



This bulletin from the Cooperative Extension Plant Health Clinic (Plant Disease Clinic) is an electronic update about diseases and other problems observed in our lab each month. Input from everybody interested in plants is welcome and appreciated.



The Plant Health Clinic now has a Facebook page:

<https://www.facebook.com/UAEXPlantHealthClinic/?pnref=story>

Mole crickets

Mole cricket species found in Arkansas are the Northern Mole Cricket, *Neocurtilla hexadactyla*, and the Prairie Mole Cricket, *Grylotalpa major*. We possibly have other species as well. These are very interesting insects, with mole-like front feet, which are used for digging. They are large insects, growing to 2 ½ inches long. The Northern Mole Cricket prefers damp areas and can damage well-watered lawns and golf courses. They feed on seedlings and grass roots, and can also damage plants with their burrowing activities. Mounds of dirt are evidence of their tunneling.

Mole Crickets spend most of their life cycle below ground. In the spring adults mate during dispersal flights. Males have a loud song to attract females. They construct a resonating subsurface tunnel to broadcast their song. There are three life stages, eggs, nymphs, and adults. The eggs are laid below ground. Nymphs undergo 6-8 instars before becoming mature. Northern and prairie species are thought to have a two or three year life cycle. In meadows and pastures, Mole Crickets require no control. They have a great many predators and are actually beneficial to the environment. In home lawns and golf courses, chemical control may be necessary. Bayer Advanced lawn Grub Control, Merit, Duocide, Aloft, Zylam, Spectracide Acre Plus Triazicide Insect Killer for Lawns & Landscapes Concentrate, Advion Mole Cricket Bait, Provaunt SC, Triple Crown, Triple Crown golf, and others.

Mole Crickets -Grillos topo (Spanish version) by Keiddy Urrea

Las especies más comunes de grillos topo que se encuentran en el Estado de Arkansas son grillos topo del norte (*Neocurtilla hexadactyla*), y grillos topo de la pradera (*Grylotalpa major*). Posiblemente se encuentran algunas otras especies aún no reportadas. Estos interesantes insectos tienen las patas frontales similares a las de los topos, las cuales utilizan para cavar sus túneles. Son insectos grandes que pueden llegar a medir hasta 2.5 pulgadas. El grillo topo del norte prefiere áreas inundadas, por lo tanto, pueden producir mucho daño en campos de golf y pasturas que son irrigadas constantemente. Estos insectos se alimentan de plántulas y raíces de pastos, además, causan daño perforando las raíces de diferentes plantas. Pequeñas montañas de tierra son evidencia de los túneles que estos insectos construyen.

Los grillos topo pasan la mayoría de su ciclo de vida por debajo de la superficie del suelo. En la primavera los adultos vuelan para aparearse, los machos producen un sonido particular para atraer a las hembras el cual es conducido a través de los túneles que construyen. Su ciclo de vida consta de tres estados: huevos, ninfas y adultos. Los huevos son depositados debajo de la superficie del suelo, las ninfas pasan por 6 – 8 instares antes de madurar. Es pensado que la duración del ciclo de vida de las especies de grillos topo del norte y grillos topo de la pradera es entre 3 a 4 años. En praderas y pasturas no es necesario el control de los grillos topo porque ellos tienen predadores naturales y son benéficos para el ambiente. En jardines y campos de golf, el control químico puede ser necesario. Los insecticidas recomendados para el control de grillos topo son: Bayer Advanced lawn Grub Control, Merit, Duocide, Aloft, Zylam, Spectracide Acre Plus Triazicide Insect Killer for Lawns & Landscapes Concentrate, Advion Mole Cricket Bait, Provaunt SC, Triple Crown, Triple Crown golf, entre otros.



Sherrie Smith
Keiddy Urrea



CLINIC NEWS

Issue-13, May 21, 2018

Northern Mole Cricket-*Neocurtilla hexadactyla*



Seastone, L. and B. Parks, Museum Collections: Orthoptera, USDA APHIS ITP, Bugwood.org

Northern Mole Cricket-*Neocurtilla hexadactyla*



Seastone, L. and B. Parks, Museum Collections: Orthoptera, USDA APHIS ITP, Bugwood.org

Mole Cricket Burrow-*Neocurtilla hexadactyla*



Jan Yingling, University of Arkansas Cooperative Extension

Mole Cricket damage to turf-*Neocurtilla hexadactyla*



Jan Yingling, University of Arkansas Cooperative Extension



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Issue-13, May 21, 2018

Peaches and Nectarines

Leucostoma Canker is a serious disease of peach, nectarines, and sweet cherries. It is also known as Perennial Canker, Cytospora Canker, or Valsa Canker. Symptoms on small twigs begin as sunken, discolored spots, usually around leaf scars or winter killed buds. The lesions often have alternating zone lines. With age the lesions darken and begin to exude amber gum. Cankers on main branches and crotches are typically elliptical with large amounts of oozing gum. Cracks open in the infected bark showing blackened tissue beneath the bark. During the growing season the lesion may develop a callus around it as the tree tries to wall off the infection. However the fungus invades the tissue again when the tree is dormant and cannot actively resist infection. Management of Leucostoma is based on cultural practices to prevent canker formation. Good site selection is critical. Deep, well-drained soil and good air circulation help limit disease. Training of young trees during the first season to prevent narrow crotch angles helps prevent predisposing conditions for the disease. Good borer control is very important as the insects allow entry points for the fungus. Cankers on large limbs and trunks should be removed in midsummer and burned. All diseased bark surrounding the canker and 3-5cm of healthy tissue around the canker should be removed. Tools must be dipped in alcohol or a 10% bleach solution between cuts. Removing cankers should only be attempted when dry weather is expected for 3 days in a row.

Peach Leucostoma Canker-

Leucostoma spp.



Chris Elkins, University of Arkansas Cooperative Extension

Peach Leucostoma Canker-

Leucostoma spp.



Sherrie Smith, University of Arkansas Cooperative Extension



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Peach Leucostoma Canker-
Leucostoma spp.



Chris Elkins, University of Arkansas Cooperative Extension

Immunox, or Bonide Fung-onil Multipurpose Fungicide Concentrate. Commercial growers may use Abound, or Quadris Top, or Topguard, or Pristine, or Captan, or Indar, or Eagle, or Fontelis, or Propimax, or Tilt, or Scala, or Gem, or Fontelis, Adament, or Ziram Granuflo. Timing of the first sprays is of the utmost importance. Begin at pink bud in the spring and follow label for repeat sprays.

Peach Brown Rot-Monilinia spp.



Sherrie Smith, University of Arkansas Cooperative Extension

Brown Rot

Brown Rot is one of the most serious and pervasive fungal diseases of stone fruits. Brown rot attacks peaches, nectarines, apricots, cherries, and plums. Two species of *Monilinia* have been identified as causative agents in the United States; *Monilinia fructicola*, and *M. laxa*. *Monilinia* causes twig and blossom blight in early spring. Flowers turn brown and become a gummy mass. The infection travels down and can girdle the twig. Lens-shaped lesions can form on branches and the trunk. The infected tissue becomes covered with grayish-tan spore mass that provides secondary inoculum for additional infections. Brown rot appears on ripening to mature fruit as a rapidly growing, firm brown decay. Eventually the fruit is covered with the grayish-tan spore masses and eventually mummifies on the tree. Immature fruit that is infected remain on the tree and mummify also. Since *Monilinia* overwinters on mummified fruit, twigs, and cankers, sanitation is very important in the home orchard. However tedious a procedure, it is helpful to clean up as much infected tissue as possible. Homeowners may use Ortho Home Orchard Spray, or Bonide Fruit Tree Spray, or Hi-Yield Captan 50WP, or Bonide Captan 50WP, or Spectracide

Peach Brown Rot-Monilinia spp.



Sherrie Smith, University of Arkansas Cooperative Extension