

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION R 1026

FRUIT AND VEGETABLE PRODUCTS
DETERMINATION OF TOTAL SOLIDS

1st EDITION
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BRIEF HISTORY

The ISO Recommendation R 1026, *Fruit and vegetable products – Determination of total solids*, was drawn up by Technical Committee ISO/TC 34, *Agricultural food products*, the Secretariat of which is held by the Magyar Szabványügyi Hivatal (MSZH).

Work on this question led, in 1966, to the adoption of a Draft ISO Recommendation.

In April 1967, this Draft ISO Recommendation (No. 1212) was circulated to all the ISO Member Bodies for enquiry. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Argentina	India	Romania
Australia	Iran	South Africa, Rep. of
Brazil	Ireland	Thailand
Bulgaria	Israel	Turkey
Colombia	Korea, Rep. of	U.A.R.
Czechoslovakia	New Zealand	United Kingdom
France	Norway	U.S.S.R.
Greece	Poland	Yugoslavia
Hungary	Portugal	

One Member Body opposed the approval of the Draft :

Netherlands

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in March 1969, to accept it as an ISO RECOMMENDATION.

FRUIT AND VEGETABLE PRODUCTS

DETERMINATION OF TOTAL SOLIDS

1. SCOPE

- 1.1 This ISO Recommendation describes two methods for the determination of total solids in products derived from fruits and vegetables :

the drying method;
the water-recovery method.

1.2 Field of application

The drying method, which consists in weighing the product before and after drying under defined conditions, is applicable to all fruit and vegetable products, with the exception of products for which drying would be too protracted, or would modify the state of the components, and of certain products having a water content below 10 %.

In these last-mentioned cases the water-recovery method, which consists in measuring volumetrically the water recovered, should be used; entrainment by a volatile solvent affords a means of avoiding the inclusion of matter soluble in the solvent, in the determination, as would occur in a classical extraction by washing. This method, however, is delicate and calls for great care; it can be used within the limits of applicability mentioned above, but certain restrictions should be mentioned, for example when the product is rich in fructose or in certain volatile substances.

2. DRYING METHOD

2.1 Definition

By *total solids* is meant the whole of the substances which do not volatilize under the physical conditions of drying defined in this ISO Recommendation. These physical conditions have been chosen so that the substances constituting the total solids will undergo as little change as possible.

2.2 Principle

Heating to constant mass, after thorough mixing, of liquid products spread over an absorbent surface, or of pasty products mixed with an inert powder, at a moderate temperature under reduced pressure.

The products thus lose not only their "free" water, but their volatile matter. If the result obtained is indeed the total solids, the loss in mass is greater than the initial water content, especially in fermentation products.