
MANURE MANAGEMENT PLAN

Erection of a Poultry Installation
Extension
At
Drefor
Kerry
Newtown
Powys
SY16 4PQ

Prepared for M and A
Powell

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professionals

1. INTRODUCTION

The Manure Management Plan presented has been prepared to accompany the planning application of the farming business M and A Powell.

The Water Code states that, to reduce leaching losses from manures, you should not apply more than 250 kg per ha of total nitrogen in organic manures in any 12 months. However these are guideline levels only and if a FACTS trained advisor can show that the crop requirements are higher the rates can be increased. The farm is not within a Nitrate Vulnerable Zone.

A total land area of 244.44 hectares (604.01 acres) of owner-occupied land is farmed in Wales. All of the land is owner occupied.

2. PROPOSED DEVELOPMENT AND FARM STOCKING

The proposed development is for a poultry unit at Drefor. Messrs Powell also run a flock of commercial breeding ewes presently on farm, extending to some 1490 breeding ewes. A sucker cow enterprise is also run on farm with 130 head of cattle.

The proposed poultry unit will result in a reduction of both cattle and sheep numbers upon farm.

3. LAND AVAILABLE & HARVEST

We have analysed the Environment Agency flood plans for the land available for spreading of manure, and at appendix one of this report are found detailed maps annotating spreading areas.

Annually the farm business makes two cuts of silage. Taking two cuts of silage off the farm land results in a high requirement for organic manures to restore the nutrients to the ground. 130 acres of first cut is made and 20 acres of second cut. Fourteen acres of root crops are also planted upon farm.

4. STORAGE OF MANURE

All solid manure produced within the poultry unit will be removed on day 43 to day 46 of the crop cycle and either directly spread upon the land at Drefor if conditions in the summer allow or stored in the existing manure store upon farm or sold off farm.

5. MANURE APPLICATION

A Manure Management Plan has been produced at Appendix one. In addition to identifying no-spread areas, high risk areas and those areas of the farm that are suitable for applications of manures for most of the year, the plan should also assess the amount of land available to take the manures produced. The map should be colour coded: -

Red = No-spread areas, e.g. yards; within 10 metres of a watercourse or 50 metres of a borehole, spring or well used for drinking or parlour washings. Or Areas not normally used for operational reasons but may be brought into use in the future.

Orange = Very High Risk. Steeply sloping fields of gradients 1 in 7 to 1 in 5; fields at risk of flooding; sandy or shallow soil over fissured rock; fields where drains have been installed during the past 12 months; poorly drained or waterlogged land; severely compacted soils, etc.

Yellow = Moderate Risk. Slopes between 1 in 14 to 1 in 8; land sloping towards watercourses; imperfectly drained land.

Hatched Dark Green = Lower Risk with Caution. This land may have manure applied to it but care must be taken prior to application of manure, that no flood warnings have been raised or that excessive rainfall is forecast within 48 hours of the proposed application.

Green = Lower Risk. Remainder of land upon which manures are applied and which has not been subsoiled or mole ploughed within the past 12 months.

The applicant has assessed his proposals against the above guidance of the Welsh Government.

FIELD NUMBER	FIELD SIZE (HA)	SPREADABLE AREA (HA)	NON SPREADABLE AREA (HA)
SO1689 2945	4.81	4.81	
SO1689 4760	6.68	6.68	
SO1689 6349	7.39	7.39	
SO1689 7428	2.95		2.95
SO1689 8248	4.13	4.13	
SO1689 9344	2.54	2.54	
SO1689 8522	1.53	1.53	
SO1789 0733	5.29	4.83	0.46
SO1789 2829	6.43	5.27	1.16
SO1789 0814	10.85	10.27	0.58
SO1689 9507	1.64		1.64
SO1788 0398	1.55	1.55	
SO1788 0185	1.35	0.63	0.66
SO1689 8102	2.45	2.27	0.18
SO1688 8287	4.24	4.04	0.20
SO1787 8505	6.32	5.96	0.36
SO1688 9773	3.52	3.29	0.23
SO1688 7559	4.08	4.04	0.04
SO1688 7639	5.21	5.08	0.13
SO1688 7708	6.94	5.84	1.10
SO1687 8987	7.22	6.75	0.47
SO1687 9160	5.85	5.82	0.03
SO1788 0455	7.85	3.91	3.94
SO1788 1737	7.18	6.69	0.49
SO1788 2809	0.26		0.26
SO1788 4507	5.63	5.44	0.19
SO1787 5592	0.50	0.50	
SO1787 6491	1.49	1.04	0.45
SO1787 4573	3.73	3.73	
SO2794 6303	2.04	2.04	
SO1887 0590	23.20	20.04	3.16
SO1887 3057	5.12	5.12	
SO1887 1618	11.83	11.73	0.10
SO1787 1153	2.58		2.58
SO1787 9567	14.62	14.62	
SO1787 6173	3.72	3.70	0.02
SO1787 3630	18.40	18.19	0.21
SO1787 6631	16.79	13.00	3.79
SO1787 9145	4.60	4.38	0.22
SO1887 1153	2.58		2.58
SO1787 8505	6.32	5.96	0.36
SO1787 7811	3.03	3.01	0.02
TOTAL	244.44	215.34	28.56

The minimum amount of land needed for spreading slurry and manure is calculated in table 1 below detailing the nitrogen available and nitrogen produced:

Table 1 – Total N Calculation

Drefor is not located within a Nitrate Vulnerable Zone, however in utilising the Nitrate Vulnerable Zone Wales Farmers Workbook, 2014 Edition the farm figures for nitrogen produced per annum are shown below. These figures are used as the most up to date Nitrogen figures available in Wales. The minimum amount of land needed for spreading slurry and manure is calculated in table 1 and is based upon the housing period of the livestock.

The Sheep at Drefor are housed for two months of the year. The cattle are housed for six months of the year. The Poultry shall be housed within the unit for the entire year.

Type of Livestock	Number of Stock	Total N produced by each unit of stock (kg/annum)	Total N produced per annum	Total N produced by type of livestock whilst housed
Sheep	1490	12	17,880	2,980
Cattle	130	60	7,800	3,900
Poultry	836,000 (110,000 per crop cycle, 7.6 crop cycles a year)	0.39	326,040	326,040
TOTAL				332,920

Total Land Farmed	244.44 hectares
Total Land available for Spreading	215.34 hectares
Total Nutrients Available	53,835 kg N
Total Nitrogen produced on Farm	332,920 kg N
Difference between Nitrogen	279,085 N

The excess manure will be exported off farm to local farmers.

The table above shows the total nitrogen produced over the housing period.

Good agricultural practice publications advise that a maximum of 250/kg a hectare of total nitrogen is applied to the ground through manures.

6.0 SPREADABLE AREA

The total land available for spreading manures is 215.34 hectares. Manure shall be spread directly onto this land when the weather conditions apply and nutrients are required or will be stored in the existing manure store or sold off farm.

7. MANURE STORAGE

Existing Manure Store

Manure will be stored in the existing manure store upon farm.

Manure will be stored in accordance with SSAFO (Water Resources Act (Control of Pollution) (Silage Slurry and Agricultural Fuel Oil) (Wales) Regulations 2010).

8. “DIRTY” YARD AREAS

“Dirty” Yards

The “dirty” yard areas on the farm will be kept to a minimum. This is due to the manure all being contained in the poultry unit and removed at the end of the crop cycle together with the hardcore area to the front of the poultry unit. Messrs Powell will require all areas to be clean outside the building as they will be producing food products within the unit.

The Poultry proposal at the Drefor will incorporate the installation of a dirty water tank adjacent to the poultry unit. The waste water tank will be built in compliance with the SSAFO standards.

9. CONTINGENCY PLAN

In the event that manure cannot be applied to the land and that the manure store at Drefor is full the applicant shall sell the manure to other farmers and there is a demand for poultry manure from a broiler unit.

All contaminated wash water will be stored in the dirty water tank upon farm.

**IN THE EVENT OF ANY
POLLUTION INCIDENT
OR TO
PREVENT POTENTIAL POLLUTION
CALL
NATURAL RESOURCES WALES
03000 653 000**

APPENDIX 1 – Farm Plans