

MANURE MANAGEMENT PLAN

DEVELOPMENT: Full planning for the erection of a poultry unit extension to accommodate

16,000 free range chickens (egg production) together with associated

works

LOCATION: Plas Tirion Farm

Llanrug Caernarfon Gwynedd LL55 4PY

CLIENT: D C & H Mackinnon

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MANURE MANAGEMENT PLAN

The Manure Management Plan has been prepared for D C & H Mackinnon of Plas Tirion Farm, Llanrug, Caernarfon, Gwynedd, LL55 4PY.

Messrs Mackinnon farm approximately 521 acres (211 hectares) of owner occupied land. The farm currently has 32,000 free range hens and 200 cattle under 24 months old.

The manure management plan has been prepared for the total stock of 48,000 free range hens and 200 cattle.

Table 1 shows the minimum amount of land necessary for the volume of livestock proposed to be carried on the farm. This is estimated at 124.16ha of required land for the purposes of spreading.

Table 1:

Stock Unit	Number of Stock	Months House	Hectares needed per stock	Total area required (ha)
1000 laying hens	48	N/A	2.32	111.36
Cattle 0-24 months	200	4	0.016	12.8
Minimum land needed				124.16

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 180 hectares $x = 45,000 \, \text{kgN}$.

The total produced on the farm is 36,400kg N, which is well below the threshold, and therefore no manure will have to be exported (Table 2).

Table 2:

Total Nitrogen Production					
Group	Kg N Produced	No of Animals	Total Kg N	Kg N (Year)	Calculation Commentary
Laying hens	0.55	48,000	26,400	26,400	48,000 laying hens will be on the holding 365 days of the year
Cattle	50	200	10,000	10,000	
Total N Produced				36,400	

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Table 3:

Total Phosphate Production								
Group	Kg P Produced	No of Animals	Total Kg P (Year)					
1000 Laying hens	390	48	18,720					
Cattle 0-24 months	15.7	200	3,140					
Total P Produced			21,860					

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.

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

Ditches and watercourses:

Within at least 10 metres 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.

Other non-spreading (red) areas:

- Within at least 50 metres 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.

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

Manure will be incorporated in the soil within 24 hours of application, where this is possible due to conditions.











