
**Cocoa beans — Specification and
quality requirements**

Fèves de cacao — Spécifications et exigences de qualité



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on 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 the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 18, *Cocoa*.

This third edition of ISO 2451 cancels and replaces ISO 2451:2014, ISO 1114:1977 and ISO 2291:1980, which have been technically revised.

Introduction

The original International Standards on cocoa beans (ISO 1114, ISO 2291, ISO 2292 and ISO 2451) were developed many years ago when cocoa production was largely within the control of governments of cocoa producing countries. Accordingly, the quality regime for cocoa was embedded in the farm to port supply chain process supported by marketing boards, which executed a regulatory and supervisory function. Governments were more actively involved in the cocoa sector and therefore had a greater interest in, and adherence to, these International Standards. With the progressive liberalisation of the cocoa production process in many of the producing countries from the mid-1980s onwards, the interest in updating the International Standards for cocoa was rather diminished and, at the same time, the private sector in the international cocoa trade recognized there was a need to ensure that appropriate International Standards were maintained within commercial contracts in order to meet trade and industry requirements.

Consequently, this document seeks to integrate relevant parts of the above mentioned International Standards and to adapt new rules and processes to ensure that the correlation between International Standards and commerce is properly maintained.

Cocoa beans — Specification and quality requirements

1 Scope

This document specifies the requirements, classification, sampling, test methods, packaging and marking for cocoa beans.

Recommendations relating to storage and disinfestation are given as a guide in [Annexes G](#) and [H](#) respectively. [Annex I](#) is for informative purposes only and sets out a sampling procedure for preliminary quality analysis which can be adopted by agreement of all interested parties.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 2292:2017, *Cocoa beans — Sampling*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 2292 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

adulteration

alteration of the composition of a *lot* ([3.18](#)) of cocoa by any means whatsoever

3.2

bean cluster

two or more beans joined together which cannot be easily separated by using the finger and thumb of both hands

3.3

bean count

total number of whole beans per 100 g determined under specific conditions

Note 1 to entry: The specific conditions and the test method are specified in [Annex D](#).

3.4

broken bean

cocoa bean ([3.5](#)) of which a *fragment* ([3.14](#)) is missing, the remaining part being more than half of a whole bean

3.5

cocoa bean

seed of the cocoa tree (*Theobroma cacao* Linnaeus)

Note 1 to entry: Commercially, and for the purposes of this document, the term refers to the whole seed, which has been fermented and dried.