

GOVERNMENT OF INDIA  
MINISTRY OF CHEMICALS AND FERTILIZERS  
DEPARTMENT OF FERTILIZERS

**RAJYA SABHA**

**UNSTARRED QUESTION NO. 255 TO BE ANSWERED ON: 21.07.2026**

**Nano fertilizers in Uttar Pradesh**

**255 Shri Sanjay Seth:**

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

- (a) the progress in the distribution and adoption of Nano Urea and Nano DAP among farmers in Uttar Pradesh;
- (b) whether extensive field demonstrations have successfully educated farmers on the yield benefits and optimal usage of nano fertilizers;
- (c) the details of volume of conventional urea replaced by nano variants in the State during the recent Rabi season;
- (d) the support provided to Primary Agricultural Credit Societies (PACS) to function as distribution nodes for these products; and
- (e) the steps taken to scale up indigenous manufacturing capacities of nano fertilizers within the State?

**ANSWER**

THE MINISTER OF STATE IN THE MINISTRY OF CHEMICALS AND FERTILIZERS  
**(SMT. ANUPRIYA PATEL)**

(a) Nano Urea and Nano DAP are being made available to farmers in Uttar Pradesh through cooperative societies, private fertilizer dealers, PACS and other authorized distribution channels. Their adoption is gradually increasing due to awareness programmes, demonstrations and promotional activities undertaken by the Agriculture Department, State Government, Fertilizer companies and other stakeholders. The sales of Nano Urea and Nano DAP in the State of Uttar Pradesh during Kharif, 2026 (01.04.2026 – 15.07.2026) are as under:-

| S.No | Product   | No of Bottles |
|------|-----------|---------------|
| 1    | Nano Urea | 308008        |
| 2    | Nano DAP  | 82809         |

(b) ICAR has conducted field demonstrations to generate scientific evidence on the appropriate use of nano-fertilizers, and the findings are disseminated through farmer training, frontline demonstrations and extension activities.

In addition to this, large scale field demonstrations, farmer training programmes, field days and awareness campaigns have been organized in various districts of Uttar Pradesh

to educate the farmers about the scientific uses, recommended dosages and benefits of Nano Urea and Nano DAP. Demonstrations have shown encouraging results in improving nutrient use efficiency while promoting balanced fertilizer application. Details of various extension activities undertaken by Nano fertilizer manufactures in Uttar Pradesh are placed as **Annexure**.

(c) In order to assess the volume of conventional urea replaced by nano variants, an MoU has been signed between National Productivity Council (NPC) of India and Department of Fertilizers on 5th March, 2024 to undertake the Phase-I study of Nano Urea on "Evaluating Efficacy, Utility and Impact of Nano Urea in comparison to Conventional Urea" across 10 States in the country, including the State of Uttar Pradesh. 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 in the same 10 States.

Government of Uttar Pradesh informed that Nano urea is intended to supplement nitrogen nutrition and improve nitrogen use efficiency. The quantity of conventional urea replaced depends upon crop, soil condition and adherence to the recommended package of practices. With the gradual increase in awareness among farmers regarding the use of nano urea, there will be a reduction in conventional urea in the coming times.

Nano fertilizers manufactures informed that benefits of Nano Fertilisers can only be envisaged over a period of time with scalable increase in usage and adoption by the farmers with concerted efforts of all the stakeholders.

(d) The Government provides various types of facilities to the farmers through various schemes to the Primary Agricultural Credit Societies (PACS), in which various types of fertilizers as well as Nano Urea and Nano DAP are also made available to the farmers as per their demand. PACS in Uttar Pradesh State are being integrated under the Pradhan Mantri Kisan Samriddhi Kendras (PMKSK) initiative. To support this initiative, Fertilizer Companies are providing LED TVs, Furniture, technical Literature, technical guidance, farmer training programmes, and field demonstrations to PACS, in order to promote balanced nutrient management. Films & success stories of local farmers are also played in regional languages etc.

(e) The Government promotes indigenous manufacturing of nano fertilizers through supportive policy measures, encouragement to domestic manufacturers, facilitation of production facilities and promotion of research, innovation and commercialization. In line with these initiatives, IFFCO has established two nano fertilizer manufacturing units of capacity 6.0 crore bottles per annum each, at Aonla and Phulpur in Uttar Pradesh. These manufacturing plants have adequate production capacity to cater the growing demand for Nano Fertilizers among the farmers of Uttar Pradesh.

**Annexure**

**Annexure referred to in reply to part (b) of Rajya Sabha Unstarred Question No. for answering on 21.07.2026**

**Extension activities conducted by Nano fertilizer manufactures in Uttar Pradesh**

- Use of Nano Fertilizers is being promoted by various activities such as:

| <b>S.no</b> | <b>Activity</b>                                                                                              | <b>2023-24<br/>(in No.)</b> | <b>2024-25<br/>(in No.)</b> | <b>2025-26<br/>(in No.)</b> |
|-------------|--------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------------|-----------------------------|
| (i)         | Farmer meetings                                                                                              | 1888                        | 11393                       | 29,898                      |
| (ii)        | Nano DAP seed treatment demonstrations                                                                       | 0                           | 8025                        | 7509                        |
| (iii)       | Farmer field demonstrations and Government seed farm demonstrations (with MAOs/ADAs/DAOs and KVK scientists) | 2600                        | 15169                       | 13640                       |
| (iv)        | Agro-climatic zone-wise trials Kharif and Rabi                                                               | 0                           | 390                         | 368                         |
| (v)         | Retailer training programs                                                                                   | 847                         | 270                         | 229                         |
| (vi)        | Field demonstrations                                                                                         | 11023                       | 6129                        | 5706                        |
| (vii)       | Field days                                                                                                   | 51                          | 95                          | 58                          |
| (viii)      | Village-level publicity vans (Van-days)                                                                      | 210                         | 30                          | 2382                        |
| (ix)        | Manual sprayers supplied at subsidised rates                                                                 | 0                           | 7833                        | 4162                        |
| (x)         | Participation in exhibitions and Kisan Melas                                                                 | 20                          | 150                         | 162                         |

- Nano Fertilizers are being made available at Pradhan Mantri Kisan Samridhi Kendras (PMKSKs) by Nano Fertilizer manufactures.
- For ease in application and utilization of Nano fertilizers, initiatives such as innovative spraying options such as '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.
- Field demonstrations are conducted to showcase the performance of nano fertilizers under field conditions, enabling farmers to gain practical knowledge on their proper application, benefits, and role in improving nutrient use efficiency. The demonstrations have contributed to enhancing farmer awareness and encouraging the adoption of nano fertilizers.

- During FY 25-26, 45 Data Demonstrations were conducted and result demonstrations through field days were held at 225 locations in in Uttar Pradesh. Apart from this, 11 Panel discussions have been organized, wherein Department of Agriculture officials, Agricultural Scientists, Channel Partners & Progressive farmers participate and discuss about adoption of Nano fertilizers as partial replacement to bulk fertilizers.
- During 2026-27, 140 Kisan Goshtis (Farmer Meetings) are conducted in Uttar Pradesh. 25-30 farmers participate in each Kisan Goshti. These Goshtis are interactive, knowledge sharing sessions during which the soil profile of the area and better farming practices are discussed.
- During 2026-27, 05 Kisan Sangoshtis (Crop Seminars) are conducted in Uttar Pradesh. 75-80 farmers participate in each crop seminar focused on product awareness, usage guidelines, and crop benefits. Scientists from KVKs are invited to educate farmers and guide them on crop-specific nutrient packages and best application practices. The scientists and crop experts apprise the farmers about high Nutrient Use Efficiency products like Nano-DAP.
- Local language literature: Awareness initiatives have been supported through Local language literature and local partnerships to ensure better communication and wider acceptance.
- Digital promotion: Active campaigns on YouTube, Instagram, and Facebook to reach a larger farming community.