

GOVERNMENT OF INDIA  
MINISTRY OF SCIENCE AND TECHNOLOGY  
DEPARTMENT OF SCIENCE AND TECHNOLOGY  
**RAJYA SABHA**  
**UNSTARRED QUESTION No. 2847**  
ANSWERED ON 19/12/2024

**NANOCOATING MATERIAL IN CHEMICAL AND FERTILIZERS**

2847. SHRI DHANANJAY BHIMRAO MAHADIK:

Will The Minister of SCIENCE AND TECHNOLOGY be pleased to state:

- (a) whether it is a fact that nanocoating material can enhance the nutrient use efficiency of chemical and fertilizers in farming;
- (b) If so, the details thereof; and
- (c) the steps taken by Government to enhance the use of this nanocoating material in chemicals and fertilizers?

**ANSWER**

MINISTER OF STATE (INDEPENDENT CHARGE) FOR THE  
MINISTRY OF SCIENCE AND TECHNOLOGY & EARTH SCIENCES  
(DR. JITENDRA SINGH)

(a) to (b): Yes Sir, nanocoating materials can enhance the nutrient use efficiency of chemicals and fertilizers in farming. Nanocoating of fertilizers involves applying nanoscale materials or thin films over the surface of fertilizer granules. This approach improves the release performance of fertilizers, addressing issues such as nutrient loss and uncontrolled release, which are common in conventional fertilizers. With an aim to provide farmers the means to boost productivity and help increase their income, Nano DAP is an efficient source of available nitrogen and phosphorus for all the crops and helps in correcting the Nitrogen & Phosphorus deficiencies in standing crops. It is available in the market.

(c) The Ministry of Science and Technology supports R&D projects in the area of nano-biotechnology with an aim to enhance properties of soil and agriculture inputs including fertilizers for improving overall crop performance.

\*\*\*\*\*