

GOVERNMENT OF INDIA  
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

**LOK SABHA**  
**UNSTARRED QUESTION NO. 3854**  
TO BE ANSWERED ON 09.08.2016

**Medicinal Herbs**

3854. SHRI PINAKI MISRA:

Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

- (a) whether any research work has been carried out to genetically modify the terminal medicinal herbs that have proven to be beneficial in the treatment of illness;
- (b) if so, the details thereof; and
- (c) if not, the steps being taken to conduct research in the field of medicinal herbs?

**ANSWER**

**MINISTER OF STATE (INDEPENDENT CHARGE) FOR ENVIRONMENT,  
FOREST AND CLIMATE CHANGE**

**(SHRI ANIL MADHAV DAVE)**

(a)& (b) It is to inform that Jamia Hamdard, New Delhi in collaboration with M/s IPCA Pvt. Ltd., Mumbai under Institute-Industry Collaborative Research Project supported by Department of Science & Technology (DST) has undertaken research work for *Artemisia annua* (an antimalarial drug). The CSIR-Institute of Himalayan Bioresource Technology (CSIR-IHBT) is doing genetic modification related work on two medicinal herbs – *Picrorhiza kurroa* and *Podophyllum hexandrum* for imparting stress tolerance and enhancing secondary metabolite production. CSIR-IIIM, Jammu is working towards the development of genetically modified medicinal herbs like *Withania somnifera* (Ashwagandha), *Artemisia annua* (Nagdona), *Picrorhiza kurroa* (Kutki), *Nicotiana tobacum* (Tambaku), *Coleus forskohlii* (Makandi) for the enhanced production of the therapeutic molecules in these plants.

(c) Does not arise.

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