

Ashwagandha: CIMAP study finds 80% of healing compounds in 25% of root

CSIR-CIMAP scientists found Ashwagandha's outer root layer contains 75-80% of beneficial withanolides, crucial for enhancing yields in herbal medicine.



The Ashwagandha root

Scientists at CSIR - Central Institute of Medicinal and Aromatic Plants (CIMAP) have discovered that most of the useful chemical, withanolides, in Ashwagandha, is packed into the thin outer layer of the root. Ashwagandha is commonly used in nutraceutical and herbal medicines to help with stress, sleep, and overall health.

They said that even though the outer layer makes up only a small part of the root, it stores nearly 75% - 80% of the plant's important medicinal compounds. The inner part of the root is larger, but it actually contained much smaller amounts of withanolides.

“The discovery could become important because Ashwagandha is now in huge demand around the world, especially after the pandemic. The findings may help farmers and researchers grow Ashwagandha plants with richer root withanolides in the future. It can also help in research and creation of improved varieties which can provide higher yield withanolides from the roots,” said Pradipto Mukhopadhyay, a key scientist on the research.

He also shared that while the leaves of Ashwagandha plant have associated toxic properties, the roots are recommended and preferred by the nutraceutical and herbal medicine industry. The generally cultivated Ashwagandha plants have woody roots and high fiber content in the inner part.

“The industry requires roots with less fiber and more biomass, making it efficient for them to extract withanolides. Only the outer part which is about 20-25% of the total rootball was found useful as part of the research, containing the maximum amount of the useful chemical compound,” said Mukhopadhyay.

He said that scientists at CIMAP are now working to edit the genes of the Ashwagandha plant to create a variety with reduced fiber content and increased withanolides content.

“The new variety, once made, will be beneficial for farmers in better yield and meeting the industry requirements at the same time,” he added.

News Source:

<https://www.hindustantimes.com/cities/lucknow-news/ashwagandha-cimap-study-finds-80-of-healing-compounds-in-25-of-root-101778853414100.html>