
DESCRIPTION

Adults are 1 to 3 mm long, white, with four wings, and covered with a powdery white waxy material. Nymphs are flat and oval and appear glued to the lower leaf surface. Nymphs also are covered with a powdery white, wax-like material.

ECONOMIC IMPORTANCE

The injury caused by adults and nymphs is similar to that caused by aphids and scales in that whiteflies excrete honeydew that gives plants a sticky appearance. Feeding injury causes stunting, distorted leaves, and weak appearing plants. The iris whitefly is the most important species found on potato, but it seldom requires control.

DISTRIBUTION AND LIFE HISTORY

Whiteflies are distributed throughout the United States. These insects are more serious on plants grown in greenhouses than on plants grown outdoors. Eggs are laid on the lower leaf surfaces. The eggs are attached to the plant on a stalk. Eggs hatch in one to three weeks and nymphs crawl about on the lower leaf surface for several hours before settling down to begin feeding. The nymphs remain in the same position for three to four weeks until they mature. Mature nymphs form a pupa-like case attached to the leaf. The adult emerges in one to two weeks. There are several overlapping generations each year on indoor plants and two to three generations each year on outdoor plants. The insect overwinters in northern climates as a nymph or in the pupa-like stage.

MANAGEMENT AND CONTROL

A Hymenoptera parasite, Encarsia formosa, is an effective control agent in greenhouses, but in areas where this parasite is not established, insecticides are commonly used to control this pest. In the Pacific Northwest, whiteflies are seldom serious on potato and do not require control.