

B2.7 Manure Management Plan

Farm Name: Illustrative Farm

Operator: Mr P Fffff

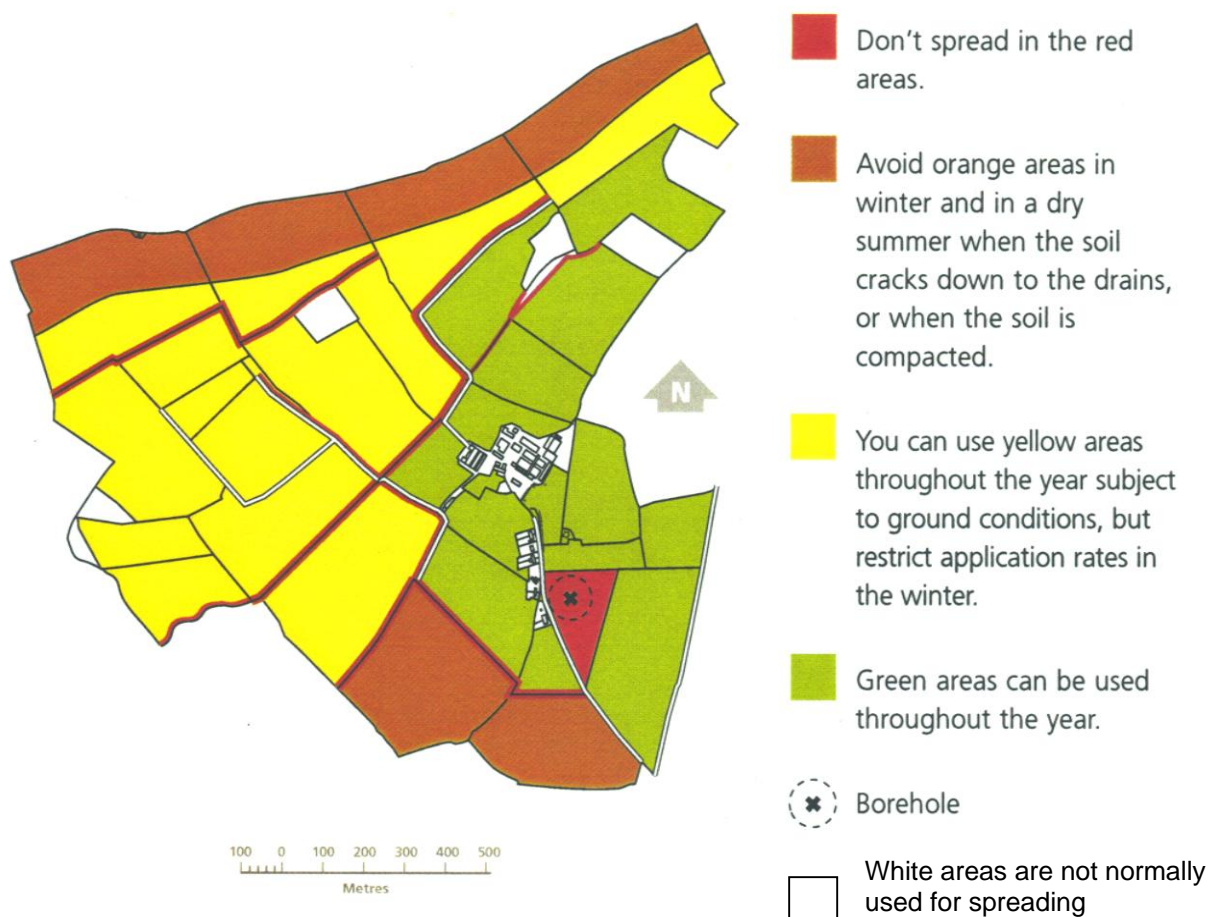
You may already have a Manure Management Plan compiled for another purpose such as Entry Level Scheme or Farm Assurance Scheme. This will usually be sufficient to fulfil part of the requirements here.

A Step by Step Guide for producing a Manure Management Plan is available from Defra and has been used as the basis for this template,

http://www.defra.gov.uk/corporate/regulat/forms/agri_env/nvz/manureplan.

The Environment Agency also has guidance on manure management planning - <http://www.environment-agency.gov.uk/commondata/acrobat/manure.pdf>.

Manure Spreading Risk Map



Land Available for Spreading

This is the area of land associated with the unit (for which a PPC Permit is required) that is available for spreading organic manures including dirty water.

Table 1 - Calculating the land area not available for spreading

Remember ditches and watercourses may be bordered by fields on two sides.

<u>Field name or number</u>	Whole field area in hectares (ha)	Ditches and watercourses		Other red areas (ha)	White areas (not normally used) (ha)
		Total length in metres (m)	* metres divided by 1,000 = ha		
26	30.32	2400	2.40		
24	23.45	1900	1.90		
19	19.01	2000	2.00		
33	14.55	1300	1.30		
35	9.88	750	0.75		
34	1.23	200	0.20		
31	22.35	650	0.65		
29/30	2.85		0.00		
28	11.22	450	0.45		
22/23	20.98	750	0.75		2.43
20	15.42	500	0.50		
14/15	2.94		0.00	0.15	
13	23.07	700	0.70		
7/8/9/11	3.92	550	0.55		
12	12.11	450	0.45		
10	10.73	450	0.45		
2	1.68	550	0.55		
1	20.22	550	0.55		
35	6.95		0.00	6.95	
25	3.09		0.00	3.09	
Total farm area A	255.97				
		x =	y =	z =	
Areas not available for spreading: Totals		14.15	10.19	2.43	

**This calculation is derived from ditches x 10 m (red area) ÷ 10,000 to give hectares. If we do not multiply by the 10 m first, we only need to divide by 1,000.*

Note: If you use a 1:2,500 scale map; 1 grid square = 1 hectare, 1 side of a square = 100 metres
If you use a 1:10,000 scale map; 1 grid square = 100 hectares, 1 side of a square = 1,000 metres

Area available for spreading: A minus (x + y + z) = 229.2 ha

The minimum land area required for spreading organic manures on land directly associated with the Site for which a PPC Permit is required, based on an annual limit of 250kg/ha of total organic nitrogen applied (see Water Code, Defra) is calculated using Table 2 below.

Table 2 - Calculating minimum area of land needed

1 weaner place	1000	x	0.012	=	12.00
1 grower pig place	1000	x	0.024	=	24.00
1 light cutter pig place (35 to 85 kg)		x	0.038	=	
1 bacon pig place (35 to 105 kg)	2436	x	0.042	=	102.31
1 maiden gilt place	80	x	0.052	=	4.16
1 boar place	9	x	0.064	=	0.58
1,000 laying hens		x	2.64	=	
1,000 free range hens		x	2.32	=	
1,000 broiler places		x	1.98	=	
1,000 broiler breeders		x	3.90	=	
1,000 replacement pullets		x	0.50	=	
1,000 male turkey places		x	5.56	=	
1,000 female turkey places		x	2.60	=	
1,000 fattening duck places		x	3.60	=	
Total area required for organic manures produced on site				=	180.49
If organic manures are imported onto the farm, indicate the type and minimum area of land					
land required for spreading					0.00
Total minimum land area required =				=	180.49
					ha

If you have land in a Nitrate Vulnerable Zone or are a registered organic farmer, you must comply with the farm-based limits for nitrogen from organic manures.

If the minimum land area required (as calculated in Table 2) exceeds that available (as calculated using Table 1), then surplus manure must be exported off the farm.

Annual quantity of organic manure exported off the farm: _____

and/or (if applicable)

Area of land available on a regular basis for spreading exported organic manures: _____ ha

Manure and Slurry Storage

Include an inventory of all facilities used for the storage of manures, slurries and dirty water. This may be taken from your buildings inventory.

Table 3 Inventory of manure and slurry storage facilities

Building / Facility	No. of tanks or stores	Dimensions (m) <i>(Effective storage depth is stated excluding freeboard¹)</i>	Total storage capacity <i>(Excluding freeboard volume)</i>	Typical storage period
Farrowing House 1	4	33.75 x 0.9 x 0.55	67 m ³	30 days
First Stage Weaner	8	5.6 x 2.05 x 0.65	60 m ³	3 weeks
Second Stage Weaner	8	6.5 x 3 x 0.6	93 m ³	4 weeks
Finishing House	2	61 x 1.2 x 0.75	110 m ³	10 days
Dirty Water Tank	1		22 m ³	2 days
Slurry Store	1	22.9m dia x 4.8	1852 m ³	4 months
Midden	1	18.3 x 13.7 x 1.5* *average height	376 m ³	3 months

note ¹; A minimum freeboard of 300mm for tanks and channels and 750mm for earth bank lagoons has been allowed.

If you have land in a Nitrate Vulnerable Zone, you must comply with minimum storage requirements for slurry.

Contingency measures

In the event of the land allocated for spreading not being available (because of soil condition or cropping) and the storage capacity on the farm for slurry is likely to be exceeded, the following measures will be carried out:

1. 50 ha of land at XXXX Farm, Greendale will be used. This land is farmed by Mr P Ffff, but is not normally used for spreading on account of its distance from the Installation. The land at XXXX farm is permanent pasture and spreading is normally possible.

20ha of pasture land is available at TTT Farm owned by Mr T Ffff for spreading if required.

2. Slurry can be transported to an existing unused lagoon at XXXX Farm.
3. Options for hiring or purchasing additional storage vessels will be explored.
4. In the event of the slurry transfer pump failing and its repair is not possible, a tractor driven tanker will be used to transfer slurry from tanks to the main slurry store.