





Fall armyworm update

Wednesday 12 March, 2025

Key points

Current status: FAW populations continue to persist in small numbers across New Zealand. *Helicoverpa armigera* and *Mythimna separata* are also present, with notable pest dynamics in areas.

Maize crops: Silage crops and some early grain are being harvested around the country, with minor cob damage reported. Later-planted maize crops in Northland have higher FAW activity, particularly in greener crops.

Sweetcorn: Sweetcorn crops remain vulnerable. Larvae may enter via the silks or through the sides of cobs and cause significant damage, necessitating heightened scouting efforts. Sweetcorn growers should remain proactive in monitoring young populations for potential intervention.

Crop monitoring: Regular field inspections are essential, identifying new populations while they are young and susceptible remains the most effective management approach. Any later planted maize or sweetcorn crops should be the focus.

Identify your pests: For assistance in identifying FAW larvae and damage, contact FAR, refer to resources on the FAR website, or reach out to an agronomist.

Natural controls: Large populations of *Cotesia* parasitoids have been observed. These beneficial insects are widespread across New Zealand and may play a significant role in reducing future FAW populations. In the Far North Island, large numbers of *Lissopimpla excelsa* are being spotted patrolling crops and in the North and South, Tasman lacewings have been observed in small numbers in most crops.

Other maize pests: *Helicoverpa armigera* (corn earworm) and *Mythimna separata* (cosmopolitan armyworm) are present across the country. These species should be correctly identified to avoid unnecessary interventions.

Communication: Collaboration and information sharing among growers, agronomists, and industry experts are essential to refining management strategies and improving outcomes.

Maize and sweetcorn season near end

FAW populations remain present across New Zealand, but generally in small numbers, although recent moth catches suggest increased activity in certain regions, particularly in the Far North. Early-planted crops in Northland have experienced varying degrees of foliar damage, but generally only minor cob damage from FAW, *Mythimna*, or *Helicoverpa*. Later-planted maize crops, which are greener, are attracting higher numbers of FAW. Mature maize grain has shown less susceptibility to FAW damage as kernel starch fill increases.

Dry conditions have had a greater impact on crop yields this season than FAW damage, especially in Northland and along western regions in the North and South Islands. In Gisborne, recent moth flights have led to early instar larvae sightings; ongoing vigilance among sweetcorn growers should continue.

Tasman and Westland regions have seen recent moth activity, with later instar larvae FAW found predominantly in maize cobs, high cob infestation has seen the presence of FAW and Cosmopolitan armyworm, but Corn earworm has been observed as the most numourous pest at this stage. Despite these infestations, crop development is advanced, thus limiting potential damage.

Significant beneficial insect activity, particularly involving parasitoid wasps like *Lissopimpla excelsa* and *Cotesia ruficrus*, has been observed. These beneficial insects have been instrumental in managing pest populations. However, in Northland, a high infestation of Cosmopolitan armyworm has caused significant foliar damage near Kaitaia. Cosmopolitan armyworm has historically been kept in check by *Cotesia ruficrus* since its introduction as a biocontrol in the 1970s. The reasons for this specific infestation spike remain unclear but may involve disturbances in the local parasitoid populations earlier in the season. Where interventions have been timed well, some successful results have been observed. Please refer to the economic thresholds and consult with your advisor for any assistance.

Right Parasitised FAW and Cosmopolitan armyworm have been observed in maize crops across the country. The lower Cosmopolitan armyworm in this picture taken this week has parasitoid larvae emerging. They will then spin the cotton wool bud like cocoons that are easier to spot when scouting crops.



Regional overview for 2024/25 season

Northland

Many silage and some early grain harvests have been completed. While FAW and other pests are present, in general there is minimal pest-related damage. Later-planted, greener maize crops show increased FAW populations. Significant recent moth catches have been observed in the past 14 days.

Auckland and Waikato

FAW populations remain low, with no significant threat to maize crops. Sweetcorn growers should continue regular scouting.

Bay of Plenty and Gisborne

FAW populations are present, but at low levels. Silage and grain crops are nearing harvest and are unlikely to be negatively affected. Recent moth flights and sightings of early instar larvae have been noted in Gisborne. Sweetcorn growers must remain vigilant and consult local agronomists if needed.

South Island (Tasman, Marlborough, Westland)

Moth flights have been observed recently, with later instar larvae found in cobs. Corn earworm (*Helicoverpa armigera*) is the predominant pest, with high infestation levels observed in some crops. Fortunately, most crops are well advanced and less vulnerable to severe damage. Sweetcorn growers in these regions should continue to scout crops as often as possible.

Right Maize silage and some grain crop harvests have been underway nationwide. Despite some testing conditions this season and FAW presence in many areas, in general, early planted crops have managed to outgrow the FAW populations. So FAR in NZ the risk to Maize crops appears to be most apparent in the vegetative stages. The lag time between the first and second generation FAW populations allows maize crops time to recover and increase in biomass. At harvest pest populations can be expected to be reduced dramatically.



Supporting beneficial insects

Preserving natural enemies of FAW is crucial. Encouraging native vegetation around fields can offer refuge for beneficial insects. Resources and guides on enhancing farm biodiversity are available on the FAR website <u>https://www.far.org.nz/resources/far-focus-13-biodiversity</u>.

Minimise insecticide use

Overuse of chemicals can disrupt beneficial insects such as parasitoid wasps *Cotesia ruficrus* and generalist predators like spiders, which help manage egg and early larval stages of FAW. Consult with advisors on how to balance pest control while protecting beneficials.

| Current recommendations | | |
|-------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Crop growth stage | Threshold |
| Maize | Seedling Early whorl (knee high) Late whorl (shoulder high) Tasselling - early silking | ≥5 % of plants are cut ≥20 % of plants are infested ≥40 % of plants are damaged and larvae are present ≥20 % of plants are infested |
| Sweetcorn | Seedling Early whorl (knee high) Late whorl (shoulder high) Tasselling - early silking | ≥5 % of plants are cut ≥20 % of plants are infested ≥40 % of plants are damaged and larvae are present ≥5 % of plants are infested |

Table 1 Economic thresholds for FAW damage in maize and sweet corn courtesy of AgResearch.

In previous seasons we have seen many cases of FAW surviving the application of insecticides not recommended for FAW control. In maize and sweetcorn, Corteva's Sparta[™] is on label for use against FAW. This product is also effective on other pest species.



Left Late instar FAW showing the three key identifiers: a distinct 'Y' on the head leading into the dorsal line, four trapezoid patterned dots on the body segments and four pronounced dots in a square pattern at the rear. Other pests may share a similar identification **but not**

all three key markings together.

Supporting the FAW SFFF project

Progress has been made in refining phenological modelling under the Sustainable Food and Fibre Futures (SFFF) project, using daily catches from CropVue traps and traditional bucket-style pheromone traps to validate models and improve short-term forecasts. Teams at Plant and Food Research and AgResearch are using data from recent seasons to develop initial integrated pest management (IPM) strategies. Additionally, HortPlus is developing a New Zealand-specific FAW webpage, providing essential resources, strategies, and tools for effective maize and sweetcorn crop management.

What to do if you find FAW

- 1. Photograph: Take clear photos of the head, body, and rear.
- 2. Catch: Samples are crucial for positive identification and DNA testing.
- 3. Trap: If you would like to monitor a trap, or have FAW in your crop please reach out.
- 4. **Contact:** Contact FAR@far.org.nz or Biosecurity Officer Ash Mills at <u>ashley.mills@far.org.nz</u>.

Useful links

FAW identification, guides and relevant fact sheets: https://www.far.org.nz/resources/fallarmyworm-identification-and-background

