



BUG BIZ

Pest Management and Insect Identification Series



Saccharosydne saccharivora, The West Indian Canefly (Hemiptera: Delphacidae)

Blake Wilson, Megan Mulcahy, Forest Huval and Gene Reagan

Description

Saccharosydne saccharivora, known as the West Indian canefly, is a true bug belonging to the insect family Delphacidae. The family belongs to a group referred to as plant hoppers. The adult West Indian canefly is a distinctive bright green insect with red eyes and clear wings. They possess black lines on their yellowish antennae and a narrow head that protrudes beyond the eyes, almost like a nose. Adults are usually 3 to 5 mm (one-eighth to one-fifth of an inch) in length. Females are slightly larger than males. Female West Indian caneflies can also be identified by a cottony substance secreted from the end of the abdomen. The immature stage nymphs are smaller than the adults, greenish-yellow, wingless and possess a distinctive tail of waxy secretions. They resemble the adults more with each growth stage.

Life History

Eggs of the West Indian canefly are laid in ridges on the undersides of host plant leaves. The eggs are then covered in protective webbing, giving them a cottony appearance. The egg stage lasts about 13 to 23 days, depending on temperature, with peak hatching occurring at 15 to 16 days. Nymphs begin feeding immediately on the leaves of host plants. They are highly mobile, often scurrying or jumping off leaves if disturbed. Nymphs go through five growth stages (instars), each of which ends with a molting event. Development from nymph to adult takes approximately 17 days for males and 20 days for females. Unlike nymphs, the adults have wings and can fly in search of new host plants. Male West Indian caneflies live for about one week, while females live for up to four weeks. Populations can reach large densities, especially in sugarcane. Their overlapping generations mean that eggs, nymphs and adults can be seen on the same leaves at the same time. However, adults are present in smaller numbers than nymphs because of their ability to emigrate out of infested fields when populations are dense.

Damage to Sugarcane

The West Indian canefly is originally from Jamaica and other parts of the Caribbean. The species was first discovered in Louisiana in 1944. All life stages of the West Indian canefly feed on grasses, such as sugarcane, johnsongrass, sudangrass, switchgrass and bushy bluestem. The species has also been introduced to other areas of the southern U.S. from Florida to Texas.



West Indian canefly eggs, nymphs and adults on sugarcane with sugarcane aphids. Blake Wilson, LSU AgCenter.



Adult West Indian canefly. Kyle Kittelberger, Bugguide.net, used with permission.

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The West Indian canefly is known as a damaging pest of sugarcane in its native range in the Caribbean region. In Louisiana it is considered a sporadic pest that is prone to major outbreaks. Outbreaks of the pest occurred in Louisiana sugarcane during 1969, 1997, 2012 and 2016. Outbreaks may be related to warm winter temperatures without a hard freeze that would otherwise decrease population densities.

Damage in sugarcane occurs when West Indian canefly adults and nymphs feed on young sugarcane leaves. They pierce the leaves with their long, sucking mouthparts and remove sugary sap from the plant. They excrete excess sugar, which coats the top side of leaves with a shiny, sticky residue called "honeydew." Honeydew promotes growth of black sooty mold. Sooty mold covers the sugarcane leaves, disrupting photosynthesis, reducing plant growth and resulting in yield loss. Nymphs usually feed in the upper canopy and damage newer leaves. Sooty mold is worse in the lower canopy and can result in premature leaf death (necrosis). Yield losses resulting from infestations are still being investigated, but damage depends on the duration of the infestation and pest density (number of nymphs per leaf).

Control

During years without outbreaks, chemical controls are not necessary for the management of West Indian caneflies in sugarcane. This is because densities are not high enough to cause damage, and populations decline when the sugarcane ages. Population decline may also be due to predation by lady beetles, spiders, predatory hemipterans and insect parasites in the families Halictophagidae (order Strepsiptera) and Dryindae (order Hymenoptera).

During outbreak years, fields should be scouted for the West Indian canefly before applying insecticides. Fields are scouted by counting the number of nymphs on the underside of the third or fourth leaf down from the top of the plant. Fields are scouted for two weeks and should be treated if infestations increase, if more than 30 nymphs are counted per leaf and if sooty mold is present. Currently, lambda-cyhalothrin is registered for West Indian canefly control in sugarcane. Lambda-cyhalothrin is not recommended if aphids are present on the sugarcane because this product can worsen aphid infestations. Some cultivars (L 01-299 and HoCP 04-83) are resistant to sooty mold and, therefore, West Indian canefly damage.

Contact your local county agent for the latest recommendations on West Indian canefly control and always follow the label instructions when applying insecticides.

References

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- Wilson, B. E., M. M. Mulcahy, L. Lama, and R. R. Richard. 2018. Assessment of Insecticides Against the West Indian Canefly and Sugarcane Aphid in Louisiana Sugarcane, 2017. *Arthropod Management Tests*. 43(1): 1.

Contact us

For advice about arthropod identification or diagnosis, contact the LSU AgCenter Department of Entomology. Reach the department through the Contact Us webpage:

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PUB 3732 online 5/20

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