WASTE ADDITIONS 2018

Field Name	Area (ha)	Soil Type	Soil Status					Cropping		Sowing Date	Required (kg/ha)			Manure & Fertiliser Applications	Total N	Will provide (kg/ha) (available)				Application Date	Method
			SNS	pH	P	K	Mg	2017	2018		N	P	K			N	P	K	S		
1515	6.28	Medium	Moderate	6.6	3	2+	2	GZ	GZ		240	0	0	23.5m³/ha Beacon Foods Liquid waste	57.7	7.77	11.46	60.53	5.8	06/08/2018	surface
9408	2.86	Medium	Moderate	6.4	2	2-	2	GZ	GZ		240	20	0	23.5m³/ha Beacon Foods Liquid waste	57.7	7.77	11.46	60.53	5.8	06/08/2018	surface
9995	2.12	Medium	Moderate	6.4	3	2+	2	GZ	GZ		240	0	0	23.5m³/ha Beacon Foods Liquid waste	57.7	7.77	11.46	60.53	5.8	06/08/2018	surface
7785	4.02	Medium	Moderate	6.3	2	2-	2	GZ	GZ		240	20	0	23.5m³/ha Beacon Foods Liquid waste	57.7	7.77	11.46	60.53	5.8	06/08/2018	surface
4984	3.19	Medium	Moderate	6.3	3	2-	2	GZ	GZ		240	0	0	23.5m³/ha Beacon Foods Liquid waste	57.7	7.77	11.46	60.53	5.8	06/08/2018	surface
3478	1.98	Medium	Moderate	5.5	3	1	2	SI1	SI1		270	20	110	23.5m³/ha Beacon Foods Liquid waste	57.7	7.77	11.46	60.53	5.8	06/08/2018	surface
4470	2.68	Medium	Moderate	5.5	3	1	2	SI1	SI1		270	20	110	23.5m³/ha Beacon Foods Liquid waste	57.7	7.77	11.46	60.53	5.8	06/08/2018	surface
2368	2.53	Medium	Moderate	6.4	4	1	2	SI1	SI1		270	0	110	23.5m³/ha Beacon Foods Liquid waste	57.7	7.77	11.46	60.53	5.8	06/08/2018	surface
0865	2.19	Medium	Moderate	5.9	3	0	2	SI2	SI2		270	20	200	23.5m³/ha Beacon Foods Liquid waste	57.7	7.77	11.46	60.53	5.8	06/08/2018	surface
9466 Long Field	1.44	Medium	Moderate	6.7	4	2-	3	SI1	SI1		270	0	80	23.5m³/ha Beacon Foods Liquid waste	57.7	7.77	11.46	60.53	5.8	06/08/2018	surface
9060 Long Field	0.47	Medium	Moderate	6.4	4	3	3	GZ	GZ		240	0	0	23.5m³/ha Beacon Foods Liquid waste	57.7	7.77	11.46	60.53	5.8	06/08/2018	surface
Reservoir 1865	3.31	Medium	Moderate	6.3	3	2-	2	SI1	SI1		270	20	80	23.5m³/ha Beacon Foods Liquid waste	57.7	7.77	11.46	60.53	5.8	06/08/2018	surface
L Shaped 7992	5.07	Medium	1	6	3	2-	3	SO	SBA	10/04/2018	140	80	100	23.5m³/ha Beacon Foods Liquid waste	57.7	11.11	11.46	60.53	5.8	05/04/2018	soil incorp
Isolation Unit 5090	6.3	Medium	Low	5.4	2	1	3	GZ	SI1		270	25	110	23.5m³/ha Beacon Foods Liquid waste	57.7	7.77	11.46	60.53	5.8	06/08/2018	surface
9977 House Field	1.35	Medium	1	5.4	3	2-	2	SI1	WC	20/03/2018	140	85	190	23.5m³/ha Beacon Foods Liquid waste	57.7	11.11	11.46	60.53	5.8	16/03/2018	surface
6856 Potatoe Field	1.39	Medium	1	6	3	1	2	SI1	WC	20/03/2018	140	85	190	23.5m³/ha Beacon Foods Liquid waste	57.7	11.11	11.46	60.53	5.8	16/03/2018	surface
5560 Cilwych	2.01	Medium	Low	5.7	3	1	2	SI1	SI1		270	0	80	23.5m³/ha Beacon Foods Liquid waste	57.7	7.77	11.46	60.53	5.8	06/08/2018	surface

G1

Totals Spread
Liquid Waste: 1161m³/ha (approx.)

Cropping Codes

GZ	Grazing Grass
SI1	One cut grass silage
SI2	Two cut grass silage
SO	Spring Oats
SBA	Spring Barley
WW	Winter Wheat

SNS **For arable fields:** SNS of 1 chosen using table 4.4 on Pg 11 of Arable Crops RB209, using an average annual rainfall of 1551m. *This is using data from the Met Office website, for the Sennybridge station.*
For grassland fields: SNS Moderate to Low chosen using table 3.6, on pg 13 of the Grassland & Forage Crops RB209.

Method
surface = liquid waste will be surface applied to the ground using a splash plate tanker. Prior to establishment of arable crops, this surface application will be followed by ploughing.

AVAILABILITY
This waste product does not appear in the latest version of RB209, so Dirty Water has been used as a model to calculate availability of phosphate and potassium to the crops.
Phospate: Using the analysis in oxide format, the total Phospate will be 22.927 m³/ha at a spreading rate of 23.5m³/ha. Using Page 21 of RB209 (version May 2017)
Phosphate in Dirty Water has an availability of 50%. Therefore, availability will be 11.4635 m³/ha at a spreading rate of 23.5m³/ha.

Potassium: Using the analysis in oxide format, the total Potassium will be 60.531m³/ha at a spreading rate of 23.5m³/ha. Using Page 21 of RB209 (version May 2017)
Potassium in Dirty Water has an availability of 100%. Therefore, availability will be 60.531m³/ha at a spreading rate of 23.5m³/ha.

Sulphur: Using the analysis in oxide format, the total Sulphur will be 22.927 m³/ha at a spreading rate of 23.5m³/ha. Using Page 12 of RB209 (version May 2017) Sulphur in livestock manures has 10% availability for autumn spreading, therefore availability will be 5.798 m³/ha.

Nitrogen: Again Dirty Water has been used as a model to calculate availability of Nitrogen to the crops.
Using the analysis in oxide format, the total Nitrogen supplied will be 22.2126m³/ha at a spreading rate of 23.5tn/ha. Using Page 20 of RB209 (version May 2017)
Spring Applications - 50% availability = 11.1063m³/ha
Summer Applications - 30% availability = 6.6638m³/ha
Autumn/Winter Applications - 35% availability = 7.7744m³/ha

Required N justifications:
SI1 - 270kg/ha N total - 120kg/ha N for first cut silage on chosen SNS. Grazed May through to August, add an additional 250kg/haN
SI2 - 270kg/ha N total - 210kg/ha N for 2 cuts silage on chosen SNS. Grazed July to August, add an additional 60kg/ha N