

[F1]SCHEDULE 1A

Regulations 4A and 4B

Enhanced nutrient management requirements

Textual Amendments

- F1** Sch. 1A inserted (31.12.2023) by The Water Resources (Control of Agricultural Pollution) (Wales) (Amendment) (No. 4) Regulations 2023 (S.I. 2023/1393), reg. 1, **Sch.**

Application of Schedule 1A

1. The following enhanced nutrient management requirements apply to the occupier of a qualifying grassland holding intending during the relevant period to apply to the holding, whether directly by an animal or by spreading, a total amount of nitrogen in grazing livestock manure which exceeds 170 kg multiplied by the area of the holding in hectares.

Interpretation

2. In this Schedule—

“soil phosphorus index” (“*mynegai ffosfforws pridd*”) means a reference to the index number assigned to the soil in accordance with Table 1 of this Schedule, to indicate the level of phosphorus available from the soil; “soil sampling analysis” (“*dadansoddiad samplu pridd*”) means analysis of a soil sample carried out by a soil testing laboratory to analyse soils for phosphorus.

Livestock manure to be applied to the holding during relevant period

3. The occupier must ensure that the only livestock manure to be applied to the holding during the relevant period, whether directly by an animal or by spreading, is manure produced by the livestock on the holding.

Soil sampling analysis

4.—(1) The occupier must, for the purposes of determining the soil phosphorus index for each area of the holding with the same cropping regime, nutrient management regime and soil type, undertake soil sampling analysis of at least every five hectares of the agricultural area of the holding with the same cropping regime, nutrient management regime and soil type.

(2) An occupier may rely on the results of previous soil sampling analysis of the agricultural area of the holding with the same cropping regime, nutrient management regime and soil type for the purposes of sub-paragraph (1), provided such sampling analysis was carried out within the period beginning with 1 January 2020 and ending with 31 December 2023.

(3) Where phosphorus soil sampling analysis of the agricultural area of the holding with the same cropping regime, nutrient management regime and soil type has not been carried out within the period referred to in sub-paragraph (2), such sampling analysis must be undertaken within the period beginning with 1 January 2024 and ending with 30 March 2024.

Determining the soil phosphorus index

5. The occupier must determine the soil phosphorus index for each area of the holding with the same cropping regime, nutrient management regime and soil type by using the results from the soil sampling analysis under paragraph 4 and the values in the following table.

Changes to legislation: There are currently no known outstanding effects for the The Water Resources (Control of Agricultural Pollution) (Wales) Regulations 2021, SCHEDULE 1A. (See end of Document for details)

Table 1 – Phosphorus index

<i>Phosphorus index</i>	<i>Phosphorus (P) mg/L</i>
	<i>Olsen (P)</i>
0	0-9
1	10-15
2	16-25
3	26-45
4	46-70
5	71-100
6	101-140
7	141-200
8	201-280
9	Over 280

Planning the spreading of phosphate fertiliser

6. In addition to the production of nitrogen spreading plans under regulation 6 (planning the spreading of nitrogen fertiliser) the occupier must, within the period beginning with 1 January 2024 and ending with 30 March 2024—

- (a) calculate the optimum amount of phosphate fertiliser (kg) that should be spread on the crop during the relevant period, taking into account the soil phosphorus index, and
- (b) produce a plan (“enhanced nutrient management plan”) for the spreading of phosphate fertiliser during the relevant period.

Requirements for enhanced nutrient management plans

- 7.—(1) The enhanced nutrient management plan for the holding must—
 - (a) include a risk map, produced in accordance with paragraph 11(1), indicating the location of the fields to which the plan relates, and
 - (b) clearly state in relation to any field referred to in the plan the type of fertiliser to be used.
- (2) The enhanced nutrient management plan must record—
 - (a) the soil phosphorus index for each area of the holding with the same cropping regime, nutrient management regime and soil type,
 - (b) the optimum amount of phosphate fertiliser (kg) that should be spread on the crop, taking into account the soil phosphorus index,
 - (c) the amount of nitrogen (kg) 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 relevant period,
 - (d) the amount of phosphate (kg) likely to be supplied to meet the requirement of the crop from any organic manure spread or intended to be spread during the relevant period, calculated in accordance with—
 - (i) tables 1 and 2 (as applicable) of Schedule 1,

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- (ii) sampling and analysis in accordance with Part 2 of Schedule 3, or
- (iii) technical analyses provided by the supplier,
- (e) the amount of manufactured nitrogen fertiliser (kg) 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 the relevant period), and
- (f) the amount of manufactured phosphate fertiliser (kg) 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 the relevant period).

Total phosphorus spread on a holding during relevant period

8. Irrespective of the figure recorded in the enhanced nutrient management plan in accordance with paragraph 7(2)(b), the occupier must ensure that the total amount of—

- (a) phosphate from manufactured phosphate fertiliser, and
- (b) phosphate from organic manure, in the growing season in which it is spread,

does not, during the relevant period, exceed the limits set out in paragraph 9.

Maximum phosphate limits by crop

9.—(1) Subject to sub-paragraph (2), the total amount of phosphate spread on any crop listed in the first column of any of the tables below must not exceed the figure under the applicable soil phosphorus index number in the same table.

Table 2 - Maximum phosphate for grass

	<i>Soil Phosphorus index (kg P2O5/ha)</i>				
	0	1	2	3	4+
At grass establishment	120	80	50	30	0
Grazing	80	50	20	0	0
Hay	80	55	30	0	0
Silage					
First cut	100	70	40	20	0
Second Cut	25	25	25	0	0
Third Cut	15	15	15	0	0
Fourth Cut	10	10	10	0	0

Table 3 - Maximum phosphate for other crops

<i>P-index</i>	<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5+</i>
Crop	Phosphate (kg/ha)					

Forage crops

- (a) At P Index 4 and 5, up to 60 kg P₂O₅/ha can be used as a starter fertiliser, close to the seed. The amount of phosphate applied as a starter dose, together with the amount added in the base dressing, should not exceed the amount of phosphate required to replace that removed by the previous crop.

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P-index	0	1	2	3	4	5+
Forage maize	115	85	55	20	0	0
Wholecrop cereals	115	85	55	0	0	0
Forage swedes and turnips (lifted)	105	75	45	0	0	0
Fodder beet (lifted)	120	90	60	0	0	0
Forage rape, swedes and stubble turnips (grazed)	85	55	25	0	0	0
Kale (grazed)	80	50	20	0	0	0
Rye-grass sown for seed	90	60	30	0	0	0
Arable crops (Straw incorporated)						
Winter wheat	110	80	50	0	0	0
Winter triticale	125	95	65	0	0	0
Winter Barley	110	80	50	0	0	0
Spring barley	105	75	45	0	0	0
Spring wheat/spring triticale/rye/oats	110	80	50	0	0	0
Arable crops (Straw removed)						
Winter wheat	115	85	55	0	0	0
Winter triticale	130	100	70	0	0	0
Winter barley	115	85	55	0	0	0
Spring barley	105	75	45	0	0	0
Spring wheat	110	80	50	0	0	0
Spring triticale/rye	110	80	50	0	0	0
Oats	115	85	55	0	0	0
Oilseeds						
Winter oilseed rape	110	80	50	0	0	0
Spring oilseed rape or linseed	90	60	30	0	0	0
Peas (dried and vining) and beans	100	70	40	0	0	0
Sugar Beet	110	80	50	0	0	0
Potatoes	250	210	170	100	0	0
Vegetables and bulbs						
Asparagus (establishment)	175	150	125	100	75	0

- (a) At P Index 4 and 5, up to 60 kg P₂O₅/ha can be used as a starter fertiliser, close to the seed. The amount of phosphate applied as a starter dose, together with the amount added in the base dressing, should not exceed the amount of phosphate required to replace that removed by the previous crop.

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<i>P-index</i>	<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5+</i>
Asparagus (subsequent years following establishment)	75	75	50	50	25	0
Brussels sprouts, storage cabbage, head cabbage and collards	200	150	100	50	0	0
Cauliflower and calabrese	200	150	100	50	0	0
Celery	250	200	150	100	50	0
Peas (market pick)	185	135	85	35	0	0
Broad beans, dwarf and runner beans	200	150	100	50	0	0
Radish and sweetcorn	175	125	75	25	0	0
Lettuce and wild rocket	250	200	150	100	60 ^(a)	60 ^(a)
Onions and leeks	200	150	100	50	60 ^(a)	60 ^(a)
Beetroot, swedes, turnips, parsnips and carrots	200	150	100	50	0	0
Bulbs and bulb flowers	200	150	100	50	0	0
Coriander and mint	175	125	75	25	0	0
Courgettes	175	125	75	25	0	0
Fruit and vines before planting	200	100	50	50	0	0
Hops before planting	250	175	125	100	50	0
Established top fruit	80	40	20	20	0	0
Blackcurrants, redcurrants, gooseberries, raspberries, loganberries, tayberries, Blackberries, strawberries and vines	110	70	40	40	0	0
Established Hops	250	200	150	100	50	0

(a) At P Index 4 and 5, up to 60 kg P₂O₅/ha can be used as a starter fertiliser, close to the seed. The amount of phosphate applied as a starter dose, together with the amount added in the base dressing, should not exceed the amount of phosphate required to replace that removed by the previous crop.

(2) Spreading phosphate on grass and other crops above the values stipulated within the tables above is permitted subject to prior receipt of written advice from a person who is a member of the Fertiliser Advisers Certification and Training Scheme.

Additional information to be recorded during the relevant period

10.—(1) In addition to the information to be recorded under regulation 7 (additional information to be recorded during the year) the occupier must—

(a) before spreading organic manure during the relevant period, record the total phosphate content (kg) of the organic manure; and

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- (b) before spreading manufactured phosphate fertiliser during the relevant period, record—
 - (i) the amount of phosphate (kg) 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
 - (ii) the planned month for spreading.

Risk maps – additional requirements

11.—(1) In addition to the requirements under regulation 11 (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 holding, and
- (c) be completed by 31 March 2024.

(2) Where a change in circumstances affects a matter referred to in paragraph (1)(a) or (b), the occupier must update the map within one month of the change, beginning with the day after the change.

Maintaining the holding as a qualifying grassland holding

12. The occupier must maintain the holding to ensure at least 80% of the agricultural area is sown with grass during the relevant period.

Closed period for ploughing grass on the holding

13. The occupier must ensure that no person—

- (a) ploughs temporary grassland on sandy soils on the holding within the period beginning with 1 July 2024 and ending with 31 December 2024,
- (b) ploughs grass on sandy soils before 16 January 2024 on the holding where livestock manure has been spread on that grass within the period beginning with 1 September and ending with 31 December in the previous calendar year, and
- (c) ploughs grass on soils that are not sandy soils on the holding before 16 January 2024 where livestock manure has been spread on that grass within the period beginning with 15 October in the previous calendar year and ending with 15 January 2024.

Sowing of crops following grass on the holding

14. Where any grass on the holding is ploughed during the relevant period, the land must be—

- (a) sown with a crop with high nitrogen demand within four weeks beginning with the day after the date of ploughing grass, or
- (b) sown with grass within six weeks, beginning with the day after the date of ploughing grass.

Crop rotation on the holding

15. Crop rotation on the holding during the relevant period must not include leguminous or other plants fixing atmospheric nitrogen except for grass with less than 50% clover, or any other leguminous plants that are under-sown with grass.

Recording the size of the holding

16.—(1) The occupier must record the total agricultural area and the area of grass within the holding by 1 March 2024.

(2) If the size of the holding or area of grass within it changes the occupier must update the record within one month beginning with the day after the change.

Record of nitrogen and phosphate produced by animals

17.—(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 the relevant period.

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

(3) The records to be made in accordance with sub-paragraphs (1) and (2) must be made before 1 March 2024.

Livestock manure intended to be sent off the holding

18.—(1) The occupier must—

- (a) make a record of the type and amount of livestock manure (tonnes or cubic metres as applicable) that is intended to be sent off the holding during the relevant period, and
- (b) assess and record the amount of nitrogen (kg) in the livestock manure recorded under paragraph (a) in accordance with regulation 36(4) and Parts 1 and 2 of Schedule 3.

(2) The records to be made under sub-paragraph (1) must be made by 1 March 2024.

Records of crops sown

19. In addition to the requirements of regulation 39 (records of crops sown), if the occupier intends to spread phosphate fertiliser during the relevant period, the occupier must within one week of sowing a crop record—

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

Records of spreading phosphate fertiliser

20. In addition to the requirements of regulation 40 (records of spreading nitrogen fertiliser), the occupier must, during the relevant period, record—

- (a) within one week of spreading organic manure the total phosphorus content (kg), and
- (b) within one week of spreading manufactured phosphate fertiliser—
 - (i) the date of spreading, and
 - (ii) the amount of phosphate spread (kg).

Recording the date of ploughing

21. In addition to the requirements of regulation 41 (subsequent records), the occupier must, during the relevant period, record within one week of ploughing grass on the holding the date of that ploughing.

Fertilisation accounts

22.—(1) The occupier, or any person on behalf of the occupier, must submit fertilisation accounts for the relevant period to NRW by 31 March 2025.

(2) The fertilisation accounts must be submitted to NRW by e-mail.

(3) The fertilisation account must record—

- (a) the total agricultural area of the holding in hectares;
- (b) the area of the holding in hectares 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 holding during the relevant period in accordance with the categories described in Tables 1 and 2 in Schedule 1;
- (d) the amount of nitrogen and phosphate (kg) in the manure produced by the animals on the holding during the relevant period using Tables 1 and 2 in Schedule 1;
- (e) the amount (tonnes or cubic metres as applicable), type and characteristics of livestock manure sent off the holding during the relevant period;
- (f) the amount of nitrogen and phosphate (kg) in the manure recorded under sub-paragraph (3) (e), calculated in accordance with Schedule 1;
- (g) the weight (tonnes) and nitrogen content (kg) of all manufactured nitrogen fertiliser stocks kept on the holding during the relevant period;
- (h) the weight (tonnes) and phosphate content (kg) of all manufactured phosphate fertiliser stocks kept on the holding during the relevant period;
- (i) the weight (tonnes) and nitrogen content (kg) of all manufactured nitrogen fertiliser brought on to and sent off the holding during the relevant period;
- (j) the weight (tonnes) and phosphate content (kg) of all manufactured phosphate fertiliser brought on to and sent off the holding during the relevant period.

Soil protection measures

23.—(1) The occupier must protect all soil by ensuring that all land is covered by crops, stubbles, residues or other vegetation at all times, except where establishing such cover would create a significant risk of soil erosion and significant risk of nitrogen and phosphorus getting into surface water.

(2) Where land has been harvested using a combine harvester, forage harvester or mower, the occupier must ensure that, throughout the relevant period beginning with the first day after harvest and ending with 31 December 2024, one of the following conditions is met on that land at all times—

- (a) the stubble of the harvested crop remains in the land, or

- (b) the land is prepared as a seedbed for a crop or temporary cover crop within 14 days of harvest, beginning with the first day after harvest, and—
 - (i) the crop, or temporary cover crop, is sown within a period of 10 days beginning with the day after final seedbed preparation, or
 - (ii) if sowing within that 10-day period would lead to significant risk of soil erosion, and nitrogen or phosphorus entering a surface water, the crop, or temporary cover crop, is sown as soon as is practicable after the land ceases to be waterlogged.

Locations of supplementary feeding and drinking sites for livestock

24.—(1) The occupier must ensure during the relevant period that sites where supplementary feeding for livestock are provided are not located within 20 metres of a watercourse on any land.

(2) The occupier must ensure during the relevant period that sites where supplementary drinking for livestock are provided are not located within 10 metres of a watercourse on any land.

Spreading of slurry during relevant period

25. If the occupier intends to spread slurry on the holding during the relevant period, precision spreading equipment must be used except where it would not be reasonably practicable to do so.

Spreading organic manure near surface water during relevant period

26. The occupier must ensure that during the relevant period no person spreads organic manure within 15 metres of surface water unless using precision spreading equipment, in which case no person may spread organic manure within 10 metres of surface water.]

Changes to legislation:

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