



## PRESS RELEASE

### Small management changes yield huge carbon savings in UK suckler production

A combination of management and genetic changes can reduce the carbon footprint of an individual UK suckler unit by up to 40% while contributing to beef production efficiencies, shows data from a lifecycle analysis by Alltech E-CO<sub>2</sub> and Stabiliser Cattle Company.

“The UK suckler industry is under immense pressure to reduce its carbon footprint while still feeding a growing population in a financially feasible way,” says Seth Wareing, Business Manager of Stabiliser Cattle Company. “While the strength of the suckler industry is converting grassland unsuitable for growing crops into a high-quality protein for human consumption, there is room to do this more efficiently from both an environmental and financial standpoint.”

But in a diverse industry with many individual farm variables, how should this be done?

Benchmarking 12 different suckler herd system scenarios using industry performance from AHDB’s Stocktake report, the group calculated carbon savings from alternative management changes that could be made between each modelled system scenario using Alltech E-CO<sub>2</sub>’s life cycle analysis model.

“A life cycle analysis approach gives us the true picture of a farm’s environmental footprint by considering the balance of emissions across the entire production system. This is done by examining all inputs, processes and outputs of a system – from obtaining raw materials to products leaving the farm gate,” explains Dr Stephen Ross, Senior Sustainability Specialist for Alltech E-CO<sub>2</sub>.

Modeling each farm as a 100 cow suckler herd to finishing system on a predominately forage diet, inputs such as synthetic fertilizer and manure application, straw, farm fuel and feed were kept constant as the life cycle model calculated the emission outputs between different management changes. These changes included such things as, leaving bulls intact for finishing, reducing cow size, calving heifers at two and improving feed efficiency.

“What we found is that significant carbon savings were easily and quickly achievable by improving many things incrementally rather than one thing 100%,” says Dr Ross. “This is because when one small component is made more efficient, that efficiency will resonate in the supply chain and enable reductions across the entire life cycle.”

For example, offspring produced with feed efficient genetics yielded a carbon saving of 7%, which was driven by animals requiring less feed to maintain the same level of growth as animals that weren't as feed efficient.

When genetics for improved growth reduced the finishing time for steers from 23 months to 18 months, there was a carbon saving of 10%. When those same genetics were applied to bulls, the finishing time decreased to 13 months with a carbon saving of 16%.

“That 6% carbon saving from leaving bulls intact show there are huge opportunities for any producer to reduce their carbon footprint by making simple management decisions to improve efficiency, regardless of what they do with their genetic programme,” explains Mr Wareing. “Management changes like calving at two and improving the replacement rate allow for short and quick gain that can have a long-lasting impact on the industry.”

However, if producers want to fully optimise their systems for carbon and financial savings, they must incorporate genetic improvement with management changes at the same time as part of a combined suckler herd improvement strategy.

When combining improvements seen across the 12 modelled systems, a full steer finishing system had a carbon saving of 31% and the bull finishing system had a carbon saving of 40%.

“The full system, which includes improved fertility, growth rate and feed efficiency, reducing cow size, calving at two, all forage fed cows – all of these management and genetic factors when taken together encompass what the Stabiliser breed offers the UK suckler industry,” says Mr Wareing. “The tools and knowledge to make radical long-term reductions to the carbon footprint are already available whilst also enhancing the opportunity for profit.”

### **Implementing change on farm**

Before making any changes to their current system, suckler producers need to fully assess what impact these efficiencies and management changes may have on their fixed resources, says Independent Beef Specialist Dr Jimmy Hyslop. This needs to include things like grazing and shed space availability, forage production and cash flow implications where the timing of finishing stock sales may change.

“When farmers think about implementing new systems, they have to make fundamental changes in a coherent manner, so things work together without the farm having to make major investment costs,” says Dr Hyslop. “For example, if a farmer is increasing calving percentages but isn't decreasing the duration of the finishing system, they're suddenly adding a lot of extra pressure to shed requirements around calving for example or forage resources that they might not have the capacity for. However, the best way to free up those resources is to decrease the duration of finishing times from weaning to slaughter – thereby making these combined changes integral to the success of the overall suckler herd management plan.”

This also needs to include what kind of knock-on effects one change in the system may have on the efficiency of another and considerations that need to be taken beforehand to mitigate any issues. When shrinking the calving window to nine weeks, the life cycle model found carbon to actually increase by 9% due to the number of cows running a year without a calf due to the tighter bulling period. However, when improvements to fertility were made at the same time as tightening the calving block, such as improved cow body condition and bull fertility, more cows were bred in the nine-week window and carbon savings were improved by 4%.

After producers assess their system for what efficiencies can be made and how they will impact the overall system, they should then make a step by step implementation plan and see it through, says Dr Hyslop.

“In order to successfully work towards a more efficient system, it is paramount that producers fully commit to the plan. Changing course halfway through to go back to their former system can cause detrimental consequences to things like cashflow and resource availability,” says Dr Hyslop. “If a producer does the assessments, plans accordingly and sticks to it, they will quickly see the benefits of creating a more efficient and profitable suckler herd system.”

**- ENDS -**

**This information was from a virtual press briefing on September 3, 2020.**

### **Supporting pictures:**



*A life cycle analysis by Alltech E-CO<sub>2</sub> and Stabiliser Cattle Company found that a combination of genetic improvement and management changes can decrease carbon output by up to 40% in UK suckler systems when compared to industry averages.*

Images to be used in relation to this press release only.



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