

Silent Herdsman is watching even more closely as the cows are stirring

While everyone is sleeping...

The bar is raised to new levels in heat detection devices with the introduction of Silent Herdsman version 2. As the system goes live and all current users are updated, one Scottish producer is well off the starting blocks and already reaping the benefits.

text **Karen Wright**

Emma Vance, from Sorbie near Newton Stewart, has already put Silent Herdsman version 2 through its paces on her family's 150-cow pedigree Barledziew Holstein herd.

The story starts a year ago when Emma, who looks after the fertility management

of the herd, looked at where performance might be improved. "Our calving interval was hovering around 432 days and not really improving and we were getting more frustrated with the increasing number of cows being PD'd as negative," she says. "We were doing all

the right things, using action lists and monitoring cows. We have all the cows and bulling heifers under one roof and we spent a lot of time checking for heats."

Convinced that perhaps the cows, that were increasing milk production and had hit a 9,500kg average on twice-a-day milking, were not showing adequate signs of heat for long enough, Emma decided that a heat detection system was needed. "The more continuous scrutiny of cows and heifers seemed a very good idea," adds Emma. "We couldn't give much more time to checking cows ourselves as we already have full workloads."

Far-reaching

In April 2011 the Vances bought 70 Silent Herdsman collars equipped with advanced movement detecting processors, the antennae and the PC processor.

"We put a collar on each cow post calving and some heifers and installed the antennae above the collecting yard – it picks up all milking cows and bulling heifers that are at the other end of the shed. It even reaches two grazing fields nearest the shed so bulling heifers could be managed outside if necessary.

The Vance's Silent Herdsman system was updated with version 2 in October.



Emma Vance: "Electronic heat detection can lead to significant savings"

Improved sensitivity for monitoring movement and the ability to group cows are important new features on Silent Herdsman; the system developed by Scottish-based Embedded Technology Solutions, and sold through NMR. It uses advanced motion technology to monitor and record individual cow behaviour 24/7 and relays it to the farm computer.

"The improvement in sensitivity selection and the ability to group cows on the system means that producers can adjust the system to best suit their herd,"

says NMR's Jonathan Davies. "It allows cows to be grouped in stages of lactation or lactation number, for example. And if one group is generally more active than another group, the sensitivity can be fine-tuned so that movement changes show up more clearly."

"Version 2 is a big step forward," stresses Emma Vance. "We quickly saw great advantages in customising the system to suit our herd."

Emma has grouped cows on Silent Herdsman into 'normal' and 'low activity', and bulling heifers are in a group of their own. "With the low activity group we have set a lower, more sensitive threshold so that those tricky, quieter and silent heats are picked up without getting false alerts from normal activity cows," she adds.

"And it's a real advantage having the bulling heifers grouped on their own as Silent Herdsman now recognises when the overall behaviour of a group has changed. As a result, false alerts will not be generated if, for example, we're foot bathing the bulling heifers."

Another advantage that Emma cites is where one group of cows is housed and another is at grass. "If the grazed group has been moved to a field that's further away (or broken through the electric fence) and the housed group's behaviour has stayed the same then the system may think that the grazing cows are in season. However, with cows in groups, the system can recognise that this is not the case."

Strong evidence

There's no way that Silent Herdsman is a substitute for good stockmanship though – in Emma's book it's an additional tool not a replacement. But

results during the past five months and the latest fine-tuning have convinced the Vances that this system works for them as an aid to fertility management, particularly in its accuracy and ability to pick up short or quiet heats.

And there's tangible evidence – since using the collars 82% of cows presented to the vet were confirmed in calf and Emma is expecting this figure to be even better once the improvements in version 2, implemented in October 2011, kick in. Prior to Silent Herdsman, only 50% of cows presented to the vet were scanned in calf.

Their vet David Champion, of the Priory Vet Centre, is actively involved in herd health and fertility at Low Barledziew. "He immediately witnessed a significant increase in the number of cows PD'd positive back in summer," adds Emma. "He could see that the system would pay for itself in no time through improved heat detection and in its ability, combined with our records and observations, to pick up problems."

Calving interval has already improved. "I've compared the projected calving interval of a group of cows that has been served and checked for pregnancy in the past five months since we installed Silent Herdsman with its performance in 2010. The calving interval has dropped by 20 days to an average of 412 days and I would hope that by next April it will have dropped further."

Big savings

Using a cost of £5 per day open, the improvement in calving interval so far would amount to a saving of £15,000 for the Barledziew herd. "While other factors will have contributed to our improved calving interval, based on these initial figures we will have paid for our Silent Herdsman system in six months," Emma says.

"And the reduction in costly days open is not the only saving. We have been able to reduce our vet fertility visits from monthly to every six weeks as we can be more confident that the cows are in-calf.

"Our reliance on fertility drugs, such as prostaglandin, has also significantly reduced. Our target is a 390-day calving interval and we're certainly heading in the right direction. This means that cows will calve more regularly, annual milk production should increase and we will have more surplus heifers to sell, above those we need for our own replacements. So it's a good news story all round." |



Cows can now be grouped on Silent Herdsman according to their level of activity