

MODULE – 19: Cardamom bleaching

19.1 Cardamom bleaching

Bleaching can be undertaken with dried capsules or freshly harvested capsules. The bleaching of fresh capsules is undertaken by soaking for one hour in 20% potassium metabisulphite solution containing 1% hydrogen peroxide solution to degrade the chlorophyll. On drying these capsules yield a golden yellow colour. The bleaching of dry capsules can be undertaken by a number of methods viz sulphur bleaching, potassium metabisulphite with hydrochloric acid and hydrogen peroxide, hydrogen peroxide, or the traditional method by steeping in soap-nut water.

The quality requirements vary depending on the end use and are related to moisture level, cleanliness, content of sub-standard product, extraneous matter, appearance and colour, for example if the processor values the extractives, volatile oil and specific ingredients. There are specific quality standards for India and Sri Lanka. Although cardamom is usually sold in the form of dried capsules, cardamom is also processed into various products such as seeds, powder, oil, oleoresin, and encapsulated flavour. Cardamom seeds are obtained by decorticating the capsules by use of a plate mill. The ratio of seeds to husk is 30:70. The storage of cardamom seed needs care to maintain the essential oil and boxes lined with aluminum foil are favoured. Cardamom as a powder gives the maximum flavour to the food products but the disadvantage is that it loses aroma quality by the loss of the volatiles.

19.1.1 White Cardamom:

Is simply Green Cardamom that has been bleached with sulfur dioxide for aesthetic reasons. The bleaching process tempers the dominant menthol character resulting in a sweeter mellower flavor that is the preferred style of cardamom in Scandinavian baked goods like cookies, muffins, buns and spiced cakes.

19.1.2 Malabar (sometimes called Thai cardamom):

Is a smaller rounder pod with more prominent floral notes. As Malabar pods dry and develop their best flavor the pods fade to a beige color. Like white cardamom, Thai cardamom has a more floral, less camphor flavor than green cardamom. The green is highly preferable, especially if whole pods are used, as the bleaching process removes some of the flavor. In India, pods that are evenly bright green are sold that way at a higher price, and unevenly colored pods are bleached. In addition to the green cardamom capsules, there is a bleached cardamom product that is creamy white or golden yellow in colour.

SUGGESTED READINGS:

- Kvitvik T. (2001). Cultivating and collecting cardamom (*Amomum* spp.) and other NTFP'S in Muang Long district, Luang Namtha, Lao PDR province.
- E. Jayashree Scientist (SS) 2005. Value addition of major spices at farm level Agricultural Structures and Process Engineering Indian Institute of Spices Research Calicut.