

India's first 'Monk fruit' cultivation

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In news- The 'monk fruit' from China was introduced for field trials in Himachal Pradesh by the Palampur-based CSIR-Institute of Himalayan Bioresource Technology (CSIR-IHBT) in Kullu.

Key updates-

- This crop **at present is cultivated only in China.**
- CSIR-IHBT imported the seeds from China and did in-house cultivation.
- Fifty seedlings were planted in the fields of progressive farmer Manav Khullar from Raison village for field trials and CSIR-IHBT signed a 'Material Transfer Agreement' with him.
- The economic benefits of the new crop are estimated to be between Rs 3 lakh to Rs 3.5 lakh per hectare.
- **It is a perennial crop having a life span ranging between four to five years** and its fruiting starts eight to nine months after germination.
- The plant grows in mountainous areas with an annual mean temperature of about 16–20 °C and humid conditions.
- It gets its name from the Buddhist monks who first used it.
- As Seed germination rate of monk fruit is slow and low, the seed germination technique has been developed to increase the germination rate and reduce the germination time.
- It is known now throughout the world for its intensely sweet taste, and it has been used as a **non-caloric natural sweetener.**
- The sweet taste results primarily from the content of a group of glycosides known as **mogrosides**, and the

extracted mixture of mogrosides is about 300 times sweeter than sucrose or cane sugar.

- The purified mogroside, has been approved as a high-intensity sweetening agent in Japan and is generally recognized as safe (GRAS) non-nutritive sweetener, flavour enhancer, and food ingredient in the USA.