

Written evidence submitted by G.E.Ward & Son (FR0083)

Dear Sir/Madam,

I am writing as a Lincolnshire based arable farmer producing combinable crops. We have historically imported and spread organic manures as we recognise the important contribution this makes to soil health as well as the overall fertility provided to the crops.

Large areas of the main UK grain producing areas of East Anglia have seen diminishing levels of soil organic matter over the last 40 years. This is a reflection both historic soil cultivation policy and a sustained period of net offtake of organic matter in the form of crop produce as grain and/or straw. To help redress this balance organic manures are imported and spread to try to increase soil organic matters as part of a sustainable approach to crop production.

Over the years we have produced crops using the Defra RB209 guidelines for crop nutrition and have applied the recommended rates of synthetic fertilisers and trace elements. Crops can be grown in this way but it does nothing to maintain the health and diversity of the soil biology that we are increasingly realising is such a massive part of producing crops that are healthier, more resilient and able to produce good levels of output with less artificial inputs. Organic manures are as important for the biology that is provided to these soils, as it is for the nutrition they provide.

I would also suggest that phosphate and potash levels have dropped alongside soil organic matter levels in these highly intensive crop production areas. The flow of organic matter in produce to areas of high consumption either as animal feed or human food has led to greater concentrations of phosphate, potash and organic matter in soils in other parts of the country such as the south and west where the derived manure by products are ultimately spread. These livestock producing areas are net importers of organic matter and the status of the soil indices will reflect that. Another area of higher phosphate, potash and organic matter will be in the immediate proximity to large areas of population such as cities where utility companies have been returning treated sewage sludge to land within the closest proximity in order to keep transport costs to a minimum. Generally the soils in the arable east are screaming out for much more in the way of organic manures and the flow of these materials requires continuity to ensure that these often depleted soils get suitably replenished.

As farmers, what we do is shaped by the policy that is put in front of us. In the past we have had initiatives such as soil protection reviews introduced to try and encourage us to manage soils better. We are now entering a transition period to being carbon neutral as a nation which will require much more radical initiatives and changes. Farmers are putting much more focus on finding more sustainable production systems such as a regenerative agriculture model. Understanding our soils better is the next frontier. We want to this, we need to do this and we are prepared to do this. However, the policy dots have got to join up to facilitate it.

Reduced tillage crop establishment and soil management in general requires very careful attention to detail. Less cultivations means less nitrogen is mineralised and is then not available for the establishment of the following crop. Autumn sown cereal crops with high previous crop residue retention are even more exposed to nitrogen deficiency during establishment as the carbon to nitrogen ratio in the soil is too high. Organic manures which could previously be applied in the autumn help to redress this important balance and allow crops to grow uninhibited.

Primary to avoiding mechanical compaction of soils is doing field work operations when the soil conditions are at their load bearing optimum. This occurs is when the soils are dry. Consequently, the summer and autumn and has been the time when organic manures have been applied for

centuries. Growing crops with high evapotranspiration rates dry the soil to depth in the summer months prior to harvest. Once harvested there is usually an optimum period for spreading prior to any cultivations. To move this spreading window to the spring for many crops as the Environment Agency has decreed is often the worst time for heavy spreading vehicles to be operating as fields which are usually still wet to field capacity post winter and have had little chance to dry to any depth in the lower spring temperatures.

Spreading of treated sewage sludge in the summer has proved to be a very cost-effective way of providing autumn sown crops with good levels of phosphate and general nutrition along with organic matter to improve the soil health. Due to the large amount produced over the rest of the year the spreading programme undertaken by specialist contractors takes several months to complete. This usually starts with land that has been cleared after oilseed rape crops which will subsequently be sown with winter wheat. Under the EA legislation this is no longer an option with the added downside being utilities companies tipping raw untreated sewage into rivers if they exceed their own storage capacity. How this can be considered to be a sustainable approach to management of a valuable resource or of the environment is absurd. By returning it to land the natural cycle of organic matter and nutrition is completed. Additionally, elements such as phosphate are a finite resource and need to be recycled if at all possible. By not using a natural, locally sourced waste product we are then forced back to the option of artificial fertilisers shipped here from all over the world. This is at a time when we are trying to better manage the environment, the soils and significantly reduce greenhouse gas emissions.

Policy has to be workable if we are ever going to produce food with more of a closed loop model of arable farming and to manage the environment in an increasingly sustainable way. I would therefore like to see the EA's implementation of the Farming Rules for Water Regulations amended to allow a continuation of their previous policy of allowing organic manure applications in the autumn to autumn sown cereal crops for the reasons mentioned above.

Yours faithfully,

Nick Ward B.Sc(Hons), N.Sch.

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