

GOVERNMENT OF INDIA
MINISTRY OF CHEMICALS AND FERTILIZERS
DEPARTMENT OF FERTILIZERS

LOK SABHA

UNSTARRED QUESTION NO. 2195 TO BE ANSWERED ON: 12.12.2025

Use of Nano Urea

†2195. Shri Sanjay Uttamrao Deshmukh:

Shri Omprakash Bhupalsinh Alias Pavan Rajenimbalkar:

Shri Sanjay Haribhau Jadhav:

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

- (a) the details of States where Nano Urea is being used along with the benefits derived therefrom;
- (b) whether any assessment has been made by the Government regarding the reduction in fertilizer subsidy burden due to use of the said Urea;
- (c) the details of farmers using the said Urea in Maharashtra at present, district-wise;
- (d) the manner in which the farmers are being made aware about the use and benefits of the said Urea;
- (e) the steps being taken by the Government to ensure safety standards and field validation; and
- (f) whether the Government proposes to promote regional Nano Urea production units in the country, State-wise including Maharashtra, if so, the details of the proposed plan in this regard?

ANSWER

THE MINISTER OF STATE IN THE MINISTRY OF CHEMICALS AND FERTILIZERS

(SMT. ANUPRIYA PATEL)

- (a) The State-wise Sales of Nano Urea in the country, as on 30.11.2025, is placed at **Annexure A**. Nano Fertilizers hold great promise for application in plant nourishment because of the size-dependent qualities, high surface-volume ratio and unique optical properties. Furthermore, Nano fertilizer, such as Nano Urea, releases plant nutrients in a controlled manner contributing to higher nutrient use efficiency and are also easy to carry in the field.

- (b) No. Sir, No such assessment has been made.
- (c) The District-wise Sales of Nano Urea in the State of Maharashtra, as on 30.11.2025, is placed at **Annexure B**.
- (d) The Steps taken by the Government to raise awareness about the use and benefits of Nano Urea among farmers, the following measures have been undertaken:
- i. Use of Nano Fertilizers is promoted through different activities such as awareness camps, webinars, field demonstrations, Kisan Sammelans and films in regional languages etc.
 - ii. Nano Fertilizers are made available at Pradhan Mantri Kisan Samridhi Kendras (PMKSKs) by concerned companies.
 - iii. Nano Fertilizers has been included under monthly supply plan issued by Department of Fertilizers regularly.
 - iv. For ease in application and utilization of Nano fertilizers like Nano Urea through foliar application, initiatives such as innovative spraying options like 'Kisan Drones' and distribution of battery operated Sprayers at retail points are undertaken. For this purpose, pilot training and custom hiring spraying services through Village Level Entrepreneurs are actively promoted.
 - v. DoF in collaboration with fertilizer companies has initiated a Maha Abhiyan for adoption of Nano DAP in all 15 agro-climatic zones of the country through consultations and field level demonstrations. Further, DoF in collaboration with fertilizer companies has also launched campaign for field level demonstrations and awareness programs of Nano Urea plus in 100 districts of the country.
 - vi. IFFCO has undertaken various campaigns for farmers to make them aware about the use and benefits of Nano Urea by taking extensive field demonstrations, Field Days, Awareness Campaigns, Training & Visits, Drone Spraying Campaigns, Crop Seminars, through print and electronic media (Farmers Success Stories) etc.
- (e) In order to ensure safety standards and field validation of Nano Urea, an MoU has been signed between National Productivity Council (NPC) of India and Department of Fertilizers on 5th March, 2024 to undertake the study of Nano Urea on "Evaluating Efficacy, Utility and Impact of Nano Urea in comparison to Conventional Urea". A Phase-II study by NPC has also been signed on 14.11.2025 for evaluating the extent of replacement of Conventional Urea by Nano Urea. The Phase-II study will be conducted at a cost of ₹61.52 lakh.

Additionally, an MoU has been signed with ICAR on 03.11.2025 for undertaking a Network Project on the evaluation of Nano Urea, at a cost of ₹21.20 crore (including GST), jointly funded by fertilizer PSUs/cooperatives. The project will be carried out over a period of five years. It is being implemented across multiple collaborating agricultural institutions.

Furthermore, ICAR has also initiated a 2024–26 project funded by the Indian Council for Fertilizers and Fertilizer Technology Research (ICFFTR), with a total outlay of ₹160 lakh, to evaluate the impact of Nano Fertilizers on crop growth, soil health, and nutrient

uptake across various agro-ecological zones. This project, too, involves several collaborating agricultural institutions.

Apart from this, IFFCO's Nano Urea have been evaluated and validated for Bio-Efficacy, Bio-Safety, Bio-Toxicity through National Agricultural Research & Extension System (NARES) in collaboration with ICAR- Research Institutes and State Agriculture Universities as well as NABL accredited- GLP (Good laboratory Practice) certified Laboratories and also notified in Fertiliser Control Order (FCO), 1985.

(f) The Government of India is not directly involved in setting up of Nano Fertilizers Plants across the country. However, even in the absence of direct Government intervention, Fertilizer Companies have proactively set up 8 Nano Urea Plants with a combined annual production capacity of 33.22 crore bottles (500 ml equivalent). Moreover, 2 new Nano Urea production units are planned, one at Trombay by RCF with an annual capacity of 5 crore bottles, and another at Deoghar, Jharkhand by IFFCO with a capacity of 6 crore bottles per year.

Annexure referred to in reply to part (a) of Lok Sabha Unstarred Question No 2195 for answering on 12.12.2025

(In lakh Bottles of 500ml each)

State-wise Sales of Nano Urea (Since Feb. 2021 till Nov. 2025)		
S.No	State Name	STATE-WISE TOTAL SALES
1	Andaman & Nicobar	0
2	Andhra Pradesh	21.69
3	Arunachal Pradesh	0
4	Assam	39.05
5	Bihar	72.93
6	Chandigarh	0
7	Chhattisgarh	26.89
8	Dadra and Nagar Haveli	0
9	Daman and Diu	0
10	Delhi	0.71
11	Goa	0
12	Gujarat	90.41
13	Haryana	54.39
14	Himachal Pradesh	7.05
15	Jammu and kashmir	9.62
16	Jharkhand	14.79
17	Karnataka	67.6
18	Kerala	4.1
19	Lakshadweep	0
20	Madhya Pradesh	92
21	Maharashtra	104.05
22	Manipur	0.71
23	Meghalaya	0.01
24	Mizoram	0.85
25	Nagaland	0.01
26	Odisha	35.01
27	Puducherry	0.11
28	Punjab	98.1
29	Rajasthan	93.98
30	Sikkim	0
31	Tamil Nadu	39.03
32	Telangana	28.78
33	Tripura	0.21
34	Uttarakhand	34.39
35	Uttar Pradesh	142.43
36	West Bengal	83.06
Total		1161.96

Annexure referred to in reply to part (b) of Lok Sabha Unstarred Question No 2195 for answering on 12.12.2025

(In lakh Bottles of 500ml each)

District-wise Sales of Nano Urea in the State of Maharashtra (Since Feb. 2021 till Nov. 2025)		
S. No.	District	Sales of Nano Urea
1	Ahmednagar	4.95353
2	Akola	3.00001
3	Amaravati	3.27604
4	Aurangabad Mh	4.38312
5	Baramati	1.39763
6	Beed	5.73217
7	Chandrapur	3.69831
8	Dhule	3.21616
9	Gadhinglaj	0.90357
10	Gondia	1.92912
11	Hingoli	1.27704
12	Jalgaon	3.46432
13	Jalna	3.32332
14	Kolhapur	2.15903
15	Kopargaon	2.26039
16	Kurduwadi	4.9554
17	Latur	3.37969
18	Malegaon	3.70594
19	Malkapur	3.00464
20	Nagpur	4.58563
21	Nanded	5.50104
22	Nandurbar	2.05064
23	Nasik	3.30334
24	Osmanabad	2.53962
25	Pachora	3.04765
26	Parbhani	2.82212
27	Pune	2.14409
28	Sangli	4.33165
29	Satara	2.9402
30	Wardha	3.12423
31	Washim	1.34751
32	Yeotmal	6.2952