
MANURE MANAGEMENT PLAN

Erection of a 16,000 Free Range
Poultry unit extension
At
Upper Ffrydd
Trefeglwys
Caersws
SY17 5QS

Prepared for Gwilym Evans
and Son

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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 Gwilym Evans and Son.

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 380 acres of spreadable ground is available to apply manure and slurry, in the majority owned with a small area of land on long term Licences. 280 acres of owned land is spread upon and 100 acres of the 200 acres of rented land.

2. PROPOSED DEVELOPMENT AND FARM STOCKING

The proposed development is for an extension to the existing Poultry Unit on farm, for a further 16,000 free range birds resulting in a total Poultry enterprise of 58,000.

Upper Ffrydd 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 one cut of silage. Taking a cut 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 Upper Ffrydd if the nutrients are required., stored in the existing manure store upon farm or transported to a local Anaerobic Digestion Plant.

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)
SN9992 3521	0.06	0.06	
SN9992 3745	0.73	0.73	
SN9992 3855	1.44	1.44	
SN9992 4131	0.90	0.90	
SN9992 4242	0.71	0.71	
SN9992 4807	2.65	2.65	
SN9992 5158	1.55	1.55	
SN9992 5216	0.08	0.08	0.08 Non Spread
SN9992 5345	2.26	2.26	
SN9992 5816	0.21	0.21	0.21 Non Spread
SN9992 5822	1.54	1.54	1.54 Non Spread
SN9992 5934	2.72	2.72	
SN9992 6407	1.61	1.61	
SN9992 6407	0.23	0.23	
SN9992 7026	1.12	1.12	
SN9992 7744	2.93	2.93	
SN9992 8112	5.18	5.18	
SN9992 8519	0.67	0.67	
SN9992 8519	0.07	0.07	
SN9992 8628	3.45	3.45	
SN9992 9343	2.91	2.91	
SN9993 0308	4.96	4.96	
SN9993 4208	2.71	2.71	
SO0091 1552	4.04	4.04	
SO0091 2290	1.71	1.71	
SO0091 2775	3.81	3.81	
SO0091 4095	2.61	2.61	
SO0091 4095	0.05	0.05	
SO0092 0142	0.29	0.29	
SO0092 0510	0.71	0.71	
SO0092 0665	7.10	7.10	
SO0092 0665	0.92	0.92	
SO0092 0817	1.70	1.70	
SO0092 0904	3.38	3.38	
SO0092 0926	2.42	2.42	
SO0092 0926	0.06	0.06	
SO0092 1040	2.02	2.02	
SO0092 1821	0.19	0.19	
SO0092 1821	0.01	0.01	
SO0092 2434	1.04	1.04	
SO0092 2547	4.24	4.24	
SO0092 3839	1.63	1.63	
SO08893891	1.73	1.73	
SO0889 4896	1.71	1.71	
SO0890 4117	4.56	4.56	
SO0890 4117	0.13	0.13	
SO0890 6001	0.66	0.66	
SO0890 6525	2.69	2.69	
SO0890 6526	0.04	0.04	

SO0890 6849	2.53	2.53	
SO0890 6849	0.22	0.22	
SO0890 7530	1.75	1.75	
SO0890 7530	0.27	0.27	
SO0395 4852	3.72	3.72	
SO0395 4852	0.12	0.12	
SO0395 6349	1.49	1.49	
SO0395 5368	2.38	2.38	
SO0395 5884	3.57	3.57	
SO0395 7076	3.20	3.20	
SO0395 8371	3.14	3.14	
SN9793 8871	7.76	7.76	
SN9892 5587	10.15	10.15	
SN9892 6270	1.03	1.03	
SN9892 6270	0.25	0.25	
SN9892 6755	4.52	4.52	
SN9892 6941	1.38	1.38	
SN9892 7870	6.66	6.66	
SN9892 8445	1.18	1.18	
SN9892 8986	5.60	5.60	
SN9893 1323	8.16	8.16	
SN9893 2543	8.15	8.15	
SN9893 4214	9.29	9.29	
SN9893 5835	8.96	8.96	
SN9991 1394	1.66	1.66	
SN9991 2393	1.47	1.47	
SN9991 2678	0.56	0.56	
SN9991 3490	1.81	1.81	
SN9991 3573	2.20	2.20	
SN9991 3573	0.02	0.02	
SN9991 3965	1.50	1.50	
SN9991 4293	2.24	2.24	
SN9991 5295	0.89	0.89	0.89 Non Spread
SN9991 5295	0.02	0.02	0.02 Non Spread
SN9991 5677	2.42	2.42	
SN9991 5991	1.09	1.09	
SN9991 6688	1.42	1.42	
SN9991 7272	3.22	3.22	
SN9991 7895	2.77	2.77	
SN9991 8157	4.51	4.51	
SN9992 2106	1.26	1.26	1.26 Non Spread
SN9992 2125	0.22	0.22	
SN9992 2196	6.11	6.11	
SN9992 2196	0.03	0.03	

SN9992 2331	0.47	0.47	
SN9992 2354	0.92	0.92	0.92 Non Spread
SN9992 2543	0.52	0.52	
SN9992 2543	0.08	0.08	
SN9992 2562	0.56	0.56	0.56 Non Spread
SN9992 3146	0.29	0.29	
SN9992 3235	0.88	0.88	
SN9992 3235	0.04	0.04	
SN9992 3410	2.17	2.17	2.17 Non Spread
SN9992 3410	0.01	0.01	0.01 Non Spread
SN9992 3521	1.52	1.52	

The above land shows all of the land owned by Messrs Evans upon which he spreads manure. 73.75 acres of owned land is not spread upon as is used as the Ranging Area for the Free Range Birds. Two 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

Upper Ffrydd 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 Upper Ffrydd 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 each unit of stock (kg/annum)	N by of	Total produced N per annum	Total N produced by type of livestock whilst housed
Sheep	1,400	12		16,800	2,800
Cattle	40	60		2,400	1,200
Poultry	58,000	0.55		31,900 (per fourteen month cycle)	27,342 (per annum)
TOTAL					31,342

Total Land Farmed (excluding range area)	153.75 hectares
Total Land available for Spreading	144.12 hectares
Total Nutrients Available	36,030 kg N
Total Nitrogen produced on Farm	31,342 kg N
Difference between Nitrogen	4,688 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 Upper Ffrydd 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 144.12 hectares. Manure shall be spread directly onto this land or the existing manure store.

Manure will all in the first instance be exported to the local Anaerobic Digestion Plant rather than being utilised on the land.

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 Upper Ffrydd will incorporate the installation of a dirty water tank adjacent to the poultry unit. Upper Ffrydd 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 Upper Ffrydd 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 Upper Ffrydd.

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