GOVERNMENT OF INDIA
MINISTRY OF CHEMICALS AND FERTILIZERS
DEPARTMENT OF FERTILIZERS

LOK SABHA

UNSTARRED QUESTION **NO. 917** TO BE ANSWERED ON: **07.02.2025**

Nano DAP

917: SHRI G M HARISH BALAYOG:

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

(a) the details regarding the yield and the quantum of plant uptake of nitrogen and phosphorus when traditional DAP is used, crop-wise;
(b) the details regarding the yield and quantum of plant uptake of nitrogen and phosphorus when two sprays of Nano DAP are applied, crop-wise;
(c) the details regarding the nitrogen and phosphorus nutrient content in crops, where traditional DAP have been used, crop-wise;
(d) the details regarding the nitrogen and phosphorus nutrient content in crops, where two sprays of Nano DAP have been used, crop-wise; and
(e) whether the Government has conducted any field survey/assessment to determine the efficiency of Nano DAP as compared to traditional DAP, if so, the details thereof including the parameters used to determine efficiency and if not, the reasons therefor?

ANSWER

THE MINISTER OF STATE IN THE MINISTRY OF CHEMICALS & FERTILIZERS

(SMT. ANUPRIYA PATEL)

(a) to (e): The Government of India has notified Nano DAP under the Fertilizer Control Order (FCO) – 1985 on the basis of the bio efficacy trials and toxicology tests. M/s Coromandel International Limited (CIL), M/s Zuari Farm Hub Limited, M/s Indian Farmers Fertilizer Cooperative Limited (IFFCO) and M/s Rashtriya Chemicals & Fertilizers Limited (RCF) have been granted permission to manufacture Nano DAP.

As per the information provided by ICAR, the total uptake of nitrogen and phosphorus (kg per tonne of main produce) when traditional DAP is used varies with crops, season and location. The average nutrient content in different crops is given below:-

	Total uptake (kg/t)	
Crops	**Nitrogen (N)**	**Phosphorus (P)**
Rice	20	4.8
Wheat	25	3.9
Maize	30	5.9
Sorghum	16.4	3.4
Pearl millet	31.8	7.6
Fingermillet	24.2	4.1
Chickpea	60.7	4.0
Pigeonpea	70.8	6.7
Lentil	57.0	6.5
Greengram	106	21.0

In case of traditional DAP use, Grain and straw nitrogen was 1.32% and 0.82% whereas grain and straw phosphorous content was 0.52% and 0.29% in rice. Treatment containing 2 sprays of Nano-DAP and 2/3 of recommended Urea resulted in Nitrogen content of 1.22% (grain) and 0.90% (straw), while grain and straw phosphorus content was 0.54% and 0.24% in rice.

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