

## SCHEDULE

Regulation 10

## “SCHEDULE 1

Regulations 6 and 38

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

**Table 1****Grazing livestock**

<i>Category</i>	<i>Daily manure produced by each animal (litres)</i>	<i>Daily nitrogen produced by each animal (grams)</i>	<i>Daily phosphate produced by each animal (grams)</i>
<b>Cattle</b>			
Calf (all categories except veal) up to 3 months:	7	23	12.7
Dairy cow—			
From 3 months and less than 13 months:	20	95	34
From 13 months up to first calf:	40	167	69
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:	32	137	60
females for breeding—			
<b>(a)</b> Castrated male.			
<b>(b)</b> In the case of a ewe, this figure includes one or more suckled lambs until the lambs are aged six months.			

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<i>Category</i>	<i>Daily manure produced by each animal (litres)</i>	<i>Daily nitrogen produced by each animal (grams)</i>	<i>Daily phosphate produced by each animal (grams)</i>
weighing 500kg or less:	32	167	65
weighing more than 500kg:	45	227	86
<b>Bulls</b>			
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
<b>Sheep</b>			
From 6 months up to 9 months old:	1.8	5.5	0.76
From 9 months old to first lambing, first tugging or slaughter:	1.8	3.9	2.1
After lambing or tugging <sup>(b)</sup> —			
weight less than 60kg:	3.3	21	8.8
weight from 60kg:	5	33	10.0
<b>Goat, deer and horses</b>			
Goat:	3.5	41	18.8
Deer—			
breeding:	542	17.6	
other:	3.5	33	11.7
Horse:	24	58	56

(a) Castrated male.

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

**Table 2**

**Non-grazing livestock**

<i>Category</i>	<i>Daily manure produced by each animal (litres)</i>	<i>Daily nitrogen produced by each animal (grams)</i>	<i>Daily phosphate produced by each animal (grams)</i>
<b>Cattle</b>			

(a) Note: all figures for poultry include litter.

<i>Category</i>	<i>Daily manure produced by each animal (litres)</i>	<i>Daily nitrogen produced by each animal (grams)</i>	<i>Daily phosphate produced by each animal (grams)</i>
Veal calf:	7	23	12.7
<b>Poultry<sup>(a)</sup></b>			
Chicken used for production of eggs for human consumption—			
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
Turkey—			
male:	0.16	3.74	3.1
female:	0.12	2.83	2.3
Duck:	0.10	2.48	2.4
Ostrich:	1.6	3.83	18.5
<b>Pigs</b>			
Weight from 7kg and less than 13kg:	1.3	4.1	1.3
Weight from 13kg and less than 31kg:	2	14.2	6.0
Weight from 31kg and less than 66kg—			
dry fed:	3.7	24	12.1
liquid fed:	7.1	24	12.1
Weight from 66kg and—			
intended for slaughter—			
dry fed:	5.1	33	17.9
liquid fed:	10	33	17.9
<b>(a)</b> Note: all figures for poultry include litter.			

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<i>Category</i>	<i>Daily manure produced by each animal (litres)</i>	<i>Daily nitrogen produced by each animal (grams)</i>	<i>Daily phosphate produced by each animal (grams)</i>
sow intended for breeding that has not yet had its first litter:	5.6	38	20
sow (including litter up to 7kg) fed on a diet supplemented with synthetic amino acids:	10.9	44	37
sow (including litter up to 7kg) fed on a diet without synthetic amino acids:	10.9	49	37
breeding boar from 66kg up to 150kg:	5.1	33	17.9
breeding boar, from 150kg:	8.7	48	28

(a) Note: all figures for poultry include litter.

## SCHEDULE 2

Regulation 17

### Calculating nitrogen in manure

## PART 1

### Standard table

#### Total amount of nitrogen in manure

<i>Manure other than slurry</i>	<i>Total nitrogen in each tonne (kg)</i>
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:	30

<i>Slurry</i>	<i>Total nitrogen in each cubic metre (kg)</i>
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

#### Slurry

- 1.—(1) In relation to slurry, at least five samples, each of 2 litres, must be taken.
- (2) The sample must be taken from a slurry 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) But 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) The 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) That sample 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 1kg 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 2kg must then be sent for analysis.

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### SCHEDULE 3

Regulations 27 and 29

#### Permitted crops for the closed period

<i>Crop</i>	<i>Maximum nitrogen rate (kg/hectare)</i>
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 onions	40

(a) Nitrogen must not be spread on these crops after 31 October.

(b) An additional 50kg of nitrogen per hectare may be spread every four weeks during the closed period up to the date of harvest.

(c) A maximum of 40kg of nitrogen per hectare may be spread at any one time.

### SCHEDULE 4

Regulation 13E

#### Derogated holdings

- The following additional requirements apply to derogated holdings.

#### **Derogation from the measures governing the limit on application of livestock manure**

- An occupier of a derogated holding must ensure that in any calendar year for which the derogation has been granted—

$$A \geq (Ngl + 250) + (Nngl + 170)$$

where—

*A* is the area of the derogated holding (hectares), as existing on 1 January for that calendar year,

*Ngl* is the total amount of nitrogen (kilogrammes) in livestock manure from grazing livestock, whether applied directly by an animal or by spreading, and

*Nngl* is the total amount of nitrogen (kilogrammes) in livestock manure from non-grazing livestock, whether applied directly by an animal or by spreading.

#### **Planning the spreading of phosphate fertiliser**

- (1) In addition to the production of nitrogen spreading plans under regulation 14 (planning the spreading of nitrogen fertiliser) the occupier must—

- assess the amount of phosphorus in the soil that is likely to be available for uptake by the crop during the growing season (“the soil phosphorus supply”);
- calculate the optimum amount of phosphate fertiliser that should be spread on the crop, taking into account the amount of phosphorus available from the soil phosphorus supply; and

- (c) produce a plan for the spreading of phosphate fertiliser for that growing season.
- (2) The occupier must do this—
  - (a) in the case of any crop other than permanent grassland, before spreading any phosphate fertiliser for the first time for the purpose of fertilising a crop planted or intended to be planted; and
  - (b) in the case of permanent grassland, each year beginning on 1 January before the spreading of phosphate fertiliser.
- 4. In addition to the requirements under paragraph 3 the fertilisation plan must record—
  - (a) the soil phosphorus supply and the method used to establish this figure;
  - (b) the optimum amount of phosphate fertiliser that should be spread on the crop, taking into account the amount of phosphorus from the soil phosphorus supply;
  - (c) the amount of nitrogen likely to be available for uptake by the crop from any organic manure intended to be spread for crop uptake in the growing season during the calendar year in which it is spread;
  - (d) the amount of phosphate likely to be supplied to meet the requirement of the crop from any organic manure spread or intended to be spread during the calendar year;
  - (e) the amount of manufactured nitrogen fertiliser required (that is, the optimum amount of nitrogen required by the crop less the amount of nitrogen that will be available for crop uptake from any organic manure spread during that calendar year); and
  - (f) the amount of manufactured phosphate fertiliser required (that is, the optimum amount of phosphate required by the crop less the amount of phosphate supplied for crop uptake from any organic manure spread for the purpose of fertilising the crop during that calendar year).

#### **Soil sampling and analysis**

5.—(1) At least every four years the occupier must undertake soil sampling and analysis for the supply of phosphorus of at least every five hectares of the agricultural area of the derogated holding under the same cropping regime and soil type.

(2) An occupier may rely on the results of previous phosphorus soil sampling and analysis of the agricultural area of the derogated holding under the same cropping regime and soil type for the purposes of sub-paragraph (1), provided such sampling and analysis was carried out within four years before the derogation.

(3) Where phosphorus soil sampling and analysis of the agricultural area of the derogated holding under the same cropping regime and soil type has not been carried out before 2010, such sampling and analysis must be carried out as follows—

- (a) 75% of the agricultural area by 1 March 2011, and
- (b) 100% of the agricultural area by 1 March 2012.

#### **Additional information to be recorded during the year**

6.—(1) In addition to the information to be recorded under regulation 15 (additional information to be recorded during the year) the occupier must, before spreading organic manure, record—

- (a) the total phosphate content of the organic manure; and
- (b) the amount of phosphate likely to be supplied from the organic manure intended to be spread for the purpose of fertilising the crop in the growing season in which it is spread.

(2) In addition to the requirements of sub-paragraph (1) the occupier must, before spreading manufactured phosphate fertiliser, record—

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- (a) the amount required (that is, the optimum amount of phosphate required by the crop less the amount of phosphate that will be supplied for crop uptake from any organic manure spread); and
- (b) the planned date for spreading (month).

#### **Risk maps**

- 7.—(1) In addition to the requirements under regulation 18 (risk maps), the risk map must—
- (a) show each field marked with a reference number or number to enable cross reference to fields recorded in fertilisation plans;
  - (b) correspond with the agricultural area of the derogated holding; and
  - (c) be completed by 1 March 2011 and 1 March 2012 for those calendar years.
- (2) The occupier must update the risk map within one month of any change in circumstances.

#### **Maintaining the derogated holding as a grassland holding**

8. The occupier must maintain the holding to ensure 80% or more of the agricultural area available for manure application is sown with grass during that calendar year.

#### **Closed period for ploughing grass on the derogated holding**

9. In relation to any grass ploughed on or after 1 April 2010, no person may—
- (a) plough temporary grassland on sandy soils between 1 July and 31 December;
  - (b) plough grass on sandy soils before 16 January where livestock manure has been spread on that grass between 1 September and 31 December in the previous calendar year; and
  - (c) plough grass on soils that are not sandy soils before 16 January where livestock manure has been spread on that grass between 15 October in the previous calendar year and 15 January.

#### **Sowing of crops following grass on the derogated holding**

10. In relation to the sowing of crops or grass on any grass ploughed on or after 1 April 2010, the land must be—
- (a) sown with a crop with high nitrogen demand within four weeks beginning on the day after the date of ploughing grass; or
  - (b) sown with grass within six weeks beginning on the day after the date of ploughing grass.

#### **Crop rotation on the derogated holding**

11. Crop rotation must not include leguminous or other plants fixing atmospheric nitrogen except for grass with less than 50% clover and other leguminous plants that are under-sown with grass.

#### **Recording the size of the derogated holding**

- 12.—(1) An occupier must record the total agricultural area and the area of grass within the derogated holding by 1 March 2011 and 1 March 2012 for those calendar years.
- (2) If the size of the derogated holding or area of grass changes the occupier must update the record within one month beginning on the day after the change.



### **Records relating to storage of manure during the storage period**

13. In addition to the requirements of regulation 36 (records relating to storage of manure during the storage period) the occupier must make a record describing the livestock housing and manure storage systems together with the volume of manure storage in place on the holding by 1 March 2011 and 1 March 2012 for those calendar years.

### **Record of nitrogen and phosphate produced by animals**

14.—(1) The occupier must make a record of the expected number and category (in accordance with the categories in Tables 1 and 2 in Schedule 1) of livestock to be kept on the holding during that calendar year.

(2) Following the record making requirements in sub-paragraph (1), the occupier must then calculate and record the amount of nitrogen and phosphate in manure expected to be produced by the livestock on the holding during that year using Tables 1 and 2 in Schedule 1.

(3) The records to be made in accordance with sub-paragraphs (1) and (2) must be made before 1 March 2011 and 1 March 2012 for those calendar years.

### **Livestock manure intended to be brought on to or sent off the derogated holding**

15.—(1) The occupier must—

- (a) make a record of the type and amount of livestock manure that is intended to be brought on to the holding and sent off the holding during that calendar year; and
- (b) calculate and record the amount of nitrogen in the livestock manure recorded under sub-paragraph (1)(a) in accordance with regulation 39(4).

(2) The records to be made under sub-paragraph (1) must be made by 1 March 2011 and 1 March 2012 for those calendar years.

### **Records of crops sown**

16. In addition to the requirements of regulation 41(records of crops sown) an occupier who intends to spread phosphate fertiliser must, within one week of sowing a crop record—

- (a) the crop sown; and
- (b) the date of sowing.

### **Records of spreading phosphate fertiliser**

17. In addition to the requirements of regulation 42 (records of spreading nitrogen fertiliser), an occupier must record—

- (a) within one week of spreading organic manure—
  - (i) the total phosphorus content; and
  - (ii) the amount of phosphate that was supplied for uptake by the crop; and
- (b) within one week of spreading manufactured phosphate fertiliser—
  - (i) the date of spreading; and
  - (ii) the amount of phosphate spread.

### **Recording the date of ploughing**

18. In addition to the requirements of regulation 43 (subsequent records) an occupier must record within one week of ploughing, the date of that ploughing.

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### **Fertilisation accounts**

**19.**—(1) An occupier, or any person on behalf of the occupier, must submit fertilisation accounts for the calendar year to the Agency by 30 April of the following year.

(2) The Agency must publish the manner and form in which the fertilisation account must be made.

(3) The fertilisation account must record—

- (a) the total agricultural area of the derogated holding;
- (b) the area of the derogated holding covered by—
  - (i) winter wheat,
  - (ii) spring wheat,
  - (iii) winter barley,
  - (iv) spring barley,
  - (v) winter oilseed rape,
  - (vi) sugar beet,
  - (vii) potatoes,
  - (viii) forage maize,
  - (ix) grass, and
  - (x) other crops;
- (c) the number and category of animals kept on the derogated holding during the previous calendar year in accordance with the categories described in Tables 1 and 2 in Schedule 1;
- (d) the amount of nitrogen and phosphate in the manure produced by the animals on the derogated holding during the previous calendar year using Tables 1 and 2 in Schedule 1;
- (e) the amount and type of livestock manure brought on to or sent off the derogated holding during the previous calendar year;
- (f) the amount of nitrogen and phosphate in the manure recorded under sub-paragraph (3)(e) calculated in accordance with paragraph 14(2);
- (g) the weight (tonnes) and nitrogen content of all manufactured nitrogen fertiliser stocks kept on the derogated holding between 1 January and 31 December in the previous calendar year; and
- (h) the weight (tonnes) and nitrogen content of all manufactured nitrogen fertiliser brought on to and sent off the derogated holding between 1 January and 31 December in the previous calendar year.”.