

Top Lifetime Management

Here is how 3 herds realized record numbers of 100,000kg (220,000lb) cows

Last month HI published a unique table: the 7 herds with the highest numbers of 100,000kg cows (220,000lb) worldwide. A full report appeared on the herd with the highest number: Summitholm in Canada with 119 cows over 100,000kg. But, we want to know much more about these 7 herds – how have they been able to reach these record numbers of top lifetime production cows? You'll find the answers in this article: interviews with Sandisfarne (UK), Kellercrest (USA) and Iden (Germany). And soon you will read about the other herds in HI!

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Sandisfarne

'Currently we have bred 107 cows that have produced 100,000kg. Another cow reached the mark last recording and is waiting to be verified. Three others are also close,' begins Andrew Sanders, who operates the Sandisfarne herd with his wife Sue and sons Matthew and Julian. Sandisfarne is located on the Isle of Man, a small island between England and Northern Ireland. Sandisfarne is the island's largest dairy herd and has been thriving on the island since 1997. Currently they have

600 cows (360 Holsteins/240 Scandinavian-Red) and are milking around 570 cows. However life for Sandisfarne did not start on Man, it all began when Andrew and Sue purchased a small farm in Wales (UK) in 1976. In their first year they bought 26 cows, but the twist in their purchasing strategy could be the first of their longevity secrets. Always wanting to have a long-life herd, Andrew bought 4th and 5th lactation cows with good conformation from herd dispersals as he thought it would give him a better indication

of their durability. Having a small budget, older cows were also more cost-effective and their 26 purchased cows averaged £308 (€365).

KEY ISSUES

'Getting transition management absolutely right and avoiding metabolic disorders, retained cleansings and milk fever is very important,' explains Andrew, 'We aim to breed an animal that is moderate in size, has very good legs and feet, a shallow udder and lots of strength.' Our

'Our 100,000kg cows have an in-built will to survive'

– Andrew Sanders, Sandisfarne



100,000kg cows tend to be aggressive cows and they keep out of trouble. Our herdsman only hoof trims cows that need it and we have just started using a footbath after 40 years. Our main problem in late summer is soles of hooves wearing thin as some cows walk up to 4km a day to grass. At present there are 7 cows on farm that have surpassed the 100,000kg mark.'

CROSS-BREEDING

As mentioned, there are 240 Scandinavian-Reds on the farm. Sue explains: 'We decided to start cross-breeding because our Holstein cows are exposed to a low-input system with difficult weather conditions (>60 inches annual rainfall). About 10 years ago we started-off using Scandinavian-Red on Holstein, followed by Montbeliarde, then back to Holstein. Today we are breeding the Scandinavian-Reds pure and the Holsteins pure. In fact our Holstein numbers are going up and the Reds are dropping as we have not found any great advantages in fertility or longevity. When we started cross-breeding the Holsteins were getting too tall and narrow for us, but now we realise that by selecting for lower stature, less angularity, more strength, extreme fertility and longevity we can still have

a pure-bred Holstein cow that can do the job on our low input system.'

MANAGEMENT

You may think that to achieve these super-high lifetime lactations Sandisfarne's cows must have high average yields. But in fact, the cows are not pushed too hard and the Holsteins average a moderate 8,800kg 4.23% 3.35%. All cows are grazed for 7 months of the year and are milked twice-a-day, although the Sanders are currently running a trial milking 60 cows once-a-day. In winter the cows are housed in cubicles (currently on green bedding). Andrew: 'We are trying to prove that high genetic merit Holsteins can be grazed on a New Zealand-style, spring calving grass-based system. We stopped TMR and 3 times-a-day milking when we built our rotary parlour in 2008.' The herd's cell count currently runs at 120,000 in summer, 160,000 in winter and has a calving interval of 410 days. In summer the cows graze grass and have a top-up of feed in the parlour consisting of rolled barley, beet pulp, soya hulls and minerals. There is no buffer feeding from April to September. Around 7,000 bales of round-bale silage are made in the summer. In winter the cows are fed round-bale grass silage, a protein nut through out-of-parlour feeders and have rolled barley in the parlour. In terms of protocols, the aim is to calve heifers at 2-years-old. The herd has been closed for 40-years and contains no BVD, Lepto, IBR, or Johnes. Cows are dried off using Orbeseal (non-antibiotic teat sealant) and receive a trace element bolus as selenium, cobalt and copper deficiencies are an issue on farm. Any cows over 250 SCC get Cepravin (long-acting, antibiotic dry cow tube). Going back to the once-a-day milking trial, this involves a mixed group of Holsteins and Scandinavian-Reds and is 6 weeks in. Currently the cows are averaging just over 30kg per day, the heifers about 18kg. Sue: 'Cell count isn't an issue so far and fat and protein are about half a % higher. Our high genetic index (Sandisfarne is a top-50 herd for PLI; £200 average) should make the cows more persistent and we think the Holsteins might be better than the Scandinavian-Reds for this trait. We are interested to discover how they milk towards the end of lactation, we seem to be getting better grassland utilisation with them.'

GENETICS

Currently Sandisfarne have around 96 homebred Excellents and 190 VGs. 77 of their 100,000kg cows scored EX, 25 VG and 5 GP. The oldest cow

they ever bred was Celsius-daughter, Ambrosia Arabis EX-92-5E (150,000kg), who died in March aged 20. Arabis was out of a 140,000kg cow and also had a 120,000kg daughter. Also to note is Afghan Ruby EX-94-10E by Lord Lily who milked until she was 19. Sue adds: 'We like slow-maturing cows, they don't need to be VG as heifers. We started with 26 foundation cows and after 40 years of breeding, 60% of the herd are Rubys. 31 of our 100,000kgs cows are Rubys, 17 are Blackberrys. Blackberry is our second biggest family.' Bulls are selected on lifespan, fertility, SCS, moderate stature and less angularity. Sires currently in use include Erdman, McCormick, Shamrock and Alphabet. Bulls that have worked well recently include Leif, Ramos, Garret, McCormick.

Kellercrest

Kellercrest Holsteins at Mt. Horeb, Wisconsin, just south of Madison, is home to a 330-cow herd averaging 31,658lb (14,360kg) 4.04%f 3.11%p. So far 66 cows have passed the 100,000 kg mark. There are even 13 cows over 300,000 lb (136,000kg) with one more to join the list any day now. 'Cow comfort is the main reason,' explains Tim Keller. 'We had an expansion 17 years ago and built new facilities. Everyone of those passed the 100,000 kg in this barn: We didn't have any previously in the old stanchion barn! We use sand bedding, and when the barn was still only 5 years old we remodelled, moving the side wall out 18 inches to give more lunging room for the cows to get up.' The second reason Tim mentions is the feed ration. 'We don't feed a "hot" ration here – we feed for rumen health. We feed straw in the mix along with long-stemmed hay, and we also include pro-biotics. With the forages it's quality, quality, quality – the best quality the season will allow.' The Keller's use pro-biotics marketed by Accelerated. 'They are not cheap, but we figure we lifted components by 0.2%.'

COMPETITION

For Tim and Mark Keller it's all about the total care of the animals. 'We treat every animal here the same. Even our Shottle Loni cow had to compete in the freestalls,' adds Tim. 'Competing develops them into cows that can make big lifetime figures. We have housed cows here for other people and some of those had been pampered before they came here. They never really compete and they don't last long either.' When it comes to the genetics for high lifetime performance, Tim says that likely plays a lesser role. 'Really there is no particular cow family, and even when it comes to the sires, there is quite a mix there too. There are



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CHRISTINE MASSFELLER

“We don’t feed a “hot” ration – we feed for rumen health”
 – Tim Keller, Kellercrest

some Shottles, but there are Nifty’s, Manfred’s, Lincoln’s... mostly solid bulls but not extreme type bulls.’ Selection for fitness traits has been gaining influence. ‘We look for the good all-round bull, the high gTPI or TPI bulls. We watch DPR, as you’ve got to get them bred back year after year. We got burned a bit with BW Marshall, so that taught us to keep an eye on stillbirths too. For years the extreme type bulls or the extreme production bulls were not good enough for fitness, but over the last year I’ve noticed more young genomic bulls that combine it all!’

Llfg Iden

When we presented the education and test centre LLFG Iden in the September issue of 2013, the herd at the time had 57 cows over 100,000kg and was Germany’s finest example of lifetime production. And it remained that, as by now the

list has grown to 94 cows. In preparation for this story, we asked herd manager Hilmar Zarwel once again about the reasons for these results, and we received the same answers as 4 years ago. That could be considered to be less than revealing, but really, this is precisely the point. Although they are always trying to improve the optimum in Iden, the real key lies in consistency. Consistent good feed, consistently well formulated diets, consistent high feed intake, consistent attention to detail, consistent animal care and observation, and consistent high quality genetics. It seems simple, listening to Hilmar Zarwel. And, he says, it really is. ‘When one is consistent,’ as he says. And further: ‘The most important thing to keeping cows healthy and vigorous, is the challenge to keep them always eating. To this belongs excellent forages and permanent management of the feed bunk.

There must always be a consistent diet on offer. Particularly in the time before and after calving there is no time for carelessness. It is an essential standard procedure for us to measure temperature during this time, to listen to the rumen and to feel for rumen fill!’

GENETIC RELATIONSHIPS

The production data of the 420 cows housed in old barns, which have been optimized for cow comfort through simple means, are absolutely interesting to see. The herd average is at 12,116kg 3.74% 3.46%, the culling rate has been below 20% for years, the SCC is below 190,000, and the average lifetime production of cows leaving the herd is an impressive 62,470kg. Zarwel does not only credit management for these results. Clearly, genetics play an important role too. ‘Indeed, we again and again find that certain bulls and certain cow families have greater chances of producing long-lasting, productive cows, than others. While in the past a bull like Skywalker was widely recognized, it is easy to find daughters of Ramos and Mascol list in the 100,000kg cows now. We need to breed cows that fit into our barns and our management systems! Selecting sires is really a herd manager’s easiest and most enjoyable job, but it is also highly decisive!’ How does Zarwel do it? ‘Our core selection centres on SCC, longevity, middle frame size, less depth of body, udder, feet and legs, fertility, and protein. All the bulls we use must have significantly positive values for these traits. For genomic sires, the benchmark is even higher. On the other hand, the RZG or overall conformation is not of interest to us. We worked a lot with Bookem and are currently using sires like Bynke, G-Force, Epic, and Big Point.’ ●

“Cows must always be able to eat”
 – Hilmar Zarwel, LLFG Iden



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