SCOTTISH STATUTORY INSTRUMENTS

2009 No. 447

ENVIRONMENTAL PROTECTION

AGRICULTURE

WATER

The Action Programme for Nitrate Vulnerable Zones (Scotland) Amendment Regulations 2009

Made - - - -	*17th December 2009*
Laid before the Scottish Parliament	*18th December 2009*
Coming into force - -	*24th January 2010*

The Scottish Ministers make the following Regulations in exercise of the powers conferred by section 2(2) of the European Communities Act 1972(**a**) and of all other powers enabling them to do so.

Citation and commencement

1. These Regulations may be cited as the Action Programme for Nitrate Vulnerable Zones (Scotland) Amendment Regulations 2009 and come into force on 24th January 2010.

Amendments to the Action Programme for Nitrate Vulnerable Zones (Scotland) Regulations 2008

2. The Action Programme for Nitrate Vulnerable Zones (Scotland) Regulations 2008(**b**) are amended in accordance with regulations 3 to 9.

Amendment of regulation 3

3.—(1) Regulation 3 (interpretation) is amended as follows.

(2) After the definition of "crop requirement" insert—

> ""derogated farm" means a farm over which a derogation has been granted;
>
> "derogation" means a derogation from the annual limit of nitrogen in livestock manure that can be applied to land granted by the Scottish Ministers in accordance with regulations 14, 14A and 14B;

(**a**) 1972 c.68. Section 2(2) was amended by the Scotland Act 1998 (c.46), Schedule 8, paragraph 15(3) and by the Legislative and Regulatory Reform Act 2006 (c.51) section 27(1). The function conferred on the Minister of the Crown under section 2(2) was, so far as within devolved competence, transferred to the Scottish Ministers by section 53 of the Scotland Act 1998.

(**b**) S.S.I. 2008/298 as amended by S.S.I. 2008/394.

"derogation application" means an application for a derogation submitted by the occupier of a farm;".

(3) After the definition of "farmyard manure" insert—

""fertilisation accounts" means accounts providing such information relating to the management of nitrogen and phosphate inputs during the preceding calendar year as the Scottish Ministers may specify in accordance with regulation 25(3);".

(4) After the definition of "grassland" insert—

""grassland farm" means a farm where 80% or more of the agricultural area available for manure application is permanent grassland or temporary grassland (temporary implying leys of less than four years), including crops under-sown with grass but excluding grassland with 50% or more clover;

"grazing livestock" means cattle (with the exclusion of veal calves), sheep, deer, goats and horses;".

(5) After the definition of "organic manure with high available nitrogen content" insert—

""phosphate fertiliser" means any substance containing one or more phosphate compounds used on land to enhance growth of vegetation and includes organic manure;".

Amendment of regulation 5

4.—(1) Regulation 5 (fertiliser and manure management plan) is amended as follows.

(2) Omit "and" where it appears at the end of regulation 5(3)(b).

(3) After regulation 5(3)(c), insert—

"and

(d) in respect of derogated farms, in addition to the requirements of sub-paragraphs (a) to (c)—

(i) a note of the number of livestock and a description of the housing and storage system that includes the volume of manure storage available;

(ii) a calculation of manure nitrogen (less losses in housing and storage) and phosphate produced in the farm;

(iii) a description of the crop rotation and area of each crop, including a sketch map indicating location of individual fields;

(iv) a calculation of the foreseeable nitrogen and phosphate crop requirements;

(v) a note of the amount and the type of manure delivered outside the farm or to the farm;

(vi) the results of soil analysis related to nitrogen and phosphate soil status, if available;

(vii) a note of the nitrogen and phosphate application from manure over each field; and

(viii) a calculation of the application of nitrogen and phosphate with chemical and other fertilisers over each field.".

(4) After regulation 5(5), insert—

"(6) Fertiliser and manure management plans in respect of derogated farms shall be revised no later than 7 days after any changes in agricultural practice at the farm.".

Amendment of regulation 14

5.—(1) Regulation 14 (annual farm limit of nitrogen in livestock manure) is amended as follows.

(2) At the beginning of paragraph (1), insert "Subject to paragraph (4),".

(3) After paragraph (3), insert—

"(4) The occupier of any grassland farm within a nitrate vulnerable zone may apply to the Scottish Ministers for a derogation from the annual farm limit of nitrogen in livestock manure specified in paragraph (1).

(5) Any derogation granted shall last until the conclusion of the calendar year to which it relates, and shall be subject to renewal.

(6) Where the Scottish Ministers grant a derogation, the total annual amount of nitrogen in livestock manure from grazing livestock applied to the derogated farm, whether directly by an animal or by spreading, must not exceed 250kg multiplied by the area of the derogated farm in hectares.

(7) Any application for a derogation shall be made in accordance with regulation 14A and any grant of a derogation shall be subject to the conditions of regulation 14B.".

Insertion of regulations 14A and 14B

6.—(1) After regulation 14, insert—

"**Application for a derogation from the annual farm limit of nitrogen in livestock manure**

14A.—(1) The occupier of any grassland farm within a nitrate vulnerable zone who wishes to apply to the Scottish Ministers for a derogation must submit an application—

(a) by 30th April of the calendar year to which the application pertains (in respect of applications other than those pertaining to 2009);

(b) by 31st January 2010 in respect of applications pertaining to 2009.

(2) The Scottish Ministers must publish electronically the manner and form in which the derogation application must be made.

(3) Where the farm in respect of which a derogation is applied for benefited from a derogation during the calendar year preceding that to which the application relates, the application shall be accompanied by the fertilisation accounts for that preceding calendar year.

(4) The Scottish Ministers must approve or refuse a derogation application within 21 days from its receipt and notify the applicant of the decision in writing.

(5) Where the Scottish Ministers refuse a derogation application, they shall give the occupier reasons for the refusal.

Conditions of a derogation from the annual farm limit of nitrogen in livestock manure

14B. A derogation shall be subject to the following conditions—

(a) total nitrogen inputs shall not exceed the foreseeable nutrient demand of the considered crop, taking into account the supply from the soil;

(b) livestock manure shall not be spread in the autumn before grass cultivation;

(c) grass on sandy soils, if ploughed, shall only be ploughed in spring;

(d) ploughed grass on all soil types shall be followed immediately by a crop with high nitrogen demand;

(e) crop rotation shall not include leguminous or other plants fixing atmospheric nitrogen, other than clover in grassland with less than 50% clover or leguminous plants under-sown with grass;

(f) nitrogen and phosphate soil sampling and analysis shall be carried out at least once every four years for, as a minimum, every five hectares of the farm that, having regard to crop rotation and soil characteristics, can reasonably be considered homogeneous; and

(g) fertilisation accounts for each calendar year for which a derogation is granted shall be prepared and submitted to the Scottish Ministers by 30th April of the following year.".

Amendment of Regulation 25

7.—(1) Regulation 25 (records to be kept) is amended as follows.

(2) For regulation 25(2) substitute—

"(2) The occupier of a derogated farm must, in addition to the records to be kept under paragraph (1), keep records of—

(a) the derogation application and decision;

(b) the fertiliser and manure management plan referred to in regulation 5;

(c) fertilisation accounts; and

(d) the results of nitrogen and phosphate analysis in soil referred to in regulation 14B.

(3) The Scottish Ministers must publish electronically the manner and form in which fertilisation accounts must be prepared and submitted.

(4) The records referred to in paragraphs (1) and (2) must be kept for each year.".

Amendment of Schedule 1

8.—(1) Schedule 1 (calculation of nitrogen ("N") in livestock manure) is amended as follows.

(2) Omit the heading "Calculation of nitrogen ('N') in livestock manure" and substitute "Calculation of nitrogen ('N') and phosphate ('P_2O_5') in livestock manure".

(3) For Table 1, substitute—

"**Table 1**

Standards for the volume of excreta, nitrogen and phosphate in manure produced by livestock

Pigs	*Daily Excreta (litres per animal/day)*	*Daily Nitrogen production (grams per animal/day)*	*Daily Phosphate production (grams per animal/day)*
Weight			
From 7 to 13kg	1.3	4.1	1.3
From 13 to 31kg	2.0	14.2	6.0
From 31 to 66kg—			
Dry fed	3.7	24	12.1
Liquid fed	7.1	24	12.1
From 66kg and—			
intended for slaughter—			
dry fed	5.1	33	17.9
liquid fed	10.0	33	17.9
sow intended for breeding that has not yet had its first litter (maiden gilt)	5.6	38	20.0
sow (including litter up to 7kg) fed on a diet supplemented with synthetic amino acids	10.9	44	37.0
sow (including litter up to 7kg) fed on a diet without synthetic amino acids	10.9	49	37.0
Breeding boar from 66kg up to 150kg	5.1	33	17.9

Pigs	*Daily Excreta (litres per animal/day)*	*Daily Nitrogen production (grams per animal/day)*	*Daily Phosphate production (grams per animal/day)*
Breeding boar, from 150kg	8.7	48	28.0

Cattle	*Daily Excreta (litres per animal/day)*	*Daily Nitrogen production (grams per animal/day)*	*Daily Phosphate production (grams per animal/day)*
Calf (all categories) up to 3 months	7.0	23	12.7
Dairy cow			
From 3 months up to 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 to 9000 litres	53	276	121
annual milk yield less than 6000 litres	42	211	93
Beef cows or steers[(a)]			
From 3 up to 13 months	20	91	33
From 13 up to 25 months	26	137	43
Over 25 months—			
Females or steers for slaughter	32	137	60
Females for breeding—			
weighing 500kg or less	32	167	65
weighing more than 500kg	45	227	86
Bulls			
non-breeding, 3 months and over	26	148	24
Breeding			
From 3 up to 25 months	26	137	43
Over 25 months	26	132	60

[(a)] Castrated males.

Sheep	*Daily Excreta (litres per animal/day)*	*Daily Nitrogen production (grams per animal/day)*	*Daily Phosphate production (grams per animal/day)*
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[(a)]			
weight up to 60kg	3.3	21	8.8
weight over 60kg	5.0	33	10

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

Goats, deer and horses	*Daily Excreta (litres per animal/day)*	*Daily Nitrogen production (grams per animal/day)*	*Daily Phosphate production (grams per animal/day)*
Goat	3.5	41	18.8
Deer			
Breeding	5.0	42	17.6
Other	3.5	33	11.7
Horse	24	58	56

Poultry	*Daily Excreta[(a)] (kilograms per bird/day)*	*Daily Nitrogen production (grams per bird/day)*	*Daily Phosphate production (grams per bird/day)*
Laying chicken			
up to 17 weeks	0.04	0.64	0.47
17 weeks and over (caged)	0.12	1.13	1.0
17 weeks and over (free range)	0.12	1.5	1.1
Broiler chicken (table)	0.06	1.06	0.72
Broiler chicken (breeder)—			
up to 25 weeks	0.04	0.86	0.78
25 weeks and over	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

[(a)] This figure includes litter as appropriate.".

Amendment of Schedule 3

9.—(1) Schedule 3 (calculation of maximum nitrogen application to crops) is amended as follows.

(2) For Table 1, substitute—

"Table 1

Nitrogen Residue Group 1 – Previous Crops in Nitrogen Residue Group 1 are: **cereals, carrots, swedes, turnips (removed) & linseed**

		Predominant Soil Type in Field			
Planned crop	**Standard yield (t/ha)**	**Sand or shallow**	**Sandy loam or other mineral**	**Humose**	**Peaty**
Spring Barley[(c) (e)]	5.5	150	130	80	50
Winter Barley[(c)]	6.5	200	180	120	80
Spring Wheat[(a) (b)]	7.0	170	150	100	60
Winter Wheat[(a) (b)]	8.0	220	200	140	80
Spring Oats[(c)]	5.0	120	100	50	20
Winter Oats[(c)]	6.0	160	140	90	50
Spring Oilseed Rape	n/a	100	100	50	20
Winter Oilseed Rape (spring)[(d)]	4.0	200	200	120	80
Winter Oilseed Rape (autumn)	n/a	30	30	30	30
Potatoes	n/a	245	225	175	145
Forage Maize, Rape	n/a	140	120	70	40
Kale	n/a	180	160	100	60
Swedes and Turnips	n/a	110	90	50	20
Linseed	n/a	80	60	30	0

Adjustments

[(a)] For wheat, an additional 20kgN/ha is permitted for every tonne that the expected yield exceeds the standard yield.

[(b)] For wheat, an additional 40kgN/ha is permitted to milling wheat varieties.

[(c)] For barley and oats, an additional 15kgN/ha is permitted for every tonne that the expected yield exceeds the standard yield.

[(d)] On winter oil seed rape, the spring application can be increased by up to 30kgN/ha if the expected yield is over 4.0t/ha.

[(e)] On spring barley, an additional 15kgN/ha is permitted for high N grain distilling varieties.

There is no upward adjustment for excess winter rainfall on N Residue Group 1 Crops

Nitrogen Residue Group 2 - Previous Crops in Nitrogen Residue Group 2 are: - **harvested fodder (whole crop), oilseed rape, hemp, vining peas & potatoes**

Grassland Management Regimes in Residue Group 2: - **1-2 year low N** leys[(1)], **not grazed** within 2 months of ploughing out or during September or October

[(1)] **low N** means average N use in last 2 years was less than 150kg/ha/year

		Predominant Soil Type in Field			
Planned crop	**Standard yield (t/ha)**	**Sand or shallow**	**Sandy loam or Other mineral**	**Humose**	**Peaty**
Spring Barley[(c) (e)]	5.5	140	120	70	40
Winter Barley[(c)]	6.5	190	170	110	70
Spring Wheat[(a) (b)]	7.0	160	140	90	50
Winter Wheat[(a) (b)]	8.0	210	190	130	70
Spring Oats[(c)]	5.0	110	90	40	10
Winter Oats[(c)]	6.0	150	130	80	40
Spring Oilseed Rape	n/a	90	90	40	10
Winter Oilseed Rape (spring)[(d)]	4.0	190	190	110	70
Winter Oilseed Rape (autumn)	n/a	20	20	20	20
Potatoes	n/a	235	215	165	135
Forage Maize, Rape	n/a	130	110	60	30
Kale	n/a	170	150	90	50
Swedes and Turnips	n/a	100	80	40	10
Linseed	n/a	70	50	20	0

Adjustments

[(a)] For wheat, an additional 20kgN/ha is permitted for every tonne that the expected yield exceeds the standard yield.

[(b)] For wheat, an additional 40kgN/ha is permitted to milling wheat varieties.

[(c)] For barley and oats, an additional 15kgN/ha is permitted for every tonne that the expected yield exceeds the standard yield.

[(d)] On winter oil seed rape, the spring application can be increased by up to 30kgN/ha if the expected yield is over 4.0t/ha.

[e] On spring barley, an additional 15kgN/ha is permitted for high N grain distilling varieties.

If actual localised rainfall from 1st Oct – 1st March exceeds 450 mm: add 10kgN/ha

Nitrogen Residue Group 3 - Previous Crops in Nitrogen Residue Group 3 are: - **harvested fodder (root only), beans, combining peas & whole crop lupins**

Grassland Management Regimes in Residue Group 3:	1-2 year low N leys, grazed within 2 months of ploughing out or during September or October
	1-2 year high N leys[(2)], not grazed within 2 months of ploughing out or during September or October
	Thin permanent grass, low N, no clover

[(2)] **high N** means average N use in last 2 years was more than 150kg/ha/year, or high clover

		Predominant Soil Type in Field			
Planned crop	**Standard yield (t/ha)**	**Sand or shallow**	**Sandy loam or other mineral**	**Humose**	**Peaty**
Spring Barley[(c) (e)]	5.5	130	110	60	30
Winter Barley[(c)]	6.5	180	160	100	60
Spring Wheat [(a) (b)]	7.0	150	130	80	40
Winter Wheat [(a) (b)]	8.0	200	180	120	60
Spring Oats [(c)]	5.0	100	80	30	0
Winter Oats [(c)]	6.0	140	120	70	30
Spring Oilseed Rape	n/a	80	80	30	0
Winter Oilseed Rape (spring) [(d)]	4.0	180	180	100	60
Winter Oilseed Rape (autumn)	n/a	10	10	10	10
Potatoes	n/a	225	205	155	125
Forage Maize, Rape	n/a	120	100	50	20
Kale	n/a	160	140	80	40
Swedes and Turnips	n/a	90	70	30	0
Linseed	n/a	60	40	10	0

Adjustments

[(a)] For wheat, an additional 20kgN/ha is permitted for every tonne that the expected yield exceeds the standard yield.

[(b)] For wheat, an additional 40kgN/ha is permitted to milling wheat varieties.

[(c)] For barley and oats, an additional 15kgN/ha is permitted for every tonne that the expected yield exceeds the standard yield.

[(d)] On winter oil seed rape, the spring application can be increased by up to 30kgN/ha if the expected yield is over 4.0t/ha.

[(e)] On spring barley, an additional 15kgN/ha is permitted for high N grain distilling varieties.

If actual local rainfall from 1st Oct – 1st March exceeds 450 mm:	add 20kgN/ha to crops grown in sandy, shallow or sandy loam soils add 10kgN/ha to crops grown in other mineral, humose and peaty soils

Nitrogen Residue Group 4 - Previous Crops in Nitrogen Residue Group 4 is: - **grain lupin**

Grassland Management Regimes in Residue Group 4:

- 1-2 year high N leys, grazed within 2 months of ploughing out or during September or October
- 3-5 year low N leys[2], not grazed within 2 months of ploughing out or during September or October
- Thick permanent grass, low N

		Predominant Soil Type in Field			
Planned crop	**Standard yield (t/ha)**	**Sand or shallow**	**Sandy loam or other mineral**	**Humose**	**Peaty**
Spring Barley[(c) (e)]	5.5	110	90	40	10
Winter Barley[(c)]	6.5	170	140	80	40
Spring Wheat[(a) (b)]	7.0	130	110	60	20
Winter Wheat[(a) (b)]	8.0	180	160	100	40
Spring Oats[(c)]	5.0	80	60	10	0
Winter Oats[(c)]	6.0	130	100	50	10
Spring Oilseed Rape	n/a	60	60	10	0
Winter Oilseed Rape (spring)[(d)]	4.0	140	140	80	40
Winter Oilseed Rape (autumn)	n/a	0	0	0	0
Potatoes	n/a	205	185	145	115
Forage Maize, Rape	n/a	100	80	30	0
Kale	n/a	140	120	60	20
Swedes and Turnips	n/a	80	60	20	0
Linseed	n/a	10	0	0	0

Adjustments

[(a)] For wheat, an additional 20kgN/ha is permitted for every tonne that the expected yield exceeds the standard yield.

[(b)] For wheat, an additional 40kgN/ha is permitted to milling wheat varieties.

[(c)] For barley and oats, an additional 15kgN/ha is permitted for every tonne that the expected yield exceeds the standard yield.

[(d)] On winter oil seed rape, the spring application can be increased by up to 30kgN/ha if the expected yield is over 4.0t/ha.

[(e)] On spring barley, an additional 15kgN/ha is permitted for high N grain distilling varieties.

If actual local rainfall from 1st Oct – 1st March exceeds 450 mm:	add 20kgN/ha to crops grown in sandy, shallow or sandy loam soils add 10kgN/ha to crops grown in other mineral, humose and peaty soils

Nitrogen Residue Group 5 - Previous Crops in Nitrogen Residue Group 5 are: - leafy brassica vegetables, leafy non-brassica vegetables & grazed fodder

Grassland Management Regimes in Residue Group 5:

- 3 - 5 year high N leys, not grazed within 2 months of ploughing out or during September or October
- 3 - 5 year low N leys, grazed within 2 months of ploughing out or during September or October
- Permanent grass, high N, not grazed within 2 months of ploughing out or during September or October

		Predominant Soil Type in Field			
Planned crop	**Standard yield (t/ha)**	**Sand or shallow**	**Sandy loam or other mineral**	**Humose**	**Peaty**
Spring Barley[(c) (e)]	5.5	80	60	10	0
Winter Barley[(c)]	6.5	140	110	50	10
Spring Wheat[(a) (b)]	7.0	100	80	30	0
Winter Wheat[(a) (b)]	8.0	150	130	70	10
Spring Oats[(c)]	5.0	50	30	0	0
Winter Oats[(c)]	6.0	100	70	20	0
Spring Oilseed Rape	n/a	30	30	0	0
Winter Oilseed Rape (spring)[(d)]	4.0	110	110	50	0
Winter Oilseed Rape (autumn)	n/a	0	0	0	0
Potatoes	n/a	175	155	135	105
Forage Maize, Rape	n/a	70	50	0	0
Kale	n/a	110	90	30	0
Swedes and Turnips	n/a	70	50	10	0
Linseed	n/a	10	0	0	0
Adjustments					

[(a)] For wheat, an additional 20kgN/ha is permitted for every tonne that the expected yield exceeds the standard yield.

[(b)] For wheat, an additional 40kgN/ha is permitted to milling wheat varieties.

[(c)] For barley and oats, an additional 15kgN/ha is permitted for every tonne that the expected yield exceeds the standard yield.

[(d)] On winter oil seed rape, the spring application can be increased by up to 30kgN/ha if the expected yield is over 4.0t/ha.

[(e)] On spring barley, an additional 15kgN/ha is permitted for high N grain distilling varieties.

If actual local rainfall from 1st Oct – 1st March exceeds 450 mm:	add 20kgN/ha to crops grown in sandy, shallow or sandy loam soils add 10kgN/ha to crops grown in other mineral, humose and peaty soils

Nitrogen Residue Group 6

Management Regimes in Residue Group 6:
- 3 -5 year high N leys, grazed within 2 months of ploughing out
- permanent grass, high N, grazed within 2 months of ploughing out

		Predominant Soil Type in Field			
Planned crop	**Standard yield (t/ha)**	**Sand or shallow**	**Sandy loam or other mineral**	**Humose**	**Peaty**
Spring Barley[(c) (e)]	5.5	40	20	0	0
Winter Barley[(c)]	6.5	100	70	10	0
Spring Wheat[(a) (b)]	7.0	70	0	0	0
Winter Wheat[(a) (b)]	8.0	110	90	30	0
Spring Oats[(c)]	5.0	10	0	0	0
Winter Oats[(c)]	6.0	60	30	0	0
Spring Oilseed Rape	n/a	0	0	0	0
Winter Oilseed Rape (spring)[(d)]	4.0	70	70	10	0
Winter Oilseed Rape (autumn)	n/a	0	0	0	0
Potatoes	n/a	135	115	115	115
Forage Maize, Rape	n/a	30	10	0	0
Kale	n/a	70	50	0	0
Swedes and Turnips	n/a	50	30	0	0
Linseed	n/a	0	0	0	0

Adjustments

[(a)] For wheat, an additional 20kgN/ha is permitted for every tonne that the expected yield exceeds the standard yield.

[(b)] For wheat, an additional 40kgN/ha is permitted to milling wheat varieties.

[(c)] For barley and oats, an additional 15kgN/ha is permitted for every tonne that the expected yield exceeds the standard yield.

[(d)] On winter oil seed rape, the spring application can be increased by up to 30kgN/ha if the expected yield is over 4.0t/ha.

[(e)] On spring barley, an additional 15kgN/ha is permitted for high N grain distilling varieties.

If actual local rainfall from 1 Oct – 1 March exceeds 450 mm: add 20kgN/ha to crops grown in sandy, shallow or sandy loam soils
add 10kgN/ha to crops grown in other mineral, humose and peaty soils".

(3) For Table 4, Part C, substitute—

"PART C

Cattle, Dirty Water and Pig Slurry – Percentage of nitrogen available to next crop following Cattle Slurry, Dirty Water and Pig Slurry applications (use the value in brackets for grassland and winter oilseed rape cropping).

					Autumn		Winter		Spring	Summer use on Grassland
					August-October		November-January		Feb - April	
Manure Type	**Dry Matter %**	**Ref No.**	**Incorporation time/method**	**Total N (kg/t)**	Sands Sandy Loams Shallow	All other soils	Sands Sandy Loams Shallow	All other soils	All Soils	
Cattle slurry – Surface applied	2	**12**	Not incorporated	1.6	20	30 (35)	30	30	45	30
Cattle slurry – Surface applied	6	**13**	Not incorporated	2.6	20	25 (30)	25	25	35	25
Cattle slurry – Surface applied	10	**14**	Not incorporated	3.6	20	20 (25)	20	20	25	20
Cattle slurry – ploughed in	2	**15**	Within 6 hrs	1.6	20	35 (40)	30	35	50	N/A
Cattle slurry – ploughed in	6	**16**	Within 6 hrs	2.6	20	30 (35)	25	30	40	N/A
Cattle slurry – ploughed in	10	**17**	Within 6 hrs	3.6	20	25 (30)	20	25	30	N/A
Cattle slurry – Band-spread	2	**18**	Band-spread	1.6	20	30 (35)	30	30	50	40

					Autumn		Winter		Spring	Summer use on Grassland
					August-October		November-January		Feb - April	
Manure Type	**Dry Matter %**	**Ref No.**	**Incorporation time/method**	**Total N (kg/t)**	Sands Sandy Loams Shallow	All other soils	Sands Sandy Loams Shallow	All other soils	All Soils	
Cattle slurry – Band-spread	6	**19**	Band-spread	2.6	20	25 (30)	25	25	40	30
Cattle slurry – Band-spread	10	**20**	Band-spread	3.6	20	20 (25)	20	20	30	25
Cattle slurry – shallow injected	2	**21**	Shallow injected	1.6	20	30 (35)	35	35	55	45
Cattle slurry – shallow injected	6	**22**	Shallow injected	2.6	20	25 (30)	30	30	45	35
Cattle slurry – shallow injected	10	**23**	Shallow injected	3.6	20	20 (25)	25	25	35	30
Separated – Strainer box	*	**24**	Select from above	1.5	*Use the appropriate values for 2% dry matter cattle slurry					
Separated – Weeping wall	*	**25**		2						
Separated – Mechanical	*	**26**		3						
Dirty Water	0.5	**27**	Not incorporated	0.5	20	35 (40)	35	35	50	30
Pig slurry – surface	2	**28**	Not incorporated	3.0	25	35 (40)	40	40	55	55
Pig slurry – surface	4	**29**	Not incorporated	3.6	25	30 (35)	35	35	50	50
Pig slurry – surface	6	**30**	Not incorporated	4.4	25	25 (30)	30	30	45	45
Pig slurry – ploughed in	2	**31**	Within 6 hrs	3.0	25	45 (50)	35	50	65	N/A
Pig slurry – ploughed in	4	**32**	Within 6 hrs	3.6	25	40 (45)	30	45	60	N/A
Pig slurry – ploughed in	6	**33**	Within 6 hrs	4.4	25	40 (45)	30	40	55	N/A
Pig slurry – Band-spread	2	**34**	Band-spread	3.0	25	35 (40)	40	40	60	60
Pig slurry – Band-spread	4	**35**	Band-spread	3.6	25	35 (40)	35	35	55	55

					Autumn		Winter		Spring	Summer use on Grassland
					August-October		November-January		Feb - April	
Manure Type	**Dry Matter %**	**Ref No.**	**Incorporation time/method**	**Total N (kg/t)**	Sands Sandy Loams Shallow	All other soils	Sands Sandy Loams Shallow	All other soils	All Soils	
Pig slurry – Band-spread	6	**36**	Band-spread	4.4	25	30 (35)	35	35	50	50
Pig slurry - shallow	2	**37**	Shallow injected	3.0	25	40 (45)	45	45	65	65
Pig slurry - shallow	4	**38**	Shallow injected	3.6	25	35 (40)	40	40	60	60
Pig slurry - shallow	6	**39**	Shallow injected	4.4	25	35 (40)	40	40	55	55
Mechanical separator	**	**40**	Select from	3.6	**Use the appropriate value for 2% dry matter pig slurry"					

Revocation

10. Regulation 3 of the Action Programme for Nitrate Vulnerable Zones (Scotland) Amendment Regulations 2008(**a**) is revoked.

RICHARD LOCHHEAD
A member of the Scottish Executive

St Andrew's House,
Edinburgh
17th December 2009

(**a**) S.S.I. 2008/394.

EXPLANATORY NOTE

(This note is not part of the Regulations)

These Regulations implement Commission Decision 2009/431/EC(**a**)granting derogation to England, Scotland and Wales pursuant to Council Directive 91/676/EEC(**b**)concerning the protection of waters against pollution caused by nitrates from agricultural sources. They do so by amending the Action Programme for Nitrate Vulnerable Zones (Scotland) Regulations 2008.

They also correct minor errors in the tables in Schedules 1 and 3 to those Regulations.

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(**a**) O.J. L 141, 6.6.2009, p. 48–51.
(**b**) O.J. L 375, 31.12.1991, p. 1–8.

SCOTTISH STATUTORY INSTRUMENTS

2009 No. 447

ENVIRONMENTAL PROTECTION

AGRICULTURE

WATER

The Action Programme for Nitrate Vulnerable Zones (Scotland) Amendment Regulations 2009

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