

**ALERT**

# Fall Armyworm (FAW)

*Spodoptera frugiperda*

The 2021-22 maize season has seen this invasive pest reach our shores causing damage in maize crops across the northern half of the North Island.

- A very destructive pest
- Can fly 100kms in a night
- Affects crop at all growth stages
- Up to 12 overlapping generations per year
- Larvae feed on leaves, stems, flowers and grain
- Feeds on more than 350 other plant types
- **Maize crop damage can be 50%! Or more.**



## IDENTIFY

### Adults:

Dark gray, mottled forewings with light and dark splotches, and a noticeable white spot near the extreme end of each. About 38mm long.

### Eggs:

Eggs are generally laid on the underside of leaves. Egg masses are grey or whitish in color with a hairy covering.

### Larvae:

Newly hatched larvae are green in color and smooth-skinned. Larvae can vary in color from light tan or green to nearly black as they develop. Larvae are similar in appearance to other caterpillars of related

species and the head capsule markings are used to differentiate from other larvae. FAW larvae have a predominant white, inverted Y-shaped suture between the eyes and four raised spots on the second to last body segment.

### Pupae:

Reddish-brown, 14-18 mm long. Pupation occurs within the soil.

## MONITOR

Key Industries is working with MPI, F.A.R, and Maize Industry leaders to better understand FAW. For this purpose Key Industries are now importing Pheromone Monitoring Lures SPECIFIC to Fall Army Worm from our international partner Trécé, who are leaders in this technology.

### Placement Time:

Late Spring  
When crops are susceptible to damage.

### Placement Pattern:

Edges of field or 16 to 24 rows from edge of field. On windward side of field so pheromone will be blown into field. Place traps at least 20 – 40m apart and 1.5m above the ground.

### Trap Density:

Minimum of 2 per field  
One trap per ha >8ha

### Trap Maintenance:

Check twice weekly.  
Change lures monthly.  
Change liners monthly, or when dirty.



Adult



Eggs



Larvae



Pheromone Lures



Trap

# Fall Armyworm

Chemical resistance has made traditional chemistry and spray programs ineffective.



## Excerpt from Louisiana State University on FAW chemical resistance

1.4 Management of *Spodoptera frugiperda*  
Traditional chemical control strategies often provide unsatisfactory control of *S. frugiperda* in field corn. Almost immediately after larval hatching, neonates move into the whorl region of corn plants where they are protected from foliar insecticide sprays (Harrison, 1986; Castro, 2002; Bokonon-Ganta et al., 2003; Siebert et al., 2008a). Those insecticides which are generally effective against other pests, such as the corn earworm, *Helicoverpa zea* 3 (Boddie), typically provide only limited control of *S. frugiperda* (Young, 1979; Guillebeau and All, 1990). Regional populations of *S. frugiperda* have developed resistance to several classes of insecticides including carbamates, organophosphates, and pyrethroids (Adamczyk et al., 1999). Thus, transgenic corn varieties have become a more viable option for controlling *S. frugiperda*.

We have global partners working on solutions at this moment. The first step is monitoring.

We need to monitor to understand the problem and develop a solution.

## Orders for Fall Army Worm Monitoring Kits are being taken now.

Each Kit includes the following:-

3 x Cardboard disposable monitoring stations | 6 x Sticky boards, 2 for each station. | 9 x FAW specific Pheromone lures = 3 lures for each station, each lasting for 4 weeks.

## Fall Armyworm NZ FAQ's

**Q.** Will my crop be destroyed to control the spread of FAW?

**A.** No. Destroying crops will not prevent the spread of FAW. Monitoring and reporting will help our understanding of the distribution and spread of FAW

**Q.** Do I have to report it if I find it?

**A.** Yes. FAW is a reportable pest and can be reported online on <http://report.mpi.govt.nz/pest/> or by ringing the MPI Pest hotline on 0800 80 99 66.

**Q.** Can I spray FAW with commonly used insecticides?

**A.** Yes. However, FAW has known resistance to most used chemistry groups so early detection of caterpillar before it gets into the plant is crucial. Evening spraying may be necessary, as may using broader spectrum chemistry.

**Q.** How does the Pherocon lure trap work?

**A.** The attractant lure used in the kits is specific to Fall Armyworm only and is attracting the male FAW moth with female FAW pheromones. Each monitoring trap has a sticky base which the male moth sticks to.

**Q.** How many Pherocon Monitoring Kits will I need to effectively monitor my crop for the presence of FAW?

**A.** Each box contains 3 monitoring stations with the ability to monitor for 3 months with each. One kit of 3 to be used per field 4ha and under. Over 4ha they should be placed every 50 meters around the crop, utilising prevailing winds, etc. Set traps at 1.5 meters high. Stapling the foot of a pigtail standard to the top of a fence post on a slight angle works well. Monitor traps are only as effective as the ability to check them regularly.

**Q.** How often should I check the monitoring stations?

**A.** Every other day, so traps need to be somewhere that is easy to see and monitor regularly. If moths are being caught checking every day to assist in crop scouting or monitoring.

**Q.** Where should I be looking when scouting for FAW caterpillar in my crop?

**A.** In the early stages of caterpillar life egg sacks and caterpillar are on the underside of lower leaves and feeding in the lower leaves of the plant. Later stages they will be feeding in the whorl of the plant and inside the cob and plant body so are much harder to control.

**Q.** Will the parasitic wasp be effective against FAW.

**A.** We just don't know. Yes it may use the FAW caterpillar as a host but in later stages when it is in the plant it will be very hard for the wasp to get to the caterpillar.

For questions or further info contact:

Your local **Key Industries** representative or contact [sales@keyindustries.co.nz](mailto:sales@keyindustries.co.nz)



Maize Industry leaders are encouraging every grower to **monitor this spring**. International cases show it can be hugely detrimental with **crop destruction** as high as **50%**

**IF YOU FIND IT — REPORT IT — MPI Pest hotline 0800 80 99 66**