Regulations 3, 4, 29, 34 and 36

Amount of manure, nitrogen and phosphate produced by grazing livestock and non-grazing livestock

Table 1
Grazing livestock

Category	Daily manure produced by each	Daily nitrogen produced by each	Daily phosphate produced by each
	animal (litres)	animal (grams)	animal (grams)
Cattle			_
Calves (all categories except veal) up to 3 months:	7	23	12.7
Dairy cows—			
from 3 months and less than 13 months:	20	95	34
from 13 months up to first calf:	40	167	34
After first calf and—			
annual milk yield more than 9000 litres:	64	315	142
annual milk yield between 6000 and 9000 litres:	53	276	121
annual milk yield less than 6000 litres:	42	211	93
Beef cows or steers <sup>(a)</sup> —			
from 3 months and less than 13 months:	20	91	33
from 13 months and less than 25 months:	26	137	43
From 25 months—			
females or steers for slaughter:	31	137	60
females for breeding—			
weighing 500 kg or less:	32	167	65
weighing more than 500 kg:	45	227	86

<sup>(</sup>a) Castrated male.

<sup>(</sup>b) In the case of a ewe, this figure includes one or more suckled lambs until the lambs are aged six months.

Category	Daily manure produced by each animal (litres)	Daily nitrogen produced by each animal (grams)	Daily phosphate produced by each animal (grams)
Bulls			
Non-breeding, 3 months and over:	26	148	24
Breeding—			
from 3 months and less than 25 months:	26	137	43
from 25 months:	26	132	60
Sheep			
From 6 months up to 9 months old:	1.8	5.5	0.76
From 9 months old to first lambing, first tupping or slaughter:	1.8	3.9	2.1
After lambing or tupping <sup>(b)</sup> —			
weight less than 60 kg:	3.3	21	8.8
weight from 60 kg:	5	3	10.0
Goats, deer and horse	es		
Goats:	3.5	41	18.8
Deer—			
breeding:	5	42	17.6
other:	3.5	33	11.7
Horses:	24	58	56

<sup>(</sup>a) Castrated male.

Table 2

Non-grazing livestock

Category	Daily manure produced by each animal (litres)	Daily nitrogen produced by each animal (grams)	Daily phosphate produced by each animal (grams)
Cattle			
Veal calves:	7	23	12.7
Poultry <sup>(a)</sup>			
Chickens used for production of eggs for human consumption—			

<sup>(</sup>a) Note: all figures for poultry include litter.

<sup>(</sup>b) In the case of a ewe, this figure includes one or more suckled lambs until the lambs are aged six months.

Category	Daily manure produced by each animal (litres)	Daily nitrogen produced by each animal (grams)	Daily phosphate produced by each animal (grams)
less than 17 weeks:	0.04	0.64	0.47
from 17 weeks (caged):	0.12	1.13	1.0
from 17 weeks (not caged)	0.12	1.5	1.1
Chickens raised for meat:	0.06	1.06	0.72
Chickens raised for breeding—			
less than 25 weeks:	0.04	0.86	0.78
from 25 weeks:	0.12	2.02	1.5
Turkeys—			
male:	0.16	3.74	3.1
female:	0.12	2.83	2.3
Ducks:	0.10	2.48	2.4
Ostriches:	1.6	3.83	18.5
Pigs			
Weight from 7 kg and less than 13 kg:	1.3	4.1	1.3
Weight from 13 kg and less than 31 kg:	2	14.2	6.0
Weight from 31 kg and less than 66 kg—			
dry fed:	3.7	24	12.1
liquid fed:	7.1	24	12.1
Weight from 66 kg and—			
Intended for slaughter—			
dry fed:	5.1	33	17.9
liquid fed:	10	33	17.9
sows intended for breeding that have not yet had their first litter:	5.6	38	20
sows (including their litters up to a weight of 7 kg per piglet) fed on a diet supplemented with synthetic amino acids:		44	37
sows (including their litters up to a weight of 7 kg per (a) Note: all figures for poultry including their litters.		49	37

Category	Daily manure produced by each animal (litres)	Daily nitrogen produced by each animal (grams)	Daily phosphate produced by each animal (grams)
piglet) fed on a diet without synthetic amino acids:			
breeding boars from 66 kg up to 150 kg:	5.1	33	17.9
breeding boars, from 150 kg	8.7	48	28
(a) Note: all figures for poultry include	le litter		

Regulation 5

## Fruit species

Botanical Name	Common Name
Cydonia oblonga	Quince
Malus domestica	Apple
Mespilus germanica	Medlar
Morus spp.	Mulberry
Prunus armenaica	Apricot
Prunus avium	Sweet cherry
Prunus cerasus	Sour (cooking) cherry
Prunus ceracifera	Cherry plum
Prunus domestica	Plum
Prunus domestica subsp. insititia	Damson, Bullace
Prunus persica	Peach
Prunus persica var. nectarina	Nectarine
Prunus x gondouinii	Duke cherry
Prunus spinosa	Sloe
Pyrus communis	Pear
Pyrus pyrifolia	Asian pear

Regulations 9, 36 and 37

### Calculating nitrogen in organic manure

# PART 1

## Standard Table

## Total amount of nitrogen in livestock manure

Manure other than slurry	Total nitrogen in each tonne (kg)
Manure other than slurry from—	
cattle:	6
pigs:	7
sheep:	7
ducks:	6.5
horses:	7
goats:	6
Manure from laying hens:	19
Manure from turkeys or broiler chickens:	10
Slurry	Total nitrogen in each cubic metre (kg)
cattle:	2.6
pigs:	3.6
Separated cattle slurry (liquid fraction)—	
strainer box:	1.5
weeping wall:	2
mechanical separator:	3
Separated cattle slurry (solid fraction):	4
Separated pig slurry (liquid fraction):	3.6
Separated pig slurry (solid fraction):	5
Dirty water:	0.5

# PART 2

# Sampling and analysis of organic manure

## Slurry and other liquid and semi-liquid organic manure

1.—(1) In relation to slurry and other liquid and semi-liquid organic manure, at least five samples, each of 2 litres, must be taken.

- (2) Subject to sub-paragraph (3), the five samples must be taken from a vessel, and—
  - (a) if reasonably practicable, the slurry must be thoroughly mixed before the samples are taken, and
  - (b) each sample must be taken from a different location.
- (3) If a tanker used for spreading is fitted with a suitable valve, the samples may be taken while spreading, and each sample must be taken at intervals during the spreading.
- (4) Whether taken as described in sub-paragraph (2) or (3), the five samples must be poured into a larger container, stirred thoroughly and a 2 litre sample must be taken from that container and poured into a smaller clean container.
- (5) The 2 litre sample produced in accordance with sub-paragraph (4) must then be sent for analysis.

#### **Solid manures**

- **2.**—(1) In relation to solid manures, the samples must be taken from a manure heap.
- (2) At least ten samples of 1 kg each must be taken, each from a different location in a heap.
- (3) Each sub-sample must be taken at least 0.5 metres from the surface of the heap.
- (4) If samples are being collected to calculate compliance with the whole farm limit for pigs and poultry, four samples for analysis must be taken in a calendar year (one taken in each quarter) from manure heaps not more than 12 months old.
  - (5) The sub-samples must be placed on a clean, dry tray or sheet.
  - (6) Any lumps must be broken up and the sub-samples must be thoroughly mixed together.
  - (7) A representative sample of at least 2 kg must then be sent for analysis.

SCHEDULE 4 Regulations 20 and 22
Permitted crops for the closed period

Crop	Maximum nitrogen rate (kg/hectare)
Oilseed rape, winter <sup>(a)</sup>	30
Asparagus	50
Brassica <sup>(b)</sup>	100
Grass <sup>(a)(c)</sup>	80
Over-wintered salad onions	40
Parsley	40
Bulb onion	40

- (a) Nitrogen must not be spread on crops after 31 October.
- (b) An additional 50 kg of nitrogen per hectare may be spread every four weeks during the closed period up to the end of harvest.
- (c) A maximum of 40 kg of nitrogen per hectare may be spread at any one time.

Regulation 24

### Requirements for silos

- 1. The requirement to be satisfied in relation to a silo is that it complies with the following provisions of this Schedule.
  - 2. The base of the silo must—
    - (a) extend beyond any walls of the silo,
    - (b) be provided at its perimeter with channels designed and constructed so as to collect any silage effluent that escapes from the silo, and
    - (c) have adequate provision for the drainage of that effluent from those channels to an effluent tank through a channel or pipe.
  - 3. The capacity of the effluent tank must not be less than—
    - (a) in the case of a silo with a capacity of less than 1,500 cubic metres, 20 litres for each cubic metre of silo capacity, and
    - (b) in the case of a silo with a capacity of 1,500 cubic metres or more, 30 cubic metres plus 6.7 litres for each cubic metre of silo capacity in excess of 1,500 cubic metres.
  - **4.**—(1) The base of the silo must be—
    - (a) designed in accordance with the code of practice for design of concrete structures for retaining aqueous liquids published by the British Standards Institution and numbered BS 8007: 1987(1), or
    - (b) constructed using appropriate hot-rolled asphalt in accordance with the code of practice for selection and use of construction materials published by the British Standards Institution and numbered BS 5502: Part 21: 1990(2).
- (2) The base of the silo, the base and walls of its effluent tank and channels and walls of any pipes must be impermeable.
- **5.** The base and walls of the silo, its effluent tank and channels and the walls of any pipes must, so far as reasonably practicable, be resistant to attack by silage effluent.
- **6.** No part of the silo, its effluent tank or channels or any pipes may be situated within 10 metres of any inland freshwaters or coastal waters into which silage effluent could enter if it were to escape.
  - 7. If the silo has retaining walls—
    - (a) the retaining walls must be capable of withstanding minimum wall loadings calculated on the assumptions and in the manner indicated by paragraph 15.6 of the code of practice on buildings and structures for agriculture published by the British Standards Institution and numbered BS 5502: Part 22: 2003(3),
    - (b) the silo must at no time be loaded to a depth exceeding the maximum depth consistent with the design assumption made in respect of the loadings of the retaining walls, and
    - (c) notices must be displayed on the retaining walls in accordance with paragraph 18 of that code of practice.
- **8.** Subject to paragraph 9, the silo, its effluent tank and channels and any pipes must be designed and constructed so that with proper maintenance they are likely to continue to satisfy the requirements of paragraphs 2 to 5 and, if applicable, paragraph 7(a) for at least 20 years.

<sup>(1)</sup> Publication date: 30 October 1987. ISBN 0-580-16134-X.

<sup>(2)</sup> Publication date: 31 December 1990. ISBN 0-580-18348-3.

<sup>(3)</sup> Publication date: 10 June 2003. ISBN 0-580-38654-6.

**9.** If any part of an effluent tank is below ground level, the tank must be designed and constructed so that it is likely to continue to satisfy the requirements of paragraphs 4 and 5 for at least 20 years without maintenance.

#### SCHEDULE 6

Regulation 25

### Requirements for slurry storage systems

- 1. The requirements to be satisfied in relation to a slurry storage system are as follows.
- **2.** The base of the slurry storage tank, the base and walls of any effluent tank, channels and reception pit, and the walls of any pipes, must be impermeable.
- **3.** The base and walls of the slurry storage tank, any effluent tank, channels and reception pit, and the walls of any pipes, must be protected against corrosion in accordance with paragraph 7 of the code of practice on buildings and structures for agriculture published by the British Standards Institution and numbered BS 5502: Part 50: 1993(4).
- **4.** The base and walls of the slurry storage tank and of any reception pit must be capable of withstanding characteristic loads calculated on the assumptions and in the manner indicated by paragraph 5 of the code of practice on buildings and structures for agriculture published by the British Standards Institution and numbered BS 5502: Part 50: 1993.
- **5.**—(1) Any facilities used for the temporary storage of slurry before it is transferred to a slurry storage tank must have adequate capacity to store—
  - (a) the maximum quantity of slurry that (disregarding any slurry which will be transferred directly into a slurry storage tank) is likely to be produced on the premises in any two day period, or
  - (b) a lesser capacity that NRBW agrees in writing is adequate to avoid any significant risk of pollution of controlled waters.
- (2) Where slurry flows into a channel before discharging into a reception pit and the flow of slurry out of the channel is controlled by means of a sluice, the capacity of the reception pit must be adequate to hold the maximum quantity of slurry that can be released by opening the sluice.
- **6.** In the case of a slurry storage tanks with walls made of earth, the tank must have at least 750 mm of freeboard and 300 mm of freeboard in all other cases.
- 7. No part of the slurry storage tank or any effluent tank, channels or reception pit may be situated within 10 metres of any inland freshwaters or coastal waters into which slurry could enter if it were to escape unless precautions are taken that NRBW agrees in writing are adequate to avoid any significant risk of pollution of controlled waters.
- **8.** The slurry storage tank and any effluent tank, channels, pipes and reception pit must be designed and constructed so that with proper maintenance they are likely to continue to satisfy the requirements of paragraphs 2 to 4 for at least 20 years.
  - 9. If the walls of the slurry storage tank are not impermeable, the base of the tank must—
    - (a) extend beyond the walls;
    - (b) be provided with channels designed and constructed so as to collect any slurry that escapes from the tank;

<sup>(4)</sup> Publication date: 15th April 1993. ISBN 0-580-22053-2.

Status: This is the original version (as it was originally made).

- (c) have adequate provision for the drainage of the slurry from those channels to an effluent tank through a channel or pipe.
- **10.**—(1) Subject to sub-paragraph (3), if the slurry storage tank or any effluent tank or reception pit is fitted with a drainage pipe there must be two valves in series on the pipe with each valve separated from the other by a minimum distance of 1 metre.
- (2) Each valve must be capable of shutting off the flow of slurry through the pipe and must be kept shut and locked in that position when not in use.
- (3) Sub-paragraph (1) does not apply in relation to a slurry storage tank that drains through the pipe into another slurry storage tank if the other tank is of equal or greater capacity or if the tops of the tanks are at the same level.