



insects



Special Issue Reprint

Corn Insect Pests

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This reprint consolidates the latest findings on the biology and management of major corn insect pests, highlighting how temperature and humidity regimes shorten life cycles and push species like *Spodoptera exigua*, *S. litura*, and *S. frugiperda* into previously cool regions. Stable-isotope tracking now confirms that fall armyworm undertakes a previously unrecognized southward “reverse migration” from the U.S. Corn Belt to Florida, rapidly shuttling Bt- and insecticide-resistance alleles across the continent. Field evaluations show that Vip3Aa20-expressing hybrids remain the only Bt technology that is still delivering > 75% control of corn earworm and reducing mycotoxin contamination, while older Cry proteins succumb to widespread resistance. At the same time, innovative work demonstrates that the maize weevil can be safely converted into a 48% protein ingredient, offering a practical “harvest-to-feed” approach that simultaneously curbs post-harvest losses and generates a sustainable protein source. Taken together, the studies provide a coherent, multi-scale framework for climate-smart, resistance-aware, and resource-efficient pest management in maize systems worldwide.



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