Factsheet:

Technology to Improve Business Performance and Resilience Part 2:

Beef

In this series of three fact sheets an arable, beef and sheep farmer have been interviewed to find out what key pieces of farm technology they cannot do without.

Niall Jeffrey farms with his family at Bielgrange near Dunbar in East Lothian. The business managed 350ha of arable and 240ha of upland grassland which supports the farm's 200 Aberdeen Angus spring calving cows. The business also acts as contractor for a further herd of 160 spring calving cows. The farm breeds its own replacements and the remaining calves are sold at around 12 months.

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With two herds to calve each spring, Niall has been looking at ways to reduce labour input using technology.

The farm is part of the Agri-EPI farm network so has been able to try out a range innovative technology including heat collars, beef monitors and drones.

Here are the farm's top pieces of technology that are in regular if not daily use.

1. Cloud based livestock recording software

Subscribing to a cloud-based recording system is estimated to save Niall and his team around 70 hours at calving time alone by having the ability to record events (e.g., calvings) as they happen. Information is put in at source in the calving shed and there is no duplication of paperwork back in the office. The system operates through an application (app) on a smart mobile phone. Data can be recorded without a mobile signal and synchronised when wifi is available. It is simple to use and can be accessed by all the team. Each member of staff has the app on their phone which they can click on (just like accessing BBC iPlayer). Scanning data in is like taking a photo with a phone. For example, if an animal had had to be jagged, on Monday morning everyone knew this treatment had taken place and the animal had a red flag on its ID with withdrawal period dates. Niall has a whiteboard in the calving shed with score card details for calving easy, vigour, udder, and teat scores. Once a cow has calved and the calf is tagged all the data on the cow and calf is captured in the calving shed and management information is gathered in a standardised way using the white board prompts. No notebook to transcribe in the office after calving. It reduces farm paperwork; calf registrations, movement records, weights and vet and med can all be recorded simply and quickly. For Niall's system to work as effectively as possible the business has also invested in another piece of technology, namely electronic identification tags (EID). Many farmers benefit from a cloud-based recording system without EID, but this investment at Beilgrange has moved recording and data management to the next level.Costs for a cloud based system are in the range of £40-50/month.

2. Electronic identification

Using EID tags complements the electronic recording system. Tags can be scanned rather than inputting management tag numbers leading to quicker and more accurate data recording. Together they improve record keeping and meeting compliance. It gives the farm the ability to easily identify an individual animal and monitor and measure. Changes can be picked up quickly and more informed decisions can be made. It takes paper out of the equation in the calving shed and at the crush. Electronic cattle tags cost around £1 more than a statutory tag, a stick reader £600.

3. Weigh bars

The crush is where Niall has made a significant investment in load bars an EID panel reader and weigh head to fully automate the weighing system. Together with electronic recording package animals' weights can be taken in real time every time they passed through the crush. There is no need to take the weigh head to the farm office and download the data. The weights are available on a smart phone immediately, so one less task to do. With the simplicity and joined up nature of the system at Beilgrange routine tasks are quicker, more enjoyable and generates essential management information. A set of weigh bars can cost around £1700 and EID panel reader £1800.

In Summary

- This technology has saved time and makes routine jobs more enjoyable at Bielgrange.

- Embracing a cloud-based recording system means information is accurately captured at source and not duplicated again back in the office with considerable time saved. Everyone in the business can access information so better communication to avoid mishaps.

- Essential record keeping for cross compliance is always up to date and available for inspection. Withdrawal periods are easy to follow.

- Adding on EID tags and a load bar will enhance the system, enabling accurate information to be gathered even quicker.

- Growth rates are easy to calculate from running cattle through the crush or from other routine treatments and can be readily used to inform management decisions.

- All the information is accurate and in one place when deciding on which animals to retain for breeding.

- For more information and to watch videos on EID and electronic weighing click on Technology to Improve Business Performance | Helping farmers in Scotland | Farm Advisory Service (fas.scot)

The table below summarises this factsheet. A cloud based recording system used via a smart phone means all records can be in one place. Using EID tags speeds up the process and allows management information to be quickly interrogated to make informed decisions. Adding load bars to the crush means live weights are easily captured and a business has a complete suite of information.

Cloud	Smart phone	EID Tag	Crush	Ratings
☁	📱			Accuracy ★★ Time saving ★ Management info ★ Compliance ready ★
☁	📱	EID Tag		Accuracy ★★★★★ Time saving ★★★★ Management info ★★ Compliance ready ★★★★★
☁	📱	EID Tag	(crush with operator and cattle)	Accuracy ★★★★★ Time saving ★★★★★ Management info ★★★★★ Compliance ready ★★★★★

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