International Standard



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Green coffee — Determination of proportion of insect-damaged beans

Café vert — Détermination de la proportion de fèves endommagées par les insectes

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Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

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Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

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Green coffee — Determination of proportion of insect-damaged beans

0 Introduction

The method described in this International Standard is based on experience gained in the inspection of green coffee beans and in the investigation of the most frequent types of damage to the beans and of the insect species responsible for this damage.

Visual examination of the external surface of green coffee beans is the only practical way to identify and separate beans which have been attacked by insects; thus, the method described applies only to external damage caused by insects.

1 Scope and field of application

This International Standard describes the types of damage caused by insects to green coffee beans and specifies a method for the determination of the proportion of insect-damaged beans in a lot of green coffee, together with the statistical use of the result obtained for technical, commercial and arbitration purposes.

The method is applicable to green coffee as defined in

2 References

ISO 3509, Coffee and its products - Vocabulary.

ISO 4072, Green coffee in bags - Sampling.

3 Definition

For the purpose of this International Standard, the following definition applies.

insect-damaged bean: A coffee bean damaged externally by insects.

4 Principle

Visual examination of the external surface of green coffee beans to identity those which have been damaged by insects.

Determination of the observed proportion, as a percentage, of insect-damaged beans and, if possible, identification of the species of insect responsible for the damage.

From the proportion of insect-damaged beans thus determined

- estimation of the confidence limits of the true proportion of insect-damaged beans for a given probability
- estimation of the probability that the true proportion of insect-damaged beans will not exceed a given value.

5 Apparatus

5.1 Magnifying glass (recommended)

A magnification of X 5 is suitable for inspection of the surface of beans.

5.2 Sample-holder (optional)

The use of a sample holder having a given number of cavities, each capable of holding a whole coffee bean, facilitates counting and separation of beans.

6 Sampling

See ISO 4072.

7 Damage caused by insects

NOTE — Photographs are useful as a means of illustrating damage caused by insects and other types of damage visible on the external surface of the bean. Some photographic illustrations are given in annex A.

7.1 Description

A green coffee bean may show a great variety of damage caused by insects, from minor scars on the surface to a considerable number of holes and tunnels. It is usually impossible to distinguish minor damage from damage of mechanical origin and minor breakage.

For the purpose of this International Standard, only major damage is considered, i.e. those beans with clearly visible holes which are characteristic of insect damage and which cannot be mistaken for other damage.

If a bean shows several signs of damage, it is considered as a single damaged bean.