

ABOUT LOCUST, ITS LOSSES AND GOVERNMENT MEASURES TO CONTROL

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Abstract

India is currently reeling under the worst plague of locusts. The first swarms were sighted along the India-Pakistan border on 11 April 2020, due to climate change; these migratory insects are causing unprecedented damage in several parts of India. They enter the 'gregarious phase' by forming huge swarms that can travel up to 150 km per day, eating up every bit of greenery on their way. Farmers have always been at the receiving end of such natural calamities and they are worst sufferers in locust attacks. It is going to leave them with heavy crop and financial losses.

India is currently reeling under the worst plague of locusts. Over the last few days, swarms of locusts have been sighted in rural and urban areas of Rajasthan, Madhya Pradesh Gujarat, Punjab and Maharashtra. The first swarms were sighted along the India-Pakistan border on 11 April 2020, months ahead of the usual time of arrival, Soutik, 2020. However, due to climate change, these migratory insects are causing unprecedented damage in several parts of India. Known as the most dangerous migratory insects in the world, desert locusts are a part of the grasshopper community. They are different from the usual grasshoppers as they can change their behavior and habits and migrate over large distances. They can eat the food of up to 35,000 people in a single day according to the Food and Agriculture Organization (FAO) of the United Nations, FAO. 1994.

The desert locust (*Schistocerca gregaria*) is a short-horned grasshopper. They enter the 'gregarious phase' by forming huge swarms that can travel up to 150 km per day, eating up every bit of greenery on their way. These insects feed on a large variety of crops. If not controlled, locust swarms can threaten the food security of a country. In India, locusts are normally sighted during July- October along the Pakistan border. This year, the first sightings of small groups were reported early on April 11 by scientists of the Agriculture Ministry's Locust Warning Organization (LWO), from Sri Ganganagar and Jaisalmer districts of

Rajasthan. At present, chances of crop damage are low given that farmers have already harvested their rabi crop. Orange growers in Maharashtra have expressed concern but as Gurjar said, the swarm in Maharashtra would be easy to control.

The bigger problem will come once the present swarms breed. An adult female locust lays 80-90 eggs thrice in her three-month life cycle. If left uncontrolled, a swarm can grow exponentially to 40-80 million locusts per square kilometre, Gurjar and others estimate. The locusts will start laying eggs after the monsoon starts and continue breeding for two more months, with newer generations rising during the growth phase of the kharif crop. Pink immature adults (the lifecycle of a locust goes from eggs, to hoppers, to very active pink immature adults, to yellow mature adults which lay eggs) fly high and cover long distances during day hours along with the westerly winds coming from the Pakistan side. Most of these pink immature adults settle on trees during night, and mostly fly during the day. "The immature locust is very active and their mobility makes it difficult to control the swarm at one location and it takes four to five days of control at different locations to control a particular locust swarm," the ministry said in the statement. Farmers have always been at the receiving end of such natural calamities and they are worst sufferers in locust attacks. It is going to leave them with heavy crop and financial losses, Anonymous 2020.

Government measures to control the locust

The nodal authority for dealing with locusts is the Locust Warning Organisation (LWO) under the agriculture ministry. LWO, Jodhpur is fully responsible for triggering the plan in case of locust invasion, outbreak and upsurge after getting the administrative approval and financial sanction from the competent authority of the Directorate of Plant Protection, Quarantine & Storage, Ministry of Agriculture & Farmers Welfare, Department of Agriculture, Cooperation & Farmers Welfare, Government of India.

- The government has placed an order for buying 60 spraying machines and two firms have been finalised for supply of drones for aerial spraying of insecticides for effective control over tall trees and inaccessible areas. At present, 89 fire brigades for pesticide spray, 120 survey vehicles, 47 control vehicles with spray equipment and 810 tractor mounted sprayers have been deployed for effective locust control, as per requirement on different days.
- For effective control of locusts beyond scheduled desert areas, temporary control camps have been established in Ajmer, Chittorgarh, Dausa in Rajasthan; Mandsaur, Ujjain, Shivpuri in Madhya Pradesh and Jhansi in Uttar Pradesh, the ministry added. The

ministry said it has received permission from civil aviation ministry for use of drones for locust control.

- Currently, the Locust Control Offices have 21 Micron air and 26 Ulvamast spray machines which are being utilized for locust control. Meanwhile, supply order for procurement of additional 55 vehicles has been placed to strengthen the control potential. Adequate stock pesticide Malathion has been maintained at Locust Control Organisations.
- Advisories have been issued to Rajasthan, Gujarat, Haryana and Punjab regarding the locust attack and necessary measures to be taken for effective control and pesticides that are to be used for effective locust control in cropped areas.
- India's farmers told to scare locusts away by beating drums - Locusts are afraid of noise. Farmers are advised to collectively beat loud drums, tin containers, and use loudspeakers to prevent locusts from descending on farms and damaging crops.
- Train the farmers, State functionaries, locust staff and other stake holders on latest locust monitoring and control technologies.
- State Governments of Rajasthan, Gujarat, Haryana and Punjab are kept informed about the probable locust threat well in time. They are advised to keep their field functionaries in readiness to cope up with the situation.
- Meeting with relevant authorities along with LWO are held for planning the survey and control strategy as and when required.
- Public awareness is created through electronic and print media.
- District and Village level committees are formed in consultation with the District collectors and Joint Directors Agriculture, State Department of Agriculture of respective States to monitor progress of the locust control programmed.

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