

PowerCore[®] Enlist[®] corn's pyramid of *Bt* traits helps control some of the most problematic above-ground pests in corn. This month, learn more about the impact European corn borer can have on corn crops.





Ostrinia nubilalis

European corn borer distribution

There are one to three generations of European corn borer per year, depending on latitude (for example, one generation in Canada, but two to three generations in the Midwest).



Damage from European corn borer:

- Young larvae of first generation feed on whorl leaves.
- Older larvae of all generations tunnel in stalks and ear shanks (this may result in lodged corn, dropped ears).



European corn borer plant damage¹

Bt corn vs. non-Bt corn (15 trials in five states, 2009-11)¹



PowerCore Enlist corn virtually eliminates tunneling by European corn borers over non-*Bt* corn.

Yield impact:

- The extent of yield loss caused by European corn borer depends on the stage of corn growth at the time of damage, the extent of damage, the level of infestation and where the damage occurs.
- Stalk tunneling disrupts transport of water and nutrients, leaving fewer ears harvested due to ear drop and stalk lodging. It also increases the potential for stalk rot.
- Estimates of impact on yield are highly variable, but range from 2% when there's 1 borer per plant at dough stage, up to more than 12% when there's 3 borers per plant at pre-tassel.*

With its potential impact on corn yields, European corn borer is a pest farmers will want to control in their fields throughout the growing season. PowerCore Enlist corn's pest protection can help them do that.

*percentage of yield loss is based on physiological stress and does not include losses associated with stalk breakage (lodging) and ear drop.

¹ Rule, D. M., S. P. Nolting, et al. "Efficacy of pyramided Bt proteins CryIF, CryIA.105, and Cry2Ab2 expressed in SmartStax corn hybrids against lepidopteran insect pests in the northern United States," *Journal of Economic Entomology*, 107, 1 (2014): 403–409. <u>https://pubmed.ncbi.nlm.nih. gov/24655726/</u>

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