



MANAGEMENT PLAN



DEVELOPMENT:	Erection of a free range egg production unit including silos and associated works
LOCATION:	Celyn Mawr Llanwddyn Powys SY10 0NN
CLIENT:	THG Davies & Sons

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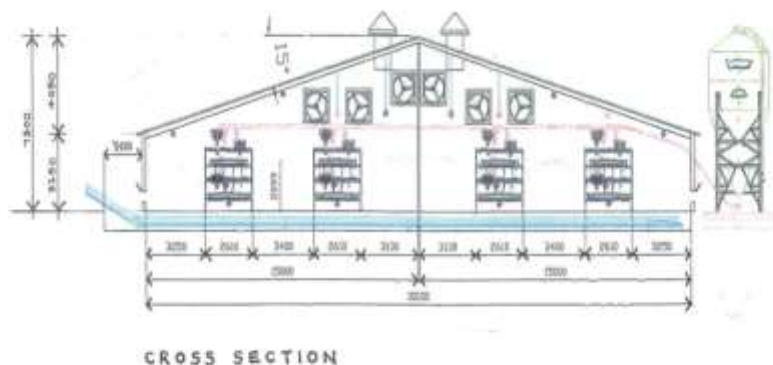
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1. The Development

The proposal is for a new free range poultry building to provide a 32,000 free range bird egg laying production unit. The new building will be located to the west of the current farmyard on land currently used as a permanent pasture. The building will be approximately 140m x 19.5m wide, which will house 32,000 birds, together with a service area, office and egg store. The eggs would be conveyed into the control room area where they would be packed and stored. The birds will have direct access from the north and south elevation of the building to dedicated pasture which will be electric fenced to keep out predators. The birds are brought in as young laying stock and remain in the egg production unit for some 14 months. After this time the flock is removed and the whole building fully cleaned down internally and the new flock introduced to restart the egg production cycle.



The building proposed operates a multi tier system which allows a smaller shed as opposed to a flat deck system by having two tier perching decks for the laying hens within the building, these perching areas are floored with plastic slats which allow manure to drop through the flooring system. The manure from each of the tiers then falls onto an internal conveyor belt.



The conveyor belt system is operated every 5 - 7 days and removes approximately 14 tonnes from the internal conveyor belt systems via an external conveyor belt into a



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parked trailer outside the building. After 14 months the flock is removed and the whole building fully cleaned down internally and a new flock introduced to restart the egg production cycle.

Feed for the birds is stored in two external juniper green coloured, or a similar dark colour to be agreed with the local planning authority, steel hoppers and conveyed automatically to the building. The external steel hoppers will be located adjacent to the building.

Adjoining the building on the southern end will be a hard stoned roadway with a hard stoned apron for access for delivery and removal of the birds and for cleaning out the manure.

The building has a proposed roof pitch of 15° and an eaves height of 3.10m. The building is of a low profile which helps to minimize its visual impact. The proposed building would utilise 12 ridge mounted high velocity mechanical fans which thermostatically control the building. The building roof and sides will be clad with steel box profile sheeting coloured juniper green (or a colour to approved by the LPA) set above a low concrete base wall. The side elevations of the buildings will have sheeted steel profile sides with concrete walls with pop holes for the birds to egress from the building.

2. Free range laying hens



The birds have a laying cycle of 56 – 58 weeks. The birds are farmed to a free range system. The system utilizes a series of perches and feeders at different levels. The maximum stocking density is 9 birds per square metre and there must be at least 250cm square of litter area/bird. Perches for the birds must be installed to allow 15cm of perch per hen. There must be at least 10cm of feeder/bird and at least one drinker/10 birds.

There must be one nest for every 7 birds or 1 square metre of nest space for every 120 birds. Water and feeding troughs are raised so that the food is not scattered. The birds must have continuous daytime access to open runs which are mainly covered with vegetation and with a maximum stocking density of 2,500 birds per hectare. Within the system the birds must be inspected at least once a day. At the end of each laying period the respective houses are completely cleared and disinfected.



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3. Scratching Areas , Paddocks and Perimeter Fencing

In free range laying systems, good pasture management is essential if the ground is to remain in good condition and the problems of poaching and the build-up of parasitic intestinal worms and coccidial oocysts are to be avoided. The land surrounding the laying house will be divided into a series of paddocks which the birds are allowed to use for periods of up to 6 - 8 weeks each.



The length of time that the birds are allowed to use individual paddocks will vary depending on soil type, drainage, grass cover and weather conditions. The area immediately outside the poultry house tends to suffer the greatest amount of damage, so we propose that the ground adjacent to the pop holes should be covered with stones/pebbles. As well as providing health and welfare benefits the birds' feet will be cleaned as they enter the building providing cleaner eggs. Free range layers are attractive to predators.



Foxes are the most frequent cause of problems and can cause damage and often kill or maim large numbers of birds – far more than they are able to consume. We propose to use a 1.2 m semi permanent electric fence with netting which will be exactly the same as the one used on site shown to the left.

4. Vehicle Movements

The proposed free-range egg production unit will once in use need bulk food delivered to the farm by six or eight wheeler HGVs, the usual sized vehicle for agricultural use in this rural area. The feed will be delivered 3 times a month and stored in the silos on site. Also, the farming business has a provisional contract with a company to supply the free-range eggs, which will collect the eggs in a 7.5 tonne lorry three times a week.



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With regard to potential sustainable modes of transport, there are no public services, including bus services, passing near to the application site.

The main labour force to be used in conjunction with the proposed development will be the existing farm workers who already live and work at Celyn Mawr and therefore have no need to leave the holding to access the proposed development.

5. Vehicle Routing

The proposed egg enterprise unit would be accessed from the B4393 with access directly to the site.



6. Drainage

Clean surface water from the roof of the building and clean surfaces will run into open and stone filled infiltration trenches and a piped system each side of the proposed building. It will be collected in an underground storage tank with a 2000 gallon capacity to be used for washing down purposes.

Any surplus clean water will be discharged into existing farm ditches. The aim is that the continuation flow will be controlled to not exceed the existing Greenfield run off rate.

At the wash down stage the clean water system around the yard will be switched to the underground dirty water tank.



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Construction of the floor will incorporate a damp proof membrane preventing any dirty water percolating into the ground below the building. A slump in the floor will drain to a further below ground sealed tank, which will allow collection of any dirty water primarily arising from the washing down process at the end of the production cycle. This dirty water will then be taken by vacuum tanker to be spread on grassland in ownership of the applicant (as per the farm manure management plan). The dirty water tank will be constructed to be compliant with the SSAFO Regulations (Wales) 2010 Standards.

The clean and foul water drainage systems will be kept separate in order to ensure no pollution incident occurs to the environment.

7. Manure Storage & Disposal

The unit will produce an estimated 500 tonnes of poultry manure each 14 month cycle. The manure will be removed via conveyors every 5 -7 days set below the nesting and perching areas. Due to the manure being moved every 5 - 7 days there will be minimal manure stored within the building which will result in reduced pest activity especially flies. Manure produced will be a relatively dry product of a friable nature which can be readily dumped for storage, however all of the muck will be taken off the farm and utilised on family owned farmland. Dependant on the time of year the manure is removed from the building; it would be spread directly on the arable ground in accordance with good agricultural practice for soil and water and in accordance with the control of pollution, slurry and agricultural fuel regulations in line with the farm's manure management plan.

The manure management plan identifies the land which the manure will be spread, this is grassland and arable land and manure spread at correct rates will be a useful asset for the business. The disposal areas mostly lie well away from other residential properties. Other local close family farmers have also indicated that they would be interested in taking some of the manure.

Please see manure management plan for detailed information.

8. Neighbourhood Notification Requirements

Verbal confirmation is given to any neighbouring properties with 200m of the buildings of the fields utilised for manure spreading in advance of the date of cleaning out or spreading.



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9. Cleaning Out

The building proposed operates a multi tier system which allows a smaller shed by having two tier perching decks for the laying hens within the building. These perching areas are floored with plastic slats which allow manure to drop through the flooring system. The manure from each of the tiers then falls onto an internal conveyor belt. The conveyor belt system is operated every 10 days and removes approximately 14 tonnes from the internal conveyor belt systems via an external conveyor belt into a parked trailer outside the building. The manure will be removed from the site using a sheeted tractor and trailer.

10. Emissions

The building design incorporates the use of mechanical ventilator extractor fans, 12 mechanical extractor fans will thermostatically control the building. Therefore they tend to operate more frequently during hot weather. Efficient design of ventilation fans has minimised the number needed for this building. Fans will be maintained and inspected in accordance with the manufacturers or suppliers instructions, this will minimise mechanical noise from the unit and also dust escape. Automated feeding by internal conveyor with augers direct from the sealed external feed hoppers will minimise dust creation. The insulated construction of the walls and roof also reduce sound transmission.

Please see the ammonia screening document for detailed analysis of the Ammonia and Nitrogen Deposition from the proposal.

11. Noise / Odour Management

The proposed poultry unit at Celyn Mawr shall have 12 mechanical extractor fans which will be used during periods of hot weather only. The proposed poultry unit will use natural ventilation from the pop holes of the poultry unit for the majority of the year. It is paramount that mechanical fans are provided within the building as they are used to control the temperature, it is vitally important to bird welfare during periods of hot weather. The table below details the environmental sound levels dB (A) for HER710/6/1 following numerous manufacturing trails:

Distance from Fan to Receptor - metres	Number of Fans				
	1	3	10	16	20
3	61	66	70	72	74
6	57	61	65	68	70
10	51	55	59	52	64
20	45	49	53	56	58
100	31	35	39	40	43



200	21	27	31	33	35
400	18	23	27	29	31

The above data has been compiled in line with BS848 Part Two (1985) and using the Technical Specification of the Mechanical Fan which confirms the fan selected will operate at a level of 61 dB (A) at 3 metres. When all 12 fans are in operation, the cumulative sound level should be in the range of between 27 and 29 dB (A) at 400 metres from the unit.

The nearest receptor to the proposed poultry unit at Celyn Mawr is Tyn y Bwlch at approximately 413 metres from the poultry unit. At this distance, the noise impact on the sensitive receptor based on 12 fans would be between 27 and 29 dB (A).

In considering an operational farm unit, it is recognised that a working farm unit would have a background noise level of 42 dB (A), the development proposed therefore is not excessive and would not result in complaints or disturbance to sensitive receptors.

Mitigation:

The applicant is proposing the following mitigation as part of the proposal:

- 1) Movements of feed, birds and eggs to the site will be done so with full care and attention to all neighbours. All movements shall be restricted to daytime hours to respect neighbours thus meaning that movements shall only occur between 07:00 and 18:00.
- 2) Feed when transmitted to the feed bins is a normal occurrence on farm, however the applicant shall ensure that delivery is between 07:00 and 18:00.
- 3) All fans will be maintained by local electricians to ensure they are working properly and reducing any unplanned excessive noise.
- 4) All electrics within the poultry unit will be maintained so that they are fully operational and at no risk of failure within the unit – this is vital for Animal Welfare reasons and by law.
- 5) The birds within the unit are all female and therefore very quiet resulting in no noise impact upon local neighbours especially during the egg production period. Whilst the birds are placed in the unit and taken, we will ensure the operation is smoothly undertaken to prevent stress to the birds and no noise to the neighbours.

The fans shall be in a treated chamber which will have an insulated roof and walls which will exhaust into an insulated baffle area thus limiting the noise emanating from the poultry unit proposed. The cumulative noise impact of the poultry unit at Celyn Mawr will not exceed World Health Organisation Guidelines.



The design of the unit incorporating a slatted floor and conveyor belt mechanism for waste removal. The waste is removed every 5 - 7 days, so there will be minimal manure stored within the building which will result in reduced pest activity especially flies. Manure produced will be a relatively dry product of a friable nature which can be readily dumped for storage either on external ground or within covered storage. The potential build up of manure is mitigated by the free range hen's freedom to access the adjoining fields. The surrounding paddocks are rotated and only occupied by birds for a short period of time.

12. Quality Standards





The eggs are produced and the chickens are managed to comply with the stringent conditions that are imposed by the RSPCA Freedom Food specification, which sets out the standards of welfare at all stages of the chickens life.

The unit will produce in line with Defra 'Code of Good Agricultural Practice' for the protection of water Appendix V approximately 400 tonnes of bedding/manure per batch (each 14 months). This can then be spread onto the farm land both grassland and arable land in accordance with the Control of Pollution of Slurry and Agricultural Fuel Regulations and the farms manure management plan. If the time of year is not appropriate for the spreading of the manure. An agreement has been reached with local family member farmers to take the manure and they have the hard standing areas and existing buildings to store the manure until required.

Again guidance is found within Defra 'Code of Good Agricultural Practice' for the prevention of water Appendix III, which provides information on the land area required for spreading manure, which is 2.6 ha per 1000 laying hens. The majority of the manure will be spread on the remaining land on the farm especially the arable fields, agreements are in place for a local farmer to take the remainder of the manure.

13. Dead Bird Management & Pest Control

There are several reasons why the careful disposal of dead birds is an important part of the health management of systems :

-  Reduces the risk of disease spread back to the flock and other species.
-  Reduces the likelihood of carcasses being removed by scavengers, which can transmit disease.
-  Reduces the risk of blow flies (*Caliphora sp.*), which can also transmit disease.
-  NFS contractor Registered firm Pointins are used.



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The dead birds will be collected by an approved contractor of the National Fallen Stock Disposal Scheme prior to this they will be stored in a secure container in line with the animal by-products Regulations 2003. Pest control for rats will be carried out by an approved agency. Preventative measures will be used to control flies to include fly screens and flies controls replaced periodically to prevent the flies entering the building from the outside.

Signed:.....

Richard J. Corbett BSc (Hons) MRICS FAAV
For and on behalf of Roger Parry & Partners LLP

Dated:.....



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