

## PAS110 Digestate Biofertiliser Information

March 2022

Thank you for your interest in Asgard Renewables' BSI: PAS110 Biofertiliser

Please find below information on digestate biofertiliser, including its composition, application rate and value compared with bagged NPK

### How Is Biofertiliser Made?

Biofertiliser is produced by the anaerobic digestion process. Asgard Renewables processes dairy wastes, agricultural residues, and food processing and catering wastes to produce biogas and electricity. Once the biogas is removed, the nutrient rich liquid by-product is called digestate, certified under a BSI Standard as PAS110 Biofertiliser.

### What Nutrients Are In Biofertiliser?

Nutrient	Biofertiliser Nutrient Content*
Total Nitrogen	5.3 kg/ tonne
Ammonium Nitrogen (NH <sub>4</sub> -N)	4.0 kg/ tonne
Phosphate (P <sub>2</sub> O <sub>5</sub> )	3.0 kg/ tonne
Potassium (Potash K <sub>2</sub> O)	3.5 kg/ tonne
Sulphur (SO <sub>3</sub> )	1.1 kg/ tonne
Magnesium (Mg)	0.2 kg/ tonne

\* Average Analysis- most recent analysis available on request and supplied with all applications

### What is the value of Biofertiliser' nutrients?

	UK average Fertiliser Price Spring 2022*		Asgard Renewables Biofertiliser	
	Product	£/kg Nutrient	Nutrient Content kg/tonne	Value/t
Nitrogen	Ammonium Nitrate 34.5% @ £645/t	£1.88	4.0	£7.52
Phosphate	TripleSuperPhosphate TSP46% @ £537/t	£1.17	3.0	£3.51
Potash	Muriate of Potash MOP60% @ £542/t	£0.90	3.5	£3.15
			<b>NPK Equivalent Value/ tonne</b>	<b>£14.18</b>

\* source March 2022 – <https://ahdb.org.uk/GB-fertiliser-prices>

### What are the benefits of using Biofertiliser?

- Fast acting plant-available nutrients, works like bagged fertiliser
- Typical application also applies 25kg Sulphur/ha plus other useful micro-nutrients like Magnesium, Molybdenum etc
- Biofertiliser pH counteracts acidification by Nitrogen - using only biofertiliser eliminates need for lime.
- Produced to BSI: PAS110 Standard - no harmful heavy metal levels or physical/chemical contaminants
- Solids screened out to 1.5mm - Zero contamination and liquid incorporates beneath the crop foliage
- Applied using low-level dribble-bar spreading techniques, minimising nutrient losses
- FACTS Qualified Advisor available to advise on best usage with each customer's soils and crops
- Environmentally friendly replacement of manufactured NPK

### How much does Biofertiliser cost?

Asgard Renewables supplies Biofertiliser delivered and field spread on your farm using low-level application method via Stepside Agricultural Contractors. The cost per tonne delivered is based on distance to the spreading location, as haulage is a large component of the cost.

Distance from Asgard Renewables SA43 1QY	Price per tonne (delivered & spread)
< 5 miles	£7.35 / tonne
< 10 miles	£10.35 / tonne
< 15 miles	£13.35 / tonne
< 20 miles	£14.25 / tonne
	£0.60/tonne/mile thereafter

### What is the application rate and estimated cost per acre?

All Biofertiliser orders are provided with agronomic advice from a FACTS Qualified Advisor, who can look at your field location, any soil samples, cropping history and target crop yields to tailor an application rate. Asgard Renewables can also offer soil sampling services or liaise directly with your agronomist.

Typical application rates are approximately 10 tonne/ acre, or 2250 gallons/ acre

A typical grass silage application example is shown below

	RB209 Fertiliser Manual Recommendation Crop: Grass 1st Cut Silage	Asgard Renewables Biofertiliser supplies; Rate 25t/ha (2250 gallon/acre)	
<b>Nitrogen</b>	100 kg/ha*	100 kg/ha	80 unit/acre
<b>Phosphate</b>	80 kg/ha *	75 kg/ha	60 unit/acre
<b>Potash</b>	80 kg/ha *	87.5 kg/ha	70 unit/acre

\* subject to soil reserves

Asgard Renewables Biofertiliser delivered and spread within 5 miles	Cost of NPK fertiliser equivalent
£74.36 per acre	£140.69 per acre

If you would like further information on PAS110 Biofertiliser, please use the link below, get in touch via our website or using my contact details below

Kind Regards

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[www.asgardrenewables.com](http://www.asgardrenewables.com)

<https://www.biofertiliser.org.uk/>