Second edition
2021-02

Maize — Determination of moisture content (on milled grains and on whole grains)

Maïs — Détermination de la teneur en eau (sur grains broyés et sur grains entiers)

Reference number
ISO 6540:2021(E)

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Published in Switzerland

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 4, *Cereals and pulses,* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 338, *Cereal and cereal products,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 6540:1980), which has been technically revised. The main changes compared with the previous edition are as follows:

— Clauses 7 to 10 and 17 to 20 (now 4.5 to 4.9 and 5.4 to 5.7) and the annexes have been revised.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

The basic reference method and the routine reference method relating to cereals (see ISO 712) are only applicable to other cereals than maize and cereal products. Therefore, this document has been developed to specify the two methods for maize on the basis of research works published in 1979[4].

The basic reference method for maize, which is called the “absolute method”, requires special equipment and experienced personnel, and can only be applied in specialized laboratories.

Due to the very high moisture content that can be present in samples of maize (sometimes greater than a mass fraction of 40 %) and because of the size and texture of the grains, the determination of the moisture in maize raises problems with regard to its grinding and pre-drying.

Consequently, to allow the pre-drying and grinding to be avoided, this document also describes a routine method for whole grains. which is easier to use and allows working in series. Its response time is longer but the workload is lower, because of the absence of grinding. However, this practical whole grain method has a positive bias of about a mass fraction of 0, 30 % compared to the reference method.