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Cauliflowers — Guide to cold storage

*Choux fleurs — Guide pour l'entreposage par réfrigération*

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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.

International Standard ISO 949 was developed by Technical Committee ISO/TC 34, *Agricultural food products*.

It was submitted directly to the ISO Council, in accordance with clause 6.13.1 of the Directives for the technical work of ISO. It cancels and replaces ISO Recommendation R 949-1969, which had been approved by the member bodies of the following countries :

Australia	Hungary	Norway
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France	Netherlands	U.S.S.R.
Greece	New Zealand	Yugoslavia

No member body expressed disapproval of the document.

# Cauliflowers – Guide to cold storage

## 1 SCOPE AND FIELD OF APPLICATION

This International Standard sets out methods for obtaining conditions for the successful storage of cauliflowers of the varieties derived from *Brassica oleracea* (Linnaeus) var. *botrytis* (Linnaeus).

## 2 REFERENCE

ISO 2169, *Fruits and vegetables – Physical conditions in cold stores – Definitions and measurement.*

## 3 CONDITIONS OF HARVESTING AND PUTTING INTO STORE

### 3.1 Harvesting

Cauliflowers intended for storage should be harvested before maximum development of the curds. They should preferably be harvested in the morning.

The date of harvesting should be determined according to the state of maturity of the curds. In hot weather, a delay of even one day in harvesting may cause yellowing, splitting and spreading of the curds.

### 3.2 Quality characteristics for storage

The curds should be fresh in appearance, whole, sound and clean, free from defects such as evidence of attack by rodents or insects, and free from visible signs of disease, frost damage or bruising. Curds showing blemishes from any source should be excluded. As far as possible, the curds should be free from traces of water in the liquid state.

### 3.3 Treatment before storage

It is not recommended that the cauliflowers should be washed before storage. Moreover, it is not recommended that all the leaves should be retained. A few protective leaves and a stalk cut short give the most favourable conditions.

### 3.4 Putting into store

The cauliflowers should be sent to the cold store as soon as possible after harvesting, as after even 48 h at a temperature of 15 °C, the curds begin to yellow and changes due to bacteria or fungi become evident. These changes are irreversible. If transport between the place of harvesting and the cold store requires several days, the cauliflowers should be cooled before transport.

### 3.5 Method of storage

The best types of packages are wooden crates of open construction. It is recommended that the cauliflowers should be arranged in two layers at most, subject to a sufficient quantity of outer leaves being left. The upper layer should be arranged in such a way as not to injure the curds of cauliflowers in the lower layer. Cauliflowers which have lost their protective leaves should be arranged in one layer only, with their curds upwards.

Parchment paper or plastic foil (such as polyethylene, polyvinyl chloride, etc.) may be used to retard the loss of moisture. These materials may be used either to line the boxes or to cover a stack of crates.

## 4 OPTIMUM STORAGE CONDITIONS<sup>1)</sup>

### 4.1 Temperature

It is recommended that the cauliflowers should be stored at a temperature within the range 0 to 2 °C. Temperatures below 0 °C lead to changes due to frost. The temperature chosen should be kept constant during the period of storage.

### 4.2 Relative humidity

It is recommended that the relative humidity should be 90 %. Lower relative humidities lead to withering of the curds, and consequently to a shorter storage life.

1) For definitions and measurement of the physical quantities affecting storage, see ISO 2169.