

B1 Benefit Statement

1.1 Person with appropriate technical expertise and permit details

Permit Holder:

A Matthews

Aberbran Fawr Farm, Brecon, Powys, LD4 9NG.

Mr Matthews has owned and worked at Aberbran Fawr for over 15 years, and has completed a 3 year HND prior to this. He is also currently working through a WAMITAB course.

Permit Applicants/ Agents:

Cross Compliance Solutions Ltd

Our company has been advising farmers on fertiliser application, soil analysis and liming since 2007, formerly as CM Ltd.

The company's managing director Mr Charles John Mayson, has had involvement with the fertiliser advice given to Mr Matthews, and is FACTS, FIAS and BASIS qualified.

The farm is registered under Mobile Plant for Land Spreading (Land Treatment Resulting in Benefit) 4MTMPL6.

This application is made under permit reference: EPR/JB3139RS/A001

1.2 Where the waste is to be spread

Farm Address(es):

Aberbran Fawr, Brecon, Powys, LD4 9NG

Newton Farm, Brecon, Powys, LD3

Garngaled Farm, Llanspyddid, Brecon, Powys, LD3 8PE

Grid Reference:

Aberbran Fawr - SN 98903 28981

Newton Farm - SO 02478 27998

Garngaled Farm - SO 00951 27879

Area: The area of the receiving land for waste type 02 03 01 totals 48.28 hectares.

Quantity to be stored: None of the waste will be stored, as all liquid waste will be brought on to the land and spread direct.

Waste to be spread: Total amount of waste to be spread is calculated to be 1138tns of liquid waste. The manure risk maps show which fields are planned to receive a waste application.

1.3 What is the waste to be spread

Waste producer: Beacon Foods, Units 2, Brecon Enterprise Park, Brecon LD3 8BT, UK

The waste is imported from Beacon Foods, a company which supplies ingredients to the food manufacturing industry.

Waste type & EWC code:

There is one waste type which will be imported from Beacon Foods to the farms:

EWC 02 03 01 - liquid vegetable waste.

This product is the waste water and dirt from cleaning the vegetables at the beginning of the manufacturing process.

The waste will be spread on the land to provide nutrient benefit to the following crop. The benefits are set out in the waste additions document using figures from the waste analysis and DEFRA's RB209 fertiliser manual (8th edition - June 2010 version.)

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1.4 Operational Details

Cropping details: There are 2 fields of arable (proposed Spring Barley and Winter Wheat), and the rest are in permanent grass for grazing or silage. There is more detailed cropping information on the *waste additions* document.

The straw from the arable crops will be removed at harvest of the crop.

The waste will be spread direct, with no need for storage on site, and the land will all have a spring application of liquid waste that will be surface applied via a splash plate tanker.

If land appears to be compacted, sub soiling will take place. Fields with land drains are noted on the manure risk maps with a number 4.

L Shaped & Brock Field- arable

L Shaped is proposed to be planted with Spring Barley following a crop of Winter Oats (harvested summer/autumn 2016).

Brock Field has been planted with Winter Wheat in autumn 2016.

In both fields, the cultivated ground has & will have compaction removed from the soils and will receive a surface application of the liquid waste, via a splash plate tanker, in the Spring.

For L Shaped, this will be prior to planting the Spring Barley, whilst on Brock Field this will be surface applied over the emerging crop of wheat.

All other fields – grass silage/ grazing

These fields will have a spring application of liquid waste that will be surface applied via a splash plate tanker.

The possibility of waste run off will be taken into account, by choosing the correct weather conditions and a slower application rate; the waste will be purely targeted to the crop, as intended.

This early application of liquid will improve the spring growth; with a late spring/summer application to help get a further second cut of grass.

Any additional application of fertiliser will be based on the yield required. Therefore rates may alter due to how the crop is growing and the weather during that season.

There is 1138 tonnes of liquid to be spread; this will be fixed at a rate of 24 tonnes/ha

1.5 NVZ Requirements

The land included in this deployment is not part of a Nitrate Vulnerable Zone.

Therefore, there are no closed spreading periods for the waste, but as it is liquid, the appropriate GAECs will be adhered to. The waste will be spread in the Spring, when weather conditions are less likely to be cold and very wet. This will also be at the beginning of the growing period for the crops. Application rates and available nutrients (N, P & K), will meet and not exceed the crops needs. Other organic manure and artificial fertiliser applications have been taken in to account.

Additional records with more detail are kept for field records which are designed to meet statutory NVZ requirements despite the application land falling outside of an NVZ.

1.6 Benefits and nutrients supplied to the crop – please see Waste Additions 'G1'.

The nutrients supplied to the crops from both waste streams can be seen in the calculations on G1. The figures have been calculated using RB209 figures for what the crops require in regards to N, P and K.

The attached analysis also shows the nutrient content of the wastes, and has helped us calculate what the crops will actually receive from each application of the wastes.

The analysis of waste is attached, without PTE results as the production of the waste would not allow the containment or contamination of harmful levels of PTE'S. This is because the waste is a result of human food production.

As explained on annex G1, the waste does not show availability of the product so a similar product

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has been chosen from RB209 to act as a model for calculating availability of N, P & K to the crop.

1.7 Potential Negative Impacts

The farm has had Manure Risk Maps produced in order to assess the potential for negative impacts to the surrounding watercourses, and particularly the SSSI (River Usk). Therefore, risk of run off during application is taken into account within the manure risk map. The past 48 hours and the following 48 hours of weather are also taken into account when spreading the waste.

Odour Risk

It is unlikely the liquid waste will have a high risk of odour, as the main part of the material is water. The waste (02 03 01) will be imported and spread the same day, so there will be no odour from storage.

Other potential impacts

The pH of the liquid waste is 7.2 (very near neutral) and the soils it will be applied to have a pH between pH 5.4 and pH 6.4. Therefore the addition of a neutral pH waste will have no detrimental effect to the crop or soil.

Before spreading, tyres and tyre pressures will be adjusted to match the soil conditions, and waste will not be spread on the ground when it is water saturated, frozen, snow covered, or cracked due to prolonged dry periods.

The grass fields will have a much lower risk of soil erosion, due to the vegetative cover, but again, waste will only be spread in suitable conditions.

Further site specific risk assessments for each field are included on the 'site specific risk assessment'. This document details the potential impacts the waste may have on a nearby SSSI, and what is being done to combat them.

1.8 Sensitive human and environmental receptors

Please see the manure risk maps for the receptors.

Sensitive human receptors

- All buildings
- footpaths
- amenity areas
- boreholes, wells springs or private water supplies.

Sensitive environmental receptors

- surface waters
- woodland
- boundaries (inc hedges).

1.9 Practices to reduce the impacts of the operation on identified sensitive receptors

Spreading restrictions within the 'Code of Good Agricultural Practice' will be adhered to, including 10m no spread zones next to watercourses, and 50m no spread areas around springs, wells or boreholes where applicable.

There are manure risk maps for the land detailing which fields have a higher risk for spreading manures on according to slopes, watercourses and soil types. These and the weather forecast will be

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consulted before spreading commences.

Mr Davies & Mr Matthews will be the primary people to spread the waste. They are very familiar with the land and climate of the area. This gives them a good understanding of how and when best to spread the waste on each individual parcel of land.

All machinery to spread the waste is kept in mechanically sound condition, and calibrated.

The 'site specific risk assessment' details how spreading will be carried out so as not to interfere with the nearby SSSI/ SAC.

2.0 Contingency planning

The below measures are in place in the event of each problem:

- machinery breakdown; a replacement spreader will be used, whilst the initial spreader is being fixed. Machinery will be checked and calibrated before being used.
- staffing problems due to sickness, holidays etc. Other trained staff will be sought to do the job, or re-arrange the day for spreading.
- prolonged adverse weather ; the delivery and spreading of the waste will be cancelled and delayed until weather conditions improve.
- Prolonged waste storage – waste is brought on to the land and spread direct. Beacon Foods store it in the meantime. If land/ weather conditions are not suitable for spreading, it will be stored at the Beacon Foods site.