

# MANURE MANAGEMENT PLAN

**DEVELOPMENT:** Full Planning for the Erection of a Poultry Unit on Farm (extension) to

accommodate 16,000 Free Range Chickens (Egg Production) together with

associated Feed Bins, Internal Farm Access and Associated Works

LOCATION: Drewern Farm

Hundred House Llandrindod Wells

Powys LD1 5RR

CLIENT: Messrs Price

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#### 1. INTRODUCTION

The Manure Management Plan presented has been prepared to accompany the planning application of the farming business Messrs Price for the erection of a 16,000 bird Poultry Unit.

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 362.97 acres (146.85 hectares) of owner-occupied land is farmed. Approximately 320.04 acres (129.52 hectares) of spreadable ground is available to apply manure and slurry to after removing the ranging area all of which is owner occupied, this is subject to land to be excluded to meet the requirements of the relevant regulations.

#### 2. PROPOSED DEVELOPMENT AND FARM STOCKING

The proposed development is for an erection of a further 16,000 bird free range poultry unit at Drewern Farm. Messrs Price also run a flock of commercial breeding ewes (840) and herd of Suckler Cows (57) and 16,000 free range unit presently on 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 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. 90 acres of harvest are annually made.

#### 4. STORAGE OF MANURE

All solid manure produced within the poultry unit will be removed every four days and either directly spread upon the extensive land available at Drewern Farm or stored in the existing manure store upon farm.

## 5. MANURE APPLICATION

A Manure Management Plan has been produced at Appendix one. In addition to identifying nospread 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.

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)	
SO1356 6132	2.47	0	2.47 RANGE	
SO1356 4615	1.85	1.85	0	
SO1356 4804	0.09	0	0.09	
SO1356 5708	1.14	1.14	0	
SO1356 6401	1.86	1.86	0	
SO1255 3743	3.15	3.15	0	
SO1255 4262	1.74	1.74	0	
SO1255 5159	1.82	0.29	1.53	
SO1255 6359	0.19	0	0.19	
SO1255 6060	0.46	0.46	0	
SO1255 6473	0.47	0.45	0.02	
SO1255 7165	0.04	0	0.04	
SO1255 7353	4.25	3.99	0.26	
SO1255 8060	0.14	0	0.14	
SO1255 7966	0.11	0	0.11	
SO1355 0863	3.33	2.87	0.46	
SO1355 1043	9.28	9.25	0.03	
SO1356 7118	3.16	0	3.16 RANGE	
SO1356 9132	5.57	0	5.57 RANGE	
SO1456 2040	5.33	5.33	0	
SO1456 4541	5.81	5.81	0	
SO1356 7506	1.99	0.82	1.17 part RANGE	
SO1356 9009	1.07	0	1.07 RANGE	
SO1456 0215	3.35	0	3.35 RANGE	
SO1456 2123	2.91	2.91	0	
SO1456 4820	4.72	4.58	0.14	
SO1355 6778	5.10	4.65	0.45	
SO1355 7394	1.30	1.30	0	
SO1355 8498	0.34	0.34	0	
SO1355 9198	0.83	0	0.83	
SO1456 1206	1.83	1.73	0.10	
SO1456 3008	3.21	3.08	0.13	
SO1355 8180	2.76	2.76	0	
SO1355 9076	0.37	0	0.37	
SO1355 9484	3.09	2.99	0.10	
SO1455 0691	3.66	3.02	0.64	
SO1455 2292	2.93	2.60	0.33	
SO1455 3790	1.89	1.37	0.52	



SO1455 4199	0.43	0.25	0.18
SO1456 6507	9.69	9.27	0.42
SO1455 7784	5.56	5.56	0
SO1455 5281	4.94	4.35	0.59
SO1455 2755	8.07	8.07	0
SO1455 1158	0.17	0	0.17
SO2765 4428	7.29	7.20	0.09
SO1455 1333	10.40	10.40	0
SO1255 8666	1.53	1.30	0.23
SO1255 9357	2.03	2.03	0
SO1355 9773	0.18	0	0.18
			0.15 PART
SO1356 4297	2.95	2.80	RANGE
TOTAL	146.85	121.57	25.28

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

Drewern 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.

Suckler Cows at Drewern Farm are housed for six months of the year and are then out at pasture. The Sheep at Drewern Farm are housed for two 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
Suckler Cows	57	83	4,731	2,365
Sheep	840	12	10,080	1,680
Poultry	32,000	0.55	17,600 (per fourteen month cycle)	15,085 (per annum)
TOTAL				19,130

Total Land Farmed146.85 hectaresTotal Land available for Spreading121.57 hectaresTotal Nutrients Available30,392.50 kg NTotal Nitrogen produced on Farm19,130 NDifference between Nitrogen+ 11,262.50

There is enough land at Drewern Farm for the application of manure therefore all of the nitrogen shall be applied to the farm land at Drewern Farm in line with the Codes of Good Agricultural and Environmental Condition, Cross Compliance Regulations.

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. Messrs Price plan to spread all of the manure and slurry at Drewern Farm. They have a high demand for manure as take crops of harvest off the land.

#### 6.0 SPREADABLE AREA

The total land available for spreading manures is 121.57 hectares. Manure shall be spread directly onto this land or the existing manure store.

### 7. MANURE STORAGE

## **Existing Manure Store**

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

### 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 Price 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 Drewern Farm will incorporate the installation of a dirty water tank adjacent to the poultry unit.

