

Draft ministerial regulation

German Federal Ministry of Agriculture, Food and Regional Identity

Fifty-eighth Regulation amending the Feed Regulation

A. Problem and objective

The Association for Nutritional Physiology (GfE) has revised its existing recommendations on calorie and nutrient requirements for dairy cows and published the results in 2023. In conjunction with the equations published by the GfE in 2025 for estimating the digestibility of the organic matter in compound feed for ruminants, prerequisites were established for implementing an improved, more precise, and sustainable method for determining the calorie content of compound feed for ruminants. The requirements of the Feed Regulation for the evaluation and labelling of the calorie content of compound feeds must be adapted to the new procedure. Moreover, a penalty provision is to be added to Regulation (EU) 2019/4 (Medicated Feed Regulation).

B. Solution

Enactment of this Regulation.

C. Alternatives

None.

D. Budgetary expenditure exclusive of compliance costs

The Federal Government, federal states and municipalities will not incur any budget expenditure.

E. Compliance costs

E.1 Compliance costs for citizens

There are no compliance costs for individuals.

E.2 Compliance costs for businesses

Overall, this will result in a non-recurring compliance cost of around 1.04 million euro for the economy. This results from the compliance costs to the various groups addressed by the legislation and is made up as follows:

a) Non-recurring compliance costs for manufacturers of compound feed amounting to approximately 1.01 million euro.

b) Compliance costs for private-sector testing laboratories amounting to around 30 000 euro per year.

Of this amount, administrative costs arising from obligations to provide information

The provision does not entail any administrative costs arising from obligations to provide information.

The non-recurring compliance costs set out above arise from the non-recurring costs of adapting the internal systems to the new formula for calculating estimates. Under the 'one in, one out' rule, a proportionate amount of 104 000 euro in non-recurring compliance costs will be taken into account and offset by the Department by the end of the legislative term.

E.3 Compliance costs for the authorities

There are no compliance costs for the federal government.

There is a minor non-recurring compliance cost for the authorities of the federal states. This is offset by the implementation of the 'one in, one out' rule by the Department until the end of the legislative term.

There will be no new compliance costs for the municipalities.

F. Additional costs

There are no other costs to businesses. Likewise, no costs shall be incurred by social security systems. Effects on individual prices and the general price level, in particular the consumer price level, are not anticipated.

Ministerial draft regulation Federal Ministry of Agriculture, Food and Regional Identity

Fifty-eighth Regulation amending the Feed Regulation¹

Dated ...

The Federal Ministry of Agriculture, Food and Regional Identity hereby issues the following regulations, respectively in conjunction with Section 1(2) of the Competence Adjustment Regulation of 16 August 2002 (Federal Law Gazette I, p. 3165), amended by Article 7 of the Act of 31 August 2015 (Federal Law Gazette I p. 1474) and the Organisational Order of 6 May 2025 (Federal Law Gazette 2025 I no. 131), on the basis of

- Section 1(1) subparagraph(4b) (aa) and paragraph (3), Section 4(3), Section 23a subparagraph(10)(b), Section 46(2), first clause, subparagraph (1)(a) and (c)(aa), Section 60(2)(26)(a) and paragraph (4) subparagraph (2)(a), and Section 62(1) subparagraph (2) (a) of the Food and Feed Code, in the version published on 15 September 2021 (Federal Law Gazette I p. 4253; 2022 I p. 28), as last amended by Article 3 of the Law, of 3 February 2026 (Federal Law Gazette 2026 I no. 29):

- Section 1(1) no. 3(c) and (3), Section 4(3) and Section 35 nos. (1) and (4) of the Food and Feed Code, in agreement with the Federal Ministry for Economic Affairs and Energy:

Article 1

Amendment to the Feed Regulation

The Feed Regulation in the version published on 29 August 2016 (Federal Law Gazette I p. 2004), as last amended by Article 1 of the Regulation of 2 December 2025 (Federal Law Gazette I no. 304) is amended as follows:

1. Section 6(1) is replaced by the following paragraph 1:

‘(1) In the case of compound feeds, where information on the calorie content is provided, the calorie content for verification shall be calculated in accordance with the estimation equations in Annex 2, insofar as an estimation equation is laid down there for the relevant animal species. The metabolisable energy, relative to the original substance, must be stated in megajoules per kilogram (MJ/kg) to one decimal place. Information on the calorie content referred to in the first clause shall still be deemed correct if the measured content is no more than 0.4 megajoules per kilogram lower than the stated content.’

2. In Section 13(2) clause 1 and paragraph (3) subparagraph 1, the words ‘the production sites’ are replaced in each case by the word ‘factory’.
3. Section 47(1) is amended as follows:
 - a) Subparagraph 12 is replaced by the following subparagraph 12:

¹ Notified in accordance with Directive (EU) 2015/1535 of the European Parliament and of the Council of 9 September 2015 laying down a procedure for the provision of information in the field of technical regulations and of rules on Information Society services (OJ L 241, 17/9/2015, p. 1).

'12. Keeps records in breach of Article 17(7) clause 1, or does so incorrectly or incompletely'.

b) After subparagraph 14, the following subparagraph 15 is inserted:

'15. as a feed business operator, fails to retain a document in breach of Appendix I Section 6(2) clause 2, or fails to retain such for at least five years'.

c) The previous subparagraphs 15 and 16 shall be labelled subparagraphs 16 and 17.

4. Section 49a is replaced by the following Section 49a:

'Compound feeds for which the calorie content, as defined in Section 6(1), in the version in force up to and including [*insert: date of the day before the entry into force pursuant to Article 2 of this Regulation*] is indicated, may be placed on the market until the expiry of the [*insert: date six months after the date of entry into force pursuant to Article 2 of this Regulation*]'.

5. Annex 2 is replaced by the following Annex 2:

"Annex 2 (to Section 6(1))

Estimation equations for calculating the calorie content of compound feeds

Abbreviations used

aNDFom	= Amylase-Treated Neutral Detergent Fibre Organic Matter
CA	= crude ash
CL	= crude fat
CP	= crude protein
FAN1	= Feed intake level 1
GB	= gas formation
GE	= gross energy
ME	= metabolisable energy
MJ	= Megajoule
N	= Nitrogen
OM	= Organic mass
OMD	= Digestibility of the organic mass
OR	= organic residue
v. H.	= of one hundred
g	= grams
kg	= /kilograms
ml	= millilitres
mg	= milligrams
ST	= starch
DM	= dry matter
ZU	= sugar

Animal species	Estimation equation
1	2

Ruminants (cattle, sheep, goats) ME (MJ/kg DM) =

$$[(GE \text{ (MJ/kg OM)} \times (OMD (\%) - 3.3) / 100 - 0.0037 \times CP \text{ (g/kg OM)} - (0.7 + 0.014 \times OMD (\%))) \times (1 - CA \text{ (g/kg TM)} / 1000)]$$

The gross energy (GE, MJ/kg OM)² shall be determined

- 1.) using calorimetry³, taking into account CA.
- 2.) by calculation, where calorimetric determination is not possible.

a) In the case of compound feeds without feed-grade urea, the calculation shall be made using the following equation:

$$GE \text{ (MJ/kg OM)} = [(23.6 \times CP + 39.8 \times CL + 17.3 \times ST + 16.0 \times ZU + 18.9 \times OR) / (1 - CA / 1000)] / 1000,$$

for this formula, the organic residue (OR) is determined using the following equation:

$$OR = OM - CP - CL - ST - ZU$$

All nutrient values are given in g/kg DM.

b) In the case of compound feeds containing feed-grade urea, it shall be calculated using the following equation:

$$GE \text{ (MJ/kg OM)} = [(23.6 \times (\text{total N} - \text{urea N}) \times 6.25 + 10.5 \times \text{urea} + 39.8 \times CL + 17.3 \times ST + 16.0 \times ZU + 18.9 \times OR') / (1 - CA / 1000)] / 1000;$$

where the organic residue (OR') is determined using the following equation:

$$OR' = OM - (\text{total N} - \text{urea N}) \times 6.25 - \text{urea} - CL - ST - ZU$$

All nutrient values are given in g/kg DM.

The digestibility of the organic mass (OMD, %) shall be calculated using the equation⁴:

$$OMD (\%) = 26.9 + 0.0342 \times CP \text{ (g/kg OM)} + 0.0706 \times CL \text{ (g/kg OM)} - 0.0254 \times \text{aNDFom (g/kg OM)} + 0.842 \times GB \text{ (ml/200 mg OM)}.$$

OMD and ME data refer to FAN1

Pigs ME_s in MJ/kg =

(g/kg)	Crude protein	× 0.021503
+ (g/kg)	Crude fat ⁵	× 0.032497
– (g/kg)	Crude fibre	× 0.021071
+ (g/kg)	Starch ⁶	× 0.016309
+ (g/kg)	organic residue (calculated as the difference between the organic substance and the sum of crude protein, crude fat, crude fibre and starch (each in g/kg))	× 0.014701"

² GfE (2025) Equations for estimating the digestibility of the organic matter in compound feeds for ruminants. Proc. Soc. Nutr. Physiol. 34:145-151.

³ DIN EN ISO 9831:2003. DIN Standards Committee on Food and Agricultural Products (NAL), animal products and faeces or urine – Determination of the effective calorific value – calorimetric bomb method.

⁴ GfE (2025) Equations for estimating the digestibility of the organic matter in compound feeds for ruminants. Proc. Soc. Nutr. Physiol. 34:145-151.

⁵ To be determined using the hydrochloric acid digestion method in accordance with Appendix III point G to Regulation (EC) No. 152/2009 as amended on 23 April 2025.

⁶ To be determined using the polarimetric process in accordance with Appendix III point K to Regulation (EC) No 152/2009 as amended on 23 April 2025.

Article 2

Entry into force

This Regulation enters into force on [...]

The Federal Council has agreed.

EU legal acts:

1. Regulation (EC) no. 152/2009 of the European Commission of 27 January 2009 laying down the methods of sampling and analysis for the official testing of animal feeds (OJ L 54, 26 February 2009, p. 1), as last amended by delegated regulation (EU) 2025/782 of 23 April 2025 (OJ L, 2025/782, 24 April 2025)
2. Regulation (EU) 2019/4 of the European Parliament and of the Council of 11 December 2018 on the manufacture, placing on the market and use of medicated feed, amending Regulation (EC) no. 183/2005 of the European Parliament and of the Council and repealing Council Directive 90/167/EEC (OJ L 4, 7 January 2019, p. 1; L 162, 19 June 2019, p. 28; L 105, 20 April 2023, p. 68)

Justification

A. General part

I. Purpose and necessity of the provisions

The new estimation equation for determining the calorie content of compound feeds, which has recently been derived by the Committee on Nutritional Requirements of the Society for Nutritional Physiology, requires an amendment to Section 6(1) and to Annex 2 of the Feed Regulation, which standardises the labelling of compound feeds for ruminants based on the previous estimation equation. The new energy evaluation system, based on the metabolisable energy, offers a significantly better basis for evaluation for precise alignment of the daily portion to the actual needs of the animals and a high degree of practical usefulness, because it is based on a three-stage procedure that uses only a few directly measurable variables.⁷ A consistent energy and nutrient balance is important for keeping the animals healthy, efficient and sustainably productive. As things stand, the estimation equation can be applied to cattle other than dairy cows, as well as to sheep and goats when adjusted accordingly. Apart from this, there is a gap in penalty provisions of Regulation (EU) 2019/4 on medicated feed.

II. Main content of the Regulation

With the revision of the recommendations for calorie and nutrient supply for dairy cows, the Committee on Nutritional Standards of the Association for Nutritional Physiology (GfE) did away with the recommendations on calorie supply based on net energy lactation (NEL) and changed over to recommendations based on metabolisable energy (ME).

Following the publication by GfE in 2025⁸ of the equations for estimating the digestibility of organic matter (OMD) in compound feeds for ruminants, the determination of organic matter digestibility (OMD_{FANL} %) has been updated in accordance with the analytical methods used and the feed-grade urea content of the compound feeds. This completes the requirements for the implementation of an improved, more precise and more sustainable method for determining the calorie concentration in compound feeds for ruminants in practice, and the method can now be applied in laboratories, in advisory services, and in teaching and research.

In addition to improving the efficiency of nutrient utilisation and reducing emissions in ruminant feeding, using ME is advantageous because the feed value for cattle of all types, as well as sheep and goats, is expressed at the same evaluation level. In addition, the ME constitutes the basis of many international feed evaluation and feed requirement systems.

The labelling of the calorie content of compound feed, as set out in Section 6(1) in conjunction with Annex 2 of the GfE's earlier recommendations⁹, must be adapted the new procedure, and the Feed Regulation must be amended accordingly.

In addition, penalties have been incorporated to discourage any breach of the provisions of Regulation (EU) 2019/4 on medicated feed.

⁷ GfE 2023: Energie- und Nährstoffbedarf landwirtschaftlicher Nutztiere [Calorie and nutrient requirements of farm animals], No 12. Empfehlungen zur Energie- und Nährstoffversorgung von Milchkühen. [Recommendations for the calorie and nutrient supply of dairy cows.] DLG-Verlag, Frankfurt am Main, pp. 17-30.

⁸ Proc. Soc. Nutr. Physiol. 34: 145 – 151.

⁹ GfE 2009, Proc. Soc. Nutr. Physiol. 18: 143 – 146.

Executive footprint

The new recommendations on calorie and nutrient requirements for dairy cows were developed by the Committee on Nutritional Requirements of the Association for Nutritional Physiology (GfE). The working groups 'Protein' and 'Energie' were entrusted with preparing the practical implementation of the recommendations by the Working Group on Feed and Feeding of the German Agricultural Society (DLG).

Alternatives

The estimation equation recommended by the Association for Nutritional Physiology is used to accurately calculate the calorie content of compound feeds for ruminants and is essential for ensuring that ruminants receive a diet tailored to their nutritional requirements. This estimation equation is already being implemented in practice; the relevant labelling requirements in the Feed Regulation must therefore be amended accordingly. Therefore, there are no alternatives.

III. Regulatory competence

The regulatory powers of the Federal Ministry of Agriculture, Food and Regional Identity derive from Section 23a subparagraph (10)(b) in conjunction with Section 1 subparagraph (4)(b)(aa) and paragraph (3), Section 35 subparagraphs (1) and (4), Section 46(2), first clause, subparagraph 1(c)(aa), and Section 62(1), subparagraph 2(a) of the LFGB in conjunction with Section 60(4), subparagraph 2(a), and Section 60(2), subparagraph 26(a) of the German Food and Feed Code (LFGB).

IV. Compatibility with European Union law and international treaties

The regulation is compatible with the law of the European Union and international treaties concluded by the Federal Republic of Germany.

V. Regulatory consequences

This Regulation brings the labelling of the calorie concentration of compound feeds for ruminants into line with the latest scientific findings and follows the recommendations of the Association for Nutritional Physiology for calorie and nutritional requirements of ruminants. This results in more precise and sustainable arrangements for ruminant feeding.

1. Legal and administrative simplification

The Regulation does not entail any legal or administrative simplification.

2. Sustainability aspects

Pursuant to Section 44(1) clause (4) of the Joint Rules of Procedure of the Federal Ministries (Gemeinsamen Geschäftsordnung, GGO), a sustainability analysis has been conducted. These provisions are sustainable in the long term in line with the German Sustainability Strategy, as the newly calculated estimation equation serves to ensure that the energy requirements of farm animals are met, thereby advancing achievement of Sustainability Goal 2: 'End hunger, achieve food security and improved nutrition, and promote sustainable agriculture' – with indicator 2.2 'Support for good governance in achieving adequate nutrition worldwide'. Moreover, they comply with the principle of sustainable development, as the recalculated estimation equation increases the efficiency in feeding. This will contribute to reducing excess nitrogen in ruminant farming and improving the sustainability of milk and meat production.

3. Budgetary expenditure exclusive of compliance costs

The Federal Government, the federal states and municipalities shall not be burdened with significant budgetary expenditure, excluding compliance costs.

4. Compliance costs

4.1. Compliance costs for citizens

There are no compliance costs for individuals.

4.2. Compliance costs for businesses

Seq. No.	Article Draft regulation; standard (§§); designation of the requirement	IP	Annual number of cases and unit	Annual expenditure per case (minutes * labour costs per hour [business sector] + material costs in euro)	Annual compliance costs (in thousands of euro) or 'negligible' (justification)	Unique case number and unit	One-time expenditure per case (minutes * labour costs per hour (business sector) + material costs in euro)	Non-recurrent compliance costs (in thousands of euro) or 'negligible' (justification)
2.1	Section 6(1); conversion of the estimation equation (Amendment)					1,826 Compound feed manufacturers	554.40 euro = (720 / 60 * 46.20 euro /h (WZ: C))	1,012
2.2	Section 6 (1) Animal feed testing (Amendment)					50 testing laboratories	560.40 euro = (720 / 60 * 46.70 euro /h (WZ: M))	28
Total (in thousands of euro)			0			1,040		
of which from information obligations (IO)			0			0		

4.3. Compliance costs for the authorities

Seq. No.	Article Draft regulation; standard (§§); designation of the requirement	Federal Government/ Federal State	Annual number of cases and unit	Annual expenditure per case (minutes * labour costs per hour (hierarchy level) + material costs in euro)	Annual compliance costs (in thousands of euro) or 'negligible' (justification)	Unique case number and unit	Non-recurring expenditure per case (minutes * hourly wage costs (hierarchy level) + material costs in euro)	Non-recurring compliance costs (in thousands of euro) or 'negligible' (justification)
3.1	Section 6(1); Feed testing (amendment)	Country				18 testing laboratories	560.40 euro = (720 / 60 * 46.70 euro / hour (100% average))	10
Total (in thousands of euro)			0			10		
of which federal government			0			0		
of which federal states (including municipalities)			0			10		

Regarding sequential number 2.1

According to the latest annual statistics from the official feed monitoring programme for 2024, a total of 2,054 compound feed manufacturers were registered in Germany. Excluding the 228 mobile grinding and mixing machines, this leaves a total of 1,826 affected businesses.

For the adjustment of internal processes, a time expenditure of 720 minutes is estimated at medium complexity. This is based on the fair value table for businesses (cf. Guidelines for the Determination and Presentation of Compliance Costs, p. 61).

The hourly wage of 46.20 euro corresponds to the average wage costs in economic sector C (manufacturing).

Regarding sequential number 2.2

In the area of privately operated laboratories in Germany that conduct feed analyses, the Federal Statistical Office assumed a total of 50 testing laboratories.

A time expenditure of 720 minutes is taken as a basis for adjusting internal processes.

A wage estimate of 46.70 euro per hour is used for the testing laboratories. This corresponds to the average wage for economic sector M: Professional, scientific and technical services.

Regarding sequential number 3.1

The number of the 18 testing laboratories is taken from a summary list, held in the specialist information system for consumer protection and food safety, of the laboratories commissioned to carry out official feed monitoring, as of 5 July 2022. A total of 19 testing laboratories are listed in summary. To avoid duplication, a privately run laboratory was not included when calculating the compliance costs of the administration.

According to the Federal Office for Statistics, a time expenditure of 720 minutes is estimated for the necessary adaptation of the internal processes.

The hourly wage of 46.70 euro corresponds to the average wage costs at the administrative level of the federal states.

Additional costs

There are no further costs related to the implementation of the new estimation formula for compound feeds for ruminants.

Effects on individual prices and the general price level, in particular the consumer price level, are not anticipated.

5. Further regulatory consequences

Equality policy and demographic concerns are not affected.

The Regulation has no negative impact on consumers.

The amendments envisaged have been reviewed for their relevance to gender equality. There are no indications that genders were affected differently.

From a demographic perspective, too, the regulation is not expected to have any impact.

In accordance with the Guidelines on implementing 'equivalence checks' for draft federal legislation of 20 April 2020, it has been examined whether and what impact the draft federal legislation would have on the equivalence of people's living conditions in Germany. Positive effects are expected on the factor of 'vital natural resources', mentioned in the guidance document. The new estimation equation for determining the calorie concentration of compound feeds allows for a more precise calculation of requirements, making it possible to feed farm animals more efficiently.

VI. Time limit; evaluation

The Regulation shall apply indefinitely.

B. Special part

Regarding Article 1 (Amendment to the Feed Regulation)

Regarding Subparagraph 1

In 2023, the Association for Nutritional Physiology published new recommendations on the calorie and nutrient supply of dairy cows, superseding the previous recommendations from 2001. Under the updated recommendations drawn up by the Committee on Nutritional Standards, Net Energy Lactation (NEL) – the parameter previously used to assess the calorie content of compound feeds for dairy cows – is to be replaced by Metabolisable Energy (ME). For this reason, the references to the NEL in Section 6(1) must be deleted. In the future, when labelling the calorie content of compound feeds for cattle for all uses and for sheep and goats, the new estimation equation in Annex 2 is to be used for the calculation.

The amendment is made on the basis of Section 23a(10)(b), in conjunction with Section 1 subparagraph (4)(b)(aa) and paragraph (3) and Section 35 subparagraphs (1) and (4) of the LFGB [German Food and Commodities Act].

Re Subparagraph 2

In Section 13(3) subparagraph (1), the term ‘the production sites’ is replaced by ‘the factories’ in order to ensure consistency of terminology in the Feed Regulation.

The provision is based on Section 46(2), clause (1), subparagraph 1(c)(aa) LFGB.

Re Subparagraph 3

Re Letter a

This is an editorial amendment.

The provision is based on Section 62(1), subparagraph 2(a) of the LFGB in conjunction with Section 60(4), subparagraph 2(a), Section 60(2), subparagraph 26(a), Section 46(2), first sentence, subparagraph 1(a) of the LFGB.

Re Letters (b) and (c)

The newly added subparagraph 15 in Section 47(1) completes the existing subparagraph 14 by adding the duration of the retention period. Pursuant to Annex I Section 6 of Regulation (EU) 2019/4, the documents referred to in Section 6(2) of Annex I shall be kept on file for five years. This requirement is subject to penalty as an administrative offence under the new subparagraph 15.

The provision is based on Section 62(1), subparagraph 2(a) of the LFGB in conjunction with Section 60(4), subparagraph 2(a), Section 60(2), subparagraph 26(a), Section 46(2), first sentence, subparagraph 1(a) of the LFGB.

Re Subparagraph 4

Section 49a provides for a transitional period of six months to allow affected parties to adapt to the new method of calculating the energy content of compound feeds for ruminants and to adjust their processes accordingly. For compound feeds placed on the market up to and including six months after the entry into force of this Regulation, the calorie content may be expressed in either NEL or ME. The previous transitional period in Section 49a from 2018 stipulates that feed may continue to be labelled until 31 August 2020 with labels that meet the requirements of Section 6(2) of the Feed Regulation in the version in force on 30 July 2018. This provision is now no longer needed and is therefore replaced by the new transitional period for labelling under Section 6(1).

This provision is based on Section 23a(10)(b) and Section 35(1) of the LFGB.

Re Subparagraph 5

The revised version of Annex 2 updates the equation for estimating the calorie content of compound feeds for cattle, sheep and goats, bringing it into line with the recommendations of the Committee on Nutritional Requirements of the Association for Nutritional Physiology.

The new estimation equation for calculating the calorie content of compound feed for dairy cows, which has been extended by the Association for Nutritional Physiology to cattle for other uses and to sheep and goats, consists of three steps.

In the first step, the gross energy is determined. This can either be determined analytically using a bomb calorimeter, which takes into account the analysis of crude ash (CA), or it can be calculated using the equation, taking into account the concentration of the nutrients crude protein (CP), crude fat (CL), starch (ST), sugar (ZU), and also the organic residue (OR). In this method, the organic residue is calculated as the difference between the organic matter (OM) and the nutrients CP, CL, ST and ZU.

If compound feeds contain feed-grade urea, a modified calculation formula is used which takes into account not only the nutrients and the OR but also total nitrogen (total N), urea nitrogen (urea N) and urea itself. This method also incorporates total N, urea N and urea when determining the OR.

The percentage of digestibility of the organic mass (OMD) is determined in the second step using the nutrient concentrations of CP and CL as well as the amylase-treated neutral detergent fibre organic matter (aNDFom) and the gas formation (GB).

In the third step, gross energy, the digestibility of the organic matter, and the contents of crude protein and crude ash are employed to determine metabolisable energy (ME).

The revised version of the Annex is based on Section 23a subparagraph (10)(b) and Section 35 subparagraph (1) of the LFGB.

Regarding: Article 2 (Entry into force)

Article 2 includes the necessary provisions on entry into force.