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Graeme Dey MSP

Convener

Environment, Climate Change and

Land Reform Committee

By email to ecclr.commtee@parliament.scot

Your ref:

Our ref:

20 February 2017

Dear Graeme,

Draft Climate Change Plan (RPP3) – agriculture and soil testing

I'm writing in response to your letter of 27 January 2017 on soil testing and the Climate Change Plan. You set out a number of questions, and I am happy to provide the following information, which I hope you will find helpful.

The language in the draft Climate Change Plan marks a change in approach on soil testing, but the intent is still exactly the same – that all improved land is tested routinely for pH, and potentially other nutrients. We have set out in the draft Climate Change Plan a timetable for when we expect that to happen, with a phased approach through to all improved land being tested by 2023. It is important to take a phased approach because soil should be tested routinely every five or six years, so testing should be smoothed over the period to avoid spikes in demand for laboratories, and to make it more manageable for farmers.

We know from surveys that many, if not most, farmers on improved land are already soil testing. I believe that the rest can be persuaded that soil testing is so obviously in the financial interests of those who apply nitrogen fertiliser that they will make it an integral part of their practices.

Performing the soil test itself does not reduce emissions. For that there has to be behaviour change by the farmer, through acting on the results to improve the productivity of their soil. This can best be achieved by working with farmers, particularly to persuade them that undertaking measures like soil testing is good for their pocket as well as the planet.

There is a significant risk that moving immediately to a regulatory approach achieves the opposite intended effect of alienating farmers and damaging their view of climate friendly farming. Most of the measures that farmers can take to reduce emissions cannot be regulated for, and are entirely dependent on them voluntarily implementing them. If we create an impression among farmers that climate friendly farming is something being done to

them, not with them, through enforcement and penalties, they will turn against all of the other steps that we want them to take. We cannot significantly reduce emissions from agriculture without the goodwill of the custodians of the land. I believe that engagement and encouragement will achieve the objectives we have set out in the draft Climate Change Plan, but if they do not, then that will be the time to introduce regulations – and the timetable we have set out will guide our decisions.

We are working with stakeholders on how best to achieve universal soil testing on improved land, and will consult more widely in coming months. I would very much welcome the views of the Committee into that process, and will of course keep you included in our consultation plans.

We have said that this policy outcome is aimed at improved land – this is land that would normally have chemical nitrogen fertiliser applied. This is difficult to define, so we have been working with the James Hutton Institute on various options for using existing land classifications. We want to ensure that we cover as much land that receives inorganic nitrogen as we can, while not requiring testing on unsuitable land. This is important for many reasons, not least of which is that we wouldn't want to perversely encourage liming or fertiliser application on land of high nature value. But as this makes clear, we have a lot of work still to undertake to establish how best a regulatory approach, if required, might work.

On audit and evaluation, we would consult on options but our over-riding aim would be proportionality. The penalty for a simple breach of CAP Greening requirements can lead to a severe reduction in the basic payment for the relevant area, which is in our view excessive, so this is not the type of approach we will take. We want to learn the lessons from SEPA's priority river catchment work, where a supportive role in providing advice to farmers was fruitful for everyone.

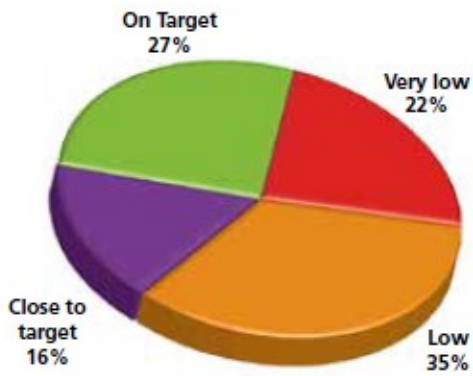
Current data on soil testing comes from surveys. In the Scottish Survey of Farm Structure and Methods 2016¹, 30% of farmers on grassland and 64% of farmers on other land said that they tested soil in the last year – though of course it's very unlikely that many mean they tested all of their improved land. The British Survey of Fertiliser Practice 2015² shows that only 34.7% of tillage area and 8.1% of grassland area had any sort of pH test performed on it. Although this is for Great Britain as a whole it does give a general indication of the use of soil testing. We do not have an independent means of verifying the results of these surveys.

Of potentially more significance is evidence on soil pH. A recent SEPA study (see chart below) showed that, on grassland in the Water of Coyle catchment in Ayrshire, 22% of fields had very low pH, 35% were low and only 27% were on target. On arable land in the East Pow catchment in Perthshire, 14% of fields had very low pH, 20% had low pH and only 26% were on target. Given the excellent cost-effectiveness of liming where soil pH is low or very low, especially on arable land, this suggests that a significant number of farmers do not know their soil pH, or do not understand its significance to profitability. That is something I wish to change and I would welcome the committee's input to this work.

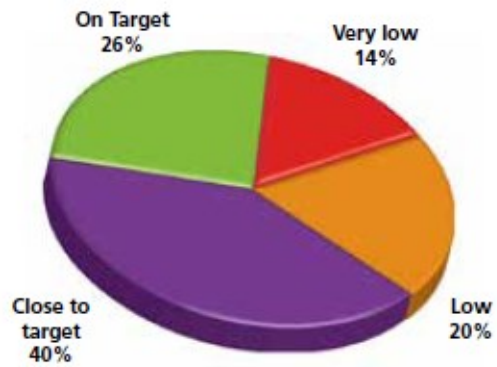
¹ <http://www.gov.scot/Publications/2016/11/4283>

² https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/516111/fertiliseruse-report2015-14apr16.pdf

Grassland soil pH



Arable soil pH



I hope that this information will be useful to you and your members, and I would be happy to answer any further questions you have.

Yours sincerely,

FERGUS EWING
CABINET SECRETARY FOR THE RURAL ECONOMY AND CONNECTIVITY