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Evaluating Potential Corn Rootworm Potential for 2019 in Western Illinois

Corn rootworm (CRW) is often considered the “billion-dollar bug” referring to the damage it can inflict on corn roots, and the economic losses that occur from the reduction of yield and standability related to root feeding. Once thought of only being in corn on corn fields, this insect has shown great adaptability to overcome control measures. The western CRW variant, that lays eggs in soybean fields, and the extended diapause variant of the northern CRW are two ways CRWs have adapted to control measures. The western CRW is becoming more challenging to control because of resistance to some insecticides and reduced susceptibility to some single B.t. traits. University trials have suggested that every node of roots lost to CRW feeding can reduce yields by 15%-20%. In a moderately infested CRW field, a potential yield loss of 15%-45% coupled with slower harvesting due to standability can make for a considerable financial loss.

An evaluation for CRW should occur every year in corn and soybean fields as populations can build very rapidly and are influenced by environmental conditions, soil moisture, rotation and soil properties. Just because there are low populations one year does not mean they will be low the next. Soybean and corn fields should be monitored for CRW beetles in the summer for the following planting season. In Illinois, rootworm populations have increased in some areas since the CRW population crash due to the 2015 spring flooding; therefore, in my opinion, there is the potential of an economic threshold being met with this insect.

Because of a dry spring and growing season in western Illinois, I expect to see an increase in larval survival and beetle emergence leading to some damage this year and an increase in damage in 2019. We need to be mindful of soybean and corn fields where beetles are found. The need to scout and document findings can be very beneficial to help predict when and where hot spots may occur in the future (Figure 1).



Figure 1. Western corn rootworm beetles clipping silks.

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Sources:

Valuation of corn rootworm control tactics under varying levels of pressure. Agronomy ADVICE. Channel.com. <http://www.channel.com/agronomics/Pages/Why-Your-Tillage-System-is-Important.aspx>

Managing corn rootworm beetles. Agronomy ADVICE. Channel.com.<http://www.channel.com/agronomics/Pages/Why-Your-Tillage-System-is-Important.aspx>

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