# Belmont Farms Limited

# Wheaton Ashton Farm

**018 Dust and Bioaerosols Management Plan**

**May 2024**

**Prepared By:**

**Harry Edwards & Mat Beale**

**The Farm Consultancy Group**

**WhiteAvon Consultancy**

**Whitelands Cottage**

**Days Lane**

**Kington Langley**

**Chippenham**

**Wiltshire**

**SN15 5PD**

# Dust Management Plan

* 1. **Introduction**

This Dust and Bioaerosol Management Plan (DMP) will assist Belmont Farms Ltd in effectively managing potential dust releases associated with the operations at their redevelopment of Wheaton Ashton Farm.

# Status of the DMP

This DMP is a “live” document, the monitoring procedures, responsibilities, and compliance actions and should be updated as appropriate.

# Site Background

Belmont Farms Limited have been operating pig units for many years and have recently taken on the permit for the site and are continuing the redevelopment of the unit. There is no record of any complaint due to dust emissions from the pig unit.

* 1. **Facility Overview**

Wheaton Ashton Farm will have a capacity for:

Sows and served gilts –1876

Farrowers (including piglets) – 420

Pigs 7-15Kg – 250

Pigs 15-30Kg – 250

Production Pigs >30Kg – 1200 (unserved Gilts)

The site is run as a fully slatted based system with frequent slurry removal, with the exception of building 4 that houses 200 dry sows on straw. The buildings are equipped with high velocity roof fans, apart from building 1 and 3 which have wall fans and building 4 which is naturally ventilated. Slurry is piped through the slurry separator unit to the two above ground concrete slurry stores.

The unit operates a mostly dry feed system, the diets fed to all the pigs throughout all stages are balanced nutritionally and formulated in such a way to minimise the production and emissions of ammonia, odours, dust, and the overall environmental impact of the farming activities. The unit operates a reduced crude protein diet.

The unit also operates an on farm AD unit utilizing on farm slurry and imported maize and is operated as per standard riles permit SR2010 No 16.

Nipple drinkers are used throughout to prevent water wastage. Meter readings will be taken on a regular basis to monitor water consumption and to detect the presence of any leakages.

All lorries are washed out and disinfected regularly, maintaining cleanliness to a high standard. Each lorry is equipped with a shovel, bag, and brush for instant clean-up of accidental spillages, thus reducing emissions of both dust and odour.

These measures are intended to reduce the production and emission of ammonia odours and to prevent dust and liquids escaping into the environment.

The batch system enables the housing to be cleaned out on a regular basis, ensuring all pig housing is as clean as possible.

All dead stock is disposed of via deadstock collection bins as per the site plan to avoid contamination in lockable bins.

* 1. **Potential Dust Sensitive Receptors**

For the purpose of this Dust Management Plan below are described the receptors considered.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Property Name** | **Distance (m)** | **Description** | **Location** | **Comment** |
| 1 Forge Cottages | 25 | Dwelling House | Immediately west of the boundary | Under long term lease to Belmont Farms |
| 2 Forge Cottages | 28 | Dwelling House | Immediately west of the boundary | Under long term lease to Belmont Farms |
| 3 Forge Cottages | 32 | Dwelling House | Immediately west of the boundary | Under long term lease to Belmont Farms |
| 4 Forge Cottages | 41 | Dwelling House | Immediately west of the boundary | Under long term lease to Belmont Farms |
| 5 Forge Cottages | 52 | Dwelling House | Immediately west of the boundary | Under long term lease to Belmont Farms |
| Shushions Croft | 121 | Dwelling House | South West | Private Dwelling |
| Shushions Cottage | 121 | Dwelling House | South West | Private Dwelling |
| Cherry Gables | 143 | Dwelling House | Immediately west of the boundary | Under long term lease to Belmont Farms |
| Unknown - Next Shushions Manor Barn | 235 | Dwelling House | South East | Private Dwelling |
| Unknown - Next Little Onn Hall | 310 | Dwelling House | North - on Little Onn Road | Private Dwelling |
| 1 Shushions Manor Barns | 313 | Dwelling House | South East | Private Dwelling |
| 2 Shushions Manor Barns | 314 | Dwelling House | South East | Private Dwelling |
| 3 Shushions Manor Barns | 317 | Dwelling House | South East | Private Dwelling |
| Newgale House | 320 | Dwelling House | North - on Little Onn Road | Private Dwelling |
| Yew Tree Cottage | 340 | Dwelling House | South | Private Dwelling |
| Unknown - Next Yew Tree | 340 | Dwelling House | South | Private Dwelling |
| 4 Shushions Manor Barns | 345 | Dwelling House | South East | Private Dwelling |
| Shushions Manor | 349 | Dwelling House | South East | Private Dwelling |
| Little Onn Hall | 353 | Historical Landmark | North - on Little Onn Road | N/A |
| 5 Shushions Manor Barns | 368 | Dwelling House | South East | Private Dwelling |
| Unknown | 375 | Dwelling House | South West | Private Dwelling |

|  |  |  |  |
| --- | --- | --- | --- |
| **Receptor Description** | **Direction** | **Distance from permit boundary**  | **Grid reference**  |
| Forge Cottages | West | 55 M | SJ8365214868  |
| Shushions Manor Barns | Southeast | 332 M | SJ8420014338 |
| Cherry Gables | Northwest | 140 M | SJ8373115008 |
| Wheaton Ashton Farm | North | 137 M | SJ8402315328 |

# Potential Dust Sources and Activities

Measures to control dust have been considered in the context of the units’ setting and the operations that are undertaken. Identified operations with the potential to produce and release dust at the facility are described below. This DMP has been developed to ensure that potential dust, from each part of the process, is minimised through effective management to an acceptable level.

**Table 1. A summary of at source control methods for particulate reduction on farm**

|  |  |  |
| --- | --- | --- |
| **Source of dust**  | **Method** | **How the reduction is achieved** |
| Pig Feed | Dust from silos | Feed delivery systems are sealed to minimize atmospheric dust and cyclones are fitted to the bins to eradicate dust on delivery |
|  | Storage of feed | All feed is in covered bins  |
|  | Feed spill control  | Collection of any feed spill is undertaken as soon as possible |
|  | Form of feed | Feed is supplied only from UFAS accredited feed mills, so that only approved raw materials are used. Feed specifications are prepared by the compounder’s nutrition specialist. |
|  | Feeding method | Feed is automatically controlled to ensure there is no over feeding and all pipework is checked regularly to ensure all is in good working order |
| Pig Bedding  | Type of bedding  | Fully slatted accommodation means no bedding is used apart from small volume for hospital accommodation  |
| Pig Ventilation  | Increasing ventilation  | High velocity roof fans disperse the emissions and reduce the impact to the nearest sensitive receptor. Weekly inspection by the farm manager and the removal of visible dust build up where possible.  |
| Pig House cleaning  | Good Management  | Buildings washed out between batches with disinfectant. |
| AD and CHP unit | Daily Monitoring  | AD and CHP unit through daily monitoring and kept operating to expected efficiency. If monitoring detects deviation away from agreed parameters, then site engineer is booked to visit.  |

**Table 2. A Summary of control at exhaust methods of particulate abatement on farm**

|  |  |  |
| --- | --- | --- |
| **Dust Control**  | **Method** | **How is reduction achieved**  |
|  | None | Unless a complaint is received no further measures are required.  |

* + 1. **Liaison with Neighbours**

If an action is being considered that may cause temporary dust, outside of the normal operational procedures, then before such action is taken the operations manager will be informed. Neighbours who may be affected will be contacted to advise them of the operation being undertaken, and that any increase in dust will be of a temporary nature.

# Reporting

Emissions of dust will not be those which shall cause pollution. Any complaints received will be investigated (as described above) and recorded in accordance with Belmont Farms Ltd current procedures. This includes recording the following:

* + - Nature of the incident.
		- Date of occurrence/s.
		- Results of the investigation.
		- Details of responses/ action plans implemented; and
		- The event will be marked within the site’s incident log.

The report will be made available to the Environment Agency on request.

1. **Preventative measure / onsite Dust control measures**

Measures that help minimise dust impact off-site are summarised in the following table. This plan will be reviewed at least every year or in light of any building and management changes, and on the outcome of investigations into the causes of any future dust complaints, if any occur.

Any dust complaints will be recorded and investigated immediately using the Complaint Report Form contained at the end of this document.

The responsibility for the management actions from this plan falls to the farm manager and will be jointly reviewed by the farm manager and operator. An annual review will be carried out or immediately following a substantiated complaint.

Scale for ranking dust intensity:

1. Little dust difficult to detect

5 – a lot of dust likely to cause a nuisance if for sustained periods.

As dust and odour production are closely linked the below table identifies measures on site that not only reduce dust specifically but also help to reduce odour and therefore as a by product dust is also reduced.

|  |  |  |
| --- | --- | --- |
| **Dust source/ Issue**  | **Assessment of Potential Risks and Problems**  | **Actions taken to prevent or minimise the risk of odour**  |
| Feed Delivery and storage  | * Spillages of feed during delivery and storage
* Creation of dust during delivery
 | * All liquid feed is stored in enclosed feed tanks with vents. All tanks are bundled with lockable release valves.
* Feed delivery systems are sealed to minimise atmospheric dust.
* Any spillages with be cleared up immediately by farm staff and if fit for consumption will be placed in spare plastic feed bags and fed back to the pigs. Any spillages unfit for consumption will be cleared into skips immediately and removed from site by licenced waste contractors within 24hrs
* Spillages over 500 kg – farm staff will notify the feed delivery company immediately who will be required to send a vehicle out to clear and remove all split feeds within 8 hours.
* Feed tanks and pipework checked by farm staff as part of an annual check on condition. Records of this are kept in the farm office.
* Any damage to feed pipework or silos when identified by farm staff is to be repaired immediately if it is likely to cause pollution or odour. If damage is not presenting immediate risk (e.g damage to protective bollards which will not cause leaks) will be reported to the farm manger within 8 hours who will record work to be carried out in the maintenance plan and then contact the suitably qualified contractor within 24 hours.
 |
| Carcass Storage and disposal  | * Potentially increased odour and dust occurrence in hot windy weather.
 | * Site now operates using licenced fallen stock scheme and bead bins are locked and covered.
 |
| Pig Housing and ventilation  | * Dust and odour from building design and maintenance
* Building clear out
* Dust from pigs
 | * All pens and stock checked for cleanliness as part of daily welfare routines by farm staff.
* All pigs are checked twice daily by farm staff to monitor health, any signs of disease are treated as required and where necessary identified pig is moved to hospital accommodation, for closer monitoring.
* All pens and buildings cleaned out in accordance with written cleaning plan, available in the farm office.
* Potentially odorous spillages (feed ingredients, manure/slurry etc.) cleaned up immediately.
* Stocking density maintained at or below levels set out in Welfare Regulations
* Feeders are constructed to minimise waste, bowl drinkers / nipple drinkers are used to reduce water wastage instead of water troughs.
* Buildings are well maintained with an annual maintenance checklist carried out by the farm manager, records of which are available in the office. Area identified as needing repair are notified to a qualified repairs contractor to be carried out within 3 months or immediately if pollution risk identified.
* Temperature is computer controlled with daily monitoring carried out by farm staff.
* Building design and specification as per recognized industry specification matching that of other permitted sites.
* Computer controlled ventilation system, ventilation design based on recommendations from qualified building industry experts. Maintained as per manufactures specification by outside contractors.
 |
| Manufacture and selection of compound foods  | * Poor Quality and odorous ingredients
* Feeds which are unbalanced in nutrients, leading to increased excretion and higher emissions of odorous compounds
* Changes in feed composition resulting in poor growth rates and limits in digestion.
 | * No on-site milling or mixing, all feed is delivered via specifically designed lorries.
* Feed is only supplied via UKASTA accredited feed mills, which means only approved raw materials are used in production. Finely ground feed avoided where possible.
* Feed sample for every load is taken by farm staff and kept in a sealed bag for a minimum of three months in the farm office.
* Feed composition is closely matched to pigs requirement, especially protein. this minimises water consumption and urine excretion and helps to minimise slurry moisture content.
* Rations are reviewed annually by a suitably qualified nutritionist who will provide recommendations to the operator. The operator is not obliged to follow these recommendations if they are not legal or regulatory requirements.
 |
| Dirty open yard areas  | * Pig movements between buildings resulting in dirty yard areas
* Dirty areas allowed to pond and stagnate producing odour
 | * Minimised pig movements between buildings
* Buildings designed to ensure all slurry is unable to escape the enclosed building. Doorway opens up to passage way which does not stock pigs.
* Loading bays are located directly outside each building to minimise potential dirty yarded area. Once pig loading has been completed farm staff will pressure wash the area clean within 6 hours.
* Loading bays have ramped concrete to channel all dirty water back into the slurry storage under the slats.
* Concrete yard areas and loading bays are well maintained with an annual maintenance checklist carried out by the farm manager, records of which are available in the office. Area identified as needing repair are notified to a qualified repairs contractor to be carried out within 3 months or immediately if pollution risk identified. The scope of such work would include laying of new concrete, patching up existing cracks if they are deemed by the farm manager to undermine the integrity of the concrete.
* Site drainage designed to keep clean uncontaminated water separate from dirty water and slurry with the use of kerbing and the on-site management which only means the loading bays are areas that could become dirty.
 |
| Fugitive emissions  | * Deadstock bins
* Slurry removal
* Feed Delivery and feed bins
* CHP unit
 | * Deadstock bins located away from sensitive receptors.
* Anticyclones are fitted to all feed silos and monitored as part of annual maintenance checklist carried out by the farm manager.
* Incinerator located away from sensitive receptor.
 |

**Key Responsibilities**

|  |  |  |
| --- | --- | --- |
| **Task** | **Staff Position Responsible**  | **Comments**  |
| Dust monitoring  | * Farm Manager (pig stockman to cover holiday and illness)
* Permit operator
 | * Annual review of dust results or sooner following substantiated complaints
* Monitoring is carried out daily as part of morning routine by stockman, this monitoring is carried out to the east of the site where the nearest receptors are and no written records are kept of this. Should increased dust be detected then this will be noted as any other complaint and actioned accordingly.
 |
| Overseeing/ monitoring feed deliveries / feed storage and spillages  | * Farm Manager
 | * Major spillages reported to permit operator if caused pollution incident
 |
| Ventilation and heating system  | * Stockman and Farm Manager
* Permit operator
 | * Responsible for day to day adjustments
* Responsible for design, selection and upgrade of system.
 |
| Stock inspections  | * Stockman
 | * All stock inspected twice a day and any issues are recorded.
 |
| Drinking water systems  | * Stockman
* Permit operator
 | * Responsible for day-to-day adjustments
* Responsible for design, selection and upgrade of system.
 |
| Slurry removal and house washing  | * Farm Manager
* Stockman
 | * Farm manager responsible for timing of slurry removal.
* Farm manager responsible for washout plan.
* Stockman will operate machinery day to day
 |
| Carcass Disposal  | * Farm Manager
* Permit operator
 | * Responsible for day to day adjustments
* Responsible for design, selection and upgrade of incineration system.
 |
| Drainage System  | * Farm Manager
* Permit operator
 | * Responsible for day to day adjustments
* Responsible for design, selection and upgrade of drainage system.
 |
| Reviewing annual plans  | * Permit operator
 |  |
| Documenting / reviewing abnormal events  | * Farm Manager
* Permit operator
 | * Documenting
* Reviewing
 |
| Complaints Log  | * Farm Manager
 |  |

**APPENDIX 1**

# Dust Report Form

# Complaint Form

# Actions and Outcome form

**Dust Report Form**

|  |  |
| --- | --- |
|  Staff Member: |  |
|  Time & Date: |  |
|  Location: |  |
|  Temperature: |  |
| Wind Strength |  |
| Wind Direction |  |
| Intensity  |  |
| Location Sensitivity (See below) |  **0 1 2 3 4 5**  |
| Is the source evident? |  |
| Comments and observations |  |
| Corrective actions taken |  |
| Was the odour eliminated |  |

|  |
| --- |
|  0 Not detectable |
|  1 Remote (No housing, commercial/industrial premises or public area within 500m) |
|  2 Low Sensitivity (No housing etc. within 100m of affected area)  |
|  3 Moderate sensitivity (Housing etc. within 100m of affected area) |
|  4 High sensitivity (Housing etc. within area affected by odour) |
|  5 Extra sensitive (complaints arising from residents within area affected by dust) |

**Complaint - Actions and Outcome Record Sheet**

**Complainant**

Record name, or ‘withheld’ if requested but not given by complainant, or ‘not supplied’ if it was not requested by the person receiving the complaint.

|  |  |
| --- | --- |
| Name of person |   |
| Organisation name |   |
| Address |   |
| Telephone |   |
| Email address |   |

**Complaint about and description**

|  |  |
| --- | --- |
| Odour  |   |
| Dust |   |
| Noise |   |
| Other |   |

**Nature and record of complaint**

Product / Service / Action / Document / Other (describe):

Person who used / expected it:

Date used /expected:

Nature of deficiency:

**Complaint Number**……………….

**Complaint handled by**

|  |  |
| --- | --- |
| Name of person |   |
| Role |   |
| Received by | Letter / email / telephone / meeting |
| Date received  |   |

**Action and issues being investigated**

[Record details of any other organization / external person involved, if applicable. Add more action rows if necessary.]

|  |  |
| --- | --- |
| Action 1 (Description) |   |
| Action by (name of person) |   |
| Date by |   |
| Action 2 (Description) |   |
| Action by (name of person) |   |
| Date by |   |
| Action 3 (Description) |   |
| Action by (name of person) |   |
| Date by |   |

**Outcome**

|  |
| --- |
|   |
|
|
|
|
|
|

**Communicated to**

|  |  |
| --- | --- |
| Date complainant notified |   |
| Date any other parties notified |   |
| Names of any other relevant parties (for each, state person and organization) |   |

**Keep a copy of this record and file it with any other documents associated with the complaint, actions taken and the outcome.**