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Centre issues guidelines for using drones to spray pesticides

Such application leads to improved pest management, crop productivity

OUR BUREAU

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The Centre has released guidelines and Standard Operating Procedure (SOP) for spraying pesticides through drones that will help reduce risk of getting exposed to hazardous chemicals and also ensure judicious usage of these insecticides in the crops. However, the adoption of the technology will depend more on its cost effectiveness since over 80 per cent farmers in the country hold less than 2 hectares of land, experts said.

"Drones are going to be important for increasing the efficiency of application of crop protection chemicals by redu-



cing manpower requirement, reducing time of application, reducing volume of water, quantity of chemicals and saving drift to environment along with reducing exposure to human being to hazardous chemicals," according to the SOP for use of drone application with pesticides for crop protection in agricultural, forestry, non-cropped areas, released by the Agriculture Ministry last week.

Currently pesticides are sprayed either manually or with the help of tractor-mounted sprayers where high quantities of pesticides and water are

used. However, in both cases a sizeable portion of spray goes waste in the environment.

On the other hand, drone-based spray requires less amount of water as well as pesticides, due to better application and efficiency, the ministry said.

Registration

Any operator has to register for drone-based application of pesticides from the Central Insecticide Board and Registration Committee (CIB&RC), apart from conforming to the Drone Rules of Director General of Civil Aviation.

"As the guidelines for registration has also been released simultaneously, we now urge the agrochemicals industry to initiate the necessary trials, apply for product registration and collaborate with drone manufacturers and service providers for the benefit of Indian farmers.

The several benefits of drones application includes increased efficiency and precision leading to improved pest management and crop productivity," industry body CropLife India's Chief Executive Officer Asitava Sen said in a statement.

The move will significantly reduce risk of operator's exposure and aid in skill development in rural areas, Sen said, adding such a technology deserves quicker adoption and ease of doing business to prevent delays/hurdles.

This SOP will render guidance to the stakeholders involved in

undertaking safe and effective control of pest and diseases, he said.

Responsibility

The good thing is that the guidelines have fixed the responsibility on the drone operators and not on farmers. This itself will ensure that the operators just do not spray any pesticide and any quantity over a particular land even if a farmer hires him for the job. This will move the current practice of taking local pesticide dealer's guidance to "more informed skilled manpower" who will undertake the job, Sen said.

"This will help create local entrepreneurship as capital expenditure of about ₹14-15 lakh will be required for one drone," said Smit Shah, director of Drone Federation of India. As one drone can cover 2 hectares of land in 30-40 minutes, it will be very effective in pest control,

Shah said, adding 35-40 per cent of pesticides application in farmland of China is currently done through drones.

Drones as a future technology for pesticide spraying, will be promoted by Agriculture Ministry through custom hiring centres and cooperatives, sources said adding some incentive schemes may be rolled out from next year. The SOP for drone regulation covers statutory provisions, flying permissions, area distance restrictions, weight classification, overcrowded areas restriction, registration, safety insurance, piloting certification, operation plan, air flight zones, weather conditions and emergency handling plan. Only phyto-toxicity data generation on the approved crop for one season is required under the guidelines and a standardized protocol for conducting the phyto-toxicity studies has been prescribed.