

# International Standard



# 2443

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

## Vines — Root stock, cuttings, scions and plants — Specification

*Bois et plants de vigne — Spécifications*

Second edition — 1980-08-01

STANDARDSISO.COM : Click to view the full PDF of ISO 2443:1980

UDC 634.8

Ref. No. ISO 2443-1980 (E)

**Descriptors** : plants (botany), vines, reproduction (biology), specifications, definitions, tests, laboratory tests, bioassay, packages, marking, dimensions.

Price based on 3 pages

# Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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.

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.

International Standard ISO 2443 was developed by Technical Committee ISO/TC 34, *Agricultural food products*, and was circulated to the member bodies in November 1978.

It has been approved by the member bodies of the following countries :

|                     |                |                       |
|---------------------|----------------|-----------------------|
| Australia           | France         | New Zealand           |
| Brazil              | Germany, F.R.  | Poland                |
| Bulgaria            | Hungary        | Romania               |
| Canada              | India          | South Africa, Rep. of |
| Chile               | Israel         | Spain                 |
| Cyprus              | Kenya          | Thailand              |
| Egypt, Arab Rep. of | Korea, Rep. of | Turkey                |
| Ethiopia            | Mexico         | Yugoslavia            |

The member body of the following country expressed disapproval of the document on technical grounds :

Czechoslovakia

This second edition cancels and replaces the first edition (i.e. ISO 2443-1974).

# Vines — Root stock, cuttings, scions and plants — Specification

## 1 Scope and field of application

This International Standard specifies requirements for vines, both grafted and rooted, and their root stock, cuttings and scions.

## 2 Definitions

### 2.1 Shoots, canes and cuttings

**2.1.1 shoot** : Green growing sprout.

**2.1.2 cane** : Shoot after ripening.

**2.1.3 graftable cutting** : Section of cane prepared for propagation and in particular cut 2 cm below the base of the lower bud, to form the rootstock of a grafted vine.

**2.1.4 nursery cutting** : Section of cane prepared for propagation and in particular cut 2 cm below the base of the lower bud, to form the stem of a rooted vine.

**2.1.5 scion** : Cane cut for grafting on to a stock.

### 2.2 Vines

**2.2.1 rooted vine** : Section of stem with generally two, and occasionally three, growth rings, with roots and a ripened shoot.

**2.2.2 grafted vine** : Sections of cane grouped and joined to form a single vine with roots and ripened shoot, the stem of which generally has two growth rings and in certain cases three.

**2.2.3 pot vine** : Vine, grafted or ungrafted, growing or dormant, in a pot or other container.

## 3 Non-apparent characteristics (detectable with certainty only by laboratory testing)

### 3.1 Genetic characteristics

#### 3.1.1 Taxonomic unit

Vine plant varieties (cultivars) shall be populations or clones which are distinguishable by morphological characteristics.

#### 3.1.2 Nomenclature

Vine plant varieties (cultivars) shall be described by name or number or by both in accordance with the International Code of Nomenclature for Cultivated Plants (1969), and by a reference number listed by the International Vine and Wine Office (IWO).

#### 3.1.3 References

In each country, named varieties shall be represented by a least five vine plants in one or several reference collections maintained by centres with the requisite facilities.

## 3.2 Health properties

Virus diseases affect the state of health of the material.

### 3.2.1 Virus diseases

The material shall fall into three categories determined by the standard of health selection.

#### 3.2.1.1 Clonally-selected material

Material obtained from the parent stock by vegetative propagation and subjected to permanent selection; the clone shall be identified by a special reference.

#### 3.2.1.2 Mass-selected material

Material selected from several selected parent stocks and propagated collectively without genealogical succession whilst remaining subject to permanent selection.

#### 3.2.1.3 Other material

### 3.2.2 Remark

Grafted vines may be a combination of two elements of differing health standards.

## 4 Apparent characteristics (verifiable by immediate inspection)

### 4.1 Shape and dimensions

#### 4.1.1 Graftable cutting, scion and nursery cutting

Dimensions shall conform to the requirements set out in table 1.

#### 4.1.2 Rooted vine and grafted vine

Dimensions shall conform to the requirements set out in table 2.

#### 4.2 Physical flaws or defects

Canes, cuttings and vines shall not have been

- frostbitten;
- totally or partially withered, or have been in this condition before being soaked in water;
- twisted, bruised, crushed, broken or damaged by hail, etc.

Canes and cuttings shall not have been freed from mud or soil.

Not more than 4 % of the units in a lot shall fail to comply with the requirements of this sub-clause.

#### 4.3 Anatomical or physiological characteristics

Canes and cuttings, the stems and ripened shoots or rooted vines and grafted vines, shall contain reserve substances (starch) detectable by the appropriate analytical methods.

Canes and vines stems shall not display any anatomical abnormality likely to affect their value.

#### 4.4 Pathological characteristics

Diseases and parasites other than virus diseases may be detected by immediate inspection of the infected material; their appearance or presence may be tolerated, provided that the usefulness of the material is not impaired thereby.

### 5 Sampling

Sampling shall be carried out from not less than 1 % of bundles or bunches, so as to ensure a minimum sample of 50 units for scions and cuttings, and 20 units for rooted vines, grafted vines and pot vines.

The samples taken shall be suitably packed and sent immediately to the laboratory responsible for examination.

### 6 Methods of test

Complete examination of the samples consists of

- an immediate inspection;
- laboratory testing.

Either or both examinations may be carried out.

#### 6.1 Immediate inspection

Immediate inspection shall be carried out to provide information

- in percentages : on shape, rooting, growth, incorrect size, physical flaws or defects;
- by assessment (backed up, if necessary, by a percentage) : of anatomical, physiological and pathological characteristics.

#### 6.2 Laboratory testing

Examination in the laboratory concerns the non-apparent characteristics (identity of the variety, growth potential, health) which can only be checked by means of a cultivation test.

Once the sample is taken, it shall be packed and forwarded immediately to the organization where the reference collection is kept.

This organization shall proceed as follows with the samples, which are planted either in nurseries or in the laboratory :

- to determine the growth potential;
- to identify the variety and, if possible, the clone;
- to assess health by visual detection of virus symptoms and, if applicable, by more thorough checks.

The testing organization shall proceed, either before or after planting this material, with the biological tests that were envisaged when the samples were taken but which could not be carried out at the time.

### 7 Packing

The following requirements shall be applicable unless otherwise agreed.

7.1 Graftable cuttings, scions and nursery cuttings shall be tied in bundles or bunches :

- graftable cuttings : 200 units;
- scions :
  - when there are five usable buds, 100 to 200 units,
  - when there is one usable bud, 500 units, or a multiple of 500 units;
- nursery cuttings : 200 or 500 units.

7.2 Vines shall be packed as follows.

7.2.1 Rooted vines shall be tied in bundles, or bunches, of 50 units.

7.2.2 Grafted vines shall be tied in bundles, or bunches, of 25 units.

7.2.3 Pot vines shall be packed singly.

Table 1

| Cuttings and scions                  | Minimum length <sup>1)</sup>                          | Largest diameter        |      |                         |
|--------------------------------------|-------------------------------------------------------|-------------------------|------|-------------------------|
|                                      |                                                       | Small end <sup>2)</sup> |      | Large end <sup>3)</sup> |
|                                      |                                                       | min.                    | max. | max.                    |
|                                      | cm                                                    | mm                      | mm   | mm                      |
| Graftable cuttings, all varieties    | 105 <sup>4)</sup>                                     | 6,5 <sup>4)5)</sup>     | 12   | 14                      |
| Scions <sup>6)</sup> , all varieties | 50 <sup>7)</sup><br>6,5 <sup>8)</sup>                 | 6 <sup>4)</sup>         | 12   | 14                      |
| Nursery cuttings, all varieties      | 50 <sup>1)</sup><br>(30 for <i>Vitis vinifera</i> L.) | 3,5 <sup>4)</sup>       | —    | —                       |

## 8 Marking

All bundles and bunches shall bear labels showing at least the following four items of information, which shall also appear on all accompanying documentation.

### 8.1 Variety

Description in accordance with the nomenclature mentioned in 3.1.2

### 8.2 State of health (virus diseases)

The standard of health shall be indicated

- in the case of clonal selection : by the reference of the clone;
- in the case of mass selection : by indicating this selection method;
- in the case of other material : no indication.

#### NOTES

1 In the case of all grafted vines and for all other grafts in general, these two items of information (8.1 and 8.2) shall be shown on the label for the scion and for the stock respectively, in this order and separated by one of the following :

..... grafted on .....  
 ..... on .....  
 ..... / .....

2 In the case of rooted vines and for grafted vines, the age (1 or 2 years) shall be shown.

### 8.3 Lot identification

Reference and number of lot.

### 8.4 Other informations

Name, address or trade mark of consigner and identification of producer and country of production.

## 9 Transport

Packing, handling and transport shall be accompanied by all precautionary measures for the prevention of any damage, especially by frost and drying-out.

1) Measured from the base of the lower node to the apex, taking into account the upper internode.

2) Upper end.

3) Lower end.

4) Unless otherwise agreed.

5) At least 25 % of the cuttings shall be 7 mm.

6) A scion shall have at least half an internode at the base.

7) With at least five graftable buds.

8) When there is only one usable bud, cutting is carried out at a minimum distance from the bud of

- 1,5 cm above;
- 5 cm below.

Table 2

| Vine                         | Minimum stem diameter <sup>1)</sup> | Minimum diameter <sup>2)</sup> |
|------------------------------|-------------------------------------|--------------------------------|
|                              | cm                                  | cm                             |
| Rooted vine <sup>3)</sup>    |                                     |                                |
| — <i>Vitis vinifera</i> L.   | 22                                  | 5                              |
| — stock                      | 30                                  | 5                              |
| — other vines                | 22                                  | 5                              |
| Grafted vine <sup>3)4)</sup> | 20                                  | —                              |

1) From the base of the root to that of the upper shoot.

2) Measured across the centre line in the middle of the internode below the cane..

3) At least two deep roots, opposite each other, or three well-distributed ones.

4) The graft shall be firm.

STANDARDSISO.COM : Click to view the full PDF of ISO 2443:1980