

Waste minimisation plan for Wood Lane Farm

1. Introduction

Wood lane Farm is currently operated by Copperfield Enterprises Ltd with 130,000 duck places. Banham Poultry (2018) Ltd. have applied to transfer the permit and intend to use the site to grow 350,000 broiler chickens for meat. The following plan has been developed to ensure all waste is managed in the most efficient way.

2. Sources of Information

Waste generated by the farm while growing ducks would not be comparable to broiler chickens. Information on waste management was taken for experience with many other broiler farms of a similar size.

3. Background information

When each crop cycle is completed the birds are taken to Station Road Attleborough to be slaughtered. It is at this point that the main source of waste generated at the site (spent litter) is removed by a specialist company and then either taken by EPR Thetford Limited to a local power station and used to generate electricity or is spread on nearby land. The houses at this stage are then cleaned from top to bottom and the dirty water generated during this process is taken away by tankers and also spread on nearby land or is used in a local power station. The other main sources of waste generated at the site are dead chickens which are taken to an approved ABP handling facility, and general waste which is placed in a closed skip. At the end of the crop cycle or when the skip becomes full, it is removed via certified contractor to a waste transfer/sorting facility where any material suitable for recycling is removed.

4. Identification of waste streams at the installation.

Litter

Litter is removed from the houses at the end of the each crop cycle by certified contractors. The litter is either disposed of at a local power station for fuel, or is spread back to local land for use as a soil improver.

Because of the use of nipple and cup drinking systems at the installation the litter consists of around 60-70% dry matter content. All the spent litter is removed at the end of the crop cycle and no litter is stored at the installation.

The quantity of litter used at the installation is based on the needs of the birds in order to maintain high levels of animal welfare. Therefore there is little scope for any reductions in the projected tonnage that will be produced.

Carcasses

Daily checks are conducted on site, which monitor environmental conditions within the houses to safeguard welfare of the stock. Any dead birds are removed from the houses and placed in locked bins. These bins are removed from the site at regular intervals particularly during the summer months when odour generation can be more pronounced. The carcasses are then taken to an approved ABP handling facility.

Stocking densities are controlled under the guidance of the Red Tractor.

Dirty water

Dirty water is generated at the site during the washout periods. The main source of dirty water produced at the installation is the wash water used to clean the inside of each of the poultry houses. Certified contractors come out to the site after the litter has been removed and carry out a top to bottom cleaning schedule within each of the houses.

Dirty water from the houses is channeled through a drainage system which leads to a large storage tank. The water is then removed by certified contractors and taken to be spread on nearby land. If during the washout it is raining at the site, then a small amount of additional water can find its way to the tanks. The tank levels are always monitored during this period and if it is deemed necessary then the dirty water tank can be pumped out on a more frequent basis during this period.

All of the litter is removed from the houses soon after the birds have been cleared for processing and the concrete floors are swept before washing down commences, this together with the use of trigger operated lances reduces the overall amount of water required to clean the individual houses. Cleaning schedules are formulated by a specialist and the programs detail how much water is required at each stage. Opportunities for any further reductions are limited in as much as it is essential to ensure that the houses are cleaned to a high standard in order to prevent any diseases spreading between different crops, particularly under the current threat of avian influenza to the industry.

General waste

Any general waste generated at the installation is placed in a covered skip and removed from the site when full. Currently, 100% of waste is diverted from landfill. The following sub-headings have been used to cover in more detail, individual items that might end up in the general waste skip.

Veterinary products

All medicines used at the Wood Lane are determined by the agricultural department at BPL in consultation with a local Veterinary Practice. Due to lifetime of the vaccines used the site only keeps small stocks in a locked fridge. Any additional stock required is held at Station Road, Attleborough. On extremely rare occasions when stock has passed its use by dates the medicines are returned back to the appropriate supplier. Empty medicine vials are triple rinsed out and placed in the general waste skip. Plastic containers of chemicals used during the cleanout are also triple rinsed and placed in the same skip. All foot dips at the installation are changed for bio-security reasons on a regular basis, and the any liquid from the previous crop is poured directly into the dirty water storage tanks.

Checks are carried out to monitor water usage and ventilation control which reduces the risk of diseases spreading at the site. Current practices at the site ensure that medicines are only used for bird welfare and growth and therefore there is little opportunity for any reductions in this area.

Feed waste

Feed is delivered to the site in large bulk tankers and is blown into the bulk silos next to the poultry houses. Each of the silos has a large pipe which allows air to leave during filling. This pipe therefore allows a lot of dust and small amounts of feed to escape during the filling process. The Farm Manager currently uses hessian sacks/old disposable overalls which he fixes to the outlet pipes on the silos. Any small amounts of collected feed at the end of the cycle are placed in the general waste skips. There is fast turnover of feed throughout the crop cycles and therefore losses though spoilage is minimal. Feed to the houses is electronically controlled and auger fed to the houses, therefore losses from these systems are also minimal. Diets are formulated to ensure the required nutrient balance throughout the crop cycle. Feed is a very expensive commodity at the site and therefore amounts of waste are kept to a minimum.

Packaging waste

The main sources of packaging waste are paper sheets which are placed in the trays the chicks arrive at the site in. These are usually collected into a large waste bag and then placed in the general waste skip. It is currently unlikely that this paper could be recycled because of the contamination that can occur in relation to the faeces produced by the chicks. BGL had considered the feasibility of these to be taken for composting; however it was felt that this is not currently financially viable because the small quantities produced would need to be collected and taken for disposal at the end of each crop cycle. It was also recognized that prolonged storage of these on-site would compromise bio-security into the next crop cycle. The time and fuel required to collect this waste fraction would result in increased greenhouse gas emissions and increased capital expenditure. The overall environmental benefits were therefore out weighted by the environmental disadvantages. Plastic wrap which is used to protect bales of spare litter placed on pallets at the site is also disposed of in the general skip. Any of these materials which are suitable for recycling would be removed at the transfer station prior to any material going to landfill.

Cardboard

Cardboard is sometimes used to cover the walkways inside the poultry houses when the chicks are being placed. Because this cardboard becomes contaminated with faecal material after it has been used it is currently being discarded into the general waste skip. BGL had also considered the feasibility of these to be taken for composting; however again this was not felt to be currently financially viable because the small quantities produced. These would need to be collected and taken for disposal at the end of each crop cycle; prolonged storage of cardboard on-site would compromise bio-security into the next crop cycle. The time and fuel required to collect this waste fraction would result in increased greenhouse gas emissions and increased capital expenditure. The environmental disadvantages outweigh the environmental benefits. If in the future it became possible to recycle this cardboard, BGL would undoubtedly welcome the opportunity to recover some money from this practice.

Miscellaneous waste

Additional items produced at the installation which are placed in the general waste skip include paper towel, waste paper from the office, disposable overalls, gloves, scrap metal and plastics generated through routine maintenance at the site. All of these items are all kept to a minimum and opportunities for any reduction are therefore limited.

Hazardous waste

Only a small number of discarded fluorescent tubes are produced at the installation. The site has a dedicated collection box which is used to store the fluorescent tubes. When the box is full it is exchanged for an empty box by a local specialised company.

Fuel oil and lubricants

The only fuel oil used at the installation is to power the back up generator during an emergency situation. A 2000 litres bunded tank supplies fuel to the generator for this purpose. Any small amounts of waste oil are removed from the site when the generator is being serviced. Opportunities for any reductions are therefore limited

Energy usage

The site is under the CCL agreement number BPC1/T00026.

Water usage

This topic has been addressed in a separate audit and is available upon request.

Conclusions and further actions.

Wood Lane is a large broiler production installation which produces a variety of waste streams. Much of this waste is recycled and total amounts of waste which have the potential to end up in land fill sites is minimal. Opportunities for reducing any of these waste streams is limited because the site only uses the minimal amounts of materials required to grow the broilers to the required size before they are taken to the processing factory. The small amounts of waste that are produced at the site other than litter, dirty water and carcasses which are effectively recycled or used for energy recovery end up in the general waste skip.

The site uses water and energy very responsibly and Banham Poultry (2018) Ltd will continue to look at any new ideas where further reductions can be made at the installation, which will allow the company to produce all of its products in an environmentally friendly way. Reducing these costs makes good commercial sense and also shows BPL's commitment to the environment by acting in a responsible way to ensure that its waste is kept to the absolute minimum.

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