
MANURE MANAGEMENT PLAN

Erection of a 32,000 Free Range
Poultry Unit
At
Cae Mawr
Llanerch y Medd
Anglesey
LL71 8AN

Prepared for DB & BE Evans

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land & property
professionals

1. INTRODUCTION

The Manure Management Plan presented has been prepared to accompany the planning application of the farming business DB & BE Evans.

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.

Approximately 298 acres of spreadable ground is available to apply manure and slurry which is owned and occupied by the applicants.

2. PROPOSED DEVELOPMENT AND FARM STOCKING

The proposed development is for the erection of a Poultry Unit Cae Mawr Farm to accommodate 32,000 free range birds.

Cae Mawr also runs a flock of commercial breeding ewes and herd of Suckler Cows.

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.

4. STORAGE OF MANURE

All solid manure produced within the poultry unit will be removed every four days and either directly spread upon the land at Cae Mawr if the nutrients are required during the spring and summer months or stored a purpose built manure store to be built prior to first occupation of the unit upon farm or transported to a local Anaerobic Digestion Plant. Traditionally manure application on farm would take place during the spring and summer months and manure is not applied to the land throughout the year. Manure comes out of the poultry unit and is then moved in a sheeted trailer to storage if cannot be applied to the land during the periods previously mentioned and during winter and autumn months. As the manure will be stored in a sealed building the manure will not be subject to rain or any water therefore it will be a dry, friable manure which will not be odorous as will not become moist.

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)	COMMENTS
SH4185 6577	9.28	9.24	0.04	Buffer alongside stream
SH4185 7797	1.28	1.26	0.02	
SH4185 9269	8.80	8.79	0.01	
SH4186 8213	0.92	0.00	0.92	
SH4186 9177	3.30	3.24	0.06	
SH4186 9405	7.24	7.24		
SH4186 9943	5.39	5.34	0.05	
SH4187 3223	1.95	1.91	0.04	Southern boundary 20m buffer
SH4187 4730	7.09	7.01	0.08	
SH4187 6443	2.54		2.54	Excluded from Manure Spreading
SH4187 6603	3.62		3.62	Part of Cors y Bol no spreading due to wetland habitat
SH4187 7421	9.73	9.71	0.02	Buffer along stream
SH4187 7952	3.02		3.02	No spreading due to rushy pasture
SH4187 8747	0.51	0.30	0.21	
SH4187 9235	3.73	3.71	0.02	SE boundary 10m buffer
SH4187 9563	2.05	2.05		
SH4285 1357	4.19	4.18	0.01	
SH4285 1676	4.47	4.47		
SH4285 4389	4.51	4.49	0.02	10m buffer
SH4285 5888	3.75		3.75	No spreading due to habitat
SH4286 1054	0.88	0.86	0.02	

SH4286 1105	6.18	6.18		
SH4286 1435	3.43	3.43		
SH4286 1755	1.49	1.46	0.03	10m buffer
SH4286 2901	6.20	6.20		
SH4286 3154	3.69	3.66	0.03	
SH4286 3535	4.68	4.68		
SH4286 4021	2.56	0.00	2.56	
SH4286 5107	1.19	1.19		
SH4286 5137	1.26	1.20	0.06	10m buffer on both sides of drain
SH4286 5213	0.44	0.00	0.44	
SH4286 5623	2.73	2.61	0.12	
SH4287 0441	3.71	3.69	0.02	10m buffer on watercourse
TOTAL	125.81	111.58	14.23	

As a result of the above, 298.87 acres of land is available for the application of manure. Manure will be applied to the 111.58 hectares of land in rotation throughout the year in line with the effective management of the range area through the rotation of birds when grazing. 4.85 hectares of ground has been removed as is not spread upon as in close proximity to watercourses or is unsafe to apply manure to as a result of topography.

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

Cae Mawr 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 Cae Mawr are housed for two months of the year, Cattle for six months of the year. The Poultry shall be housed within the unit for the entire year but shall be grazing the poultry unit each day in rotation.

Type of Livestock	Number of Stock	Total produced by each unit of stock (kg/annum)	Total N produced per annum	Total N produced by type of livestock whilst housed
Sheep	600	12	7,200	1,200
Cattle	50	60	3,000	1,500
Poultry	32,000	0.55	17,600 (per fourteen month cycle)	15,085 (per annum)
TOTAL				17,785

Total Land Farmed	125.81 hectares
Total Land available for Spreading	111.58 hectares
Total Nutrients Available	27,895 kg N
Total Nitrogen produced on Farm	17,785 kg N
Difference between Nitrogen	10,110 N

There is enough land for the application of manure therefore some of the nitrogen produced on farm shall be applied to the farm land at Car Mawr in line with the Codes of Good Agricultural and Environmental Condition, Cross Compliance Regulations. Manure will also be sold to local farmers and an Anaerobic Digestion plant.

The table above page 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 111.58 hectares. Manure shall be spread directly onto this land during certain times of the year or shall be moved in a sheeted trailer to manure storage to be stored in the purpose built building proposed to be erected on farm. Manure shall not be spread throughout the year but in accordance with the Cross Compliance regulations and when the nutrients

are required on the land as is the current practice on farm. No manure from the poultry unit shall be spread in the winter months.

The applicants commit to;

- 1) **Erect a purpose built manure store on farm prior to the first beneficial use of the unit**
- 2) **Not spread poultry manure during the winter months.**

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 every four days together with the hardcore area to the front of the poultry unit. Messrs Evans 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 Cae Mawr will incorporate the installation of a dirty water tank adjacent to the poultry unit. Cae Mawr Poultry Unit will have a dirty water tank installed on farm. 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 Cae Mawr is full the applicant shall sell the manure to the local Anaerobic Digestion Plant. Messrs Evans has already spoken to the owners of the AD plant who would be willing to take the poultry manure from Cae Mawr.

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

10. FOUL DRAINAGE

There shall be a toilet on site for workers within the unit. This will be serviced by a septic tank and porosity tests are provided in support of the application.

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

APPENDIX 1 – Farm Plans