

# **Indigenous Traditional Method for Making Liquid Detergent “Chhoa” from *Zea mays* Linn. in Shivalik Hills (Himachal Pradesh), India**

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## **Abstract**

In the past, herbal liquid detergent was in regular use but with modernization this traditional indigenous knowledge depleted and at present is in use to a limited extent in some rural pockets of Shivalik hills. Dried maize (*Zea mays* Linn.) stems are burnt to ash and are put into a bamboo basket with a bottom layer of paddy straw. After pouring boiling water over ash, herbal liquid detergent is obtained as a final product. It is eco-friendly and a classic example of sustainability concept.

**Keywords:** Shivalik hills, Liquid detergent, Indigenous, Leachate.

## **Introduction**

Shivalik hills or the lower hills of Himachal Pradesh in ancient times were known as ‘Manak Parvat’ to geographers. It literally means the “tresses of Shiva”. The altitude ranges from 350m to 1,500m above the sea level (4). Maize (*Zea mays* Linn.) belonging to family Poaceace is a major kharif crop of this region. It is sown in May-June and harvested in September-October. Stems of the crop are used as a fuel or left as such.

About 30-40 years ago, maize stems are the source of frequently used herbal liquid detergent, traditionally known as “Chhoa”. As the time passed and with the development of chemical detergents, this indigenous technology for forming a liquid detergent fell to the jaws of modernization. In present scenario, it is practiced only in some pockets of this region to a limited extent.

Very little information is available about the plants used as detergents in various parts of India (1, 3), (5-7).

This paper deals with an indigenous method to form herbal liquid detergent developed by the rural of Shivalik hills.

## Methodology

In order to know and understand the process, knowledgeable informants were repeatedly interviewed and the specific questions were asked. The whole process was also observed in the rural communities of Shivalik hills and the resultant informations were recorded in the ethnobotanical field notebook (2).

## Observations and Results

The stems of maize are collected and are dried in sunlight. The dried stems are burnt and ash is kept in a bamboo (*Dendrocalamus hamiltonii* Nees & Arn. ex Munro) basket with a bottom layer of paddy (*Oryza sativa* Linn.) straw. Basket is supported with wooden logs and is placed on an empty earthen container. Hot boiling water is poured over ash. Water passes through the ash and is filtered through paddy straw. The leachate obtained in this manner is the final product “Chhoa” *i.e.* herbal liquid detergent, and is used for washing clothes by the local communities especially for cotton and wooly clothes. The ash is replaced after seven days and the same process is repeated time and again.

## Discussion

Present findings revealed that traditional indigenous knowledge is depleting day by day. Although indigenous methods and herbal products are eco-friendly, so we must document and conserve this knowledge for future generations. The present findings is one of the finest example of using wasted or unutilized resources in an eco-friendly and sustainable manner, and moreover it is cheaper to rural inhabitants.

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