Background

I am a retired Dental Surgeon who has worked in a rural setting from 1979 until retirement in 2014. It was a particular privilege to be able to care for a rural community but was also an opportunity to observe the change from an agricultural to a far more diverse economy and the societal impacts of that evolution. The response of the farming community to numerous challenges has been varied with some adopting intensive models dependant on 'imported' animal feed with others committing to essentially own farm generated feed and others adopting, (readopting), traditional farming practices and organic status.

Against this background of a sympathy for the farming community it was with regret that I have become involved in objecting to and supporting other objectors to the inappropriate location of Poultry Units which impact on rural communities.

The emissions from these units, and certainly the water pollution, has a grave and long lasting effect not only on the local environment which is our responsibility but also a profound negative social and economic impact.

It can blight local housing leading to a reduction of properties available for young families and it can limit other business opportunities which need the assurance of clean water and air to maintain their environmental credibility.

This has motivated me to take a particular interest in this field and bring the experience of my other occupations as a teacher and an external examiner at postgraduate level to scrutinise the science and assertions made by those who oppose the effective control of agricultural pollution.

This attempt by Welsh Government to regulate agricultural pollution is admirable and if there is a flaw it is that there is insufficient emphasis on the control of Phosphate levels.

**Phosphorous in manures should be the limiting factor** - when you use nitrogen and other nutrients in manures, and the soil phosphorus index is already 3 or above, you should not apply more phosphorus than will be removed by the crops in the
rotation. This will avoid raising soil reserves above those necessary for crop production.

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Research Based Evidence

There are several published peer reviewed research papers demonstrating the high levels of poultry manure pollution associated with the housing and the ‘near range’ within a close proximity to the housing.

Using government data, calculations show that for a 16,000 bird free range unit, 140 tons of manure would be generated on this near range. About 40 tons of manure would be found in the first 2-3 metres around the housing, the remainder being deposited in decreasing intensity with distance up to about 50 metres.

Therefore 2.5 tons per week of poultry faeces will be deposited on the near range area. It will receive 180 years’ worth of the acceptable level of Phosphate each year. For Nitrogen it will be 28 times the NVZ rate each year.

This is every year for the life of the unit – the build-up of legacy Phosphate will create an enormous reservoir available for leaching into the local watercourses.

In a recent, undecided, local planning application the poultry faeces collected from the housing and spread on land remote from the housing will similarly exceed the normal Phosphate requirements of crops which Nutrient Management Guide RB209 2020 advises.

For example in one application to erect a free range poultry unit in the Twyi valley a critique of the Manure Management Plan identified the following:

If a spreading rate of 20 kg/p/ha for grazed and silage fields would be appropriate the amount of manure predicted to be spread would leave 178.7 kg/P/ha excess on 57.9 ha of silage = 10346.7 kg/P excess

- the whole farm would exceed recommended application rates for Phosphorous by over 7 times of the recommended amount of P applied each year – 7 years requirement of Phosphorous in one year

- the loading in the spreadable manure fields would exceed recommended application rates for Phosphorous by 8.9 times of the recommended amount of P applied each year – nearly 9 years requirement of Phosphorous applied each year – every year.
The assertion that this manure is being used as a fertilizer has masked the actual activity of a waste disposal exercise.

**Empirical Evidence**

**Need for Regulatory Control**

The attempt to exercise voluntary control has led to the poor river water quality now experienced throughout Wales.

The agricultural community has been well aware of this issue and certainly the farming unions – including my own – have recognised the problem but have failed to influence the industry at large.

NRW’s and Farming Connect’s attempts at education are laudable and will provide the base on which to comply with the regulations - **but they are not a substitute for regulation**.

The failure of voluntary control is further evidenced by the above calculations regarding the planning application where not only is it proposed to site a free range unit alongside a tributary of the Tywi but that the only secure site to deposit the poultry faeces would be experiencing a load some 9 times of that which it needs and that the land identified drains directly into yet another tributary of the Tywi.

Why would anyone think it is reasonable to locate a free range poultry unit 5 metres away and alongside a tributary which enters Afon Tywi some 1600 metres away?

Ultimately and unfortunately voluntary measures merely facilitate environmental exploitation by the ruthless. However honourable attempts at good stewardship are not only undermined but will be perceived as being increasingly financially uncompetitive further damaging the prospects of establishing a sustainable agricultural sector in Wales.

Farmers need a level playing field where the endeavours of the good are rewarded and that unfair competition is **actively** discouraged.

**Evidence of the Wye**

The poor water quality condition of the Wye has received much publicity and serves as an example of the results of inaction and a reliance on voluntary endeavours.

Whilst the discharge of untreated human sewage into the river is an unforgivable release of pathogens the quantities of Phosphates generated by humans pale into insignificance compared with the contribution of the Poultry industry’s diffuse pollution.
Conclusion

The World Bank has stressed that:

"Unregulated, livestock generates significant negative externalities. It contributes to land degradation and water pollution and to the erosion of biodiversity, and it is a major source of greenhouse gas emissions. It poses serious risks to public health, including diseases such as highly pathogenic avian influenza (HPAI) and bovine spongiform encephalopathy (BSE)."


Wales cannot afford to support the unsustainable farming practices which are at the root of the pollution of our watercourses. Regulation of nutrient generation will ultimately level the commercial playing field for farmers endeavouring to practice good stewardship of the countryside and encourage good environmental practice. This control mechanism should facilitate a reduction in overstocked farms and a return to realistic levels of animal numbers.

Obstruction of regulation merely encourages false expectations and can be exploited by agencies who prey on the resources of Welsh farmers who would be better served by an early and clear indication of the safe direction of travel to a sustainable future for Welsh Agriculture.

Yours sincerely

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