NE AgriTech Project - Evaluation on new Technology

Technology assessed: WellCalf by Smartbell

All of the herd is now calving in the Autumn. Health tag applied to calf at time of official tagging, and then removed at turnout, which may be 2.5–5 months old depending on weather, shed space, etc. The tag measures temperature and movement in real time, relayed to phone app. Stockperson receives alerts.

Criteria	Score (1–5)	Reason for assessment
Ease of Use	4	Applying the tag is very straight forward. The app has been developed with algorithms for dairy calves, meaning alerts do not necessarily always mean there is a problem e.g. beef calves are not as active as dairy calves after feeding from their mothers.
Reliability	5	Very good, support from company is timely and valuable when required. From the 140 tags applied in 2024/25 only 1 was lost (<1%). Tags can be used over several years – subsequent years reliability will be tracked in the project.
Value – what are the benefits?		• Very timely at picking up sick animals before showing signs of being sick, allowing for swift treatment, quick recovery time and little affect in performance • Gives the confidence to treat a calf early, whereas before you would question if it was sick and not treat till perhaps 12 hours later • An average is shown for temperature, activity, etc, allowing a quick look of the status of the animals when a high level of alerts are coming through e.g. a cow bulling in the shed.
Any drawbacks?		• False/Positive alerts due to algorithms being based on dairy calves, e.g. when bulling cows in the shed, calves were lying in the creep/refuge area more, which created alerts for low movements. • The build up of alerts on the app, meant at the peak of calving, there wasn't a large focus on the system over the stockpersons eye

Effectiveness – delivered what anticipated?	5	Yes, allows for early intervention and treatment, followed by a speedy recovery for the calf.
Value for money?	4	Yes – a quick return on investment was calculated for the business, as below, • Capital cost – £10,000 for 3 years (tags, app, and base stations for sheds) • 140 calves born/year x 3 = 420 calves over the 3 years = £23.80/calf • Potential weight loss 5% due to underlying health = 7.5kg/calf/winter, if 50% were affected = 525kg @ £4/kg = £2,100/yr x 3 years = £6,300. • Calf losses 5% = 7 calves/year x 3 = 21 calves over 3 years @ £1,200/hd = £25,200
Overall Assessment	4	Very good system, which allows for early detection of infection within the calves and facilitates swift treatment. However, there is room for improvement for the app and algorithms for the beef herd.