CRV Avoncroft, based in Kidderminster, is part of the global organisation CRV.
This is the final part in a series of articles about CRV. Here we take a look at Ovalert.

On watch **around the clock**

How can you keep a close eye on all your cows, particularly when your herd is expanding? CRV Avoncroft's Ovalert detects and identifies health and fertility signals earlier and more effectively than the human eye and works 24 hours a day.

TEXT INGE VAN DRIE

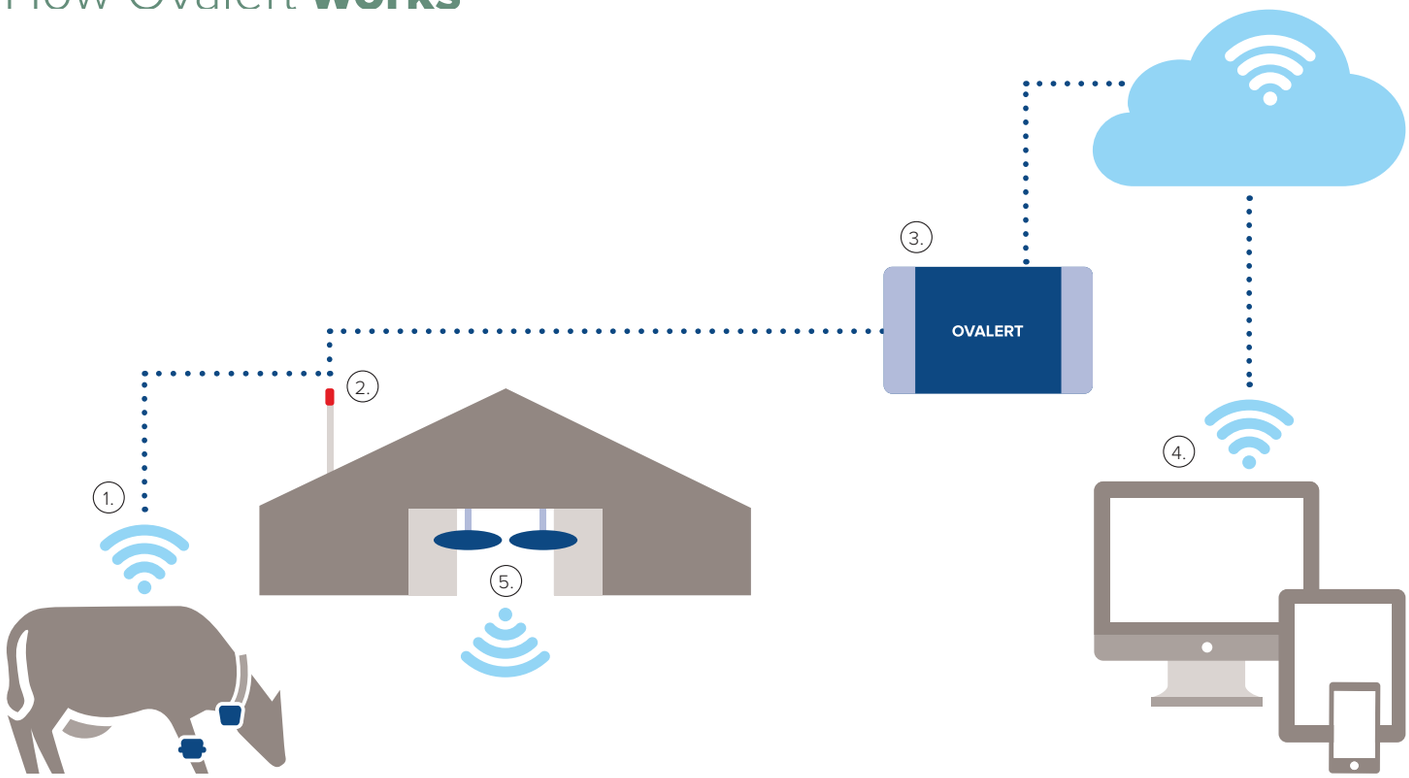
Very early in the morning or very late in the evening. These are the moments when most cows show signs of heat, according to US research. "Around 70% of bulling activity occurs at night – before 6am and after 6 pm," says CRV's global business development manager Joost van Kreij.
And that is precisely when there are few, if any, people around to spot it. And, to make matters worse, heat duration is often short. "More than 30% of cows have heats that persist for ewer than eight hours. And half of this group will persist for fewer than four hours," adds Mr van Kreij.
This means that the chance of missing heat signals is high. And this has significant consequences. "We know that cows with shorter heat duration have lower conception rates and that correct timing of insemination improves conception rates."
Better heat detection also offers other benefits. "Early and better detection of heat in heifers results in a lower age at first calving," adds Mr van Kreij. "And this results in lower rearing costs."
Also, a shorter calving interval means that cows can, potentially, complete more lactations. Their lifetime production increases and replacement costs decrease.

Joost van Kreij:
"It's like hiring an employee who works, meticulously, for 24 hours a day"

Whole-herd performance

Although heat detection is the first step to getting a cow or heifer in calf, the added value of a system like Ovalert is in the integration. "Heat detection has gradually become a commodity," says Mr van Kreij. "The true added value of Ovalert is integrated heat, health and feeding monitoring. There's are a lot of benefits here. Producers can easily monitor the performance of the whole herd with this data."
For example, Ovalert gives an excellent view on the feeding pattern of the group. "It gives an overview per group on the percentage of animals eating simultaneously," says Mr van Kreij. "This allows producers to see, easily, how precise their cows are being fed. Do they get their daily ration each day at 9am sharp? And how frequently is feed pushed up to the barrier? And how much feeding space is available?"
All this data helps producers to fine-tune their feeding strategy, according to Mr van Kreij. "The more consistent the ration is, the fewer

How Ovalert **works**



1. The Smarttag registers the movement and behaviour of the individual animal. Data collected in the last 24 hours is stored in the Smarttag.

2. When the animals are within the range of the antenna, all data from the Smarttag is collected.

3. The collected data will be transmitted to the heart of de system: the process controller which continually analyses the data.

4. The analysis results can be viewed on your smartphone, tablet or PC. The system immediately provides an alert relating to heat detection, abnormalities in the eating or rumination pattern and abnormalities in standing-lying behaviour or inactivity.

5. Beacons in the barn send signals to all tags regarding their current location in the barn.

the fluctuations in rumen pH and the higher the utilisation of the feed. And that all results in higher milk production."
Mr van Kreij notes that the data charts or graphs often deviate during the weekend. "That can, of course, be the producer's choice, but if not, then it is good that they become aware of these changes to feeding activity."

Early indication

Ovalert also records the behaviour of an animal – whether she's lying, cudding, standing or walking. It also monitors changes in eating time, rumination time, or inactive behaviour. All are easily spotted, not only for an individual cow, but also for the entire herd or for specific management groups.
"Changes in this behaviour could indicate that there's something wrong with the animal and that she requires further attention," says Mr van Kreij.
Typical behaviour for a cow, each day, is to spend between 12 and 14 hours lying down, in 11 lying periods. She'll also take between 2,500 and 3,000 steps, spend between four and six hours eating, during between nine and 14 'meals' or visits to the feed fence. And she'll spend between seven and 10 hours ruminating each day.
Using Ovalert, producers can easily check if their cows meet these typical goals. "For example, changes in the patterns can be an indication for health problems during transition, or for lameness," adds Mr van Kreij.
Cow positioning is one of the latest features of the system. "That's particularly useful for producers using an automatic milking system. They can quickly locate cows that need attention or treatment by following their position on their cow-house map."
Ovalert is in use in several countries in Europe, but also in Brazil, the US and China. And it's little wonder that producers, worldwide, are enthusiastic about the system according to Mr van Kreij. "It is like hiring an employee who works, meticulously, for 24 hours a day." |