



AT WAR

Fall Armyworm has infested crops in over 50 countries across two continents in just over two years

The Americas

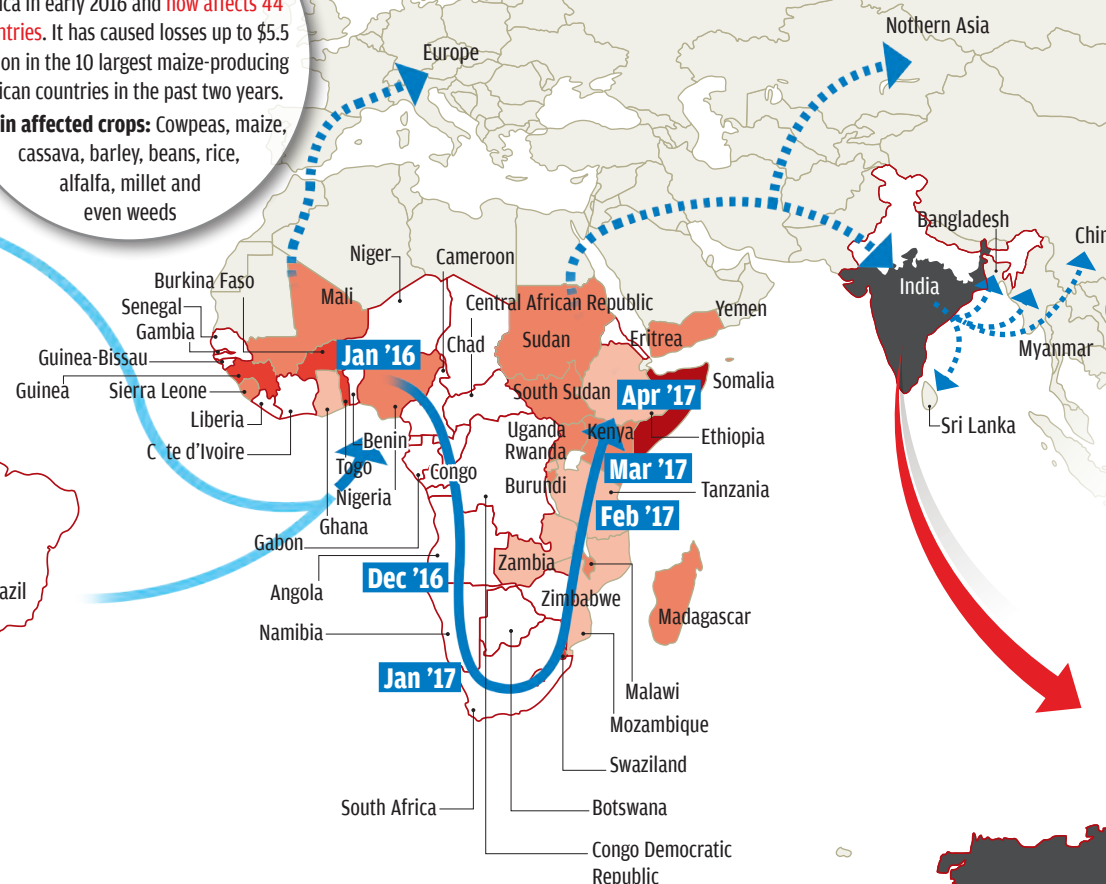
Fall Armyworm is native to the two continents and affects 45 countries. In the US, it migrates to the southern states during harsh winters and returns when the conditions are favourable.

Main affected crops: Maize, peanuts, sorghum and Bermuda grass

Africa

The pest made its first transcontinental migration to Africa in early 2016 and now affects 44 countries. It has caused losses up to \$5.5 billion in the 10 largest maize-producing African countries in the past two years.

Main affected crops: Cowpeas, maize, cassava, barley, beans, rice, alfalfa, millet and even weeds



Asia

India and Yemen are the first Asian countries to report Fall Armyworm infestation in 2018. The pest came to Asia either through natural migration with the monsoon winds or through imported plant material. It is now spreading from India to Bangladesh, Sri Lanka, Myanmar and China.

Main affected crops: Sorghum, millet, wheat, sugarcane and maize

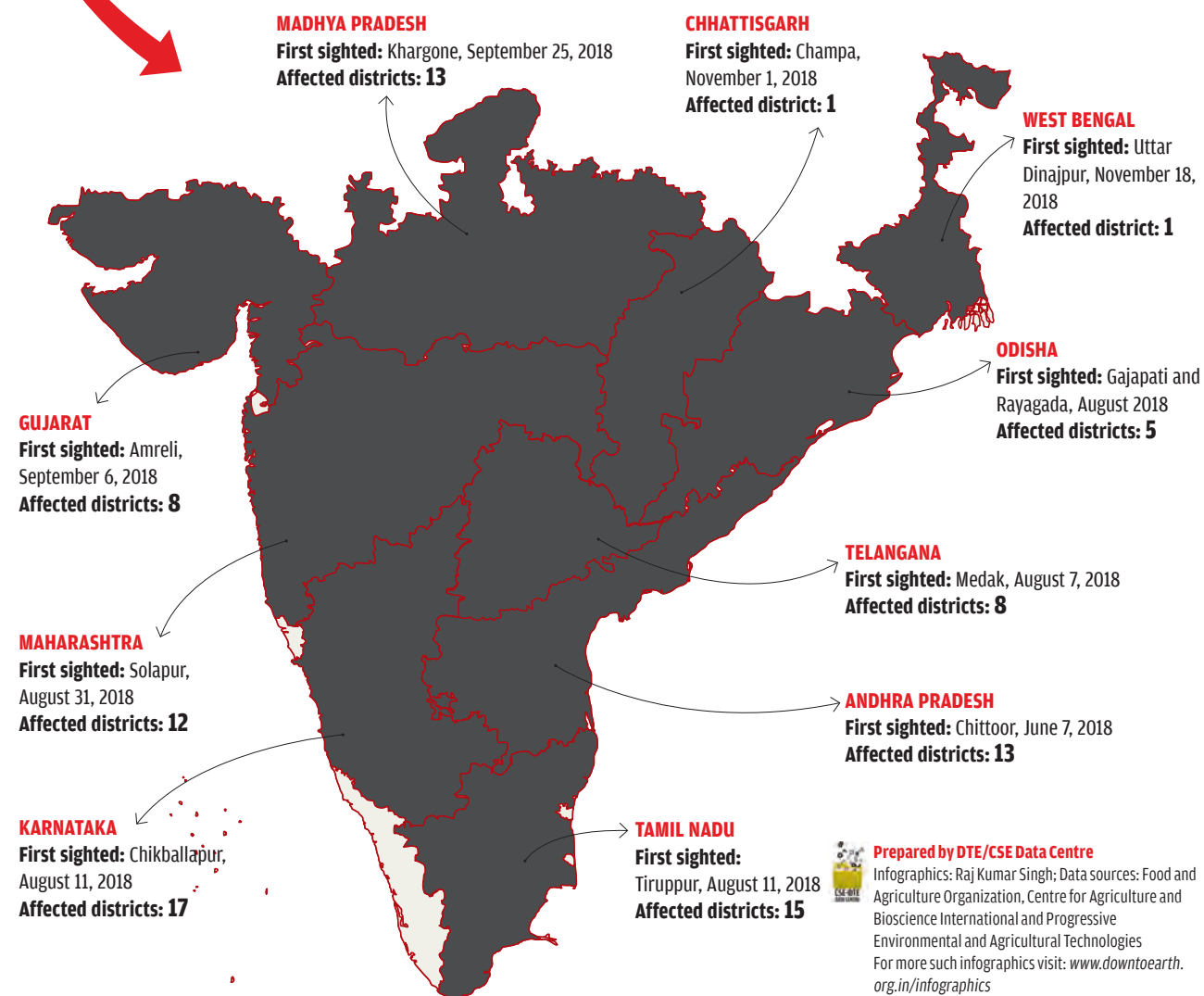
LEGENDS

- Possible routes of migration
 - Route of spread
 - Expected route of spread
- % plants infested by Fall Armyworm*
- <20%
 - 21-40%
 - 41-60%
 - 61-80%
 - Infected but data unavailable

* Based on a Food and Agriculture Organization survey that checked 247,000 plants in Africa and Yemen; updated till February 19, 2019

The Indian battle

The pest has spread to 10 Indian states in the past eight months



The vicious lifecycle

An adult moth measures 1.65 cm in length and can fly 100 km a night. It eats 300 plant species and has a lifespan of 30 days

Day 6-14

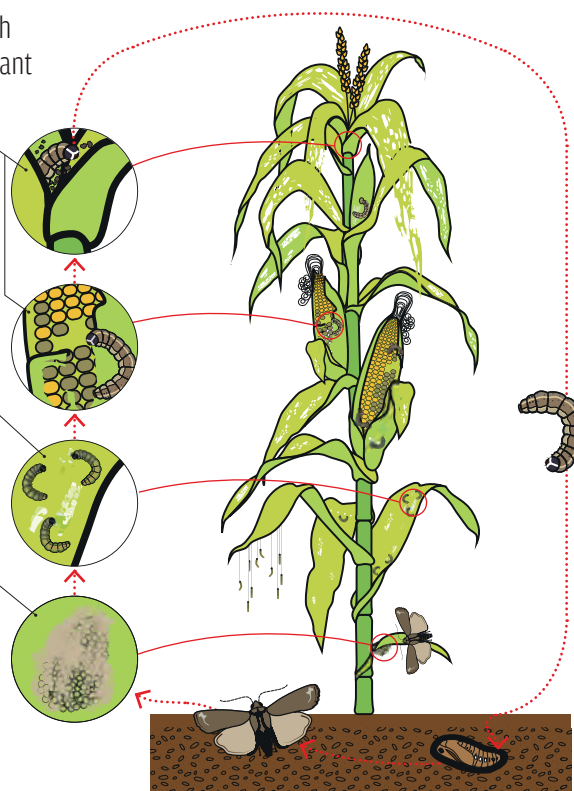
This nocturnal worm has already reached the protective region of the whorl, resulting in ragged holes in the leaves. The worm can kill the growing point of young plants. Often only one or two caterpillars are found in each whorl, as they become cannibalistic to reduce competition. Large quantities of frass (caterpillar poo) are found.

Day 3-6

After hatching, the young caterpillars feed superficially, usually on the underside of leaves. Young caterpillars also spin silken threads which catch the wind and transport them to a new plant.

Day 1-3

The worm generally lays 100 to 200 eggs on the underside of the leaves, typically near the base of the plant and close to the junction of the leaf and the stem. In warm and humid regions such as Africa, it can lay up to 1,600 eggs in a lifetime, which is more than double its usual capacity.



Day 14-30

After nearly 14 days, the fully grown caterpillar drops to the ground. The caterpillar then burrows 2 to 8 cm into the soil before pupating. If the soil is too hard then the caterpillar covers itself in leaf debris before pupating. After approximately 8 days the adult moth emerges to restart the cycle. The moths also gather in large numbers at night and attack entire fields where they cut the stems and feed on the leaves.