

Fall armyworm update

Friday 10 January, 2025

First finds on West Coast

Adult moths and larvae at various of development have been found between Hokitika to Hari Hari on the West Coast.

In Northland, moths from the first generation have been caught over the last two weeks and early instar larvae of the new second generation are now being found in the Far North.

December saw one late-instar FAW population confirmed north of Hamilton. It is likely that similar small populations exist in the Auckland and Waikato areas.

Additionally, a number of small populations of FAW larvae have been found across the Tasman region. These larvae, now at late instar stages, were discovered in both maize and sweetcorn crops. These finds came a month earlier than last year, indicating warmer late winter and spring conditions, speeding up the lifecycle. While current larval populations remain well below economic thresholds, it is critical for growers to actively scout their crops and monitor for any signs of FAW presence.

Scouting crops while eggs or early instar larvae are prone on the plants allows time to assess infestations and consider numbers in terms of the economic damage and treatment thresholds (see below) while there is still time to act, if necessary, before larvae move into the whorl.

Table Economic thresholds for FAW damage in maize and sweet corn

Current recommendations ¹		
	Crop growth stage	Threshold ¹
Maize	Seedling	≥5% of plants are cut.
	Early whorl ³ (knee high)	≥20% of plants are infested.
	Late whorl (Shoulder high)	≥40% of plants are damaged, and larvae are present
	Tasselling/early silking	≥20% of plants are infested
Sweetcorn	Seedling	≥5% of plants are cut.
	Early whorl (knee high)	≥20% of plants are infested.
	Late whorl (Shoulder high)	≥40% of plants are damaged, and larvae are present
	Tasselling/early silking	≥5% of plants are infested

(Right): Instar 3-4 larvae were found across Tasman in December, populations are now at instar 6 and will begin pupation shortly. This larvae found in Motueka, was found by scouting and identifying characteristic windowing in several adjacent plants and then further examining the whorls.



Key points

- **Current status:** 2nd generation FAW larvae in Far North, Northland. Several populations identified on the South Island's West Coast and small populations of FAW larvae identified in maize and sweetcorn across Tasman. One confirmed late-instar FAW population reported north of Hamilton, Waikato. Contact your local agronomist for support, local knowledge is key to effective management.
- **Crop monitoring:** Scout your crops as often as possible, monitoring existing infestations and looking for FAW crop damage in regions not known to have FAW yet this season. Scouting is the number one effective tool for identifying pests and safeguarding your crops.
- **Identify your pests:** If you need help identifying pest damage or larvae then please get in touch, refer to resources on the FAR website or contact your agronomist.
- **Natural controls:** *Cotesia ruficrus*, spiders, and other predators remain key allies in managing FAW populations. These are widespread throughout New Zealand.
- **Other maize pests:** Cosmopolitan armyworm (*Mythimna separata*) have been observed in small numbers, and some early corn earworm (*Helicoverpa armigera*) have also been spotted in crops across the country.
- **Communication:** share experiences with your neighbouring maize and sweetcorn growers, as well as your advisor, this will help in a collaborative understanding and effort to manage this pest.

Regional overview for 2024/25 season

Northland

While there are still occasional late instar populations being found, most FAW in the Far North have emerged and laid eggs. Second-generation larvae have been found with some populations nearing 10% of plants infested. The second-generation larvae can be expected to be found at any time now across the region. It is important growers are scouting their paddocks regularly and identify pests accurately to determine the need for intervention while the larvae are small, more susceptible and easier to get product to if action is required.

South Island (Tasman, Canterbury, Marlborough, Westland)

Moths and small populations of larvae, at different larval stages, have been found in maize crops from Hokitika to Harihari. These larvae will likely begin to pupate in the next 14 days. Similarly, in Tasman, small populations have been found in maize and sweetcorn. While below economic thresholds, growers should scout regularly to monitor populations. Growers in the region should inspect their crops and monitor populations, consulting their advisors promptly for any assistance.

Auckland and Waikato

One late instar population identified by a local agronomist. Likely similar small populations exist across the region. Vigilance/scouting is advised. FAW activity last year was primarily recorded in the Auckland region and the very top of Waikato, with no significant finds in central Waikato.

Bay of Plenty

No reported FAW finds this season. Last season, FAW populations were mainly observed in coastal areas. Remain vigilant, particularly in paddocks adjacent to areas affected last season.

Gisborne

No reported FAW finds this season. While Gisborne recorded only a few FAW finds last season, the proximity to other affected regions suggests a need for continued monitoring. Focus on scouting, particularly for any signs of larvae in emerging crops.



Crop establishment and early whorl stage

Photo (Right): This West Coast infestation was found by inspecting crops and spotting the characteristic "windowing" on leaves of multiple adjacent plants, a tell-tale sign of FAW feeding. Finding and accurately identifying larvae at this stage is crucial for effective management. Early detection allows for timely decisions, whether relying on natural predators or implementing targeted interventions, to minimise losses while protecting beneficial insect populations.

Minimise insecticide use

Overuse of chemicals can disrupt beneficial insects such as the parasitoid *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.

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

The Sustainable Food and Fibre Futures (SFFF) project continues to play a key role in enhancing New Zealand's FAW surveillance and management capabilities. Recent findings, including the late instar larvae in Nelson, are being integrated into the project database to inform future strategies. Updated phenological models and soil temperature data are helping to predict FAW population dynamics, allowing for better-informed management strategies. Below are the current economic thresholds developed by AgResearch specifically for New Zealand, as part of the SFFF.

Key progress

Monitoring has yielded valuable data on early-season FAW activity. These findings will inform management practices for the coming months and contribute to long-term management strategies.

Data analysis

November findings are being integrated into the project database. This includes assessments of FAW larval stages and associated crop damage, providing insights into population growth and dynamics.

Surveillance development

While there is an existing FAW surveillance network using standard bucket pheromone traps, we are expanding and developing this by rolling out some new camera traps we are trying from Canadian company CropVue. Some that have been deployed already are yielding positive FAW captures. While there is no substitution for crop scouting we hope the detailed data we will capture from these traps will support the development of the phenological models.

(Right): Moths captured in a standard Westcoast pheromone trap with a sticky insert. Moths that are likely FAW, along with any where damage makes visual ID impossible will be sent to AgResearch for DNA analysis.



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 <https://www.far.org.nz/resources/far-focus-13-biodiversity>.

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 ashley.mills@far.org.nz.

Useful links

FAW identification, guides and relevant fact sheets: <https://www.far.org.nz/resources/fall-armyworm-identification-and-background>