



2024/2212

6.9.2024

COMMISSION IMPLEMENTING REGULATION (EU) 2024/2212

of 3 September 2024

laying down rules for the application of Regulation (EU) 2022/2379 of the European Parliament and of the Council as regards statistics on nutrients

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) 2022/2379 of the European Parliament and of the Council of 23 November 2022 on statistics on agricultural input and output, amending Commission Regulation (EC) No 617/2008 and repealing Regulations (EC) No 1165/2008, (EC) No 543/2009 and (EC) No 1185/2009 of the European Parliament and of the Council and Council Directive 96/16/EC ⁽¹⁾, and in particular Article 4(6), Article 5(10), and Article 9(4) thereof,

Whereas:

- (1) Regulation (EU) 2022/2379 establishes an integrated framework for the development, production and dissemination of European statistics related to agricultural inputs and outputs.
- (2) In order to ensure that comparable data are produced by Member States and to achieve harmonisation within the agricultural statistics system, it is necessary to specify the technical elements of the statistics on agricultural inputs and outputs as regards nutrients to be transmitted to the Commission (Eurostat).
- (3) Those elements consist of the list of variables, the descriptions of the variables, the observation units, the precision requirements to be applied, the methodological rules to be applied, and the deadlines for transmitting the data, where appropriate.
- (4) The coverage of the data sets should be specified beyond the requirements in Article 4 of Regulation (EU) 2022/2379 where appropriate, to avoid inconsistencies between Member States.
- (5) The reference periods mentioned in Article 9(4) of Regulation (EU) 2022/2379 should be further specified to ensure comparability of the statistics between Member States.
- (6) The European statistics on nutrients should be compiled pursuant to methodologies which are coherent with the relevant internationally agreed standards, such as those of the Intergovernmental Panel on Climate Change or the European Monitoring and Evaluation Programme.
- (7) Nutrient balances are important indicators of the sustainability of agricultural activities. They can reflect risks to the environment by revealing persistent nitrogen and phosphorous surpluses or deficits in agricultural soils. A lack of nitrogen or phosphorous may cause degradation in soil fertility, while an excess may cause air and water pollution, potentially leading to, for example, eutrophication of surface waters and contamination of drinking water.
- (8) Statistics on nutrients contribute to assessing the efficiency of the use of fertilisers and the dependency of food production on these inputs. The statistics are thus an important element of food security.

⁽¹⁾ OJ L 315, 7.12.2022, p. 1, ELI: <http://data.europa.eu/eli/reg/2022/2379/oj>.

- (9) The Commission's Farm to Fork strategy in the context of the European Green Deal establishes the objective to reduce nutrient losses by half, while ensuring no deterioration in soil fertility, leading to an overall reduction of at least 20 % in the use of fertilisers by 2030. Moreover, the gross nutrient balance is a context indicator used to monitor the Common Agricultural Policy. Comparable and timely data on nutrient balances and on the use of fertilisers in agriculture will contribute to the assessment of these targets and other future policy targets. A timely assessment of the targets and indicators requires that data on nutrient balances is available before 2030.
- (10) Nutrient balances should be calculated following the land budget approach, using coefficients to reflect the impact of crops and livestock on the nutrient flows. Those coefficients should be calculated using comparable methodologies in all Member States in order to ensure coherence and comparability. The coefficients should reflect a stable trend, removing the annual volatility.
- (11) The availability of such coefficients is a prerequisite for calculating nutrient balances. The coefficients are used in conjunction with other related data sets, in particular statistics on crop and animal production, provided by the Member States, in order to produce annual nutrient balances.
- (12) The measures provided for in this Regulation are in accordance with the opinion of the European Statistical System Committee,

HAS ADOPTED THIS REGULATION:

Article 1

Data requirements

Member States shall provide data on the domain of statistics on nutrients referred to in Article 5(1), point (d) of Regulation (EU) 2022/2379 in the form of aggregated data sets.

Member States shall transmit the aggregated data sets to the Commission (Eurostat) at national level.

Article 2

Data sets

- 1. The data contents of the data sets are specified in:
 - (a) Annex I for topic (i) Nutrients in fertilisers for agriculture for the detailed topics:
 - (i) Inorganic fertilisers for agriculture;
 - (ii) Organic fertilisers for agriculture;
 - (b) Annex II for topic (ii) Nutrient balances for the detailed topics;
 - (i) Crop and forage nutrient contents coefficients;
 - (ii) Crop residue volumes and nutrient content coefficients;
 - (iii) Biological nitrogen fixation coefficients;
 - (iv) Atmospheric nitrogen deposition coefficients;
 - (v) Seed nutrient content coefficients;
 - (vi) Livestock nutrient excretion coefficients;
 - (vii) Livestock manure withdrawal volumes and nutrient content coefficients;
- 2. For each data set, section I specifies:
 - (a) a description of the data contents;
 - (b) the variables to be provided;
 - (c) the deadlines for transmission of the data to the Commission (Eurostat);

- (d) the reference periods;
 - (e) the measurement units;
3. For each data set, section II specifies:
- (a) a description of the measurement units;
 - (b) technical requirements related to the variables.

Article 3

Nutrient balances

1. The gross nutrient – nitrogen and phosphorous – balance shall be the difference between the nutrient inputs to, and outputs from, agricultural soil. The inputs shall be mainly the nutrients in fertilisers used and in the production of manure from livestock, but also those from the introduction of seeds and – for nitrogen – the processes of biological fixation and atmospheric deposition. The outputs shall mostly be the nutrients in crops and forage harvested or grazed, but also in the manure withdrawals and removal of crop residues not returned to the soil.
2. The net nitrogen balance shall be defined as the gross nutrient balance for nitrogen from which the nitrogen emissions from the soil and manure management are deducted.
3. The Commission (Eurostat) shall annually calculate these nutrient balances, based on
 - (a) data sets provided as described in Annex I and Annex II;
 - (b) data on animal production statistics as described in Commission Implementing Regulation (EU) 2023/2745 of 8 December 2023 laying down rules for the application of Regulation (EU) 2022/2379 of the European Parliament and of the Council as regards animal production statistics ⁽¹⁾;
 - (c) data on crop production statistics as described in Commission Implementing Regulation (EU) 2023/1538 of 25 July 2023 laying down rules for the application of Regulation (EU) 2022/2379 of the European Parliament and of the Council as regards crop production statistics ⁽²⁾;
 - (d) data on emissions as reported under the United Nations Economic Commission for Europe (UNECE) Convention on Long-range Transboundary Air Pollution (Air Convention) and the National Emission Reduction Commitments Directive ⁽³⁾, as well as under the EU Governance Regulation ⁽⁴⁾ and under the United Nations Framework Convention on Climate Change (UNFCCC).

Article 4

Transmission of data referred to in Annex II

Member States shall provide data sets referred to in Annex II for the first time by 30 November 2029 for the reference years 2026, 2027 and 2028, and every 5 years thereafter, by the deadlines indicated in each data set.

⁽¹⁾ OJ L, 2023/2745, 11.12.2023, ELI: http://data.europa.eu/eli/reg_impl/2023/2745/oj.

⁽²⁾ OJ L 187, 26.7.2023, p. 40, ELI: http://data.europa.eu/eli/reg_impl/2023/1538/oj.

⁽³⁾ Directive (EU) 2016/2284 of the European Parliament and of the Council of 14 December 2016 on the reduction of national emissions of certain atmospheric pollutants, amending Directive 2003/35/EC and repealing Directive 2001/81/EC. OJ L 344, 17.12.2016, p. 1, ELI: <http://data.europa.eu/eli/dir/2016/2284/oj>.

⁽⁴⁾ Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council. OJ L 328, 21.12.2018, p. 1, ELI: <http://data.europa.eu/eli/reg/2018/1999/oj>.

*Article 5***Quality and methodological specifications**

1. When collection of data for the data sets is carried out based on statistical samples, Member States shall ensure that the weighted results are representative of the statistical population. Where sources other than statistical surveys are used, the quality of the statistics must be ensured in such a way that they are representative of the scope that they describe and meet the quality criteria laid down in Article 12 of Regulation (EC) No 223/2009 ⁽⁶⁾.
2. Member States shall ensure that the coefficients used are established by scientific methods to adequately describe the nutrient input or output of each variable as set out in Annex I and II.
3. Common methodological specifications for the compilation of the statistics are set out in Annex III with regard to the data sets in Annexes I to II.

*Article 6***Descriptions**

For the purposes of this Regulation, the descriptions of terms as set out in Annex IV shall apply.

*Article 7***Entry into force**

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

It shall apply from 1 January 2026.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 3 September 2024.

For the Commission
The President
Ursula VON DER LEYEN

⁽⁶⁾ Regulation (EC) No 223/2009 of the European Parliament and of the Council of 11 March 2009 on European statistics and repealing Regulation (EC, Euratom) No 1101/2008 of the European Parliament and of the Council on the transmission of data subject to statistical confidentiality to the Statistical Office of the European Communities, Council Regulation (EC) No 322/97 on Community Statistics, and Council Decision 89/382/EEC, Euratom establishing a Committee on the Statistical Programmes of the European Communities. OJ L 87, 31.3.2009, p. 164, ELI: <http://data.europa.eu/eli/reg/2009/223/oj>.

ANNEX I

NUTRIENTS IN FERTILISERS FOR AGRICULTURE

DATA SET 1

Inorganic fertilisers for agriculture

Domain:	d.	Statistics on nutrients
Topic:	i.	Nutrients in fertilisers for agriculture
Detailed topic:	i.1	Inorganic fertilisers for agriculture

SECTION I

Data contents

The data shall cover the quantities of nutrients in the inorganic fertilisers used in agriculture during the reference period in a Member State.

Nutrient	Deadline	
	30 November year N+1	
Nitrogen	Q	
of which in urea	Q	
Phosphorus	Q	
Potassium	Q	

N: The year the data refer to

Q: Quantity of nutrients used in agriculture (1 000 tonnes)

Reference period: Calendar year

Geographical level: National level

SECTION II

Description of the measurement unit

Quantity of nutrients: refers to the annual quantities of nutrients in the inorganic fertilisers (both in straight and compound forms) used in agriculture. The quantity shall be reported as elemental form: N for nitrogen, P for phosphorus and K for potassium. The reported quantity of nitrogen in urea shall refer only to the quantities included in the straight fertiliser.

Technical requirements

- (1) When the nutrient content quantities are available to the countries in their oxidised form, the following conversion factors shall be applied in line with Annex I of Regulation (EU) 2019/1009 of the European Parliament and of the Council of 5 June 2019 laying down rules on the making available on the market of EU fertilising products and amending Regulations (EC) No 1069/2009 and (EC) No 1107/2009 and repealing Regulation (EC) No 2003/2003 ⁽¹⁾:

Phosphorus (P) = phosphorus pentoxide (P₂O₅) × 0,436;

Potassium (K) = potassium oxide (K₂O) × 0,830.

- (2) If the source of the data on the quantity of nutrients is statistics on the sales of inorganic fertilisers, the non-agricultural use and the deferred use of the sold fertilisers shall be estimated and used to correct the source data.

⁽¹⁾ OJ L 170, 25/06/2019, p. 1, ELI: <http://data.europa.eu/eli/reg/2019/1009/oj>.

DATA SET 2

Organic fertilisers for agriculture

Domain:	d.	Statistics on nutrients
Topic:	i.	Nutrients in fertilisers for agriculture
Detailed topic:	i.2	Organic fertilisers for agriculture

SECTION I

Data contents

The data shall cover the organic and organo-mineral fertilisers (excluding raw animal manure) used in agriculture during the reference period in a Member State and the respective nutrient content coefficients.

Type of fertiliser	Deadline	
	30 November of the year after the end of the 3-year period	
Sewage sludge	Q	NC, PC
Other organic fertilisers	Q	NC, PC
Organo-mineral fertilisers	Q	NC, PC

Q: Quantity used in agriculture (1 000 tonnes)
NC: Nitrogen content coefficients (kg nitrogen per tonne)
PC: Phosphorus content coefficients (kg phosphorus per tonne)
Reference period: Calendar year
Geographical level: National level

SECTION II

Description of the measurement units

Quantity of fertiliser: refers to the annual quantities of organic and organo-mineral fertilisers used in agriculture, excluding raw manure. The data shall be reported in terms of dry matter.

Nutrient content coefficients: refers to annual averages over a three-year period (moving averages) of elemental nutrient – N and P – content (in kg) in a tonne of fertiliser (dry matter).

Technical requirements

- (1) The average nutrient content coefficients over a three-year period shall cover the reference year of the data and the two preceding years.
- (2) The annual quantities and the average nutrient content coefficients, for each of the years in the three-year period, calculated as described above, shall be transmitted together by the deadline indicated in the dataset.

ANNEX II

NUTRIENT BALANCES

DATA SET 1

Crop and forage nutrient content coefficients

Domain:	d.	Statistics on nutrients
Topic:	ii.	Nutrient balances
Detailed topics:	ii.1	Crop and forage nutrient content coefficients

SECTION I

Data contents

The data shall cover the nutrient content coefficients representing the average amount of nutrients in a tonne of harvested crop product.

Crop				Deadline
				30 November of the year after the end of the 5-year period (*)
Cereals for the production of grain (including seed)				-
	Wheat and spelt			-
		Common wheat and spelt		-
			Common winter wheat and spelt	NC, PC
			Common spring wheat and spelt	NC, PC
		Durum wheat		NC, PC
	Rye			NC, PC
	Barley			-
		Winter barley		NC, PC
		Spring barley		NC, PC
	Oats			NC, PC
	Grain maize and corn cob mix			NC, PC
	Triticale			NC, PC
	Sorghum			NC, PC
	Rice			-
		Rice Indica		NC, PC
		Rice Japonica		NC, PC
	Winter cereal mixtures (maslin)			NC, PC
	Spring cereal mixtures (mixed grain other than maslin)			NC, PC
	Other cereals n.e.c. ⁽¹⁾ (millet, canary seed, etc.)			NC, PC
	Pseudocereals			-
		Buckwheat		NC, PC
		Quinoa		NC, PC
		Other pseudocereals n.e.c.		NC, PC

Dry pulses and protein crops for the production of grain (including seed and mixtures of cereals and pulses)				-
	Field peas			NC, PC
	Broad and field beans			NC, PC
	Sweet lupins			NC, PC
	Lentils			NC, PC
	Vetches			NC, PC
	Chickpeas			NC, PC
	Other dry pulses and protein crops n.e.c.			NC, PC
Root crops				-
	Potatoes (including seed potatoes)			NC, PC
	Sugar beet (excluding seed)			NC, PC
	Other root crops n.e.c.			NC, PC
Industrial crops				-
	Oilseeds			-
		Rape and turnip rape seeds		-
			Winter rape and turnip rape seeds	NC, PC
			Spring rape and turnip rape seeds	NC, PC
		Sunflower seed		NC, PC
		Soya		NC, PC
		Linseed (oil flax)		NC, PC
		Cotton seed		NC, PC
		Other oilseed crops n.e.c.		NC, PC
	Fibre crops			-
		Fibre flax		NC, PC
		Hemp		NC, PC
		Cotton fibre		NC, PC
		Other fibre crops n.e.c.		NC, PC
	Tobacco			NC, PC
	Hops			NC, PC
	Energy crops n.e.c.			NC, PC
Plants harvested green from arable land				-
	Temporary grasses and grazings			NC, PC
	Leguminous plants harvested green			-
		Lucerne		NC, PC
		Legume grass mixtures		NC, PC
		Other leguminous plants harvested green n.e.c.		NC, PC
	Green maize			NC, PC
	Other cereals harvested green (excluding green maize)			NC, PC
	Other plants harvested green from arable land n.e.c.			NC, PC

Other arable land crops n.e.c.			NC (²), PC (²)
Permanent grassland			-
	Permanent pasture and meadow, excluding rough grazings		NC, PC
	Permanent rough grazings		NC, PC
Fresh vegetables (including melons) and strawberries			-
	Fresh vegetables (including melons)		-
		Brassicas	NC, PC
		Leafy and stalked vegetables (excluding brassicas)	NC, PC
		Vegetables cultivated for fruit (including melons)	NC, PC
		Root, tuber and bulb vegetables	NC, PC
		Fresh pulses	NC, PC
		Other fresh vegetables n.e.c.	NC, PC
	Strawberries		NC, PC
Permanent crops for human consumption			-
	Fruits, berries and nuts (excluding citrus fruits, grapes, strawberries)		-
		Fruits from temperate climate zones	-
		Pome fruits	NC, PC
		Stone fruits	NC, PC
		Fruits from subtropical and tropical climate zones	NC, PC
		Berries (excluding strawberries)	NC, PC
		Nuts	NC, PC
	Citrus fruits		NC, PC
	Grapes		NC, PC
	Olives		NC, PC
	Other permanent crops for human consumption n.e.c.		NC, PC
Flowers and ornamental plants (excluding nurseries)			NC (²), PC (²)

NC: Nitrogen content coefficients (kg nitrogen per tonne)

PC: Phosphorus content coefficients (kg phosphorus per tonne)

Reference period: Calendar year

Geographical level: National level

(*) As stated in Article 4, the data for this dataset shall be provided for the first time by 30 November 2029 and include the reference years 2026, 2027 and 2028. After this initial transmission, the deadlines indicated above apply.

⁽¹⁾ n.e.c.: not elsewhere classified.

⁽²⁾ Coefficient to be given per ha main area.

SECTION II

Description of the measurement units

Nutrient content coefficients: refers to annual averages over a five-year period (moving averages) of elemental nutrient – N and P – content (in kg) in a tonne of harvested crop product. The coefficients shall represent the nutrient content of the crop products reported in the annual crop statistics according to Commission Implementing Regulation (EU) 2023/1538 of 25 July 2023 laying down rules for the application of Regulation (EU) 2022/2379 of the European Parliament and of the Council as regards crop production statistics.

Technical requirements

- (1) The average nutrient content coefficients over a five-year period shall cover the reference year of the data and the four preceding years.
- (2) The nutrient content coefficients shall be reported according to the humidity requirements set out in Commission Implementing Regulation (EU) 2023/1538 of 25 July 2023 laying down rules for the application of Regulation (EU) 2022/2379 of the European Parliament and of the Council as regards crop production statistics.

DATA SET 2

Crop residue volumes and nutrient content coefficients

Domain:	d.	Statistics on nutrients
Topic:	ii.	Nutrient balances
Detailed topics:	ii.2	Crop residue volumes and nutrient content coefficients

SECTION I

Data contents

The data shall cover the average annual quantities of crop residues removed from the field and the respective nutrient content coefficients.

Crop		Deadline	
		30 November of the year after the end of the 5-year period (*)	
Total crop residues (removed from the field)		-	-
	Head leaves and stems	Q	NC, PC
	Straw	Q	NC, PC
	Other crop residues	Q	NC, PC

Q: Quantity (1 000 tonnes) of crop residues removed from the field
NC: Nitrogen content coefficients (kg nitrogen per tonne of crop residues)
PC: Phosphorus content coefficients (kg phosphorus per tonne of crop residues)

Reference period: Calendar year
Geographical level: National level

(*) As stated in Article 4, the data for this dataset shall be provided for the first time by 30 November 2029 and include the reference years 2026, 2027 and 2028. After this initial transmission, the deadlines indicated above apply.

SECTION II

Description of the measurement units

Quantity (1 000 tonnes) of crop residues removed from the field: refers to annual averages over a five-year period (moving averages) of the amount of residues harvested as a by-product and not returned to the field at a later stage.

Nutrient content coefficients: refers to annual averages over a five-year period (moving averages) of elemental nutrient – N and P – content (in kg) in a tonne of crop residue type. The coefficients shall represent the nutrient content in the crop residues reported in the data set.

Technical requirements

- (1) The average annual quantities of crop residues removed and the average nutrient content coefficients over a five-year period shall cover the reference year of the data and the four preceding years.
- (2) The average annual quantities and the average nutrient content coefficients, for each of the years in the five-year period, calculated as described above shall be transmitted together by the deadline indicated in the dataset.

DATA SET 3

Biological nitrogen fixation coefficients

Domain:	d.	Statistics on nutrients
Topic:	ii.	Nutrient balances
Detailed topics:	ii.3	Biological nitrogen fixation coefficients

SECTION I

Data contents

The data shall cover the biological nitrogen fixation coefficients for leguminous crops and legume grass mixtures.

Crop	Deadline	
	30 November of the year after the end of the 5-year period (*)	
Dry pulses and protein crops for the production of grain (including seed and mixtures of cereals and pulses)	-	
Field peas	NFC	
Broad and field beans	NFC	
Sweet lupins	NFC	
Lentils	NFC	
Vetches	NFC	
Chickpeas	NFC	
Other dry pulses and protein crops n.e.c.	NFC	
Soya	NFC	
Temporary grasses and grazings	NFC	
Leguminous plants harvested green	-	
Lucerne	NFC	
Legume grass mixtures	NFC	
Other leguminous plants harvested green n.e.c.	NFC	
Fresh pulses	-	
Fresh peas	NFC	
Fresh beans	NFC	
Other fresh pulses n.e.c.	NFC	
Permanent grasslands	-	
Permanent pasture and meadow, excluding rough grazings	NFC	
Permanent rough grazings	NFC	

NFC: Nitrogen fixation coefficients (kg nitrogen per tonne)

Reference period: Calendar year

Geographical level: National level

(*) As stated in Article 4, the data for this dataset shall be provided for the first time by 30 November 2029 and include the reference years 2026, 2027 and 2028. After this initial transmission, the deadlines indicated above apply.

SECTION II

Description of the measurement unit

Biological nitrogen fixation coefficients: refers to annual averages over a five-year period (moving averages) of elemental nitrogen (in kg/tonne) fixed annually by leguminous crops and legume grass mixtures. The coefficients shall represent the harvested crop production as reported in the annual crop statistics according to Commission Implementing Regulation (EU) 2023/1538 of 25 July 2023 laying down rules for the application of Regulation (EU) 2022/2379 of the European Parliament and of the Council as regards crop production statistics.

Technical requirement

The average nitrogen fixation coefficients over a five-year period shall cover the reference year of the data and the four preceding years.

DATA SET 4

Atmospheric nitrogen deposition coefficients

Domain:	d.	Statistics on nutrients
Topic:	ii.	Nutrient balances
Detailed topics:	ii.4	Atmospheric nitrogen deposition coefficients

SECTION I

Data contents

The data shall cover the atmospheric nitrogen deposition coefficients.

	Deadline
	30 November of the year after the end of the 5-year period (*)
Atmospheric nitrogen deposition coefficient	NDC

NDC: Atmospheric nitrogen deposition coefficient (kg nitrogen per ha)

Reference period: Calendar year

Geographical level: National level

(*) As stated in Article 4, the data for this dataset shall be provided for the first time by 30 November 2029 and include the reference years 2026, 2027 and 2028. After this initial transmission, the deadlines indicated above apply.

SECTION II

Description of the measurement unit

Atmospheric nitrogen deposition coefficient: refers to annual average over a five-year period (moving average) of elemental nitrogen (in kg/ha) landing from the atmosphere on utilised agricultural area, as reported in the annual crop statistics according to Commission Implementing Regulation (EU) 2023/1538 of 25 July 2023 laying down rules for the application of Regulation (EU) 2022/2379 of the European Parliament and of the Council as regards crop production statistics.

Technical requirements

- (1) The average nitrogen deposition coefficient over a five-year period shall cover the reference year of the data and the four preceding years.
- (2) The reported coefficient shall take into account both wet and dry atmospheric deposition.
- (3) The reported coefficient shall take into account deposition originating from all sectors, including agriculture.

DATA SET 5

Seed nutrient content coefficients

Domain:	d.	Statistics on nutrients
Topic:	ii.	Nutrient balances
Detailed topics:	ii.5	Seed nutrient content coefficients

SECTION I

Data contents

The data shall cover the nutrient content coefficients in the seeds of cereals and seed potatoes.

Crop	Deadline
	30 November of the year after the end of the 5-year period (*)
Cereals for the production of grain (including seed)	NSC, PSC
Potatoes (including seed potatoes)	NSC, PSC

NSC: Nitrogen seed content coefficients (kg nitrogen per ha)
PSC: Phosphorus seed content coefficients (kg phosphorus per ha)

Reference period: Calendar year
Geographical level: National level

(*) As stated in Article 4, the data for this dataset shall be provided for the first time by 30 November 2029 and include the reference years 2026, 2027 and 2028. After this initial transmission, the deadlines indicated above apply.

SECTION II

Description of the measurement units

Nutrient seed content coefficients: refers to annual averages over a five-year period (moving averages) of elemental nutrient – N and P – content (in kg/ha) in the seeds of cereals and planted potatoes.

Technical requirement

The average nutrient content coefficients over a five-year period shall cover the reference year of the data and the four preceding years.

DATA SET 6

Livestock nutrient excretion coefficients

Domain:	d.	Statistics on nutrients
Topic:	ii.	Nutrient balances
Detailed topics:	ii.6	Livestock nutrient excretion coefficients

SECTION I

Data contents

The data shall cover the coefficients of nutrients excreted by animals used for agricultural activity.

Livestock category			Deadline
			30 November of the year after the end of the 5-year period (*)
Bovine animals			-
	Bovine animals, less than 1 year old		-
		For slaughter	NEC, PEC
		Not for slaughter	-
		Bovine male calves, less than 1 year old, not for slaughter	NEC, PEC
		Bovine female calves, less than 1 year old, not for slaughter	NEC, PEC
	Bovine animals, 1 to less than 2 years old		-
		Male bovine animals, 1 to less than 2 years old	NEC, PEC
		Heifers, 1 to less than 2 years old	-
		Heifers, 1 to less than 2 years old, for slaughter	NEC, PEC
		Heifers, 1 to less than 2 years old, not for slaughter	NEC, PEC
	Bovine animals, 2 years old or over		-
		Male bovine animals, 2 years old or over	NEC, PEC
		Heifers, 2 years old or over	-
		Heifers, 2 years old or over, for slaughter	NEC, PEC
		Heifers, 2 years old or over, not for slaughter	NEC, PEC
	Cows		-
		Dairy Cows	NEC, PEC
		Non-dairy cows	NEC, PEC
Pigs			-
	Pigs, of less than 50 kg		-
		Piglets, of less than 20 kg	NEC, PEC
		Other pigs of 20 kg to less than 50 kg	NEC, PEC
	Pigs for slaughter, including cull boars and cull sows, 50 kg or over		-

Livestock category		Deadline
		30 November of the year after the end of the 5-year period (*)
	Pigs, from 50 kg to less than 80 kg	NEC, PEC
	Pigs, from 80 kg to less than 110 kg	NEC, PEC
	Pigs, 110 kg or over	NEC, PEC
	Breeding pigs, of 50 kg and more	-
	Breeding boars	NEC, PEC
	Covered sows	NEC, PEC
	Sows, not covered	NEC, PEC
Sheep		-
	Ewes and ewe-lambs	-
	Milk ewes and ewe-lambs	NEC, PEC
	Non milk ewes and ewe-lambs	NEC, PEC
	Other sheep	NEC, PEC
Goats		-
	Breeding female goats	NEC, PEC
	Other goats	NEC, PEC
Poultry (excluding chicks)		-
	Chickens	-
	Broilers	NEC, PEC
	Laying hens	NEC, PEC
	Poultry other than chicken	-
	Ducks	NEC, PEC
	Geese	NEC, PEC
	Turkeys	NEC, PEC
	Ostriches	NEC, PEC
	Other poultry fowls n.e.c.	NEC, PEC
Fur animals		-
	Foxes	NEC, PEC
	Raccoon dogs	NEC, PEC
	Minks	NEC, PEC
	Chinchillas	NEC, PEC
	Other fur animals, n.e.c.	NEC, PEC
Rabbits		NEC, PEC

NEC: Nitrogen excretion coefficients (kg nitrogen per head per year)

PEC: Phosphorus excretion coefficients (kg phosphorus per head per year)

Reference period: Calendar year

Geographical level: National level

(*) As stated in Article 4, the data for this dataset shall be provided for the first time by 30 November 2029 and include the reference years 2026, 2027 and 2028. After this initial transmission, the deadlines indicated above apply.

*SECTION II****Description of the measurement units***

Nutrient excretion coefficients: refers to annual averages over a five-year period (moving averages) of the gross annual amount of elemental nutrient – N and P – content (in kg) excreted (faeces and urine) per animal head, for all livestock types.

Technical requirements

- (1) The average excretion coefficients over a five-year period shall cover the reference year of the data and the four preceding years.
- (2) The data shall be reported in terms of gross measurement of excretion.
- (3) The detailed methodological specifications to be applied are provided in Annex III.

DATA SET 7

Livestock manure withdrawal volumes and nutrient content coefficients

Domain:	d.	Statistics on nutrients
Topic:	ii.	Nutrient balances
Detailed topics:	ii.7	Livestock manure withdrawal volumes and nutrient content coefficients

SECTION I

Data contents

The data shall cover the average annual manure withdrawals and the respective nutrient content coefficients.

		Deadline	
		30 November of the year after the end of the 5-year period (*)	
Exported manure and other manure withdrawals		-	-
	Exported livestock manure	Q	NC, PC
	Other manure withdrawals	Q	NC, PC
Imported manure and other manure inputs		-	-
	Imported livestock manure	Q	NC, PC
	Other manure inputs	Q	NC, PC

Q: Quantity of manure (1 000 tonnes)
NC: Nitrogen content coefficients (kg nitrogen per tonne of manure)
PC: Phosphorus content coefficients (kg phosphorus per tonne of manure)

Reference period: Calendar year
Geographical level: National level

(*) As stated in Article 4, the data for this dataset shall be provided for the first time by 30 November 2029 and include the reference years 2026, 2027 and 2028. After this initial transmission, the deadlines indicated above apply.

SECTION II

Description of the measurement units

Quantity of manure (1 000 tonnes): refers to annual averages over a five-year period (moving averages) of the amount of (i) manure produced on the farms that is actively removed from raw use as plant nutrients in agriculture and (ii) manure inputs coming from sources not covered by dataset 6.

Nutrient content coefficients: refers to annual averages over a five-year period (moving averages) of elemental nutrient – N and P – content (in kg) in a tonne of manure. The coefficients shall represent the nutrient content in the manure quantities reported in the data set.

Technical requirements

- (1) The average annual quantities of manure and the average nutrient content coefficients over a five-year period shall cover the reference year of the data and the four preceding years.
- (2) The average annual quantities and the average nutrient content coefficients, for each of the years in the five-year period, calculated as described above shall be transmitted together by the deadline indicated in the dataset.

ANNEX III

METHODOLOGICAL SPECIFICATIONS

Data set ii.6 — Livestock nutrient excretion coefficients

- (1) A gross excretion coefficient (i.e. not excluding volatilisation) shall be calculated for each of the livestock categories required in the data set.
- (2) The excretion coefficients shall be calculated according to a mass balance approach that is common for all Member States. The mass balance means that the nutrient excretion is calculated from the nutrient intake via feed minus the nutrient retention in animal products according to the formula:

$$X_{\text{excretion}} = X_{\text{intake}} - X_{\text{retention}}$$

Where:

- “X” stands for the nutrient (N – nitrogen or P – phosphorus);
- “excretion” stands for the total excretion (faeces and urine) of the nutrient (kg per animal head per year);
- “intake” stands for the total nutrient intake via livestock feed (kg per animal head per year);
- “retention” stands for the total amounts of the nutrient retained in milk, meat, egg, wool, etc., (kg per animal head per year).

For each livestock category the following four building blocks can be distinguished in this mass balance: the feed intake, the feed composition (i.e. the nitrogen and phosphorus content of the feed), the livestock production and the composition of the livestock products (i.e. the nutrient contents).

- (3) The livestock categories for which excretion coefficients are calculated have direct correspondence to those listed in Commission Implementing Regulation (EU) 2023/2745 of 8 December 2023 laying down rules for the application of Regulation (EU) 2022/2379 of the European Parliament and of the Council as regards animal production statistics. The excretion coefficients shall allow assessing the nutrient inputs based on the livestock numbers transmitted to Eurostat within the framework of this regulation. These numbers represent either:
 - The livestock population at a given date of the year in November/December or
 - The average livestock population during the reference calendar year.

The livestock population at a given date does not reflect the seasonal changes in numbers during the year that occur as part of normal agricultural and cultural activities. The excretion coefficients shall therefore be calculated so that they reflect those seasonal changes.

- (4) The calculations shall also take into account significant imports and exports of live animals during a year.
- (5) When calculating the coefficients, at least these topics shall be taken into account, when affecting excreta:
 - Animal breeds (e.g., small vs large breeds, low vs high productivity);
 - Production level (e.g., milk production per cow per year, number of piglets per sow per year, young vs old animals);
 - Organic vs conventional;
 - Seasonal changes in available and consumed feedstuffs and in consumption patterns;

- Feed rations (e.g., low vs high protein, low vs high phosphorus levels in the feed, energy content);
 - Use of feed additives in the animal feed (including phytases or synthetic aminoacids), specifically authorized to improve digestive efficiency;
 - Feed management related to the differences in the housing systems, including grazing vs restricted grazing vs zero-grazing systems or caged vs free-range animals.
-

ANNEX IV

Descriptions

NUTRIENTS IN FERTILISERS FOR AGRICULTURE

Nutrients: refers to the elemental form of nitrogen (N), phosphorus (P) and potassium (K).

Fertiliser: refers to a product which provides plants and mushrooms with nutrients.

Inorganic fertiliser: refers to a fertiliser containing or releasing nutrients in a mineral form, other than an organic or organo-mineral fertiliser.

Used in agriculture: refers to the fertilisers used in agricultural activities in the reference year. This includes quantities of fertilisers that are bought, given for free or in exchange for transport costs only, and other similar arrangements.

Straight inorganic fertiliser: refers to an inorganic fertiliser with a declared content of only one of the following: nitrogen (N), phosphorus (P) and potassium (K).

Compound inorganic fertiliser: refers to an inorganic fertiliser with a declared content of more than one of the following: nitrogen (N), phosphorus (P) and potassium (K).

Organic fertiliser: refers to a fertiliser which contains organic carbon and nutrients of solely biological origin. Organo-mineral fertilisers are included here.

Raw animal manure: refers to livestock excreta or mixture of litter, urine and excreta, before any processing.

Sewage sludge: refers to residual sludge from sewage plants (treating domestic or urban waste waters or with similar composition), from septic tanks and other similar installations for the treatment of sewage, which has undergone biological, chemical or heat treatment, long-term storage or any other appropriate process to reduce significantly its fermentability and the health hazards resulting from its use.

Other organic fertiliser: refers to an organic fertiliser other than raw manure or sewage sludge. This may include processed organic fertilisers, compost, digestate of manure and non-manure origin and other similar products.

Organo-mineral fertiliser: refers to a co-formulation of one or more inorganic fertilisers and one or more materials containing organic carbon and nutrients of solely biological origin. An organo-mineral fertiliser may contain peat, leonardite and lignite, but no other material which is fossilised or embedded in geological formations.

NUTRIENT BALANCES

The **crop items** are defined in Commission Implementing Regulation (EU) 2023/1538 of 25 July 2023 laying down rules for the application of Regulation (EU) 2022/2379 of the European Parliament and of the Council as regards crop production statistics.

The **livestock items** are defined in Commission Implementing Regulation (EU) 2023/2745 of 8 December 2023 laying down rules for the application of Regulation (EU) 2022/2379 of the European Parliament and of the Council as regards animal production statistics.

Crop residues: refers to the parts of plants – including above and below ground – that are not harvested as the main crop product. They can be either left on the field or removed from the field.

Biological nitrogen fixation: refers to processes where molecular nitrogen in the air is converted into ammonia (NH₃) or into related nitrogenous compounds in soil by biological processes.

Atmospheric nitrogen deposition: refers to processes by which nitrogen airborne particles and gases are deposited to soils, vegetation, waters, and other surfaces, either through precipitation (rain, snow, clouds and fog) – wet nitrogen deposition – or as a result of complex atmospheric processes such as settling, impaction, and adsorption – dry nitrogen deposition. It includes the deposition of reduced nitrogen originating from the emissions of ammonia, mainly from agriculture, and the deposition of oxidised nitrogen originating from the emissions of nitrogen oxides – mainly from the industry and cars/trucks.

Gross measurement of excretion: refers to all the manure produced by the livestock population, before manure withdrawals and reapplication after processing (e.g. as digestate or compost) and not excluding the volatilisation.

Exported livestock manure: refers to the volume of raw manure exported to another country, including the manure of national livestock produced outside the national territory as the result of cross-border agricultural activity.

Other manure withdrawals: refers to manure produced on the farms that is actively removed from raw use as plant nutrients in national agriculture. This includes the removal for production of energy, processing for fertiliser production, deposition during grazing in areas outside the utilised agricultural area or disposal. It excludes exported livestock manure.

Imported livestock manure: refers to the volume of raw imported manure from another country, and used in agriculture as a fertiliser, including manure from non-national livestock produced inside the national territory as the result of cross-border agricultural activity.

Other manure inputs: refers to the manure used as fertiliser in agriculture, originating from other sources than the manure production from the livestock population reported under Commission Implementing Regulation (EU) 2023/2745 of 8 December 2023 laying down rules for the application of Regulation (EU) 2022/2379 of the European Parliament and of the Council as regards animal production statistics, (e.g., horse manure) and excluding the imported livestock manure.
