

Dear Spud GP
 I've heard reports
 of fall armyworm
 in potato crops, how
 concerned should I be and
 what can I do? -Warren



ASK THE SPUD GP

Head with inverted pale 'Y'



Four dark spots in a square

Figure 1. Fall armyworm caterpillar, showing the distinctive inverted 'Y' on the head and dark spots on the second last segment which distinguish it from *Helicoverpa* and other armyworm species. - Image: M. Bertone

Hi Warren

Fall armyworm (FAW) is definitely a significant threat to horticulture globally. Originally from the Americas, it was first detected in Australia in January 2020. It spread rapidly, travelling all the way from North Queensland to Tasmania in just 14 months.

While FAW favours maize, sweetcorn, sorghum and pastures, potatoes can still be affected. When populations of FAW are high, they may move into neighbouring potato crops and cause damage.

It is important to know your risk. Areas with continual / high populations of FAW are more susceptible to damage. A map prepared by the CSIRO and Plant Health Australia indicates areas where it is most likely to be present and risk is highest (Figure 2).

The good news is that potatoes are not a preferred host for FAW, and that the insect does poorly when living in potato crops. Compared to maize, FAW has lower survival, is slower to mature, and produces fewer offspring when in potato crops.

For example, only half the baby

caterpillars make it to second instar in a potato crop, whereas nearly all of them survive to pupation when they are feeding on maize. Of those females do make it to adulthood, they lay an average of 444 eggs when raised on maize but only 136 after a diet of potato (Guo et. al, 2021).

In other words, the overall fecundity (maximum potential reproductive output) of FAW is dramatically reduced in potatoes (Figure 3).

So does this mean that there will be no damage to potatoes? Not really. There can still be feeding damage to