

GOVERNMENT OF INDIA
MINISTRY OF AGRICULTURE AND FARMERS WELFARE
DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE

RAJYA SABHA
UNSTARRED QUESTION NO. 3210
TO BE ANSWERED ON THE 28/03/2025

IMPACT OF NANO-UREA ON YIELD AND PROTEIN CONTENT

3210. DRASHOK KUMAR MITTAL:

Will the Minister of AGRICULTURE AND FARMERS WELFARE be pleased to state:

(a) whether Government acknowledges that the usage of Nano-Urea by farmers causes depletion of yield and protein content of rice and wheat, if so, the details thereof;

(b) the steps Government plans to undertake to reduce the usage of Nano-Urea in agriculture as the usage of it is extensively promoted by Government and it is considered that it reduces the yield and the protein content in crops;

(c) the details on total urea and Nano-Urea consumed by agriculture sector in a year; and

(d) the details on the total domestic production and import of the urea and Nano-Urea respectively?

ANSWER

THE MINISTER OF STATE FOR AGRICULTURE AND FARMERS WELFARE

(SHRI RAMNATH THAKUR)

(a) & (b): Nano Urea was notified by Government of India in February, 2021 in Fertiliser (Control) Order 1985. Indian Council of Agriculture Research (ICAR) is the apex body for research in agriculture. As per the inputs received from the ICAR, 66% Recommended Dose of Nitrogen (RDN) with two nano urea spray along with recommended dose of Phosphorus and Potash, enhances 0.8% growth traits, 1% in physiological traits, 2% yield attributes over 100% RDN in rice. However, ICAR has opined that response to Nano Spray varied across crops and locations.

(c): The details of the consumption of Urea and Nano Urea are as under-

Year	Consumption of Urea (in Lakh Metric Tonne)	Consumption of Nano Urea (in Lakh bottles of 500 ml each)
2021-22	341.73	215.20
2022-23	357.26	326.80
2023-24	357.81	207.43
2024-25 (Till Feb.25)	371.20	244.17

(d): The details of the total domestic production and import of the urea and Nano-Urea during 2021-22 to 2024-25 (till February, 2025) is given below:

Year	Import of Urea (in Lakh Metric Tonne)	Production of Urea (in Lakh Metric Tonne)	Production of Nano Urea (in Lakh bottles of 500 ml each)
2021-22	91.36	250.72	290.02
2022-23	75.80	284.94	475.12
2023-24	70.42	314.09	90.71
2024-25	51.69	281.88	368.52
