



Introduction to the conservation of tropical fruits

Abstract



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Tropical fruits are increasingly present on European markets and increasingly familiar to consumers. Their nutritional qualities are praised in numerous advertisements that encourage housewives to know, choose and purchase these fruits for their levels of vitamins, magnesium, antioxidants or micro-nutrients. The trend towards linking the quality of this produce with health has led scientists to focus research on the techniques that conserve these qualities for the consumer and enable their

improvement during production and harvesting in the producer country. Research work covers the following aspects:

- **before the harvest:** quality build-up and improvement in fruits (improvement of harvesting dates, especially for mango);
- **post-harvest:**
 - the maintaining of this quality and the lengthening of the life of tropical fruits (the final aim would be the sea transport of practically

ripe fruits). This would make it possible to improve the taste qualities of the produce and to reduce export costs by favouring sea transport rather than air freight;
- the use of conservation techniques that allow for consumer requirements and wishes, with maximum use of natural substances or the limiting of storage techniques whose effects on human health are not yet known ■



French regulations concerning post-harvest treatments of tropical fruits and vegetables

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The use of chemical or natural substances on fruits and vegetables is a common practice and makes it possible to address the quality of harvested produce. It is particularly useful for tropical fruits and vegetables whose transport sometimes takes a long time. Appropriate substances and techniques can be used so that this produce conserves appearance and organoleptic qualities that meet consumer demand.

Post-harvest treatment: use on fruits and vegetables of products that are in the agricultural practice and food technology category

The phytosanitary aspect

The use of post-harvest treatments is subject to regulations in both the

sphere of food, with regard to food additives, and that of agriculture, with regard to the use of pesticides.

The use of pesticides in agriculture is governed by a series of very precise legislative acts, for reasons of the health and environmental risks inherent in the unsuitable use of such products.

It should be noted that:

- 'The sale, use and possession of products ... for which a marketing authorisation has not been awarded is forbidden...'
- 'The use of products (pesticides) under conditions other than those laid down in the authorisation decision and mentioned on the label is forbidden, ...'

(Law No 525 of 2 November 1943 concerning the organisation of the

control of pesticides for agricultural use, the latest amendment being Law No 99-574 of 9 July 1999 – Agricultural orientation law)

To determine the risks related to pesticides and issue marketing authorisations with full knowledge of the facts, the Ministry of Agriculture possesses several decision-making and concertation authorities, and especially the Commission of pesticides for agricultural use and similar products (made up of experts on the subject) and the Committee for the registration of pesticides for agricultural use and similar products (consisting of representatives of the various ministries concerned and the *Institut national de la recherche agronomique*).

Marketing authorisations are issued by the Ministry of Agriculture and Fisheries after an opinion from the