MANURE MANAGEMENT PLAN

Erection of a 32,000 Free Range Poultry unit extension
At
Cwm Farm
Aberhafesp
Newtown
Powys
SY16 3JD

Prepared for M & JE Jones, DCE and MN Davies

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1. INTRODUCTION

The Manure Management Plan presented has been prepared to accompany the planning application of the farming business M, JE Jones & DCE Davies, Cwm farm for the erection of a 32,000 bird Poultry Unit extension.

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.

Cwm Farm extends to 198.57 acres approximately 73.46 acres of spreadable ground is available to apply manure and slurry upon. The business has an agreement for twenty years with SL Price and Co for them to purchase manure to apply to their land along with two other landowners, details are contained within appendix 2, 3 and 4 to this Manure Management Plan.

2. PROPOSED DEVELOPMENT AND FARM STOCKING

The proposed development is for the erection of a Poultry Unit on farm, to provide accommodation for a further 32,000 free range birds on farm.

Cwm farm 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. 50 acres is made as first cut and 40 acres second cut.

4. STORAGE OF MANURE

All solid manure produced within the poultry unit will be removed every four days and stored in the adjoining trailer, which will be covered to prevent any rainfall entering the trailer and saturating the manure causing seepage into adjoining drains. Manure if cannot be applied to the land will be stored in an existing farm building providing covered manure storage. Manure is also to be sold as part of an agreement (appendix 2, 3 and 4) to adjoining farmers who have nutrient deficiencies and wishes to reduce their reliance on inorganic fertilisers through using poultry manure.

The applicant also has another application currently being considered by Powys for the erection of a covered manure store on farm which would have the capacity to hold the manure from the unit.

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 were 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.

Field Number	Field Size (Ha)	Spreadable Area (Ha)	Non Spreadable Area (Ha)
SO0595 1466	1.94	1.85	0.09
SO0595 1754	1.20	0.57	0.63
SO0595 2144	0.05	0	0.05
SO0595 2245	1.16	0.50	0.64
SO0595 3176	2.56	2.56	
SO0595 3161	3.68	3.68	
SO0595 3439	0.85	0.83	0.02
SO0595 4323	1.55	1.34	0.21
SO0595 4821	0.13	0	0.13
SO0595 5120	1.26	0	1.26
SO0595 5750	19.22	0	19.22
SO0595 7122	3.02	0	3.02
SO0595 7206	2.77	0	2.77
SO0595 8906	0.12	0	0.12
SO0594 9596	1.91	0	1.91
SO0695 0210	4.82	0	4.82
SO0595 8917	3.33	0	3.33
SO0595 9132	2.91	0	2.91
SO0695 1622	4.76	4.64	0.12
SO0695 0743	3.24	3.24	
SO0595 8849	3.94	3.94	
SO0595 8867	1.34	1.34	
SO0595 9080	3.56	3.56	
SO0595 7681	1.32	1.21	0.11
SO0595 6884	1.81	1.81	

The above land shows all of the land owned by Messrs Jones and Davies upon which they spread manure. Land within the Ranging Area for the Free Range Birds is spread upon in rotation, with the exception of the woodland which is only used for range area.. 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

Cwm Farm 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 Cwm Farm 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 N produced by each unit of stock (kg/annum)	Total N produced per annum	Total N produced by type of livestock whilst housed
Sheep	258	12	3,096	516
Cattle	48	60	2,880	1,440
Poultry	64,000	0.55	35,200 (per fourteen month cycle)	30,171 (per annum)
TOTAL				**32,127**

Total Land Farmed (excluding range area) 80.36 hectares
Total Land available for Spreading 29,73 hectares
Total Nutrients Available 8,175.75 kg N
Total Nitrogen produced on Farm 32,127 kg N
Difference between Nitrogen -23,951.25N

There is not enough land at Cwm Farm for the application of manure as a result of 40 acres being lost for the Poultry Range. Using the 20 year agreement with SL Price & Co, the excess manure produced in the poultry unit will be sold off farm and also to two adjoining neighbours, as detailed in appendix two of this Manure Management Plan.

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 29.73 hectares. Manure shall be spread directly onto this land or the existing manure store and proposed manure store currently in the planning process.

7. MANURE STORAGE

Existing Manure Store

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

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 Jones and Davies 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 Cwm Farm will incorporate the installation of a dirty water tank adjacent to the poultry unit. Cwm Farm 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 Cwm Farm is full the applicant shall sell the manure to the local farmers detailed and look to an Anaerobic Digestion Plant in close proximity to the poultry enterprise. Duncan Davies has already spoken to the owners of the AD plant who would be willing to take the poultry manure from Cwm Farm.

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

APPENDIX 2/3/4 – Letters from Local Farmers/Contractors