Manure Management Plan

Erection of an extension to a free range egg production unit including silos and all associated works

Prepared for PA & HS Davies

Maesyneuadd, Pontrobert, Meifod, Powys, SY22 6JP



land & property professionals

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MANURE MANAGEMENT PLAN

This manure management plan has been prepared for PA & HS Davies of Maesyneuadd, Pontrobert, Meifod, Powys, SY22 6JP.

Messrs Davies farm approximately 250 acres (201 hectares) of owner occupied land. The farm currently has a herd of 160 cows, 80 followers and 16,000 free range hens.

The manure management plan has been prepared for the total stock of 160 cows, 80 followers, 16,000 free range hens and the proposed 12,000 free range hens.

A buffer of 10m has been provided to all watercourses, and no spreading will be done on this buffer zone. The farm has therefore sufficient capacity to dispose of all manure produced by all enterprises in accordance with all the relevant regulations and legislation.

The total amount of manure (N) that can be applied over the spreadable land on the farm would be 87 hectares x 250kg = 21,750kg N.

The total produced on the farm is 29,360kg N, and therefore some manure will have to be exported (Table 1).

Table 1:

Stock Unit	Stock Numbers	Kg N per Stock Unit	Total Kg N Produced
1 cow (550kg)	160	57	9,120
1 follower (400kg)	80	57	4,560
1000 Free Range Hens	28	560	15,680
Total Kg N produced			29,360

The manure storage and disposal will also need to accord with DEFRA's Code of Good Agricultural Practice for the Protection of Air, Water and Soil.

Contingency Plan

There are a number of covered areas on the farm to allow for storing any manure, slurry and dirty water produced at times when spreading may not be possible e.g. due to wet, waterlogged or frozen conditions in accordance with the Code of Good Agricultural Practice. This is to ensure manures and slurry are spread at appropriate times to prevent pollution and maximise uptake of nutrients for crop growth. Manure will also be exported off site to local AD plants.

Measures will be put in place for the storage of wash water during and after disease outbreak.

Any contaminated wash water will be stored in containers separate from other manures, and will be disposed of by a specialist contractor licensed to deal with such wastes.

Table 2

Total Manure Production					
Group	Kg N Produced	No of Animals	Total Kg N		
Laying hens 1000	560	28	15,680		
Cows	57	160	9,120		
Followers	57	80	4,560		
Total N Produced			29,360 Kg N		

Total N Exported		7,610
Spreadable Area		87 Ha
Total N/Ha		250kg N/Ha

A map is provided in the full plan which shows Red Areas where manure spreading should not take place.

Areas on which solid manures and slurry should never be spread are: Ditches and watercourses:

• Within at least 10 metres (11 yards) of either side of any watercourse including ditches and piped ditches. This will avoid direct spreading into the watercourse and also reduce the risk of run-off reaching the watercourse. Do not forget to include watercourses that form the boundary of your farm. Other non-spreading (red) areas:

• Within at least 50 metres (55 yards) of any spring, well, borehole or reservoir that supplies water for human consumption or farm dairies.

• Very steep slopes where run-off is a high risk throughout the year.

• Any areas where you may not be allowed to spread for reasons such as a tenancy agreement, an abatement notice due to smell, set-aside land, Sites of Special Scientific Interest (SSSIs) or Environmentally Sensitive Areas (ESAs).

• The surface is rocky or uneven so that your equipment cannot be used effectively or safely.

APPLICATION METHODS

Manures will be stored and spread in accordance with the water, soil and air Codes of Good Agricultural Practice.

Manures will be stored in field stores and manure heaps at Maesyneuadd on arable ground and will be densely packed with a A shaped profile.

- Manure heaps will be well away from water courses, drainage schemes and ditches.
- Manure will be spread under suitable conditions
 - Wind direction will be chosen to be blowing with prevailing direction from the west which will blow any odours away from the closest dwellings.
 - The ground to receive the manure will not be water logged or frozen.
 - Spreading will be done at least 10 metres away from any water courses or ditches
- There is a covered concrete pad at Maesyneuadd that can be used for emergency storage when conditions are not suitable to store manure on the fields. This shed has a dirty water system and has an impermeable base the shed used to be used for wintering cattle.
- Manure will be incorporated in the soil within 24 hours of application, where this is possible due to conditions.

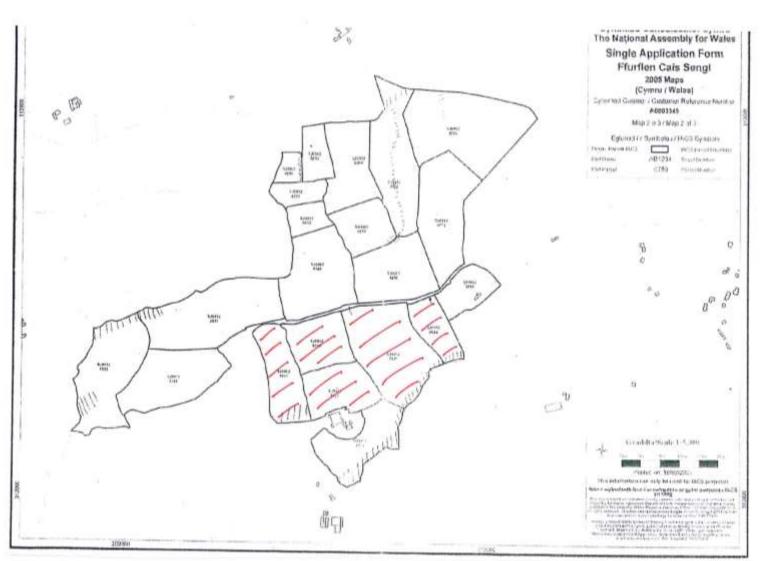
MANURE SPREADING PLAN

Manure will be spread according to the annual cropping plan.

Manure will be tested and analysed on a regular basis so that quantities applied will mean that applications will concur with crop requirements as laid out in DEFRA document RB209.

The birds within the free range unit will graze the designated land in a rotational field system. The birds will step out of the building through the pop holes provided and onto a veranda, which shall ensure that the ground is not poached and compacted by the birds. The veranda shall also ensure that the feet of the birds are cleaned prior to entering the building. The birds will be then directed to those fields available for grazing in rotation to prevent over stocking of the ground and ensure the fertility of soil. Good pasture management is essential, and it is paramount the problems of parasitic intestinal worms and coccidian oocysts are avoided.

Ranging Plan



Ranging Area – 11.2 hectares (27.6 acres)

Soil Type: Slowly permeable seasonally wet acid loamy and clayey soils

Sensitive Receptors – any sensitive receptors within 50m of the ranging area boundary will be fenced out.

The watercourse running through the rangin area is to be fenced out and bridges erected in order to allow the hens to cross the watercourse.

At least 10 metres of either side of any watercourse including ditches and piped ditches will be fenced out. This will avoid direct spreading into the watercourse and also reduce the risk of run-off reaching the watercourse.

The bridges will be erected with soil solid sites and the applicant will clean the bridges on a regular basis. The bridge will consist of a concrete plinth with raised sides constructed on top to serve as a deck area which will prevent any seepage through to the watercourse. The concrete plinth will be easily cleaned to prevent the build up of chicken manure, and the raised sides will prevent any runoff. The crossing points will be fenced off with chicken wire to prevent bird access to the watercourse.

