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Suckler Beef Climate Scheme: draft metrics

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*Image:
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Key Points

- Implementation of the Suckler Beef Climate Scheme could perhaps be simplified by focusing on a few key metrics
- If management actions need to be monitored, recourse could in most cases perhaps be made to QA inspections and/or advisors' reporting
- A few management actions may, nonetheless, require more detailed monitoring
- Inclusion of biodiversity may be challenging

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Introduction

1. The initial list of suggested entry requirements and management options for the Suckler Beef Climate Scheme runs to almost 50 separate elements, many of which are not currently supported by easily verifiable quantitative data.
2. However, the task of scheme implementation can perhaps be simplified by distinguishing between scheme elements that could be monitored simply in terms of their presence or absence, and other elements that need to be monitored in some detail as the basis for payments. This approach is outlined below.

Pre-conditions

3. As entry requirements to the scheme, applicants would already need to be, and to remain for the duration of participation:
 - (a) members of the QMS assurance scheme¹ (because some scheme elements could potentially be monitored through Assurance inspections, but also because any brand premium will require some recognised form of Quality Assurance). This is easily verifiable as yes or no from existing data held by QMS.
4. Applicants would also need to be, and to remain for the duration of participation:
 - (b) compliant with whatever conditionality is in place for continuing direct payments (because the scheme is about going beyond baseline obligations stated by future SMR/GAEC/Greening-type compliance requirements). This would either require an on-farm inspection, or less onerously a written statement that they are compliant at the point of application, and a written commitment to adhere to baseline obligations with acceptance that if found to be in breach following an inspection that they would be ejected² from the scheme.

Enabling-type actions

5. A number of the suggested scheme elements relate to actions such as gathering data and planning that do not relate directly to emission mitigation, but are nonetheless essential to enabling best practice for achieving mitigation. Hence applicants would need to commit (supported with capital grant-aid where applicable) to:
 - (c) obtaining an accredited carbon audit prior to commencing any mitigation options funded under the scheme, plus an annual repeat of the audit (because monitoring progress under the scheme requires knowledge of the pre-scheme benchmark plus subsequent emissions);
 - (d) annually engaging the services of an accredited farm adviser (because the type of changes required will require external guidance);
 - (e) undertaking appropriate, accredited (CPD) training (because achieving mitigation requires new skills);

¹ This could perhaps be extended to also require membership of a health scheme.

² This could be varied according to the severity and/or persistence of breaches.

(f) annual planning of production and marketing activities, to include, for example, animal health and nutrition, pasture management and marketing channels' requirements (because mitigation requires intent and preparation);

(g) analysis of breeding/genetic profile and selection for animal and herd performance (because herd composition and genetics affect growth patterns and emissions);

(h) regular, objective measurement and recording of individual animals' liveweight at relevant growth stages (because mitigation requires Individual Animal Management and understanding liveweight gain and growth patterns is fundamental to this);³

(i) regular, objective measurement and recording of animal health status (because health affects emissions and liveweight gain);

(j) regular, objective measurement and recording of livestock diets and feed quality (because diet affects emissions and liveweight gain); and

(k) regular, objective measurement and recording of manure and slurry composition (because composition is relevant to nutrient management, but also affects emissions); and

(l) regular, objective measurement and recording of soil and pasture conditions (because soil health affects net emissions and pasture productivity – see also paras 15 & 16);

6. In principle, adherence to all of the above could be monitored in detail. However, given overlaps between individual elements and the scope for variation in how each element could legitimately be undertaken, assessing the quality of adherence would be challenging. Hence, it may be sufficient to simply monitor whether commitments have been honoured (i.e. yes or no), rather than trying to attempt to assess how they have been undertaken.
7. This would allow individual farmers some flexibility in deciding how best to combine different enabling-activities to suit their local circumstances, rather than having to follow more rigid prescriptions about what each activity should entail in isolation or in combination.⁴
8. Monitoring could perhaps be achieved through QA inspections and/or through annual farm advisers' reports. In either case, there would be a reliance on self-recording by participants to provide evidence of activities having been undertaken.⁵

Summative monitoring metrics

9. A further rationale for limiting the monitoring of enabling-type activities is that their collective impact is expressed in a few, more easily quantified, summative metrics that can more readily be used to

³ Electronic Identification (EID) will aid Individual Animal Management, but the degree to which individual farmers need to invest in their own on EID equipment rather than sharing readers and weigh crates will vary, and marts and abattoirs will have a key role to play in gathering and sharing weight data.

⁴ The use of Heatmaps to visualise and interpret, with advisory support, farm-level data may help in this regard, without necessarily being used for formal monitoring for administrative purposes.

⁵ There is a risk that this will be seen as a 'tick-box' exercise, but the over-riding need is to encourage uptake of best management practices to achieve emission reductions without incurring excessive inspection burdens for participants and scheme administrators alike. The role and behaviour of farm advisers is likely to be key in this regard, including with respect to the quality of data used for carbon audits, farm analysis and planning as well as any possible formal monitoring. Processes for accrediting and deploying advisors will need to be designed carefully.

support the proposed tiering of payments. Specifically, routinely collected CTS data can be used to calculate:

(m) calving rates (which matter because higher rates reduce and dilute the wasted overhead emissions from barren cows);

(n) on-farm mortality rates (which matter because lower rates reduce and dilute the wasted emissions from animals that fail to enter the food chain);

(o) pace of liveweight gain (because more rapid liveweight gains, to any given growth stage and ultimately slaughter, reduces emissions from a given animal);⁶ and

(p) age at first calving and calving intervals (because shorter intervals reduce the wasted emissions from cows not in-calf).

10. All four of these metrics are affected by the enabling-type actions listed above, influence the emissions-intensity of beef, and can be calculated from information already collected routinely.⁷ As such, they offer a convenient means of summarising the effectiveness of management actions without the need to know precisely how individual actions have been undertaken and/or combined. Moreover, because each metric can be quantified precisely, they can be used to differentiate payments according to different performance levels.⁸

Other management actions⁹

11. Although the four metrics listed above summarise the collective impact of a wide range of enabling-type actions, they do not capture the mitigation effects of adopting some discrete technologies. In particular, whilst the volume and composition of manure and slurry is influenced by elements already listed above, subsequent management of manure and slurry can also affect emissions. Hence scheme participants may need to be encouraged (again with grant-aid, where appropriate) to:
- (q) use covered slurry stores (because uncovered slurry is a major source of emissions); and
- (r) use appropriate manure and slurry spreading technologies (because the timing and method of spreading can reduce emissions).
12. As with enabling-type actions, these additional actions could perhaps be monitored simply in terms of whether they are adopted or not. Again, this might lend itself to QA inspections and/or farm advisers' reports.
13. Separately, enteric methane emissions can potentially be reduced directly through encouraging scheme participants to:

⁶ Which links back to para 5h above. Ideally, date of birth rather than of registration would be used.

⁷ Currently, data are held by CTS. However, CTS is to be replaced, at which point ScotEID will collect and all hold Scottish cattle data. SAOS are currently working on a KTIF project (the 'Livestock Performance Programme') exploring how to present farmers' own CTS data back to them to help use performance metrics such as those suggested above. This may or may not overlap with the envisaged use of Heatmap analysis.

⁸ Different tier thresholds could apply to different types of producers. In addition, for store producers, liveweight gain would be measured to the point of sale; for finishers it would be from the point of buying-in to slaughter; calving rates would not apply to finishers.

⁹ There may be a case for framing some or all of these other actions as pre-conditions for scheme membership, as minimum best practice.

- (s) use methane inhibitor feed additives (because additives have the potential to significantly reduce enteric emissions).
14. However, if on-going payments are to be attached to the use of feed additives (and indeed possibly diets in general) because of their distinct effect on emissions, monitoring may need to be more detailed than simply whether additives are used or not. That is, the type of additive, the proportion of cattle receiving it and the regularity of treatments can all influence mitigation effectiveness. Such monitoring could possibly still be conducted via QA inspections or farm advisers' reports, but would require more prescriptive reporting templates. For example, for purchase receipts, diary entries and dates-stamped photos/videos of activities.
15. Similarly, on-going payments could be used to encourage participants to:
- (t) engage in activities to enhance carbon sequestration (because soils and pasture can be managed to increase carbon uptake and storage, to reduce net emissions).
16. However, again, monitoring would need to be more detailed than simply whether activities were undertaken or not. For example, the timing and extent of activities influences sequestration potential, as does the baseline condition.
17. These last two examples also highlight that whilst the actual desired impact is to reduce net emissions, the impracticality of measuring actual emissions on-farm forces consideration of proxy measures, and that the appropriateness of particular proxies depends on the way in which mitigation is achieved but also how it is reflected in different carbon calculators and the different versions of the National Inventory.

Further considerations

18. Beyond mitigating emissions, the scheme also aims to improve farm profitability, reduce waste (including overuse of health products), contribute to wider rural economic activity and improve biodiversity. The last two of these are likely to be extremely challenging to monitor with any degree of accuracy, but some attempt may be required – particularly for biodiversity.
19. Changes to farm profitability will be easier to quantify and certainly should be monitored by farm advisers as part of the overall business planning process. However, since changes in farm profitability are not intended to be a basis for payments, there is no need for them to be formally monitored by scheme managers.¹⁰ Similarly, unless waste reductions are intended to be a basis for payments, they need not be monitored formally. However, they could possibly be included for farm advisory purposes.

¹⁰ Unless required for subsequent evaluations of the scheme



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