



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.

Lantana

Lantana comes in an array of color combinations, pink, red, yellow, orange, and white. They are great plants for the sunny border as they thrive in the heat and bloom all summer until frost. Lantana lace bugs, *Teleonemia scrupulosa*, can cause severe damage during the growing season. Symptoms are speckling, and mottling on the leaves as the insects feed on the sap. Their dark tar-like droppings may be observed on the underside of leaves. Adult lantana lace bugs are small, brown, elongate-oval bugs, appearing slightly expanded near the middle, and bluntly rounded at their rear. At low magnification, most specimens bear a somewhat obscure dark brown "X" pattern on the forewings, usually flanked by a pair of variably shaped brown spots on the swollen middle area of each forewing. The antennae are 4-segmented, cylindrical, and with the third segment nearly twice as long as the other three segments combined. Nymphs are dull-colored and spiny. Insecticidal soaps, Sevin, and permethrins, are labeled for lace bugs.

Lantana lace bug-*Teleonemia scrupulosa*, feeding injury



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Lantana lace bug-*Teleonemia scrupulosa*, frass on underside of leaf



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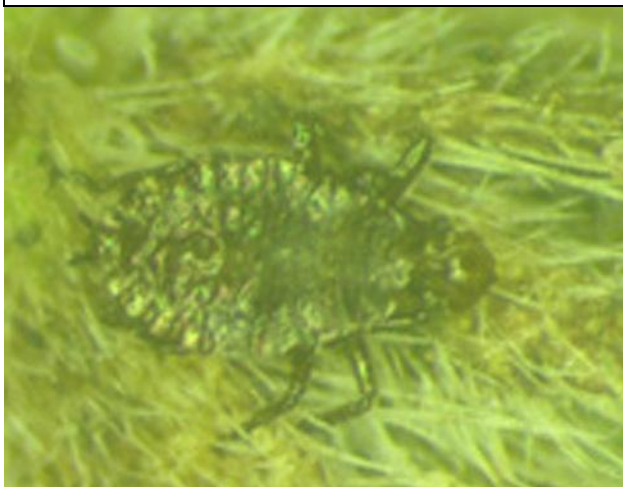
Lantana lace bug-*Teleonemia scrupulosa*, adult



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Lantana lace bug-*Teleonemia scrupulosa*, nymph



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Tomato Mosaic Virus



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Tomato

The Plant Health Clinic has received numerous samples of tomatoes with Tomato Mosaic Virus, also known as Tobacco Mosaic Virus (TMV). Tobacco Mosaic Virus is known to infect 125 individual species, including tobacco, tomato, pepper, potato, eggplant, cucumbers, beans, and a number of ornamental flowers. TMV is transmitted mechanically from infected crops or weeds. The virus can also be transmitted via unwashed hands or clothing that has come in contact with infected plants or tobacco products. People who use tobacco products are often the unwitting means of transmission. TMV can also be transmitted by chewing insects or tools. Additionally, the virus can persist in the soil on root debris for at least two years. Leaf symptoms are light- and dark-green mottling to bright-yellow mottling. Leaves often have puckered areas, and leaflets may be narrowed, giving the plant a ferny appearance. Infected fruit may have green and yellowish-red rings or mottling and dark brown spots. Internal browning of fruit can also occur. Severely infected plants are stunted, and affected fruit is not marketable. There are good varieties resistant to this disease. Virus is not curable. All parts of infected plants should be removed from the field or garden.

Iris

The Iris Borer, *Macronoctra onusta*, is the most destructive insect pest of iris. The adults are large, night flying, brown moths with a wingspan of up to 2 inches. In late summer to early fall, the moths lay eggs on old iris plants and iris debris. The eggs hatch in the spring into tiny caterpillars that climb up the new foliage and chew pinprick size holes. The holes allow the caterpillars access where they tunnel inside the leaves towards the rhizomes. Leaves with the caterpillars inside, develop tan or water-soaked streaks. The tips of the leaves eventually turn brown and die. When the caterpillars reach the rhizome, they have grown to 1 ½ to 2 inches in length. Once in the rhizome, they destroy it



with their feeding activity. This damage to the rhizome often allows the entry of a bacterial soft rot pathogen. Infected rhizomes become soft, slimy, and foul smelling. Late in the summer, the caterpillars move into the soil where they pupate. Adults emerge in the fall to start the life cycle over again. Sanitation is the single most important method of control. After the first frost, all old leaves and debris should be cleaned up. Any plants with leaf symptoms should be dug up and examined in the fall for caterpillars in the rhizome. Those rhizomes should be destroyed. Insecticides applied in the spring when new leaves are 4 to 6 inches in length, and 10 to 14 days later helps reduce caterpillar numbers. Admire or Merit, manufactured by Bayer, can be applied as a soil drench. Young larvae feeding in the leaves in early summer may be crushed by pressing that section of the leaf between your fingers.

Iris Borer pupa-*Macronoctra onusta*



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Iris Borer caterpillar-*Macronoctra onusta*



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Iris Borer caterpillar damage-*Macronoctra onusta*



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