WESTERN FLOWER THRIPS Thysanoptera: Thripidae Frankiniella occidentalis

DESCRIPTION

Adults are yellowish-brown to straw colored and about 1 to 2 mm long. Winged adults have four wings that are long and narrow with a fringe of long hairs on the margins. Nymphs resemble adults except in size and lack of wings.

ECONOMIC IMPORTANCE

Adults and nymphs feed by rasping the leaf surfaces and sucking up the exuding plant juices. This injury causes distorted leaves and buds. An infestation in flower buds results in malformed and spotted flowers. This species also is a vector of impatiens necrotic spot virus (formerly tomato spotted wilt virus) which occurs on several ornamental hosts and mint.

DISTRIBUTION AND LIFE HISTORY

These insects are widely distributed throughout the United States. Adults overwinter in trash, under bark, and in other protected areas. Adults become active in the spring and lay eggs in the tissues of host plants. The eggs hatch into nymphs that begin feeding in flowers, buds, and on leaves. When mature, nymphs drop to the ground and molt into adults. Under favorable conditions, a complete life cycle may require only two weeks. Seasonal migration occurs at various times of the year due to the destruction or drying up of host plants, and adjacent crops, such as alfalfa, grasses, nurseries, and fields may be suddenly invaded by these small insects.

MANAGEMENT AND CONTROL

The most commonly used method of controlling thrips is the use of insecticides. Thrips populations can be monitored in fields or greenhouses with yellow or blue sticky cards. The best method of preventing thrips infestations in greenhouses is to screen all vents and doors and avoid bringing infested plants into the house. Predators such as lacewings and minute pirate bugs are important late in the growing season, and may prevent thrips from increasing to larger populations.