

HEENG CULTIVATION IN INDIA: A STEP FORWARD TOWARDS ATAM NIRBHAR BHARAT

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INTRODUCTION

Heeng or Asafoetida (*Ferula asafoetida*) is an essential spice in many Indian dishes. It is a perennial plant and it produces oleo-gum resin from the roots after five years of plantation. It can be grown in unutilized sloppy land of cold desert regions. The spice is extracted from the stem and tap root of the plant. It has pungent smell and named as 'devil's dung' or 'food of the devils' in the West. India, though, has more prosaic names, such as hing in Hindi and perungayam in Tamil. This plant is native to the deserts of Iran and mountains of Afghanistan where it is grown in a substantial amount. India consumes around 50% of the total production in the world. Despite this, the spice was not being grown in India, and the entire demand was met from imports, around 90% from Afghanistan. Currently, around 1200 tons of raw heeng worth around Rs 600 crore is imported annually from Afghanistan, Iran and Uzbekistan to India. Although there is no cultivation in the country, it is processed in India using imported raw heeng.

SPICE PROFILE OF ASAFOETIDA

Asafoetida is bitter in taste and hot in effect, and can also be used to enhance flavours in roasted meat dishes. Asafoetida gives a comforting onion-garlic flavour in curries. It has a lingering taste that adds a special umami flavour to your dish. Commercially sold asafoetida is mixed with wheat flour and gum Arabic to temper the acrid taste of the resin. The additives help to adjust the concentration of the asafoetida according to its usage. Hing kabuli sufaid (milky white asafoetida) and hing lal (red asafoetida) are the two types of resin available in the market. The white or pale variety is water soluble, whereas the dark or black variety is oil soluble.

OTHER PROPERTIES OF ASAFOETIDA

Asafoetida is often used as an instant remedy for heartburn, indigestion, constipation and reflux.



According to Ayurveda, it has the ability to balance all the three doshas.

FIRST EVER PLANTATION OF ASAFOETIDA IN INDIA

Asafoetida was planted for the first time in India on October 2020. Its cultivation was started in India by its first plantation at Kwaring village in Lahaul and Spiti district of Himachal Pradesh, at an altitude of about 11,000 feet above mean sea level. Farmers of the Lahaul Valley have started taking up cultivation of asafoetida (heeng), mainly due to the efforts of the CSIR Institute of Himalayan Bioresource Technology, using the vast wasteland in the cold desert conditions of the region. Dr. Sanjay Kumar, Director CSIR-IHBT, planted the first saplings of

heeng. With the domestic production of heeng starting in India, import of asafoetida is expected to come down in the coming years.

CSIR-IHBT has introduced six accessions of heeng from Iran through the National Bureau of Plant Genetic Resources (NBPGR), New Delhi, and standardized its production protocols under Indian conditions. By bringing asafoetida seeds from abroad, the institute has developed a technique to grow the plant from it. Cold desert areas of India such as Lahaul and Spiti, Ladakh, parts of Uttarakhand and Arunachal Pradesh are suitable for its cultivation. In adverse weather conditions, it goes under dormancy. The Institute raised the plants at the Centre for High Altitude Biology (CeHAB - a research centre of CSIR-IHBT) in Ribling, Lahaul and Spiti as a trial. As part of the trial, asafoetida plants have been provided to only 7 farmers in the valley at present for cultivation.

