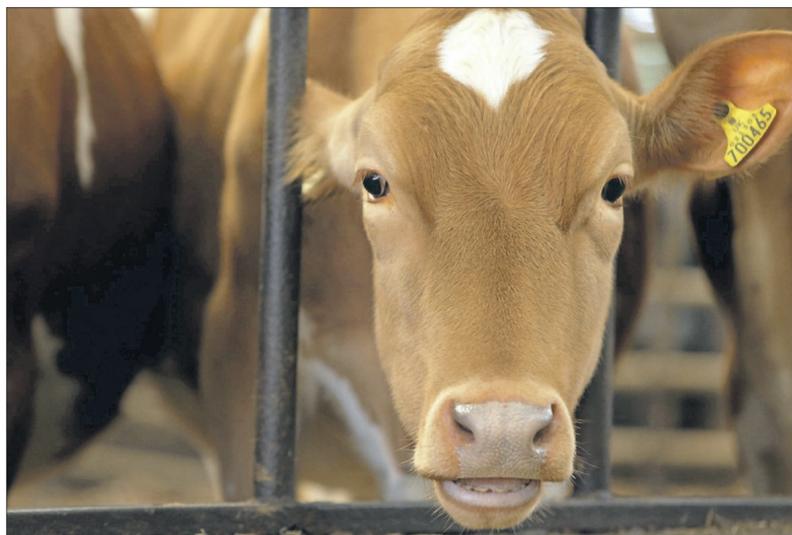


THE BIG READ...

...THE GUERNSEY COW

Keeping it pure



A team of farmers, scientists and other interested parties from around the world are helping to preserve the purebred Guernsey cow. (1331057)

It's rich in the beta-casein A2 element that has Australians like Dannii Minogue hooked - but how many of us think about the milk we splash on our cereals each morning? With the number of purebred Guernsey cows in decline and an EU programme for minority breeds offering support, should we be worrying about the future of our iconic breed? **Martyn Tolcher** talks to 'Mr Guernsey Cow' Bill Luff and discovers that the appliance of science is key to preserving the breed

FOR generations, the golden Guernsey cow has been an iconic fixture on our island landscape. The idea of losing our world-famous cattle breed is unthinkable but throughout Europe, many other pure dairy breeds have fallen by the wayside. And one man who knows more than most what it will take to keep 'the Guernsey' going is Bill Luff, the secretary of the World Guernsey Cattle Federation. For nearly half a century, Bill has been working alongside many others to keep the breed genetically strong and pure. It has not been an easy battle. With delegates gathering this week for the Federation's 14th world conference, which will be the first to be held in Guernsey for 21 years, they will be left under no illusion as to the scale of the challenge that lies ahead. 'The breed in numbers is quite small - we're a tiny ship on a massive ocean of Holstein cows,' Bill explained. 'You've only got to look around the world to see the number of breeds of farm livestock that have been lost, and the biggest loss has been in Europe. 'Every breed, virtually, has been Holsteinised and the only absolute pure dairy breeds left in the British Isles are the Guernsey, the Jersey and the Holstein.'

Guernsey cattle breeders from North America, South Africa, Australia, New Zealand and the UK are in the island for the WGCF conference and all around the world the picture is the same. The number of purebred 'Guernseys' is in decline and globally there are fewer than 15,000 cows that are classified as being genetically suitable for making a contribution towards future breed improvement. The situation may seem daunting but, according to Bill, who has been WGCF secretary since 1989 and is the only

non-US citizen to receive a Distinguished Service Award from the American Guernsey Association, there is no need to panic just yet. 'I don't think we need to worry, provided that we take a proper, scientific approach,' he said, pointing towards the success of the Guernsey global breeding programme that was introduced locally in 2002. 'The cattle have improved massively since then and there have been huge improvements in conformation and in production,' he continued. 'But the thing that's worrying us now is the rate of increase per generation in inbreeding has reached about one per cent. That's a little bit too high and we need to plan for that because we need to think of the breed in 100 years' time and not just today.'



Mike Bray's Jaonnet herd was the UK's highest-yielding last year. (1282197)

When we splash our Guernsey milk onto our breakfast cereal, we have little idea of all the scientific work that goes into monitoring this unique local product and the animals that produce it. A highly technical system is needed to record milk yields, while data covering every aspect of the make-up of Guernsey milk - fat, protein, somatic cell count and cow conformation traits - is sent first to Edinburgh University and then to a laboratory in Uppsala in Sweden for analysis. Bill, who is now 67, has seen incredible changes in the way data is gathered and analysed since he began his recording duties for the Royal Guernsey Agricultural and Horticultural Society at the age of 22, when he became the youngest ever member of its prestigious

Herd Book Council. In the pre-digital age, it was a laborious process that was all done on paper, but today computers are used extensively to calculate the breeding value of every single animal, based on production, health and conformation traits. 'There are very sophisticated computer programmes available and one we're using is from NordGen, which is an institution under the Nordic Council of Ministers,' Bill revealed. 'It's called Eva and you need to feed in all your pedigree information and then you feed in all your genetic evaluations, and just for our small population of maybe 1,200 cows, it will give us the highest genetic gain for the least inbreeding. It's amazing how good it is.'

For Bill and his fellow guardians of the breed, there has been one exciting recent development that has given them further cause for optimism. Guernseys are now being included in a new European Union programme with a budget of four million euros that is aimed at supporting minority breeds throughout the continent. 'It's designed to help us with genomic evaluations for our cattle,' he explained. 'With genomics, we would know the day an animal was born, with quite a high accuracy, what its breeding value would be. We're involved in it [the EU programme] through the English Guernsey Cattle Society and their representative is Dr Maurice Richard, a Guernseyman who is a world famous geneticist. He's done a tremendous amount for us in the island and I've been working with him on that.'

Bill is anxious to point out that the overriding aim of the Guernsey breeding programme is to have healthy, productive cows that are easy to manage and free from any major health problems. He added that those managing Guernsey's home cattle population were trying to 'get back to the more natural



Former dairy farmer and guardian of the Guernsey breed Bill Luff with Julian Ogier's herd at Le Hechet Farm, St Saviour's. The island's farmers have been busily preparing their cattle and properties for visits by the 70-plus delegates attending the World Guernsey Conference. (Pictures by Tom Tardif, 1331062)

'The breed in numbers is quite small. We're a tiny ship on a massive ocean of Holstein cows... Every breed, virtually, has been Holsteinised and the only absolute pure dairy breeds left in the British Isles are the Guernsey, the Jersey and the Holstein'

Bill Luff, World Guernsey Cattle Federation secretary

cycle' of cows calving once every year. 'There's ample evidence to show that cows under less pressure are more economic and make the farmers more money,' he explained.

Bill certainly knows a good animal when he sees one and his experience in the field goes back to his childhood when he used to help out at Ashburton in the Lower Rohais, where his great grandfather was a breeder of some note. Then, when he was still only 18, he and his twin brother managed to secure a loan to rent Les Frances Farm. They built the business up from 10 or a dozen cows to between 65 and 70 at the time of his retirement in the late 1990s. Today his passion for the golden breed and the milk it produces is undiminished and again there is a good scientific explanation as to why our cows are a cut above the rest: 'The interesting thing about Guernseys is that they have unique qualities, particularly in their milk. 'It has more protein and more beta-carotene, which is what makes the Guernsey milk a golden colour, and also the protein in Guernsey milk is an interesting protein. It's over 96% beta-casein A2, which is the original protein that every cow did carry, and there is some evidence that Guernsey milk could be better for your health. There is a big market for A2 milk, especially in Australia, even though it's twice the

price of ordinary milk there.'

With the World Guernsey Conference on home ground, the local dairy industry is anxious to



Packed with goodness, Guernsey milk is increasingly sought after around the world.

present itself in the best possible light. The island's dairy farmers have spruced up their properties for visits by the 70 or so delegates who flew in on Sunday and began their stay with an evening vin d'honneur hosted by the Bailiff at Castle Cornet.

The delegates were also due to be special guests at yesterday's RGA&HS Annual Cattle Show at Saumarez Park. According to Bill, there's much for them to appreciate. 'We can show the people who come here that we have the best genetic herd in the British Isles, the Jaonnet herd owned by Mike Bray, which was also the highest-yielding herd last year. This year the highest-yielding herd of Guernseys in the British Isles is Mike Cox's herd in Alderney.'

Bill is also intensely proud that the local society is hosting the conference, which is staged in turns by the breed society countries every three years, for the first time since 1992. 'It's a great honour,' he enthused. 'It's also a great responsibility and there are so many people involved in working hard for this. Pretty well every farmer is involved. 'I think we need to work a little closer than we have in the past but cattle breeders are very individualistic people. Maybe we can influence a little bit what they do to ensure a secure future for the breed and if we can get some actions in place, that would be great.' For Bill and his colleagues within the Bailiwick's dairy-farming community, the bottom line is to ensure a continuous supply of the golden Guernsey milk that is an intrinsic part of island life. 'That's really what it's all about,' he concluded. 'And then we hope that around the world we will increase the numbers of Guernsey cows again. That would be a great outcome.'

GOLDEN, GUERNSEY AND GLAMOROUS

SHE certainly looks the picture of health on it. And milk with the unique qualities offered by the Guernsey product are gaining popularity in the UK, thanks to an advertising campaign headed by celebrity Dannii Minogue (pictured). In Australia, the golden product is prized as a significantly healthier alternative to the milk from practically all other breeds, thanks to the beta casein A2 protein it contains. The difference lies with the proteins found in cow milk. The vast majority of dairy herds across the globe produce milk with the protein beta casein A1, while around 96% of Guernsey cows produce milk that contains only the beta casein A2 protein. Based on scientific research, many milk lovers in Oz are convinced that the consumption of A1 milk can lead to lactose intolerance and other health problems while A2 milk is a much more benign product. Some scientists have published studies showing A1 milk can even worsen the symptoms of autism in children, although this particular research is hotly contested. Either way, A2 milk now accounts for around six per cent of the market in Australia, even though it is twice as expensive as its much more common A1 counterpart. The challenge for the delegates at this week's World Guernsey Cattle Federation conference is to come up with ideas for keeping the breed pure and making sure its milk remains an undiluted pleasure.

