest boxes and reduce floor eggs.

Communication is key

Martin works closely with Poultry and Feed Assistant Gwenda Wozencraft at Humphrey's Feed and Pullets and attributes a large part of his success to her insight and support. "We're on the phone a lot, talking about how things are going and coming up with ideas as to how we can improve."

Gwenda said: "Martin is a forward thinking farmer, he takes new innovations on board and goes above and beyond to ensure the wellbeing of his flock."

It's this relationship which Martin attributes to helping guide him through some of the

trickier times of being an egg producer, battling against unprecedented numbers of floor and system eggs as well as a high mortality and secondary E.coli challenge within previous flocks.

It's these experiences which led Martin back to Lohmann Classics and, as of his sixth flock, exit his integrated contract and become an independent producer allowing him to choose where he sources his pullets from.

Martin maintains good communication with the team at Humphrey's and has also been involved while his pullets are in the rear. Most recently he's worked with the team to investigate whether lighting patterns and different management techniques can help increase large egg targets in the lay.

"Our last flock produced 5.3% extra-large eggs, 52.7% large, 38.1% medium, and 1.5% small," he said.

"We've managed to cut out antibiotic use too, and now only use probiotics and preventative measures. We use Actigen which helps with gut health and the immune system, while TRT is for shell quality. Both go in the feed and we've noticed tangible improvements since we started using them. I was sceptical at first but we wouldn't be without them now."

Encouraging ranging is also important.

He said: "I believe if you give them an environment where they can behave as naturally as possible it will improve production. We've planted over 77,000 trees through the range and adjoining farm land to enhance wellbeing, maintain feather cover and resilience against disease. We encourage our hens to range as early in the day as possible, right from the start.

"Non-natural cover is important too. We've

invested in an additional steel lean-to shelter on our sheds to provide protection from rough weather and cut down on competition for space inside. We've also focused on predator protection to reduce stress and mortality – this includes a solid range boundary and regular patrols."

Technological innovations

Perhaps the largest enabler allowing Martin to focus so heavily on bird management and welfare, is the development of a unique automated packing system which now means packing time can be completed in under four hours. Working alongside Ben Morgan of ProSystems Robotics, Martin shaped the development of a custom-made system, tailoring programming and fabrication to specifically suit his farm's needs.

He said: "Simplicity is key. It's about doing a job well, but also making it as simple as possible.

"I know if I have to be away from the farm, things can continue to run smoothly," he said. Any technological issues can also be solved remotely through ProSystems' central server, reducing both downtime and expenditure.

Martin explained: "The eggs pass through a grading table before being fed into two different packers. Here, they are put into trays and fed onto three miniature belts which are put through to an egg stacker. A robot then picks up four stacks at a time, inserts a divide between each layer, and eventually fills the whole pallet. Once the pallet is full, it moves along a conveyor meaning three pallets of eggs can be filled before any human intervention is required. Packing now only requires 3-4 hours of work per day.

"The next part of the project is to install a weigh cell on the robot which will allow us to calculate the daily egg weight and combine

this with production data to provide a clearer reading of egg mass.”

A helping hand

Employing head service engineer Cosmin Radu to oversee egg packing and solve any technical issues has allowed Martin to focus wholly on production.

“Under this new management system, eggs per bird have consistently increased, while mortality and feed intake have declined,” Martin explains.

What’s more, the fully trained service engineer is able to split his time between Martin’s farm and his newly established poultry equipment servicing business. Spotting a good opportunity for immediate diversification, Martin recognised the high number of poultry producers in his local area, and “rapidly increasing demand for poultry servicing equipment,” airing up with the knowledgeable engineer with his wealth of experience to establish the innovative new business which covers Wales and the borders.

Biosecurity

Biosecurity is obviously of major importance both within Martin’s own farm, and regarding the equipment servicing business. Martin and Cosmin ensure high standards of biosecurity are upheld at all times, with measures including showering, changing clothing and washing down vehicles before entering or leaving different producer sites.

He said: “We have invested heavily in ensuring we have a clean tarmacked biosecurity entrance and lane onto the site. There’s a designated area to wash every vehicle before they drive on site and we have a system in place where feet must be dipped at the site entrance and before entering each shed. All staff and visitors wear designated biosecurity footwear and clothing, and visitors are only

permitted if they have made an appointment and can ensure they haven’t been in contact with other birds.”

Fit for the future

The equipment servicing business runs well alongside the free range business and this savvy diversification helps provides greater sustainability for the farm’s future.

“We’re a family business and want it to continue that way for our two daughters. I was luckily enough to be helped by my parents, we want to give the same opportunities to our girls” he said.

“We’ve installed 50kW solar panels on the roof of one shed and are looking at expanding this to be as self-sufficient as possible. We are also currently looking at installing ground source heating.”

The range and adjoining land is completely covered with broad-leaved and fir trees so in the future the girls may be able to use the site for tourism, camping and nature walks if they decide they want to diversify.

“Our site has already been used several times as a demonstration farm for Newquip.

“Nikki and I are honoured to receive this award. We’re passionate about using novel technologies to improve welfare and efficiency, and are excited to see where this will take us and our children in the future.”