

Nutrient management: managing the application of livestock manures sustainably

February 2023

Question 1: Do you support the proposal to introduce a licensing scheme, to be operational until 2025, to allow higher levels of nitrogen application in certain specified circumstances? Please include any evidence to support your view.

We support the proposed licensing scheme, which recognises the challenges faced by the agricultural sector following the introduction of the Water Resources (Control of Agricultural Pollution)(Wales) Regulations 2021, higher input costs and wider economic uncertainty. There is concern that increasing the amount of nitrogen fertiliser that could be spread under the 2021 Regulations would significantly increase the risk to the aquatic environment. We deal with our specific concerns in our response to question 3.

The benefits of a licensing or permitting system, rather than simply requiring compliance with regulations or general binding rules (GBR), are that it provides:

- a means whereby permission to undertake an activity can be refused e.g because of the unsuitability of the site or skill set of the operator. We deal specifically with site suitability in our response to question 5;
- a means of raising income to fund monitoring and compliance checking, reducing reliance on taxpayer funding and following the “polluter pays” principle;
- a basis for knowing the extent and location of the licensed activity, and who is undertaking it;
- for those with a licence, a demonstration that they are (assuming they are compliant) meeting the required standards;
- for the public, transparency as to who is licensed and the standards they have to meet;

- an ability to regulate and take enforcement action where necessary if the permit conditions are not met.

A licensing system provides a stronger means of ensuring a level playing field than regulations alone and ensures those who invest in the measures necessary to be compliant are not undercut by those who do not. In October 2019 the Wales Land Management Forum agricultural pollution subgroup heard evidence from two agricultural contractors. We will be dealing with their concerns in our response to question 3 but would add here that they were advocating a licensing scheme for contractors. They were concerned about being undercut on standards. They supported what they described as a 'three strikes and out' licensing scheme for contractors. We would ask that WG also consider the issue of contractor licensing as a way of ensuring regulatory compliance.

Question 2: Do you agree with the proposed eligibility criteria? If not, why not and what criteria would you propose?

Yes.

The 80% grassland requirement would ensure a high nitrogen uptake as well as acting as a permanent cover crop, helping to limit soil and nutrient loss from runoff.

The principal of protecting soil has long been established in guidance and the 80% grassland requirement under any licensing scheme would reinforce this message. This would be reinforced by Chapter 4.3.4 of the draft Sustainable Farming Scheme which states as a Universal Action that 'To protect soil from erosion, farmers will need to establish a multi-species cover crop on all land which is uncropped over winter.'

The requirement to demonstrate the necessary levels of crop need for the planned nutrient application would ensure that not only nitrogen was taken into account in calculating crop need, phosphorus would also be included. We will deal with this in more detail in our response to question 7.

We believe the proposed eligibility criteria would have the additional benefit of discouraging excessive and damaging levels of maize cultivation. CoGAP has given specific advice for the cultivation of maize including when and where it is grown and how to reduce runoff by under sowing, and the post-harvest planting of a cover crop. Similar advice has been given by the Maize Growers' Association. Dwr Cymru/Welsh Water are currently funding under sowing on the Cleddau Catchment in Pembrokeshire. Guidance on sustainable maize growing is frequently ignored.

Question 3: Do you agree with the proposal to require a clear demonstration of crop need as described above?

Yes.

We support the proposal that farms seeking a licence to apply in excess of the 170kg/ha annual limit to their holding must submit a calculation of the nitrogen and phosphorus crop requirement as part of the application process.

We are fearful that the motivation for some applications for a derogation would be to allow spreading in excess of 170 kg/ha because of overstocking of a holding. Insistence on a crop need requirement would discourage such applicants. Overstocking should be dealt with by cutting herd size, reviewing the farm business model and adopting an agroecological approach to farming. Too many animals for too little land are often the root cause of farming practices likely to increase the risk of pollution. Storage sufficient for five months of slurry achieves little if there is insufficient land upon which to spread.

In October 2019 the Wales Land Management Forum agricultural pollution sub-group heard evidence from two agricultural contractors of slurry being spread to excess, prior to anticipated heavy rain and when ground conditions were inappropriate. This inevitably leads to water pollution. To avoid malpractice crop need must clearly be demonstrated. The evidence for this may be found in the published minutes on the NRW website. It is necessary to read the minutes for both October and November 2019 to appreciate the full extent of the evidence.

We would ask that soil testing for N, P, K and pH be a requirement for any application for a derogation as it would be for entry into the proposed Sustainable Farming Scheme. This would apply to every field upon which spreading would take place.

NRW has stated that any application of slurry or manure above crop requirements amounts to a waste disposal activity. It is essential that a licence application demonstrates a clear crop need to prevent it being used as a cover for illegal waste disposal activity.

Question 4: Do you agree with the proposed contents of the nutrient management plan?

Yes, but would make further comment.

Whilst we would agree with the requirements for the nutrient management plan we would comment that risk maps using field identifiers should not only determine when and where manures are spread but should also be used to calculate the area of land available for spreading. This would, indirectly, ensure stocking density for individual farms is commensurate with the available land suitable for spreading. The permitted level of manure spreading should reflect the individual circumstances of the farm. Some farms, with say, a high percentage of steeply sloping land situated in an area of high rainfall, have less capacity to apply slurry.

We made reference in our answer to question 3 to the evidence of two agricultural contractors before the October meeting of the WLMF agricultural pollution subgroup. They also gave evidence of the same few fields being repeatedly spread with inappropriate amounts of slurry when the farmer otherwise stated that slurry was being spread across the holding. We note that the NMP must give an outline of the fields where organic manure is to be applied. Because of the bad practice outlined above, there should be targeted monitoring of where manures are applied under licence, to discourage bad practice.

Question 5: How might risks to the wider environment best be taken into account and nutrient management plans be assessed in a standardised way?

The underlying aim of the Regulations is to safeguard our aquatic environment from pollution from agricultural activities.

Submitted NMPs will be assessed against risks to the wider environment and will include particular focus on impacts, including cumulative impacts. On SAC rivers it is a requirement of NRW and the local authority as Competent Authorities under the Conservation of Habitats and Species Regulations 2017 to ensure that a cumulative impact assessment is undertaken and that a conclusion of no adverse impact can be met. We see this as fundamental, and the message should be reinforced to NRW and planning authorities. Local authorities should have a mechanism to ensure that the cumulative impact is considered on a catchment basis and does not stop at the local authority boundary. Furthermore, no application should be allowed where an SAC river is known to currently not meet compliance requirements: this will be a fundamental delivery action of the newly established nutrient management boards.

In SAC catchments, NMPs will need to be sufficiently detailed to enable NRW to consider whether an 'appropriate assessment' is needed. This will require applications to accurately reflect the specific nature of the site and SAC features in question.

There must be adequate monitoring to allow decisions based on cumulative impact. The tributaries of the Wye where intensive chicken rearing has been established are examples where cumulative impact should be taken into account. Such monitoring should not only include agricultural sources of nutrient but those produced domestically, by the water industry and by industry in general. We support the proposal that this will include failing river catchments and designated sites but that designated sites are not limited to SACs and SSSIs. The issues surrounding water pollution are not limited to high profile, designated rivers.

We are asked how NMPs might be assessed in a standardised way. We accept that there should be a standard list of requirements for any such plans, but the application of manure based on the plans should also be based on local climatic and topographic conditions to ensure that manures are safely applied. We note that on the NRW map of the distribution of dairy farms in Wales there are similar concentrations in southwest Wales and northeast Wales yet, when one looks at the

NRW map of pollution incidents in Wales, there is a much heavier concentration of pollution incidents in southwest Wales. There are three factors which might influence this; topography, meteorology and culture. It should be made clear to applicants that topography and meteorology are factors that will be considered. The contrast in the level of pollution incidents in southwest Wales and northeast Wales must be influenced by the prevalence of flat land in northeast Wales and higher rainfall in southwest Wales. Where the risks are higher, scrutiny should be greater.

Question 6: Do you agree it is appropriate to require soil testing and analysis to inform nutrient management plans?

Yes.

A phosphorus management approach will be necessary. This will be in addition to the N holding limit set out in the 2021 Regulations. This will require calculation to demonstrate a crop requirement for phosphorus application and the use of phosphorus being applied.

It is surprising that there is no regulatory requirement to undertake soil testing. Many farmers have discovered that, whilst appearing to be a further cost of production, soil testing has had substantial economic benefits. It prevents money being spent on unnecessary fertiliser when it is realised that soil may not be deficient in a particular nutrient or that nutrient can be made available to crops by a pH adjustment by simple liming. The Sustainable Farming Scheme proposes soil testing as a scheme entry requirement but that would be limited to those farms wishing to join the Scheme.

Soil testing and analysis should be required to inform nutrient management plans for those farms applying for a derogation. We would also advocate compulsory soil testing for all farms where fertiliser, whether animal or manufactured, is applied.

We would refer here to the work of the Lancaster University RePhoKus Project on the Wye catchment which demonstrated that on some farms, not only was there already a soil P surplus, but that this might exist for a number of years without further application, such was the level of phosphorus within the soil. Chapter 4 of the

consultation document acknowledges this in stating that managing the supply of nutrients across several rotations is necessary rather than just across one crop cycle.

We would also suggest that total soil phosphorus analysis should be completed as well as analysing for available phosphorus.

**Question 7: Should a 'whole farm phosphorus balance approach' be considered?
Please include reasons and evidence to support your view.**

Dairy and poultry are two examples of farming where increased intensification has resulted in more animals being housed on farm than the land available would naturally support. To sustain this level of stocking inputs from outside are needed. These could include feed and bedding for animals, both of which could increase phosphorus levels on the farm. Satisfying the need for external inputs of feed in turn gives rise to more nutrient being produced than the available land can process. The industry has increased the level of external inputs but has been slow to deal with the consequential increase in manure. There has been a reluctance to invest in dealing with this consequence.

We see no alternative to soil testing as part of any licensing scheme and, similarly, we see no alternative to considering all phosphorus inputs to a farm. Some sectors of the industry acknowledge this, and Avara Foods are considering reducing the phosphorus content of feed supplied to intensive chicken units in Herefordshire.

The phosphorus issue is complex. The issues include external inputs, available soil phosphorus, the effects of soil chemistry and the historical lack of a compulsory soil testing requirement. Efforts to reduce phosphorus pollution are needed at every level. We would emphasise at this point that the control of phosphorus starts at the planning stage. We would also state that proposing a way of dealing with excess nutrient that allows a planning authority to allow a development should not be limited to the first disposal but should follow any nutrient produced to its final disposal.

In a recent Judicial Review of a Powys County Council planning decision brought by the Angling Trust the judge was satisfied that the council had taken reasonable steps

to protect the environment in accepting an undertaking that chicken litter from a 100,000-bird unit would be disposed of at an anaerobic digester plant. This deals with how the planning authority dealt with the application but does not adequately protect the environment as the potential pollutant is merely changed from chicken litter to digestate. It is also an example of failure to account for cumulative impact on a catchment level.

We are pleased to see that in Herefordshire, a proposed IPU expansion was refused because of uncertainties over the final disposal of resulting litter. The Planning Authority stated “It is not possible to conclude that the development does not result in increased manure being spread in the catchment, and it is therefore not possible to conclude that there will not be an adverse impact upon the River Wye SAC,” “Furthermore, it is not clear where the phosphate-rich digestate and other products from the AD plant which will receive a proportion of the litter from these poultry units will be spread.”

There should be a requirement for Welsh planning authorities to similarly consider the final disposal of IPU litter, otherwise the effect of the Herefordshire decision may be to drive further IPU expansion over the border into Wales, to the detriment of the Welsh environment.

There are concerns over the operational environmental safety record of AD plants.

Question 8: Should nutrient management plans require other soil nutrient and soil condition factors other than nitrogen and phosphorus? If so which?

This is an interesting question. The impact of agricultural pollution on our waterways has become serious and is now, in some areas of the country at least, a matter of public concern. The impact of the intensification of the dairy industry since the 1980's and, more recently, the development of an intensive poultry industry in mid Wales, has been to cause harm to our waterways. The industry, until the 2021 Regulations, was given guidance in the form of CoGAP. Significant pollution could be dealt with under the Environmental Permitting Regulations but there was little regulation to discourage diffuse pollution and there is a perceived lack of enforcement by NRW even in the case of point source pollution.

The 2021 Regulations are an attempt to regulate practice to prevent agricultural pollution. This consultation document states that the underlying aim of the Regulations is to safeguard our aquatic environment from pollution from agricultural activities. This is primarily to be done via the control of the application of nitrogen fertiliser. It was clear to some that the issue was not just one caused by nitrogen as the impact of excess phosphorous could be more damaging. The argument is that phosphorus should also have been regulated. The proposed licensing scheme proposes the inclusion of phosphorus as part of any calculation in determining what fertiliser, in what quantities and in what conditions, can be applied for the land. The 2021 Regulations and the proposed licensing scheme work by limiting known pollutants. There is no legal requirement to test soils and both the SFS and the proposed licensing scheme propose attaching conditions which would require soil testing as part of Scheme entry or as a condition for obtaining a licence. We would still maintain that soil testing should be a requirement for all farms.

If soil testing becomes a requirement then all farmers would have the information to decide on whether additional or alternative soil remediation is necessary. The obvious soil condition factor is pH. Soil testing, coupled with advice where appropriate, could reduce fertiliser costs for a farm. However, such a requirement might indicate where the level of stocking is too great for the holding. It might be a case where current ignorance of soil condition on farm allows more scope for spreading unsustainable amounts of animal manure. Soil testing should be mandatory.

Question 9: Do you agree with the additional requirements regarding eligible livestock manure types and additional requirements for the import and export of livestock manures?

We agree with the proposed additional requirements regarding eligible livestock manure types.

Being able to import or export livestock manures according to need gives flexibility to the farmer and can encourage collaborative working between farms on a catchment or on a wider scale. Requiring pre-recording of the transaction on a nutrient

management plan in addition to recording the transaction within a week of it taking place would encourage better manure and nutrient management planning potentially reducing risk.

Question 10.1: How might the risks of spreading of high nitrogen manures be managed through the licence conditions?

The risks will currently be managed under the 2021 Regulations. It is proposed that a licence condition be introduced to mitigate the risk of direct and diffuse pollution during periods of limited crop growth. We question the need for such a condition if the 2021 Regulations already deal with the issue generally, unless it is proposed that any alternative measure under Regulation 45 of the 2021 Regulations comes under a licensing scheme.

Question 10.2: What are your views on managing this risk by specifying a period during which the spreading of such manures is restricted?

The reasons for a closed period are set out in the consultation document. The closed period effectively defines a period of limited growth and low nutrient uptake which would cause an increased risk of pollution. The end of the closed period may not coincide with suitable spreading conditions, and it is for this reason that the requirement for five months storage was established. There will still be a need for farm businesses to manage their storage and application around the closed period. There is certainty in a fixed closed period.

Welsh Government has received alternative measures submitted under the provisions of Regulation 45 of the 2021 Regulations and these will have to be evaluated. We are aware that proposals for spreading on the basis of weather and soil information obtained from online weather stations, rather than subject to a closed period, have been submitted. These could be included as licence conditions, but we want to ensure the independence of any organisation setting the parameters for nutrient application and the recording of any information used in making the decision to spread.

There has been much criticism of the closed period provisions by the farming industry, stating that this will result in catchment wide applications of organic manures causing pollution at the start and end of any closed period: 'The rivers running black scenario'. The irony of this criticism is that it presupposes pollution is an inevitable result of the way such applications are managed.

This chapter raises the issue of how to deal with farm businesses which do not have sufficient storage by 1st August 2024. Having sufficient storage is not a matter for licence conditions but is a legal requirement. Whether or not a farm business has sufficient storage will be a question of fact to be determined by the regulator. Each case would be determined on its merits and whether to take enforcement action would be a public interest decision for NRW. One would hope that NRW would act sensitively in such circumstances and only take immediate enforcement action if the business owner had not taken reasonable steps to ensure compliance by that time.

Question 11: Do you agree with the requirements for soil protection outlined above? If not provide reasons.

We agree with the statement of risks associated with intensified land management and the benefit of retaining soil on land. Reference is made to soil protection measures contained in CoGAP and within cross compliance verifiable standards for recipients of grant funding or BPS. There is concern that compliance with chapter 4 (Field Husbandry) and chapter 5 (Nutrient Management) has been limited where intensified dairying occurs. This relates to maize and fodder crop growing and slurry spreading. Maize growing has special provision within chapter 4 and there is much non-compliance with both the CoGAP guidance and the guidance given by the Maize Growers' Association. We were pleased that the 2021 Regulations codified, in part, the provisions of chapter 5 dealing with when, and under what conditions, organic manures can be applied.

The current lack of legislative protection for soils concerns us. It is proposed that measures currently contained within GAEC 4 become a requirement for all farms in the licensing scheme. This is welcome. We would also ask that the universal action under 4.3.4 of the SFS be included, that farmers will need to establish a multi-species cover crop on all land which is uncropped over winter to protect soil from erosion.

We believe that legislative protection for soils is needed generally and should not be limited by membership of a licensing scheme of the SFS.

Question 12: Do you agree with our approach to enforcement and appeals outlined in Chapter 5?

We are supportive of any licensing scheme forming part of the 2021 Regulations and breach of any conditions of the licence constituting an offence. We would, however, wish to ensure NRW is adequately funded and motivated to ensure effective regulation. We would propose that NRW are required to report performance against permits on an annual basis, as they do for the water industry, and report their enforcement action taken against any failure to comply.

It is proper that there be an appeal procedure under which the decision to refuse a licence is reviewed by an independent panel.

Question 13: We would like to know your views on the effects that the introduction of the proposed licensing scheme would have on the Welsh language, specifically on opportunities for people to use Welsh and on treating the Welsh language no less favourably than English.

What effects do you think there would be? How could positive effects be increased, or negative effects be mitigated?

Question 14: Please also explain how you believe the proposed licensing scheme could be formulated or changed so as to have positive effects or increased positive effects on opportunities for people to use the Welsh language and on treating the Welsh language no less favourably than the English language, and no adverse effects on opportunities for people to use the Welsh language and on treating the Welsh language no less favourably than the English language.

WE answer questions 13 and 14 together.

WEL recognises that the Welsh language is part of the social fabric of rural Wales. It is therefore crucial to maintain Welsh language standards and work in line with the Well-being of Future Generations Act. To do this, it will be important for farm

advisors and monitoring and regulation officers to be Welsh speaking. This will foster a smoother uptake of the licencing scheme and help mitigate potential barriers for Welsh speaking farmers. The new licencing scheme calls for behavioural change; if done with care, in a collaborative and educational manner, the behavioural change required should not adversely impact the cultural aspects of rural communities.

Question 15: We have asked a number of specific questions. If you have any related issues which we have not specifically addressed, please use this space to report them:

We are anxious that the uncertainty around the implementation of National Minimum Standards is resolved as quickly as possible. Welsh Government and Welsh Water are currently considering the implementation of nutrient trading platforms in Wales. They can only be implemented if NMS are in place and enforced.

The proposal for a licensing scheme to obtain a derogation is seen by some as a radical step. We would ask whether the proposed scheme goes far enough, whether it is time for general licensing of farming in Wales. The industry has become complex and it clear that whilst some farmers take their custodianship responsibilities seriously, others do not.

The risk of harm is great, and the cost of regulation and enforcement is considerable. We stated in our answer to question 1 that there are contractors who would welcome the introduction of a licensing scheme.

Finally, we would say that effective legislation is dependent on monitoring and, where necessary, enforcement. Licensing schemes are a way of reducing the need for direct regulation but proper resourcing of regulation is still required.

Wales Environment Link (WEL) is a network of environmental, countryside and heritage Non-Governmental Organisations in Wales. WEL is a respected intermediary body connecting the government and the environmental NGO sector. Our vision is a thriving Welsh environment for future generations.

This paper represents the consensus view of a group of WEL members working in this specialist area. Members may also produce information individually in order to raise more detailed issues that are important to their particular organisation.



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