

# Pickling of Asparagus

by Theresa Siebert



**A**sparagus *officinalis* is a native to Europe and Asia. The young shoots are the edible part. The stalks shoot up from the crown of the plant and grow into fern-like leaves when allowed to develop. The edible stalks are harvested by hand before the actual fern leaves develop. It takes 3 years from the sowing of the seed to the first harvest. The plants are either male or female, with the male producing more stalks of a smaller size, and the female plant producing less stalks but larger in size. Asparagus is one of the few vegetables that are grown as a perennial since the plants have a lifespan of about 10 years.

There are green, white, and purple varieties. White asparagus comes from the process of etiolation, which is the deprivation of light. Dirt is kept mounded around the emerging stalk, depriving it of light. The plant cannot produce chlorophyll without light. Thus, there is no green colour in the stalks. Stalks produced in this way are harvested as soon as the tips appear above the soil.

Pickling preserves asparagus by the addition of salt and acid in a suitable container. Asparagus are usually pickled as whole spears, alone or with the addition of other ingredients. Spices can also be used.

## HARVESTING

Harvesting lasts for 2-3 months as the stems emerge in spring. Asparagus are harvested by hand by cutting the stem with a sharp knife 3-5cm below the soil surface at a growth length of approximately 20cm. The harvest must be processed as soon as possible, as it will become tough and lose its sweetness.

When the harvesting season is over, the stems are allowed to grow to nourish the underground rhizomes for the next year's crop.

## SORTING

The stalks are spread on a table where the loose debris such as sticks and stones are removed. Any damaged, shrunken, or broken stalks are also removed.

## CLEANING AND WASHING

The asparagus is washed in a large bath filled with potable water to remove all soil and plant rests adhering to the crop. The wash water must be regularly changed to minimize the chance of any contamination. If necessary, the stalks can then be stored in cold water baths or tanks until processing begins.

## TRIMMING, SORTING, AND INSPECTION

Trimming is the deliberate removal of unwanted or unfit fractions of a food product while sorting is done to select the best suitable raw materials for manufacturing the value-added product. Any damaged or immature sections must be removed.

## BLANCHING

Blanching is a short heating process, immersion in hot or boiling water or steam, whereby food products are heated to a certain temperature that is high enough to inactivate the enzymes responsible for undesirable changes in colour and flavour.

Blanching must be done as soon as possible after preparation and immediately before processing. Vegetables are living plants that continue respiring after harvest. Enzymes start to break down tissues after harvesting and these waste products can be the ideal growth medium for micro-organisms, which change the taste and flavour of the product. Heat treatment prevents enzymatic and microbiological deterioration by inactivating the enzymes and killing plant tissue.

The disadvantage of blanching is the loss of nutritive value due to water-soluble vitamins dissolving in the blanching water. This can be contained by a short exposure time.

Water blanching is the traditional form of blanching where the product is kept in warm water (60-85°C) for 2-5 minutes and then cooled. Some solutes leach from the product into the scald liquor, which should be allowed to build up because this minimises the leaching losses.

## BRINING

Brining is the addition of dry salt or a salt solution. The asparagus can be packed directly into a brine with an 8-13% salt concentration. The asparagus should be covered with brine and left overnight. The brine is then drained.

## RINSING

The salt content of the final product will be too high if the asparagus are packed directly into the acid liquor. The stalks are briefly rinsed in water and allowed to drain thoroughly.

## FILLING OF THE PICKLED ASPARAGUS

The asparagus is packed into suitable containers with a packaging liquor. The packing liquor is made from natural or distilled malt vinegar, spirit vinegar, acetic acid or any desired combination according to taste. Spices can also be used. The spices are usually in concentrated extract form and may include ginger, pimento, black pepper, chillies, cloves and coriander.

The final acidity of the product will depend on the acidity of the packing liquor and on the ratio of asparagus to liquor. The liquor can also be added to the asparagus in bulk and allowed to stand for a few days before repacking into jars. This minimises the effect of minor variations in asparagus-to-liquor ratio on the final acidity of the finished pack.

The asparagus may be kept tightly covered under refrigerated conditions for several months.



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