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

GB/T 45296-2025

Code of practice for drying of silkworm cocoons

桑蚕茧干燥技术规程

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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 is required. 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 was proposed by the Ministry of Agriculture and Rural Affairs of the People's Republic of China. This document is under the jurisdiction of the National Technical Committee for Standardization of Sericulture (SAC/TC 437). This document was drafted by: Jiangsu University of Science and Technology, Sericulture Research Institute of Chinese Academy of Agricultural Sciences, College of Animal Sciences of Zhejiang University, Suzhou Jinwei Jin Technology Co., Ltd., Yancheng Fiber Inspection Institute, Xinyuan Cocoon Silk Group Co., Ltd., Sericulture and Tea Research Institute of Zhejiang Academy of Agricultural Sciences Institute, Zaozhuang Tan's Silk Co., Ltd., Nantong Weiyimei Technology Co., Ltd., Sericulture Research Institute of Sichuan Academy of Agricultural Sciences, Taizhou Fiber Inspection Institute, Yangzhou Inspection and Testing Center, Southwest University, Jiangsu Fuan Silk Co., Ltd., Zhejiang Agricultural Technology Extension Center. The main drafters of this document are. Chen Tao, Zhu Liangjun, Bian Yongdong, Chen Zhongli, He Xiuling, Gu Jingyi, Song Jiangchao, Tan Jun, Hu Guangrong, Huang Lisheng, Zhai Zhongping, Yang Mingying, Yao Xiaohui, Zhang Meirong, Huang Xianzhi, Lu Hong, He Enjie, Hu Zuozhong. Technical regulations for drying silkworm cocoons

1 Scope

GB/T 45296-2025 is the Chinese code of practice for drying mulberry silkworm cocoons. Drying is the step that decides the value of a cocoon crop: the pupa inside must be killed and the cocoon dried before it emerges and cuts the filament, but the silk itself is a protein that is degraded by heat, so a cocoon dried too hard or too fast reels badly and yields short, weak filament from what was a good crop. China produces most of the world's silk and the drying is done in thousands of small facilities. The standard sets the requirements

on the fresh cocoons and their handling before drying, the drying equipment, the drying schedules with the temperature, humidity and airflow through the stages and the moisture content to be reached, the loading and turning, the cooling and conditioning after drying, the assessment of the dried cocoons and the defects that indicate over- or under-drying, and the storage of the dried crop. It takes effect on 1 September 2025.

This document establishes the silkworm cocoon drying procedure, and specifies the silkworm cocoon drying site, drying equipment, drying preparation, fresh cocoon handling, drying process, etc. The requirements include technology, drying steps, dry cocoon processing, dry cocoon inspection, etc. This document applies to silkworm cocoon drying.

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 9176 Dried silkworm cocoons

GB/T 15268 Fresh silkworm cocoons

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 cocoon purchasing and drying station cocoon purchasing and drying station A dedicated place for purchasing and drying fresh cocoons.

3.2 Semi-dry cocoon Fresh silkworm cocoons are dried to 60% to 70% dry.

3.3 dried cocoon Fresh cocoons are silkworm cocoons that have been dried to a point where they can be safely stored.

3.4 Reelable cocoon Silkworm cocoons that can be used to produce genuine raw silk.

Note. Includes upper cocoon and secondary cocoon.

3.5 drying percentage of cocoon The percentage of the mass of dried cocoons to the mass of fresh cocoons.

3.6 optimum dried cocoon The pupa has been basically dried, leaving a dry cocoon with moisture within the allowable range.

3.7 Equilibrium rate of dried cocoon The percentage of the number of suitable cocoons to the normal number of cocoons in the sampled cocoons.