

Agronomy Technical Note – July 2023

European Corn Borer

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Introduction

The corn borer is a significant pest in Western Europe and historically in the Americas before GM maize became available. The parent moths lay their eggs on the underside of the lower leaves from which larvae develop. The larvae damage the maize by burrowing into the stem, boring up/down the plant, and eating the tissue. The larvae frequently pupate inside the stem and the occurrence of two generations in one year is not unusual. The larvae of the European Corn Borer (ECB) are quite small, reaching 25mm in length when fully grown; they are dirty white or reddish-purple in colour and have brown spots and dark stripes along their bodies.



European corn borer larvae inside a maize stem

The larvae tunnel into the stem of the host plant and develop, hidden inside. Sometimes the only indication of an infestation is the appearance of excrement (frass) on the outside of the stem or when a weakened stem snaps, revealing tunnels. The non-descript brown adult moths have a wingspan of up to 34 mm and fly at night during June and July.

They can exit at any part of the plant, many exiting just below the 2nd leaf, but some below the cob or even through the cob. Where they exit at these lower levels, they cause the crop to lodge in any direction, so it can look as though there has been animal damage (badger/deer), with the top half collapsing in any direction.

The internal damage caused by the larvae disrupts and halts the transfer of moisture and nutrient within the plant, resulting in serious compromise on crop development and crop yields



Ostrinia nubilalis female (left), male (right) (Crambidae)

Report any sightings

Please could we ask that members who spot any of the distinctive larvae or their trademark holes whilst looking at maize, please get in touch with the MGA office

Control Options

Chemical control of the pest is difficult due to the “within the plant” habitat of the larvae. As our climate is conducive to successful overwintering of the larvae, breaking the life cycle via destruction and



Exit hole in a plant stem causing lodging.

burying maize trash (25cm ploughing) and crop rotation (1 year in 3 maize) is the best option

Insecticide Option

An example insecticide which has European Corn Borer on the label is Volium (Chlorantraniliprole). The earliest timing for application is GS51 (the start of tassel emergence). There is currently no



Exit hole in a cob sheath

treatment threshold; the application of an insecticide will be non-selective, so beneficial insects and bees will be susceptible.