

LOCUST SWARM ATTACK ALERT

In the middle of the coronavirus pandemic, India has to fight another battle against the swarms of locusts that have entered the western parts of India. Swarms have already made their way into Rajasthan, Gujarat, Madhya Pradesh, Uttar Pradesh, Punjab and Maharashtra. The current locust invasion is the worst in India since 1993. As per the locust forecasting by United Nation's food and agriculture organization, the current locust outbreak is the biggest in 25 years in Ethiopia and Somalia, 27 years in India, 70 years in Kenya.

The locust attack is likely caused due to additional cyclones in the African region. The outbreak originated from two cyclones (May and Oct 2018) that allowed three generations of breeding - from June 2018 to March 2019 - in the Arabian Peninsula, and caused an 8,000-fold increase in locust numbers. The locusts currently attacking crops in India breed and matured in Iran and Balochistan in Pakistan. Still the swarms of locusts breeding in Horn of Africa are likely to reach India and Pakistan next month and could be accompanied by other swarms

About 90,000 hectares in 20 districts of Rajasthan have been affected due to the locust attack. Swarms of locust have moved from Sri Ganganagar, Nagaur, Jaipur, Dausa, Karauli and Swai Madhopur towards other areas in Gujarat (Amreli, Surendranagar and Bhavnagar districts), Uttar Pradesh (Jhansi, Agra and Delhi's neighbouring Ghatam Budhh Nagar), Punjab (Fazilka and Muktsar district), Madhya Pradesh (Neemuch, Ujjain, Dewas, Mandsaur, Sheopur, Morena, Tikamgarh, Panna, Chatarpur, Sehore, Raisen, Hoshangabad and Harda district) and Maharashtra (Amravati, Wardha and Nagpur district) after the authorities conducted operations to tackle them. It is also expected to move towards parts of Telangana, Karnataka and Andhra Pradesh.

The desert locust attack has wiped out crops spread over 50,000 hectares across states of Rajasthan, Gujarat, Uttar Pradesh, Punjab, Madhya Pradesh and Maharashtra. Locusts have destroyed lush green fields laden with crops like bajra, sorghum, maize, green gram, black gram, castor, wheat, cotton and vegetable crops.

Locust management on cultivated crops

- * Spraying the crops with Neem based insecticides (Azadirachtin 1500 ppm) @ 5 ml/lit mixed with spreading agent like soap solution as a prophylactic measure
- * Spraying of insecticides like Malathion 50 EC @ 1.5 ml/lit or Chlorpyrifos 20 % EC @ 2.5 ml/lit during evening hours
- * Dusting the crops with Malathion 5% DP or Fenvalerate 0.4% DP @ 25 kg/ha
- * Spraying of Entomopathogen *Metarhizium anisopliae* (strain IMI 330189) @ 2.5×10^{12} conidia/ha (Oil formulation)
- * Mechanical control Methods such as digging trenches dusted with Malathion 5% DP for hoppers to fall into or beating hoppers with branches
- * Baiting - Mixing insecticide dust of Malathion 5% DP or Fenvalerate 0.4% DP with a carrier such as maize meal or wheat bran, and scattering the mixture among or in the path of the locusts (5-15 kg/ha for marching bands and over 50 kg/ha for settled hoppers and adults). Farmers should make sure that the livestock should not eat the bait.

Locust swarm management in wild/desert area

- * Aerial spraying of ULV insecticides *i.e.*, Malathion 96% under the supervision of government functionaries during evening or night hours when the swarm get settled on vegetation
- * Mechanical control Methods such as digging trenches dusted with Malathion 5% DP for hoppers to fall into or beating hoppers with branches
- * Baiting - Mixing insecticide dust of Malathion 5% DP or Fenvalerate 0.4% DP with a carrier such as maize meal or wheat bran, and scattering the mixture among or in the path of the locusts (5-15 kg/ha for marching bands and over 50 kg/ha for settled hoppers and adults). Farmers should make sure that the livestock should not eat the bait.