# University of Wyoming

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## **Spotted Alfalfa Aphid**

### Therioaphis maculate

Order: Homoptera (aphids, scales, white flies,

hoppers, and mealy bugs)

Family: Aphididae (aphids)

*Metamorphosis:* Simple (egg-nymph-adult)

*Mouthparts:* Piercing and sucking in nymphs and

adults



Adult of the **SPOTTED ALFALFA APHID**, *Therioaphis maculata*, see color print, Fig. 2, on publication B-1013.

The spotted aphid was first detected in the United States in the early 1950s. It is found throughout the western region. A combination of natural enemies and resistant alfalfa varieties keep this aphid economically controlled under most conditions.

#### **Body Form**

Eggs: Eggs are formed within the female but are not laid. Females give birth to live young.

**Nymphs:** Nymphs range in size from less than 1/16 inch to about 1/8 inch in length. They are pale-yellow with four to six rows of dark spots running down the length of their back. Each spot has a spine that can be detected with a hand lens on larger nymphs. Nymphs are wingless, but wing pads may be visible on the ones that will mature into winged adults.

*Adults:* Adults have the same basic characteristics as nymphs with the exception of wings, if present. Adults may be winged (alates) with a hardened and darkened thorax to support the wing structure. Non-winged adults (apterae) are similar to nymphs in structure and color.

#### **Life History**

Nymphs are born as live young from their mothers. Reproduction is asexual. This aphid prefers to feed low on a plant on the underside of leaves. It also feeds on stems and secretes large amounts of honeydew. Growth and reproduction are optimal at temperatures between 80 and 90 degrees Fahrenheit. Large population increases can be seen at these temperatures. Peak activity usually occurs late in the season.

#### **Plant Injury**

Leaves turn yellow from feeding, which reduces the photosynthetic potential of a plant and its forage quality. The yellowing is due to the injection of toxic aphid saliva into a plant. Honeydew production may result in the growth of sooty mold.

#### Management

A combination of natural enemies (aphid parasites, syrphid flies, and ladybird beetles) and resistant alfalfa varieties keep this aphid economically controlled under most conditions. The use of alfalfa-resistant cultivars has resulted in this aphid becoming an infrequent problem. Most cultivars presently grown are resistant to this aphid. Temperatures between 80 and 90 degrees Fahrenheit and low humidity can lead to a building of the population late in the season. Chemical control might be warranted at this time. Plant damage caused by the spotted alfalfa aphid can be verified by inspecting the lower parts of plants with yellowing foliage for the presence of aphids.

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