

SUN DRYING BANANAS

by Theresa Siebert



Bananas and plantains are today grown in every humid tropical region and constitute the 4th largest fruit crop in the world. The fruit (technically a berry) turns from deep green to yellow or red. Stalks of bananas are usually formed in the late summer and then winter over. For tree-ripened fruit, cut one hand at a time as it ripens. Banana slices are dried in direct sun, on racks for 5-7 days. Hot, dry conditions are required for the successful drying of any fruit. Sun drying reduces the moisture content of the bananas to 15%. The product is soft and leathery with a characteristic banana flavour.

HARVESTING

Bananas are harvested at full size as soon as the peel turns yellow. It is important that the bananas should not be overripe.

SORTING

The fruits are inspected for fullness of the fruit, size, freedom from defects, infections, or any damage inflicted during harvesting. Only sound bananas can be processed. The bunch of bananas is divided into smaller bunches by cutting the "hands" from the central stem. Any remaining floral relics are also removed from the tip of the fruit "fingers". The hands are placed in water to reduce bruising and to remove the latex that seeps from the cut surface. The hands are removed from the water and allowed to drain while being sorted according to size. Large hands are subdivided into clusters of 4-10 fingers of similar size, while any damaged, deformed, or blemished fingers are removed.

PEELING

The ripe bananas are peeled by first topping and tailing the fruit and then by slitting the skin lengthways with a sharp knife. The rest of the peel is stripped by hand. Careful handling should be practised as even slight bruising will lead to severe browning upon drying.

SLICING

The bananas are sliced along the long axis into 6mm thick "coins" to ensure maximum yield. Longitudinal slices or halves can also be made, but are not uniform in size, and would thus not favour even dehydration. It is very important that the bananas should be always handled hygienically and with great care to prevent bruising during slicing. For the same reason, the knives used should be of high-quality stainless steel and always kept sharp.

PRE-TREATMENT

Various pre-treatments can be given to banana slices to preserve the product colour, extend the keeping quality, and to increase the drying rate.

Sulphuring: Sulphur dioxide preserves the natural colour of the product, while prohibiting enzymatic browning reactions and limits the loss of important nutrients such as ascorbic acid. The banana slices may be sulphated by soaking it in a 1-2% sodium or potassium metabisulfite solution for 3-5 minutes for "coins" and 5-10 minutes for halves.

Brining: Discolouration can be effectively prevented while the drying rate is increased by placing the banana slices in a brine containing 1-1.5% salt for 5-10 minutes.

Acidification: The banana slices can also be dipped in a 2.5% lemon juice for 5-10 minutes.

The treated fruit pieces are rinsed with fresh, potable water prior to further processing to remove excess chemical, salt or acid on the surface of the fruit that could otherwise affect the taste of the final product.

Honey dip: A dip is prepared by heating 700-750ml water and 250ml sugar until dissolved, then adding 250ml honey. The banana slices are dipped in this mix for 5-10 minutes to give it a glaze that improves taste and colour retention.

Blanching: The banana slices may also be blanched by exposure to steam for 2-3 minutes to inhibit enzymatic browning and increase the drying time.

Of all the above-mentioned methods, sulphuring is the most effective, but take note that some persons with allergic, respiratory problems, may object to the use of a chemical preservative.

SUN DRYING

The banana pieces are spread out in a single layer on some sort of support and placed in the sun. The support can be anything from a plastic sheet, slotted wooden racks or trays. It is important that the surrounding area be protected and well covered to minimize dust contamination. The time required to reach the final moisture content of between 15-20%, varies according to the weather

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