

Fall armyworm update

Friday 17 January, 2025

FAW second generation begins

Fall armyworm (FAW) numbers are increasing. Recent observations indicate the emergence of a second generation in some regions, with population densities in maize crops reaching up to 10%. These levels remain below economic thresholds, but growers are urged to remain vigilant, particularly as new regions report potential FAW activity. This update provides the latest regional findings, pest dynamics, and management recommendations.

Key points

- **Current status:** Second-generation FAW larvae observed in Northland and adult moths in the Tasman region are being observed, with second-generation larvae expected in maize crops shortly. There are possible FAW findings in the Bay of Plenty and Gisborne regions to be confirmed and more widespread populations of late instar larvae are found in Waikato.
- **Sweetcorn risk:** Sweetcorn crops, especially during cob development, are more susceptible to FAW damage than maize. Damage to the cobs can result in significant economic losses, so growers should prioritize scouting for larvae in these crops
- **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:** Beneficial insects, such as the parasitoid wasp *Cotesia ruficornis* and predatory spiders, are essential allies in FAW control. These natural enemies can suppress egg and early instar populations. Minimising insecticide use helps protect these beneficial species, enhancing their impact on pest management.
- **Other maize pests:** Corn earworm (*Helicoverpa armigera*) and Cosmopolitan armyworm (*Mythimna separate*) are present in small numbers in maize and sweetcorn across New Zealand, this is normal for this time of the season and should also be monitored. Tropical armyworm (*Spodoptera litura*) has been observed in nearby pastures, weedy areas near crops, and even in residential lawns. These pests can resemble FAW and should be identified carefully.
- **Communication:** Share experiences with your neighbouring maize and sweetcorn growers, as well as your advisor; this will help develop a collaborative understanding of how best to manage this pest.

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.

Current recommendations		
	Crop growth stage	Threshold
Maize	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	≥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

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

Right: early instar larvae from this season's second generation can be found by spotting “windowpane” damage, with many larvae in the folds of leaves. This location provides access for control by natural predators and if necessary chemical intervention using Sparta. As the larvae grow they “balloon” across to nearby plants using a silk thread and wind assistance.



We welcome your observations

Growers, researchers, advisors, and agronomists have been fantastic in communicating their findings across the country, fostering a collaborative and informed approach to the effective management of FAW across New Zealand. This broad perspective helps validate management strategies both regionally and nationally. For example, observations from one area may highlight key trends or effective strategies that are not evident elsewhere, providing critical insights for other regions. Conversely, where strategies are not proving effective, constructive feedback is encouraged to refine and improve approaches.

Regional overview for 2024/25 season

Northland

FAW populations are developing rapidly, with a second generation already present. Assessments have found maize crops with up to 10% of plants affected (these numbers remain below economic thresholds). Growers should scout crops regularly, focusing on areas with known moth activity and apply appropriate management strategies if thresholds are met. Accurate identification of early instar larvae is essential for effective intervention. Some later moths are still emerging, this can mean a variation in population stages across the same paddocks and regions; consistent observations will give a holistic assessment of the paddock.

South Island (Tasman, Canterbury, Marlborough, Westland)

Tasman moth flights have been confirmed, with second-generation larvae anticipated soon. Growers should scout crops to detect new populations. Larval pupation has been observed in Hokitika and Harihari. Further finds along the West Coast have also been reported. Growers in the region should inspect their crops and monitor populations, consulting their advisors promptly for any assistance.

Auckland and Waikato

Small populations of late instar larvae have been confirmed in several locations in Waikato. These findings can be expected to increase as the season progresses, with local populations increasing in size and the potential for fly-ins from nearby regions.

Bay of Plenty and Gisborne

Reports of possible FAW populations are being assessed. This highlights the need for proactive monitoring. Growers should scout their crops for eggs, larvae, and damage. Sweetcorn growers, in particular, are advised to monitor cobs closely as they develop to prevent losses from larval feeding.

Right: As larvae move through their lifecycle they make the whorl their home. Often, frass (caterpillar poo) will act as a plug, preventing easy access for predators or chemicals. They are also likely to move into developing cobs. Late instar larvae are aggressive and often cannibalise siblings or defend their lodging from similar pests. It is likely only one FAW larvae will be present in each plant at this stage, and more severe damage can often appear, almost overnight, as they progress towards pupation.



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.

Identification

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

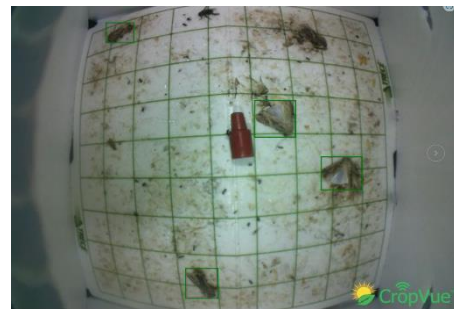
The Sustainable Food and Fibre Futures (SFFF) project remains at the forefront of FAW management in New Zealand. Key achievements include:

- **Data integration:** Findings from Northland, Tasman, Waikato, and other regions are being analysed to update phenological models, and improve FAW lifecycle predictions and IPM strategies.
- **Surveillance expansion:** The deployment of camera traps from CropVue is providing detailed data on moth activity, complementing the traditional bucket pheromone traps. This information enhances decision-making and supports scouting efforts.

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> .

Right: New AI-assisted camera traps are starting to provide give good indications of moth flights in Northland and Tasman. This photo shows moths identified just south of Nelson this week (16 January).



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/fallarmyworm-identification-and-background>

