

Written Evidence submitted by The National Sheep Association (SH0042)

The National Sheep Association is a charitable company that represents the views of sheep farmers through a membership structure across the United Kingdom of Great Britain and Northern Ireland.

How can the Government measure progress towards its goal of making all soils sustainably managed by 2030? What are the challenges in gathering data to measure soil health how can these barriers be overcome?

There must be a reliable, comprehensive and assessable method of measuring and reporting to allow a meaningful benchmark for businesses to be able to make informed management decisions. There are already a number of different soil testing approaches and we believe it would be wrong to force farmers to use a particular type of soil test, so we recommend that Govt select a number of key soil KPIs such as pH, and Organic Matter. Sustainable management of soils is not all about lab based soil testing so Govt should consider data collection over soil management, in particular soil run off.

NSA would highlight the success of Northern Ireland's strategy which provides free nationwide soil testing to farmers this would likely accelerate uptake and encourage farmers and growers to incorporate testing in business-as-usual management, more frequently than the statutory five years.

NSA would like to see further investment in drone and satellite technologies along with further innovation to ensure that the variety of soils types across England are captured and managed accordingly. Much of the technology and tools available now incur large costs and the lack of benchmark makes interpreting the results difficult.

Making all soils sustainably managed should not be limited to agricultural soils. The damage to soils, and to habitats affected by soils, should not be ignored in the areas of building, infrastructure development such as roads, horse and pony paddocks, and in particular roadside verge management. In rural areas much sedimentation is caused by bank erosion caused through traffic.

Do current regulations ensure that all landowners/land managers maintain and/or improve soil health? If not, how should they be improved?

No. We don't consider that current regulations do anything to improve soil health, if anything they can be argued to maintain, or prevent soil damage but this is usually at an extreme end of the spectrum. As highlighted earlier there must be a comprehensive approach to soil testing ensuring there is a highly subsidised or free service available to encourage uptake. NSA would also advocate for the continued investment in knowledge transfer and would highlight that soil testing may be a relatively new management technique to some farms so help disseminating the results will be key, along with identifying actions needed.

Will the standards under Environmental Land Management schemes have sufficient ambition and flexibility to restore soils across different types of agricultural land? What are the threats and opportunities for soil health as ELMs are introduced?

As ELMs currently stands the SFI is only available to BPS claimants, NSA would indicate that to engage with farmers across the country that are operating under 'non-traditional' agreements there must be options that ensure land under these agreements are not left behind. Offering free or subsidised soil testing for those renting land or managing land that isn't owned could be key in ensuring uptake. NSA would be encouraged to see further investment in the solutions and management techniques to improve soil health such as; lime application to optimise core soil health, rotational grazing (electric fencing), and the establishment of herbal and clover leys.

ELMs introduced the first standards last year in the SFI which included some soil health management options like soil testing for organic matter, applications of organic manures and cover cropping. SFI must now evolve and address nutrient management and reduced tillage, if appropriate to the farming system. Payment rates need to act as an incentive to participation. NSA would like to see the conservation and maintenance of these soils properly rewarded.

There must be an inclusion in any future productivity scheme for soil health management to ensure that some of the costs of capital investment can be covered.

What changes do we need to see in the wider food and agriculture sector to encourage better soil management and how can the Government support this transition?

No single set of on-farm management practices can put soils in good health, particularly given the variation of soil types across the country. Good soil husbandry requires a flexible approach that is likely to vary from field to field, and season to season. The agricultural industry has a huge breadth of experience and depth of understanding of the practical issues involved in the management of soils within UK crop rotations. However, the NSA would advocate for the absolute need for further investment and research into the absolute benefits of permanent pastures, grassland, and temporary leys and forage crops, to soil biology and ecology.

Soil acts as a carbon 'sink', locking in GHGs that would otherwise be released into the atmosphere. UK soils, particularly farmland and degraded peatlands, have the ability to store carbon and grow food. It is vital that the education between consumer and product happens now. British agriculture is operating in an increasingly difficult market place with increasing cost, asking farmers to add additional costs to their products will force them into being uncompetitive, this is a huge risk especially considering the NZ and AUS FTA's agreed, seeing products flown halfway across the world but ending up on shelves cheaper than a product from the UK.

Government must invest in farming and provide an encouraging landscape for those in business but the future farmers of the world.

Agriculture is increasingly well aware of the benefits of good soils and are often managing them accordingly seeing improved biodiversity; flood and erosion mitigation; increased crop yields, better animal health and welfare; a reduced need for artificial fertilisers and therefore less pollution; and enhanced nutritional value of food produced. However, it is often the cost of rectifying degraded soils or acidic soils that have been out of production or intensively

farmed that especially those on short term leasing agreements cannot afford or will not reap the benefits from.

We believe some of the recommendations in the Rock review regarding tenancies could help achieve better soil management through longer term tenancies and more detailed agreements relating to soil health.

NSA strongly feels that industrial level biomass crop production risks significant soil damage. To date these crops have been double subsidised through BPS and FITs, with many crops being contracted out and management beyond the reach of the land owner. A profitable farming and food sector would avoid farmers being driven to seek other more lucrative forms of land use (such as contracted biomass production for AD plants).

What does UK Government need to do to tackle other stressors on soil health such as soil contamination?

- Sewage disposal can often contribute to soil pollution owing to disposal methods of sewage sludge from domestic and commercial waste
- Mining activities have caused soil pollution on a large scale. The operations cause a change of the landscape and expose the previously undisturbed soils to the elements of weather, an increasing concern considering the newly approved coal mine courtesy of Woodhouse Colliery in West Cumbria by Levelling Up Secretary Michael Gove
- Though not a direct contributing factor to soil pollution, deforestation leads to the removal of the shield that protects the soil against the agents of erosion. The exposed soil is easily eroded and exposed to artificial chemical pollutants from the air, wind, and rain.
- Industrial wastes or byproducts are among the leading causes of soil pollution. They can be in the form of gas, liquid, or solid substances. Carbon dioxide, nitrogen dioxide, sulfur dioxide, and carbon monoxide are some of the gases produced from industrial activities that cause considerable pollution to soil indirectly. It is estimated that the UK generated 43.9 million tonnes of commercial and industrial (C&I) waste in 2018.
- Household rubbish - landfill contains wastes such as food waste, plastics, industrial wastes, e-waste, and general household wastes that can damage surrounding soils for years.

It is clear that there is a huge amount of work to do across industries to tackle soil health and this must be an industry wide approach. NSA would advocate that agriculture cannot be held to standards that exceed other industries if they are to trample in the wake of the improvements succeeded by agriculture.

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