

Organic manures inventory and NVZ manure storage requirement October 2018 to September 2019



Honkley farm	CPH number	56/010/0022	Area in an NVZ	94.77 ha
East View Farm,	Single business		Area not in an NVZ	108.00 ha
Cobblers Lane,	identifier			
Burton	Annual rainfall (mm)	703	Area of low run-off risk land	0 ha
Rossett				
LL12 0AL				

The Nitrate Vulnerable Zone (NVZ) minimum mandatory manure storage capacity requirements

In order to comply with the NVZ Action Programme rule for manure storage, the minimum mandatory manure storage capacity requirements for slurry and/or poultry manure on this farm are shown below. The calculations are based on the information entered into PLANET and shown in this report.

	Cattle/other slurry m ³	Pig slurry m ³	Rainfall to slurry stores m ³	Poultry layer manure tonnes	Poultry litter tonnes
October	960	0	269	0	0
November	618	0	287	0	0
December	618	0	295	0	0
January	618	0	258	0	0
February	618	0	188	0	0
March		0		0	0
Applied to low run-off risk land	0	0		0	0
Additional 1 weeks capacity					
Total	3,432	0	1,357	0	0
Total for farm area in NVZ	1,613	0	638	0	0

The NVZ minimum storage capacity requirement for cattle and pig slurry is 2,251 m³

This quantity includes allowances for:

- Slurry applied to low run-off risk land 0 m³

The minimum storage capacity requirement for poultry manure is 0 t (0 m³)

This quantity includes allowances for:

- Poultry manure applied to low run-off risk land 0 t

For further information see the relevant NVZ guidance leaflet(s)

Existing slurry, solid manure and dirty water stores, and other rainwater collection areas

Slurry stores	
Capacity of slurry stores	4,957 m ³
Surface area of uncovered slurry stores	1,836 m ²
Dirty water stores	
Capacity of dirty water stores	0 m ³
Surface area of uncovered dirty water stores	0 m ²
Solid manure stores on an impermeable base or in poultry houses	
Capacity of solid manure stores	0 tonnes
Rainwater collection areas	
Area of fouled open concrete, uncovered solid manure stores, silage clamps, etc. draining to slurry stores	2,000 m ²
Area of clean concrete and roofs draining to slurry stores	0 m ²
Area of fouled open concrete, uncovered solid manure stores, silage clamps, etc. draining to dirty water stores	0 m ²
Area of clean concrete and roofs draining to dirty water stores	0 m ²

Livestock details

Month	Livestock type	Number	Manure system	Occupancy %	Collected as slurry %	Bedding t/month	Mech separation	Slurry separated %
October	1 dairy heifer replacement, 13 months to first calf	50	Slurry mainly	80	100		☐	
October	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	80	0	17.2	☐	
October	1 dairy cow (6000-9000 litres milk yield)	605	Slurry mainly	80	100		☐	
November	1 dairy heifer replacement, 13 months to first calf	50	Slurry mainly	80	100		☐	
November	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	80	0	17.2	☐	
November	1 dairy cow (6000-9000 litres milk yield)	605	Slurry mainly	80	100		☐	
December	1 dairy heifer replacement, 13 months to first calf	50	Slurry mainly	80	100		☐	
December	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	80	0	17.2	☐	
December	1 dairy cow (6000-9000 litres milk yield)	605	Slurry mainly	80	100		☐	
January	1 dairy heifer replacement, 13 months to first calf	50	Slurry mainly	80	100		☐	
January	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	80	0	17.2	☐	
January	1 dairy cow (6000-9000 litres milk yield)	605	Slurry mainly	80	100		☐	
February	1 dairy heifer replacement, 13 months to first calf	50	Slurry mainly	80	100		☐	
February	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	80	0	17.2	☐	
February	1 dairy cow (6000-9000 litres milk yield)	605	Slurry mainly	80	100		☐	
March	1 dairy heifer replacement, 13 months to first calf	120	Slurry mainly	80	30	12.1	☐	
March	1 dairy cow (6000-9000 litres milk yield)	17	Slurry mainly	80	30	4.5	☐	
March	1 dairy cow (6000-9000 litres milk yield)	230	Slurry mainly	80	100		☐	
April	1 dairy heifer replacement, 13 months to first calf	120	Slurry mainly	40	30	6.1	☐	
April	1 dairy cow (6000-9000 litres milk yield)	17	Slurry mainly	40	30	2.3	☐	
April	1 dairy cow (6000-9000 litres milk yield)	230	Slurry mainly	40	100		☐	
May	1 dairy heifer replacement, 13 months to first calf	120	Slurry mainly	20	30	3.0	☐	
May	1 dairy cow (6000-9000 litres milk yield)	17	Slurry mainly	20	30	1.1	☐	
May	1 dairy cow (6000-9000 litres milk yield)	230	Slurry mainly	20	100		☐	
June	1 dairy heifer replacement, 13 months to first calf	120	Slurry mainly	20	30	3.0	☐	
June	1 dairy cow (6000-9000 litres milk yield)	17	Slurry mainly	20	30	1.1	☐	
June	1 dairy cow (6000-9000 litres milk yield)	230	Slurry mainly	20	100		☐	
July	1 dairy heifer replacement, 13 months to first calf	120	Slurry mainly	20	30	3.0	☐	

Livestock details

Month	Livestock type	Number	Manure system	Occupancy %	Collected as slurry %	Bedding t/month t/month	Mech separation	Slurry separated %
July	1 dairy cow (6000-9000 litres milk yield)	17	Slurry mainly	20	30	1.1	☐	
July	1 dairy cow (6000-9000 litres milk yield)	230	Slurry mainly	20	100		☐	
August	1 dairy heifer replacement, 13 months to first calf	120	Slurry mainly	20	30	3.0	☐	
August	1 dairy cow (6000-9000 litres milk yield)	17	Slurry mainly	20	30	1.1	☐	
August	1 dairy cow (6000-9000 litres milk yield)	230	Slurry mainly	20	100		☐	
September	1 dairy heifer replacement, 13 months to first calf	120	Slurry mainly	40	30	6.1	☐	
September	1 dairy cow (6000-9000 litres milk yield)	17	Slurry mainly	40	30	2.3	☐	
September	1 dairy cow (6000-9000 litres milk yield)	230	Slurry mainly	40	100		☐	

Wash water

Month	Livestock type	Number	Hose type	Daily volume litres/day	No. of wash days	Floor area washed m ²	Monthly volume m ³	Destination
October	1 dairy cow (6000-9000 litres milk yield)	552	Low volume	20	31		342	Cattle slurry store
November	1 dairy cow (6000-9000 litres milk yield)	552	Low volume	20	30		331	Dirty water store
December	1 dairy cow (6000-9000 litres milk yield)	552	High volume	30	31		513	Dirty water store
January	1 dairy cow (6000-9000 litres milk yield)	552	Low volume	20	31		342	Dirty water store
February	1 dairy cow (6000-9000 litres milk yield)	552	Low volume	20	28		309	Dirty water store
March	1 dairy cow (6000-9000 litres milk yield)	210	High volume	30	31		195	Cattle slurry store
April	1 dairy cow (6000-9000 litres milk yield)	210	High volume	30	30		189	Cattle slurry store
May	1 dairy cow (6000-9000 litres milk yield)	210	High volume	30	31		195	Cattle slurry store
June	1 dairy cow (6000-9000 litres milk yield)	210	High volume	30	30		189	Cattle slurry store
July	1 dairy cow (6000-9000 litres milk yield)	210	High volume	30	31		195	Cattle slurry store
August	1 dairy cow (6000-9000 litres milk yield)	210	High volume	30	31		195	Cattle slurry store
September	1 dairy cow (6000-9000 litres milk yield)	210	High volume	30	30		189	Cattle slurry store

Imports and Exports

Month	Import or export	Date	Manure type	Quantity tonnes or m ³	Import destination
October	Export		Cattle slurry	200	
<i>Recipient:</i> Greenwalls Farm					
<i>Comments:</i>					
November	Export		Cattle slurry	200	
<i>Recipient:</i>					
<i>Comments:</i>					
December	Export		Cattle slurry	200	
<i>Recipient:</i>					
<i>Comments:</i>					
January	Export		Cattle slurry	200	
<i>Recipient:</i>					
<i>Comments:</i>					
February	Export		Cattle slurry	200	
<i>Recipient:</i>					
<i>Comments:</i>					
March	Import	15/03/2014	Biosolids, digested cake	409	Applied direct to land
<i>Supplier:</i> JR Knowles, Honkley Farm , Burton , Rossett					
<i>Comments:</i>					

Low run-off risk land

Month	Manure type	Quantity tonnes or m ³
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Summary of organic manure and dirty water production

Month	Home produced (cattle)	Home produced (pigs)	Home produced (poultry)	Home produced (sheep/other)	Imports	Exports	Clean rainfall	Dirty rainfall	Net total retained on farm
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Slurry (m³)

October	1,160					200	129	140	1,229
November	818					200	137	149	904
December	818					200	141	154	913
January	818					200	123	134	875
February	818					200	90	98	805
March	529						99	108	736
April	356						88	96	540
May	278						91	99	468
June	272						98	107	477
July	278						79	86	444
August	278						101	110	489
September	356						114	124	593
Total	6,778	0	0	0	0	1,000	1,291	1,406	8,474

Dirty water (m³)

October									
November	331								331
December	513								513
January	342								342
February	309								309
March									
April									
May									
June									
July									
August									
September									
Total	1,495	0	0	0	0	0	0	0	1,495

Poultry layer manure (tonnes)

October									
November									
December									
January									
February									
March									
April									
May									
June									

Summary of organic manure and dirty water production

Month	Home produced (cattle)	Home produced (pigs)	Home produced (poultry)	Home produced (sheep/other)	Imports	Exports	Clean rainfall	Dirty rainfall	Net total retained on farm
July									
August									
September									
Total	0	0	0	0	0	0	0	0	0

Poultry litter (tonnes)

October									
November									
December									
January									
February									
March									
April									
May									
June									
July									
August									
September									
Total	0	0	0	0	0	0	0	0	0

Other solid manures (tonnes)

October	74								74
November	74								74
December	74								74
January	74								74
February	74								74
March	112				409				521
April	56								56
May	28								28
June	28								28
July	28								28
August	28								28
September	56								56
Total	709	0	0	0	409	0	0	0	1,118

'Clean rainfall' is the quantity of rainfall landing on clean concrete and roofs, or uncovered slurry stores that drain to a slurry store. This quantity of rainfall may be easily redirected to reduce the volume of slurry.

'Dirty rainfall' is the quantity of rainfall landing on fouled open concrete, and uncovered solid manure stores, silage clamps, etc., that drain to a manure store.

Nutrients in handled manures (approximate values)

	Home produced (cattle)	Home produced (pigs)	Home produced (poultry)	Home produced (sheep/other)	Imports	Exports	Net total retained on farm
Quantity (kg)							
Readily available nitrogen (N)	8,161	0	0	0	675	910	7,926
Total phosphate (P2O5)	12,444	0	0	0	7,362	1,200	18,606
Total potash (K2O)	32,800	0	0	0	245	3,200	29,845
Financial value (£)							
Readily available nitrogen (N)	7,345	0	0	0	608	819	7,133
Total phosphate (P2O5)	9,955	0	0	0	5,890	960	14,885
Total potash (K2O)	19,680	0	0	0	147	1,920	17,907

The readily available nitrogen is based on surface application in the spring

The estimated financial value of these manures, equivalent to manufactured fertilisers, is based on the following fertiliser prices:-

90 pence/kg N	£311/t ammonium nitrate
80 pence/kg P2O5	£368/t triple superphosphate
60 pence/kg K2O	£360/t muriate of potash