

# Strawberry and other berry juices

by Theresa Siebert

Berry juice is the liquid derived from crushed berry fruits such as strawberries, grapes, currants, gooseberries etc. The juice is pure and contains no additives. It relies on pasteurisation and packaging for its preservation. The storage-life is several weeks, depending on the storage conditions and pH of the product. The juice should be consumed immediately after opening.



**T**he strawberry is a very popular member of the berry family, not only as a fresh fruit but also because of its versatility for many types of processing, including homemade strawberry juice.

## **HARVESTING:**

The berries are picked by hand as soon as they are fully ripe, but not overripe. It should be handled very carefully to ensure minimum damage to the fruit. Bruising results in rapid deterioration and browning which in turn shortens the storage-life of the juice. The berries should be harvested in the early morning when it is still cool and juiced as soon as possible.

## **SORTING:**

Sorting is done to select the best suitable raw material for manufacturing the value-added product, in this case, strawberry juice. The berries are spread out on a table for sorting and trimming. All green or overripe, insect-infested, rotten or severely damaged fruit are removed and discarded. Minor defects may be trimmed away using a sharp stainless-steel knife. The sorted berries are collected in buckets or baskets for washing.

## **WASHING:**

The berries are dumped gently into tanks containing clean water. The water and berries are stirred very lightly for a few minutes before the clean berries are removed and strained using slotted spoons, strainers, or any other perforated scoop. The cleaned berries may be given an additional rinse under running water.

## **HEATING OF THE BERRIES FOR JUICE:**

This is an optional step in the processing but is very beneficial. The berries may be heated prior to crushing and juicing. Heating softens the fruit, making it easier to extract the juice. Heating also ensures better-coloured juice.

Heating takes place in a lidded pot or kettle that contains a little water, and a rack, which supports a bowl to catch the juice formed during heating. The berries are placed in a double muslin cloth – one of course weave and one of fine weave – fitted over the pot and secured fast with the lid. The pot is heated to boil the water. The steam that is generated in this way heats the fruit. As the berries are steamed, they start to soften and juice seeps through the cloth and drips into the bowl below. After 10-20 minutes of steaming the berries are removed and transferred to the crusher/press. The collected juice, called free-run juice, is saved and remixed with the pressed juice.

## **CRUSHING OF BERRIES FOR JUICE:**

Berries that have not been heated are crushed prior to pressing. Heated berries are usually pressed immediately after heating but may also be crushed. A simple lever-operated crusher is used to crush the fruit. Turning the lever causes the crushing rollers or blades to rotate. The crushed fruit passes through to the collecting barrel or bucket below from where it is transferred to the press.

## **PRESSING:**

The crushed or heated berries are pressed by a simple plate press that is manually operated. The pressed juice escapes through perforations in the side or bottom of the pressing barrel from where it is collected in another pan or bucket.

## **FILLING INTO JUICE BOTTLES:**

The bottles into which the juice is filled, should be properly cleaned and sterilised prior to filling. Cleaning is achieved with soapy water and bottlebrushes. The washed bottles should be rinsed to remove all soapiness.

Sterilisation is achieved by steaming the inside of the bottle. Bottle tops and caps are sterilised in boiling water. The juice is filled into the clean, sterilised bottles using a bucket and funnel, or a bucket with a tap fitted for easy dispensing. It is important that the juice is thoroughly mixed before and during filling to ensure that pulp particles remain suspended in the juice and the contents of each bottle is the same.

## **CAPPING:**

The screw tops or caps are only lightly fitted onto the bottles prior to pasteurisation.

## **PASTEURISATION:**

The bottled juice is pasteurised in boiling water for 8-10 minutes.

## **COOLING AND SEALING:**

The hot bottles are removed from the water bath and placed on a solid surface to cool. Only after the bottles have cooled, are the screw tops fastened, and the push-on caps secured.

## **STORAGE OF THE STRAWBERRY JUICE:**

The juice should be stored in a cool place, away from sunlight. It is normal for sediment to form on the bottom of the bottle upon standing.



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Enquiries: [siebertt@arc.agric.za](mailto:siebertt@arc.agric.za)

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