

Fall Armyworm

February 15, 2019

Manifest Pedagogy

Some of the agriculture related questions can be asked as a part environmental issues in prelims. Basics of agriculture with emphasis on issues in news, would help in preparing for prelims.

In news

Fall Armyworm attack on maize crops

Placing it in the syllabus

Environmental issues

Static dimensions

Important Pests attacks

Current dimensions

Fall Armyworm

Content

What is it?

Fall Armyworm (FAW), or *Spodoptera frugiperda*, is an insect that is native to tropical and subtropical regions of the Americas. In the absence of natural control or good management, it can cause significant damage to crops.

Affected crops

It prefers maize, but can feed on more than 80 additional

species of crops, including rice, sorghum, millet, sugarcane, vegetable crops and cotton.

Origin

FAW was first detected in Central and Western Africa in early 2016 and has quickly spread across virtually all of Sub-Saharan Africa. In July 2018 it was confirmed in India and Yemen. Because of trade and the moth's strong flying ability, it has the potential to spread further.

Fall Armyworm in India

Scientists from the College of Agriculture, University of Agricultural and Horticultural Sciences (UAHS) confirmed the arrival of the pest in maize fields within campus grounds in Shivamogga, in the state of Karnataka, southern India. Both morphological and molecular techniques confirmed the identity as FAW.

A pest alert published on July 30 by the Indian Council of Agricultural Research (ICAR)–National Bureau of Agricultural Insect Resources (NBAIR) further confirmed a greater than 70% prevalence of fall armyworm in a maize field in Chikkaballapur, Karnataka. Unofficial reports of incidence of FAW are rapidly emerging from several states in India, including Telangana, Andhra Pradesh and Maharashtra.

Effects of Fall Armyworm

- It affects the maize, rice and other crops in a great extent and that would lead to food chain crisis.
- Because of trade and the moth's strong flying ability, it has the potential to spread further.

Other Pests attack

- Brown Plant Hopper(paddy).
- The pink bollworm(cotton).
- Whitefly(typically feed on the undersides of plant

leaves).

- Lawn armyworm or swarming caterpillar (paddy) etc

How to tackle pest attack?

Following aspects can be considered in tackling the FAW;

Natural Enemies can be used : The predators of fall armyworm are general predators that attack many other caterpillars . Among the predators noted as important are various ground beetles, the striped earwig etc, Vertebrates such as birds, skunks, and rodents also consume larvae and pupae readily.

Sampling: Moth populations can be sampled with blacklight traps and pheromone traps; the latter are more efficient.

Insecticides: Insecticides can applied on corn to protect against damage by fall armyworm, sometimes as frequently as daily during the silking stage.

Cultural techniques: The most important cultural practice, it is early planting and/or early maturing varieties.

Global level efforts

FAO and the Fall Armyworm

FAO has proposed a five-year programme of action to help smallholder farmers, their organizations, their public institutions, national governments and development partners quickly respond to the challenges of FAW infestation. FAO is taking an active role in coordinating partners' activities, plans and approaches to provide sustainable solutions to the FAW challenge.