

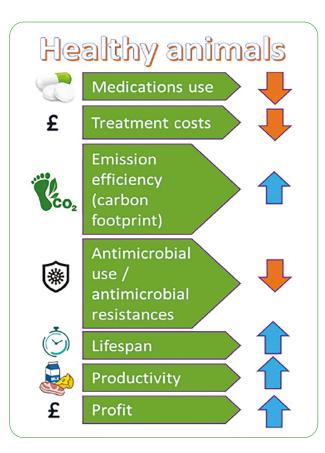
Animal Welfare

High welfare standards can help to ensure livestock health, wellbeing and **quality of life**, whilst also having other benefits to sustainability.

BENEFITS OF WELFARE

- → Good welfare can increase productivity and product quality
- → Increasing productivity can allow reduced stocking numbers
- → Consumers show increasing desire for ethical, welfare-friendly livestock products and value labelling that assures this, including 'organic', 'Red Tractor' and 'free range'







MEASURING WELFARE

Three important ways of measuring welfare are:

- **1. Observation** signs of illness, behaviour changes
- 2. Health checks veterinary, BCS, weighing
- **3. Diagnostic tools** somatic cell count, bloods

Technology can measure 24/7 with less labour



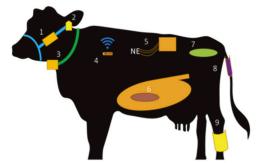
Cameras – **Behaviour, animal counts** Infrared – **Temperature, infections**



Microphones – Behaviours, stress, coughs and respiratory illnesses

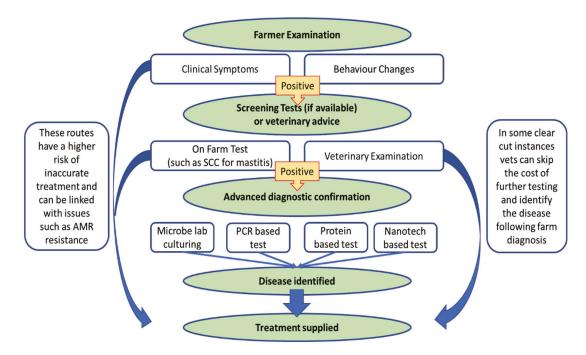


Water/feed sensors – **Behaviours**, stress, nutrition, productivity



- (1) halter accelerometer (behaviour) (2) ear tags (temp, behaviour) (3) neck collar devices (behaviour)
- (4) RFID plaster (nutrition) (5) stress analysis "tattoo"
- (6) reticulorumen bolus (rumination, temp), (7) vaginal bolus (oestrus, calving, temp),
- (8) upper tail ring devices (oestrus, calving) (9) rear leg pedometer (behaviour)

DETECTING DISEASES



POSITIVE ANIMAL WELFARE (PAW)

- Satisfaction with life is linked with health, longevity and wellbeing in humans, and is suggested to be true of animals, too. Essentially, the aim is to provide a life worth living.
- Changes can provide **positive experiences**, not just **avoid negatives**, such as pain and distress.
- Positives include enrichments like natural forest foraging and giving opportunities for play.
- PAW may help change consumers' ethical perspective of livestock production in the future.

