

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

**RAJYA SABHA**  
**UNSTARRED QUESTION NO. 2897**  
TO BE ANSWERED ON 20/12/2024

**USE OF DRONES FOR SPRAYING PESTICIDES AND CROP NUTRIENTS**

2897. SHRI MITHLESH KUMAR:

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

- (a) whether Government has taken steps to promote the use of drones for spraying pesticides and for application of crop nutrients;
- (b) if so, the details thereof;
- (c) whether Government has issued any Standard Operating Procedure (SOP) for safe use of drones for spraying pesticides;
- (d) if so, the details thereof and the manner in which the SOP will help farmers in operating and maintaining drones; and
- (e) the steps taken by Government to educate farmers about the benefits of drones in the agriculture sector?

**ANSWER**

THE MINISTER OF STATE FOR AGRICULTURE AND FARMERS WELFARE

(SHRI RAMNATH THAKUR)

(a) to (e): The Department of Agriculture and Farmers Welfare (DA&FW) is promoting adoption of Kisan Drones by the farmers. Financial assistance under the Sub-Mission on Agricultural Mechanization (SMAM) is provided for demonstration of kisan drones on farmers' fields, purchase of drones by the farmers on individual ownership basis and establishment of Custom Hiring Centres of Kisan drones for providing services of drones to farmers on rental basis.

The Government has also approved 'Namo Drone Didi' as Central Sector Scheme for providing drones to the Women Self Help Groups (SHGs) with an outlay of Rs. 1261 Crores for the period from 2023-24 to 2025-26. Under this scheme, there is a provision of Central Financial Assistance (CFA) @ 80% of the cost of drone and accessories/ancillary charges up to a maximum of Rs. 8.00 lakhs per drone to the selected women SHGs. Out of the total 15,000 drones targeted to be supplied under the scheme, the first 500 drones have been procured by Lead Fertilizer Companies (LFCs) in 2023-24, using their internal resources and distributed to the selected SHGs. During the financial year 2024-25, the target is to distribute drones to 3090 SHGs in the first phase.

The Department of Agriculture and Farmers Welfare has released Standard Operating Procedure (SOP) for drone application with pesticide for crop protection and for spraying soil and crop nutrients in agricultural, forestry, non-cropped areas etc. in December 2021 that provides concise instructions for effective and safe operations of drones. It covers important aspects like statutory provisions, flying permissions, area distance restrictions, weight classification, overcrowded areas restrictions, drone registration, safety, insurance, pilot certifications, operation plan, air flight zones, weather conditions, operating instructions for pre, post and during operation, emergency handling plan etc. SOPs for application of pesticides with drones have also been released in April 2023, which has widened the potential use of Kisan Drones with pesticides in 10 different crops grown under diverse agro-climatic conditions. It includes information for drone operations based on relevant parameters like temperature, humidity, wind speed, terrain conditions and crop conditions/stages etc. During the period from 2023-24 to 2024-25, the institutions of Indian Council of Agricultural Research (ICAR), Agricultural Universities and Krishi Vigyan Kendras (KVKs) across the country had carried out 26920 kisan drone demonstrations on farmers' fields on nutrients, fertilizers, chemicals (insect and pest) applications following SOPs covering an area of 29416 hectare.

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