

Cows

VITAL HERD

2015 Nominet Trust 100 Winner

2015 Nominet Trust 100 Winner

2015

AN E-PILL THAT MONITORS CATTLE HEALTH

By VitalHerd

Project URL: vitalherd.com

- Economic Empowerment
- Environment & Sustainability
- Physical Computing

The UN's Food and Agriculture Organization estimates that global demand for livestock products will increase by 70% to feed a world population expected to reach 9.6 billion by 2050. To deal with this demand, existing farms will have to improve their productivity significantly, and developments in technology are badly needed.

According to Brian Walsh, founder of Texas start-up Vital Herd, 40% of dairy cows fall sick each year at a huge cost to the industry, and 'early warning or auto-detection can help minimise complications or avoid them altogether'.

Vital Herd's e-pill is a health-monitoring device that could revolutionise dairy farming. The four-inch e-pill is swallowed by the cow and sits in the animal's stomach for the rest of its life. The device uses sonar to measure key metrics such as core temperature, heart rate, respiration and the contraction rate of the cow's rumen, as well as measuring PH, volatile fatty acid, oestrogen and lactic acid levels. Data is transmitted wirelessly to Vital Herd's cloud-based herd management software, which analyses the information ready for viewing by the farm manager. If something appears to be wrong with any of the cows, an alert is sent by email or text message.

Today, cows are still monitored by human observation, and issues are only spotted when the animals are already displaying visible symptoms. Vital Herd technology means that sickness in cows can be identified much earlier, minimising the risk of illness spreading and reducing the need for antibiotics.

The e-pill could also potentially allow farmers to optimise cows' diets for better milk production, by monitoring which feeds benefit the animals the most.

Vital Herd is supported by New York Angels, Farm Journal Media, and Hendon Manor Farm in the UK.

Image 'Cattle' courtesy of United Soybean Board.

Last updated: 25th of September, 2015