

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	16 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	1,279	0	193	0	0
November	1,523	0	205	0	0
December	1,539	0	211	0	0
January	1,539	0	185	0	0
February	1,489	0	134	0	0
March		0		0	0
Applied to low run-off risk land	1,600	0		0	0
Additional 1 weeks capacity	342	0	43		
Total	6,111	0	971	0	0
Total for farm area in NVZ	2,872	0	456	0	0

The NVZ minimum storage capacity requirement for cattle and pig slurry is 3,328 m³

This quantity includes allowances for:

- Slurry applied to low run-off risk land 1,600 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	6,793 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	914 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 cow (6000-9000 litres milk yield)	60	Slurry mainly	11	100		☐	
October	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	100	20	17.2	☐	
October	1 dairy heifer replacement, 13 months to first calf	20	Slurry mainly	100	100		☐	
October	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	100	20	17.2	☐	
October	1 dairy cow (6000-9000 litres milk yield)	550	Slurry mainly	80	100		☐	
November	1 dairy cow (6000-9000 litres milk yield)	60	Slurry mainly	100	100		☐	
November	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	100	20	17.2	☐	
November	1 dairy heifer replacement, 13 months to first calf	20	Slurry mainly	100	100		☐	
November	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	100	20	17.2	☐	
November	1 dairy cow (6000-9000 litres milk yield)	550	Slurry mainly	100	100		☐	
December	1 dairy cow (6000-9000 litres milk yield)	60	Slurry mainly	100	100		☐	
December	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	100	20	17.2	☐	
December	1 dairy heifer replacement, 13 months to first calf	20	Slurry mainly	100	100		☐	
December	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	100	20	17.2	☐	
December	1 dairy cow (6000-9000 litres milk yield)	550	Slurry mainly	100	100		☐	
January	1 dairy cow (6000-9000 litres milk yield)	60	Slurry mainly	100	100		☐	
January	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	100	20	17.2	☐	
January	1 dairy heifer replacement, 13 months to first calf	20	Slurry mainly	100	100		☐	
January	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	100	20	17.2	☐	
January	1 dairy cow (6000-9000 litres milk yield)	550	Slurry mainly	100	100		☐	
February	1 dairy cow (6000-9000 litres milk yield)	60	Slurry mainly	100	100		☐	
February	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	100	20	17.2	☐	
February	1 dairy heifer replacement, 13 months to first calf	20	Slurry mainly	100	100		☐	
February	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	100	20	17.2	☐	
February	1 dairy cow (6000-9000 litres milk yield)	550	Slurry mainly	100	100		☐	
March	1 dairy cow (6000-9000 litres milk yield)	60	Slurry mainly	100	100		☐	
March	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	100	20	17.2	☐	
March	1 dairy heifer replacement, 13 months to first calf	20	Slurry mainly	100	100		☐	

Livestock details

Month	Livestock type	Number	Manure system	Occupancy %	Collected as slurry %	Bedding t/month t/month	Mech separation	Slurry separated %
March	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	100	20	17.2	☐	
March	1 dairy cow (6000-9000 litres milk yield)	550	Slurry mainly	80	100		☐	
April	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	100	20	17.2	☐	
April	1 dairy cow (6000-9000 litres milk yield)	60	Slurry mainly	100	100		☐	
April	1 dairy heifer replacement, 13 months to first calf	20	Slurry mainly	100	100		☐	
April	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	100	20	17.2	☐	
April	1 dairy cow (6000-9000 litres milk yield)	550	Slurry mainly	80	100		☐	
May	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	100	20	17.2	☐	
May	1 dairy cow (6000-9000 litres milk yield)	60	Slurry mainly	100	100		☐	
May	1 dairy heifer replacement, 13 months to first calf	20	Slurry mainly	100	100		☐	
May	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	100	20	17.2	☐	
May	1 dairy cow (6000-9000 litres milk yield)	550	Slurry mainly	80	100		☐	
June	1 dairy cow (6000-9000 litres milk yield)	60	Slurry mainly	100	100		☐	
June	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	100	20	17.2	☐	
June	1 dairy heifer replacement, 13 months to first calf	20	Slurry mainly	100	100		☐	
June	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	100	20	17.2	☐	
June	1 dairy cow (6000-9000 litres milk yield)	550	Slurry mainly	80	100		☐	
July	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	100	20	17.2	☐	
July	1 dairy cow (6000-9000 litres milk yield)	60	Slurry mainly	100	100		☐	
July	1 dairy heifer replacement, 13 months to first calf	20	Slurry mainly	100	100		☐	
July	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	100	20	17.2	☐	
July	1 dairy cow (6000-9000 litres milk yield)	550	Slurry mainly	80	100		☐	
August	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	100	20	17.2	☐	
August	1 dairy cow (6000-9000 litres milk yield)	60	Slurry mainly	100	100		☐	
August	1 dairy heifer replacement, 13 months to first calf	20	Slurry mainly	100	100		☐	
August	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	100	20	17.2	☐	
August	1 dairy cow (6000-9000 litres milk yield)	550	Slurry mainly	80	100		☐	
September	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	100	20	17.2	☐	
September	1 dairy cow (6000-9000 litres milk yield)	45	Solid manure mainly	100	20	17.2	☐	

Livestock details

Month	Livestock type	Number	Manure system	Occupancy %	Collected as slurry %	Bedding t/month t/month	Mech separation	Slurry separated %
September	1 dairy heifer replacement, 13 months to first calf	20	Slurry mainly	100	100		☐	
September	1 dairy cow (6000-9000 litres milk yield)	60	Slurry mainly	100	100		☐	
September	1 dairy cow (6000-9000 litres milk yield)	550	Slurry mainly	80	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)	595	High volume	28	31		516	Cattle slurry store
November	1 dairy cow (6000-9000 litres milk yield)	595	High volume	28	30		500	Cattle slurry store
December	1 dairy cow (6000-9000 litres milk yield)	595	High volume	28	31		516	Cattle slurry store
January	1 dairy cow (6000-9000 litres milk yield)	595	High volume	28	31		516	Cattle slurry store
February	1 dairy cow (6000-9000 litres milk yield)	595	High volume	28	28		466	Cattle slurry store
March	1 dairy cow (6000-9000 litres milk yield)	595	High volume	28	31		516	Cattle slurry store
April	1 dairy cow (6000-9000 litres milk yield)	595	High volume	28	30		500	Cattle slurry store
May	1 dairy cow (6000-9000 litres milk yield)	595	High volume	28	31		516	Cattle slurry store
June	1 dairy cow (6000-9000 litres milk yield)	595	High volume	28	30		500	Cattle slurry store
July	1 dairy cow (6000-9000 litres milk yield)	595	High volume	28	31		516	Cattle slurry store
August	1 dairy cow (6000-9000 litres milk yield)	595	High volume	28	31		516	Cattle slurry store
September	1 dairy cow (6000-9000 litres milk yield)	595	High volume	28	30		500	Cattle slurry store

Imports and Exports

Month	Import or export	Date	Manure type	Quantity tonnes or m ³	Import destination
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Low run-off risk land

Month	Manure type	Quantity tonnes or m ³
January	Cattle/other slurry	800
February	Cattle/other slurry	800

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	1,279						129	64	1,472
November	1,523						137	68	1,728
December	1,539						141	70	1,750
January	1,539						123	61	1,723
February	1,489						90	45	1,623
March	1,364						99	49	1,512
April	1,348						88	44	1,480
May	1,364						91	45	1,499
June	1,348						98	49	1,494
July	1,364						79	39	1,482
August	1,364						101	50	1,515
September	1,348						114	57	1,518
Total	16,864	0	0	0	0	0	1,291	642	18,797

Dirty water (m³)

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

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	149								149
November	149								149
December	149								149
January	149								149
February	149								149
March	149								149
April	149								149
May	149								149
June	149								149
July	149								149
August	149								149
September	149								149
Total	1,786	0	0	0	0	0	0	0	1,786

'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)	17,447	0	0	0	0	0	17,447
Total phosphate (P2O5)	27,294	0	0	0	0	0	27,294
Total potash (K2O)	71,784	0	0	0	0	0	71,784
Financial value (£)							
Readily available nitrogen (N)	15,702	0	0	0	0	0	15,702
Total phosphate (P2O5)	21,835	0	0	0	0	0	21,835
Total potash (K2O)	43,070	0	0	0	0	0	43,070

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