
International Standard



6000

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Round-headed cabbage — Storage in the open

Choux pommés — Entreposage en plein air

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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 6000 was developed by Technical Committee ISO/TC 34, *Agricultural food products*, and was circulated to the member bodies in February 1980.

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

Brazil	Israel	Poland
Bulgaria	Kenya	Portugal
Cyprus	Korea, Dem. P. Rep. of	Romania
Czechoslovakia	Korea, Rep. of	South Africa, Rep. of
Egypt, Arab Rep. of	Malaysia	Spain
France	Netherlands	Turkey
Hungary	Peru	USSR
Ireland	Philippines	Yugoslavia

No member body expressed disapproval of the document.

Round-headed cabbage — Storage in the open

0 Introduction

Cold storage of round-headed cabbage is practically unknown in a number of countries; on the other hand, storage in enclosed spaces, without artificial cooling, is better known, but most round-headed cabbage is commonly stored in clamps (temporary silos) constructed outdoors. This has resulted in the storage technique being largely dependent on local conditions, but, although the simple methods of storage are very well known, it is also necessary to describe them.

1 Scope and field of application

This International Standard lays down guidelines relating to the technique of storing round-headed cabbage (*Brassica oleracea* var. *capitata* Linnaeus sv. *alba* and *Brassica oleracea* var. *capitata* sv. *rubra*) outdoors, to allow a quality suitable for consumption or industrial use to be maintained.

2 Harvest and storage conditions

2.1 Cultivars

The storage techniques described apply equally to all cultivars of cabbage, the keeping of which is of economic interest. Differences due to the weather, soil conditions and other environmental factors in various regions and growing areas, are considerably greater than differences in cultivars.

However, cabbages of the late cultivars are generally more suitable for storage; so are cabbages grown in light or semi-compact soil.

2.2 Harvest

Cabbages intended for storage shall be ripe, headed and firm. A late harvest favours cracking during storage.

Cabbages harvested from humid soils are less suitable for storage, and irrigation should, therefore, be stopped at least 15 days before harvesting. They shall be harvested in dry weather, at a temperature below 10 °C. The optimum temperatures range from 0 to 5 °C. To avoid damage caused by freezing, cabbages shall not be harvested, handled or transported if the outdoor temperature is below 0 °C. It is recommended that cabbages harvested in wet weather be allowed to dry before storage.

The stem of the heads shall be cut between 1 and 2 cm below the level of the outer leaves; the cut shall be clean and smooth.

2.3 Quality

Cabbages intended for storage shall be whole, fresh in appearance, undamaged, sound and healthy, clean, and, in particular, free of soil and traces of water. Heads showing signs of attack by parasites or diseases or showing pronounced bruises or deterioration due to freezing shall be rejected.

Before storage, it is convenient to remove dead or damaged outer leaves from the heads.

Heads having a mass between 2 and 2,5 kg are most suitable for storage in the open air.

2.4 Putting into store

Cabbage of convenient maturity and suitable for storage shall be put into store as quickly as possible after harvesting. Prior to putting into store, however, the crop shall be dried in a ventilated place protected against frost. During drying, the outer leaves lose their brittle character and adhere tightly to the head. Dried cabbages are less sensitive to damage and disease. The duration of drying shall be 36 to 48 h when cabbages are not sufficiently dry during selection.

It is recommended that cabbages be stored at low temperatures.

2.5 Method of storage

The clamp (a cabbage pile of a roughly triangular cross-section) shall be situated in a location sheltered from water or atmospheric condensation, orientated, if possible, to take into account the prevailing winds. The depth, height, covering and ventilation of clamps vary according to country; different types of clamps may be combined :

- clamps with or without ventilation channels;
- clamps with or without covering;
- underground or soil surface clamps.

Underground clamps provide better storage conditions, notably more uniform temperatures and humidities. However, these types of clamp can be installed only in light and sandy soils and in dry soils. Soil surface clamps are constructed on