



2025/2046

13.10.2025

COMMISSION IMPLEMENTING REGULATION (EU) 2025/2046

of 10 October 2025

amending Implementing Regulation (EU) 2015/1486 as regards the terms of the authorisation of canthaxanthin as a feed additive for certain categories of poultry, ornamental fish and ornamental birds

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

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

Having regard to Regulation (EC) No 1831/2003 of the European Parliament and of the Council of 22 September 2003 on additives for use in animal nutrition ⁽¹⁾, and in particular Article 9(2) and Article 13(2) thereof,

Whereas:

- (1) Regulation (EC) No 1831/2003 provides for the authorisation of additives for use in animal nutrition and for the grounds and procedures for granting and modifying such an authorisation.
- (2) Canthaxanthin was authorised for 10 years as a feed additive for certain categories of poultry, ornamental fish and ornamental birds by Commission Implementing Regulation (EU) 2015/1486 ⁽²⁾.
- (3) In accordance with Article 13(1) of Regulation (EC) No 1831/2003, the Commission requested the European Food Safety Authority ('the Authority') to issue an opinion on whether the authorisation of canthaxanthin as a feed additive would still meet the conditions laid down in Article 5 of Regulation (EC) No 1831/2003, if the terms of that authorisation were modified. The modification consists of the addition of a new production route by fermentation with *Yarrowia lipolytica* CBS 146148. The applicant stated that canthaxanthin, either synthetic or produced by fermentation, will only be placed on the market as a preparation. The request was accompanied by the relevant supporting data.
- (4) The Authority concluded in its opinion of 26 November 2024 ⁽³⁾ that the preparation of canthaxanthin produced by fermentation with *Yarrowia lipolytica* CBS 146148 is safe for the target species, consumer and environment under the current authorised conditions of use. It also concluded that, in the absence of data with the preparation of canthaxanthin, no conclusions could be reached regarding its safety for the user. The Authority further concluded that canthaxanthin produced by fermentation with *Yarrowia lipolytica* CBS 146148 is efficacious as a colouring agent in feed for chickens for fattening and minor poultry species for fattening, laying poultry and poultry reared for laying, ornamental fish and ornamental birds. Finally, it recommended adjusting the wording of the provision of the current authorisation regarding the mixture of the preparation of canthaxanthin with other carotenoids.
- (5) In view of the above, the Commission considers that the preparation of canthaxanthin still satisfies the conditions, as provided for in Article 5 of Regulation (EC) No 1831/2003, when modifying the terms of the authorisation with the addition of a new production route by fermentation with *Yarrowia lipolytica* CBS 146148. In addition, the provision of Implementing Regulation (EU) 2015/1486 regarding the mixture of the preparation of canthaxanthin with other carotenoids should be adjusted in accordance with the recommendation of the Authority. Implementing Regulation (EU) 2015/1486 should therefore be amended accordingly.

⁽¹⁾ OJ L 268, 18.10.2003, p. 29, ELI: <http://data.europa.eu/eli/reg/2003/1831/oj>.

⁽²⁾ Commission Implementing Regulation (EU) 2015/1486 of 2 September 2015 concerning the authorisation of canthaxanthin as feed additive for certain categories of poultry, ornamental fish and ornamental birds (OJ L 229, 3.9.2015, p. 5, ELI: http://data.europa.eu/eli/reg_impl/2015/1486/oj).

⁽³⁾ EFSA Journal, 23(1), e9134. <https://doi.org/10.2903/j.efsa.2025.9134>.

- (6) In order to allow better control, a new identification number should be granted to canthaxanthin produced by fermentation with *Yarrowia lipolytica* CBS 146148.
- (7) The measures provided for in this Regulation are in accordance with the opinion of the Standing Committee on Plants, Animals, Food and Feed,

HAS ADOPTED THIS REGULATION:

Article 1

Amendment to Implementing Regulation (EU) 2015/1486

The Annex to Implementing Regulation (EU) 2015/1486 is replaced by Annex to this Regulation.

Article 2

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*.

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

Done at Brussels, 10 October 2025.

For the Commission
The President
Ursula VON DER LEYEN

ANNEX

Identification number of the feed additive	Additive	Composition, chemical formula, description, analytical method	Species or category of animal	Maximum age	Minimum content	Maximum content	Other provisions	Maximum residue levels	End of period of authorisation
					mg active substance/kg complete feedingstuff with 12 % moisture content				

Category: sensory additives. Functional group: colourants: (ii) substances which, when fed to animals, add colours to food of animal origin

2a161g	Canthaxanthin	<i>Additive composition</i> Canthaxanthin Triphenylphosphine oxide (TPPO) ≤ 100 mg/kg Dichloromethane ≤ 600 mg/kg	Chickens for fattening and minor poultry species for fattening	-	-	25	- Canthaxanthin may be placed on the market and used as an additive consisting of a preparation. - The mixture of this additive with other additives containing canthaxanthin and other carotenoids is allowed provided that the total concentration of the mixture does not exceed 80 mg total carotenoids/kg of complete feed. - For users of the additive and premixtures, feed business operators shall establish operational procedures and organisational measures to address potential risks resulting from their use. Where those risks cannot be eliminated by such procedures and measures, the additive and premixtures shall be used with personal skin, eye and breathing protective equipment.	Poultry 15 mg canthaxanthin/kg liver (wet tissue) and 2,5 mg canthaxanthin/kg skin/fat (wet tissue) Laying poultry 30 mg canthaxanthin/kg egg yolk (wet tissue)	23.9.2025
		<i>Characterisation of the active substance</i> — Canthaxanthin — C ₄₀ H ₅₂ O ₂ — CAS number: 514-78-3 — Canthaxanthin, solid form, produced by chemical synthesis. Purity: Assay: min. 96 % Carotenoids other than canthaxanthin: not more than 5 % of total colouring matters. <i>Method of analysis</i> ⁽¹⁾ For the quantification of canthaxanthin in the feed additive: spectrophotometry at 426 nm. For the quantification of canthaxanthin in the premixtures and feedingstuffs: Normal Phase High Performance Liquid Chromatography coupled to visible detection (NP-HPLC-VIS, 466 nm).	Laying poultry and poultry reared for laying	-	-	8			

Identification number of the feed additive	Additive	Composition, chemical formula, description, analytical method	Species or category of animal	Maximum age	Minimum content	Maximum content	Other provisions	Maximum residue levels	End of period of authorisation
					mg active substance/kg complete feedingstuff with 12 % moisture content				
2a161gi	Canthaxanthin	<i>Additive composition</i> Preparation containing minimum 10 % of canthaxanthin Dichloromethane ≤ 80 mg/kg <i>Characterisation of the active substance</i> — Canthaxanthin, solid form, produced with <i>Yarrowia lipolytica</i> CBS 146148. — C ₄₀ H ₅₂ O ₂ — CAS number: 514-78-3 Purity: Assay: min. 96 % of total colouring matters (expressed as canthaxanthin) Carotenoids other than canthaxanthin: not more than 5 % of total colouring matters. <i>Method of analysis</i> ⁽¹⁾ For the quantification of canthaxanthin in the feed additive: spectrophotometry at 426 nm. For the quantification of canthaxanthin in the premixtures and feedingstuffs: Normal Phase High Performance Liquid Chromatography coupled to visible detection (NP-HPLC-VIS, 466 nm).	Chickens for fattening and minor poultry species for fattening	-	-	25	1. The mixture of this additive with other additives containing canthaxanthin and other carotenoids is allowed provided that the total concentration of the mixture does not exceed 80 mg total carotenoids/kg of complete feed. 2. For users of the additive and premixtures, feed business operators shall establish operational procedures and organisational measures to address potential risks resulting from their use. Where those risks cannot be eliminated by such procedures and measures, the additive and premixtures shall be used with personal skin, eye and breathing protective equipment.	Poultry 15 mg canthaxanthin/kg liver (wet tissue) and 2,5 mg canthaxanthin/kg skin/fat (wet tissue)	23.9.2025
		Laying poultry and poultry reared for laying	-	-	8	Laying poultry 30 mg canthaxanthin/kg egg yolk (wet tissue)			

⁽¹⁾ Details of the analytical methods are available at the following address of the Reference Laboratory: https://joint-research-centre.ec.europa.eu/eurl-fa-eurl-feed-additives/eurl-fa-authorisation/eurl-fa-evaluation-reports_en.

Identification number of the feed additive	Additive	Composition, chemical formula, description, analytical method	Species or category of animal	Maximum age	Minimum content	Maximum content	Other provisions	Maximum residue levels	End of period of authorisation
					mg active substance/kg complete feedingstuff with 12 % moisture content				
Category: sensory additives. Functional group: colourants: (iii) substances which favourably affect the colour of ornamental fish or birds									
2a161g	Canthaxanthin	<i>Additive composition</i> Canthaxanthin Triphenylphosphine oxide (TPPO) ≤ 100 mg/kg Dichloromethane ≤ 600 mg/kg <i>Characterisation of the active substance</i> — Canthaxanthin — C ₄₀ H ₅₂ O ₂ — CAS number: 514-78-3 — Canthaxanthin, solid form, produced by chemical synthesis. Purity: Assay: min. 96 % Carotenoids other than canthaxanthin: not more than 5 % of total colouring matters. <i>Method of analysis (1)</i> For the quantification of canthaxanthin in the feed additive: spectrophotometry at 426 nm. For the quantification of canthaxanthin in the premixtures and feedingstuffs: Normal Phase High Performance Liquid Chromatography coupled to visible detection (NP-HPLC-VIS, 466 nm).	Ornamental fish and ornamental birds except ornamental breeder hens	-	-	100	1. Canthaxanthin may be placed on the market and used as an additive consisting of a preparation. 2. The mixture of this additive with other additives containing canthaxanthin and other carotenoids is allowed provided that the total concentration of the mixture does not exceed 100 mg total carotenoids/kg of complete feed. 3. For users of the additive and premixtures, feed business operators shall establish operational procedures and organisational measures to address potential risks resulting from their use. Where those risks cannot be eliminated by such procedures and measures, the additive and premixtures shall be used with personal skin, eye and breathing protective equipment.		23.9.2025
			Ornamental breeder hens	-	-	8			

Identification number of the feed additive	Additive	Composition, chemical formula, description, analytical method	Species or category of animal	Maximum age	Minimum content	Maximum content	Other provisions	Maximum residue levels	End of period of authorisation
					mg active substance/kg complete feedingstuff with 12 % moisture content				
2a161gi	Canthaxanthin	<i>Additive composition</i> Preparation containing minimum 10 % of canthaxanthin Dichloromethane ≤ 80 mg/kg <i>Characterisation of the active substance</i> — Canthaxanthin, solid form, produced with <i>Yarrowia lipolytica</i> CBS 146148. — C₄₀H₅₂O₂ — CAS number: 514-78-3 Purity: Assay: min. 96 % of total colouring matters (expressed as canthaxanthin) Carotenoids other than canthaxanthin: not more than 5 % of total colouring matters. <i>Method of analysis</i> (1) For the quantification of canthaxanthin in the feed additive: spectrophotometry at 426 nm. For the quantification of canthaxanthin in the premixtures and feedingstuffs: Normal Phase High Performance Liquid Chromatography coupled to visible detection (NP-HPLC-VIS, 466 nm).	Ornamental fish and ornamental birds except ornamental breeder hens	-	-	100	1. The mixture of this additive with other additives containing canthaxanthin and other carotenoids is allowed provided that the total concentration of the mixture does not exceed 100 mg total carotenoids/kg of complete feed. 2. For users of the additive and premixtures, feed business operators shall establish operational procedures and organisational measures to address potential risks resulting from their use. Where those risks cannot be eliminated by such procedures and measures, the additive and premixtures shall be used with personal skin, eye and breathing protective equipment.		23.9.2025
			Ornamental breeder hens	-	-	8			

⁽¹⁾ Details of the analytical methods are available at the following address of the Reference Laboratory: https://joint-research-centre.ec.europa.eu/eurl-fa-eurl-feed-additives/eurl-fa-authorisation/eurl-fa-evaluation-reports_en.