

This is a preview of "ISO 1212:1995". [Click here to purchase the full version from the ANSI store.](#)

STANDARD

1212

Second edition
1995-10-01

Apples — Cold storage

Pommes — Entreposage réfrigéré



Reference number
ISO 1212:1995(E)

This is a preview of "ISO 1212:1995". [Click here to purchase the full version from the ANSI store.](#)

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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 1212 was prepared by Technical Committee ISO/TC 34, *Agricultural food products*, Subcommittee SC 14, *Fresh fruits and vegetables*.

This second edition cancels and replaces the first edition (ISO 1212:1976), which has been technically revised.

Annex A of this International Standard is for information only.

© ISO 1995

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Organization for Standardization
Case Postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland

This is a preview of "ISO 1212:1995". [Click here to purchase the full version from the ANSI store.](#)

Introduction

This International Standard provides guidance of a very general nature only. Because of the variability of the product according to the time and place of cultivation, local conditions may make it necessary to define other conditions for harvesting or other physical conditions in the store.

This International Standard does not apply unreservedly, therefore, to all varieties (cultivars) in all climates, and it will remain for each specialist to be the judge of any modifications to be made.

Subject to all restrictions arising from the fact that apples are living material, application of the guidance contained in this International Standard should enable much wastage in storage to be avoided and long-term storage to be achieved in most cases.

This is a preview of "ISO 1212:1995". [Click here to purchase the full version from the ANSI store.](#)

This page intentionally left blank

This is a preview of "ISO 1212:1995". [Click here to purchase the full version from the ANSI store.](#)

Apples — Cold storage

1 Scope

This International Standard gives guidance on conditions for the successful cold storage of apples (*Malus communis* L.).

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 2169:1981, *Fruits and vegetables — Physical conditions in cold stores — Definitions and measurement.*

3 Conditions for harvesting and storage

3.1 Harvesting

The principal criteria used to determine the optimal state of maturity for harvesting are as follows:

- a) ease of picking (the fruit is picked when it is easily separated from its spur; this is not, however, an objective criterion);
- b) total soluble solids content of the juice (TSS);

- c) the ground colour of the outer skin (period of change from green to yellow) which is judged with the aid of standard tables;
- d) the age of the fruit, expressed as the number of days from full bloom to harvest;
- e) firmness of the flesh;
- f) presence of starch in the flesh;
- g) fruit should be placed in storage immediately before or at the preclimacteric respiratory minimum for best storage performance.

These criteria are not universally valid; for a given cultivar they vary from one region to another and it is for the grower to decide on his own criteria for picking, on the basis of experience.

3.2 Characteristics for storage

Fruits put into storage should be of quality "Extra Class" or "Class I", the characteristics of which are defined in UN-ECE Standard No. FFV-01¹⁾ as follows.

Apples are classified into three classes as follows.

a) "Extra" class

Apples in this category should be of superior quality. In shape, size and colouring they should be typical of the variety and the stalk should be intact. They should have no defects with the exception of very slight alterations of the skin provided that these do not detract from the quality and the general appearance of the fruit and/or the contents of the package.

1) UN-ECE Standard No. FFV-01:1981, *Dessert and culinary apples and pears.*