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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 44903-2024

**Greenhouse gases - Quantification methodologies and
requirements for carbon footprint of products - Livestock
products**

温室气体 产品碳足迹量化方法与要求 畜产品

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part

1. Structure and drafting rules for standardization documents" Drafting. Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents. This document is proposed by the Ministry of Agriculture and Rural Affairs of the People's Republic of China. This document was jointly issued by the National Animal Husbandry Standardization Technical Committee (SAC/TC274) and the National Carbon Emission Management Standardization Technical Committee (SAC/TC548) jointly under the jurisdiction of the Commission. This document was drafted by: Institute of Agricultural Environment and Sustainable Development, Chinese Academy of Agricultural Sciences, National Animal Husbandry Station, Muyuan Food Co., Ltd. Co., Ltd., Modern Dairy (Group) Co., Ltd., Inner Mongolia Youran Animal Husbandry Co., Ltd., Yidi (Beijing) Technology Co., Ltd., Xianghu Experimental Laboratory (Agricultural Zhejiang Provincial Laboratory). The main drafters of this document are: Dong Hongmin, Zuo Lingling, Wei Sha, Zhao Xiaoli, Zhou Yuanqing, Zhu Zhiping, Wang Yue, Hu Xiaoshan, Wang Jianfeng, Yang Hua, Zheng Yunhao, Yin Fubin, Fan Qingyao, Wang Chuan, Lü Zhongwang, Tian Yanfeng, Zhang Yu, Xie Yuheng, and Zhou Lei.

Carbon emission statistics and accounting are an important foundation for achieving carbon peak and carbon neutrality, and accelerating the establishment of carbon footprint standards and product carbon standards for important products. The identification and certification system plays an important role in promoting the green and low-carbon transformation of the industry. This document is based on the product carbon footprint quantification requirements specified in GB/T 24067 "Requirements and Guidelines for Quantification of Carbon Footprint of Temperature Gas Products". The national standard for carbon footprint of agricultural products is formulated for the first time, aiming to provide specific carbon footprint of livestock products and some livestock products. The quantitative methods and requirements are used to provide technical guidance for ensuring food security and the supply of important agricultural products, and supporting agricultural and rural emission reduction and carbon sequestration. This document establishes the carbon

footprint of livestock products by providing clear and consistent methods and requirements for quantifying the carbon footprint of livestock products using a life cycle assessment approach. The principles and objectives of product carbon footprint accounting are defined, and the accounting scope, steps, data, methods and reporting requirements are specified. Governments, industries, businesses and other stakeholders benefit from it, including.

- Clarify the requirements for quantifying the carbon footprint of livestock product production;
- Unify the methods for quantifying the carbon footprint of livestock production;
- Promote the assessment of the carbon footprint of livestock products throughout their life cycle;
- Identify key emission links in the entire livestock production process and tap into emission reduction potential;
- Improve the credibility, consistency and transparency of livestock carbon footprint quantification and reporting;
- Promote the development and implementation of greenhouse gas management strategies and plans in livestock product supply chains. To facilitate domestic and international communication, according to the relevant requirements of the United Nations Intergovernmental Panel on Climate Change (IPCC), this series of documents The quantity value is expressed in the form of "International Unit of Quantity of Substance (Element)" or "International Unit of Quantity of Substance (Element)", such as tC for tons of carbon, tCO₂ stands for tons of carbon dioxide, tCO₂e stands for tons of carbon dioxide equivalent, tCH₄ stands for tons of methane, and Nm³ stands for cubic meters under standard conditions. Mi et al. Greenhouse gas product carbon footprint quantification methods and requirements livestock products

1 Scope

GB/T 44903-2024 sets the Chinese method for quantifying the carbon footprint of livestock products. It is the product-level counterpart to the enterprise-level livestock accounting standard, and it is the one that reaches export markets, because a buyer asking a Chinese supplier for the footprint of a consignment of pork, beef, milk or eggs is asking for a product figure calculated to a defined method. Livestock footprints are dominated by two terms that are hard to allocate: the methane from enteric fermentation and manure, and the emissions embodied in the feed, which for Chinese production often includes imported soy with a land use change history. The standard sets the system boundary and the functional unit, the cut-off rules, the treatment of the feed supply chain and of land use change, the allocation between co-products such as milk and meat or meat and hide, the calculation of the emissions from each source, the data quality requirements, the uncertainty, and the reporting and the verification of the result. It takes effect on 1 May 2025.

2.Primary products include meat, eggs, milk, wool, down, etc.

3.2 The sum of greenhouse gas emissions and removals from the product system, expressed in carbon dioxide equivalent, based on climate change as a single environmental Conduct life cycle assessment based on impact types. [Source: GB/T 24067-2024, 3.1.1]

3.3 The sum of greenhouse gas emissions and removals in one or more selected stages or processes within the life cycle of a product system, expressed as CO₂. It is expressed in carbon equivalent. [Source: GB/T 24067-2024, 3.1.2]

3.4 The sum of greenhouse gas emissions and removals from livestock production systems, expressed as carbon dioxide equivalent, based on climate change as a single factor. Conduct life cycle assessment based on environmental impact types.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 6435 Determination of moisture in feed

GB/T 11891 Water quality-Determination of Kjeldahl nitrogen

NY/T 525 organic fertilizer

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 livestock products Livestock and poultry and their primary products obtained from animal husbandry production activities. Note