Western corn rootworm adult feeding on corn

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Most people are familiar with damage to corn roots caused by western corn rootworm beetle larvae. Sometimes, however, rootworm adult also cause economic damage later in the season to the above-ground parts of plants.

Adult beetles begin to emerge from the ground in early to mid-July in southern and central Michigan. Emergence continues for 4-6 weeks, peaking in early August. Beetles emerge not only from untreated continuous corn fields, but also from fields treated with soil insecticides, planted with treated-seed, and even planted to Bt transgenic corn. Insecticide treatments are designed to protect roots; they kill most, but not all, larvae. Beetles may also remerge from first-year corn fields in SW Michigan where rotation resistance is present. Rootworm beetle numbers drop through August, but some remain active until the first hard frost in

Beetles prefer to feed on pollen and silks, but individuals that emerge into vegetative stage corn will feed on corn leaves. The beetles scrape away a layer of the leaf surface, leaving a thin layer of tissue. Leaf feeding may look severe, but beetles switch to reproductive structures once the tassels and silks emerge. There are no thresholds for this type of feeding in Michigan, and treating for leaf feeding is not recommended.

Once tassels emerge, rootworms feed on pollen at the top of the plant, or move to leaf axils where pollen accumulates. This does not directly damage the plant or impact yield

Of greater concern is **feeding on silks**, which can **reduce pollination**. In addition to rootworms, Japanese beetles can also contribute to silk removal. Spraying may be necessary if silks are clipped to less than ½ inch . If beetle populations are extremely high and silk clipping is wide-spread in a field of Bt rootworm corn, this could be an early sign of resistance. These fields should be reported to your seed dealer and checked for root damage and Bt expression.

Silk clipping (above) can result in poor pollination (right)