

GOVERNMENT OF INDIA
MINISTRY OF CHEMICALS AND FERTILIZERS
DEPARTMENT OF FERTILIZERS

LOK SABHA

STARRED QUESTION NO. 190* TO BE ANSWERED ON: 15.12.2023

Efficacy of Nano Urea

190* SHRI LAVU SRI KRISHNA DEVARAYALU:

Will the Minister of **CHEMICALS AND FERTILIZERS** be pleased to state:

- (a) whether the Government has carried out any assessment to ascertain the efficacy of nano urea in the country and if so, the details thereof;
- (b) whether the use of nano urea helps in bringing down India's import bill of fertilizers and if so, the details thereof;
- (c) whether the Government has taken note of low content of nitrogen in nano urea which is required by plants to make protein and if so, the details thereof ;
- (d) whether the use of nano urea helps in increasing the effectiveness of nitrogen uptake and if so, the details thereof; and
- (e) whether the low content of nitrogen in nano urea technology have any sizable, negative impact on the yielding capacity of crops which could potentially hurt farmers in the country and if so, the details thereof?

ANSWER

MINISTER FOR CHEMICALS & FERTILIZERS

(DR. MANSUKH MANDAVIYA)

(a) to (e) A statement is laid on the table of the House.

STATEMENT REFERRED TO LOK SABHA STARRED QUESTION NO. 190* FOR 15.12.2023 REGARDING “EFFICACY OF NANO UREA” TABLED BY SHRI LAVU SRI KRISHNA DEVARAYALU.

(a) to (e): Based on the bio-efficacy trials at multiple locations by Indian Council of Agricultural Research (ICAR) institutions and State Agricultural Universities (SAUs) and bio-safety test results, Department of Agriculture & Farmers Welfare (DA&FW) had provisionally notified Nano Urea as Nano Nitrogen Fertilizers in Fertilizer Control Order, 1985. These experimental trials were conducted of Nano urea on different crops such as paddy, Wheat, Mustard, Maize, Tomato, Cabbage, Cucumber, Capsicum and Onion in different agro-climatic zones. The study indicated that two spray of nano urea as top-dressing alongwith recommended basal dose of nitrogen gave comparable yield to that obtained with full recommended dose of nitrogen with yield advantage of 3-8% and urea saving of 25-50% in various crops.

Nano Urea (liquid) when sprayed on the leaves easily enters through stomata and other openings and fulfils nitrogen requirement of crops. Because of its unique size and higher surface area to volume ratio, it effectively addresses crop nutrient requirement which results in increased nitrogen use efficiency and subsequently leading to better growth and yield attributes of crops.
