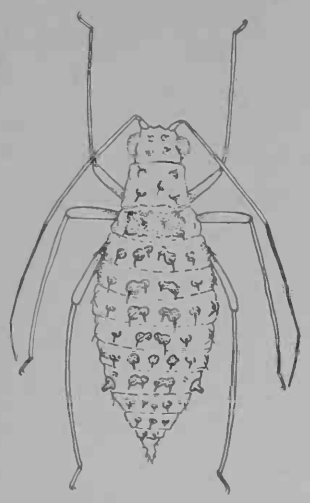
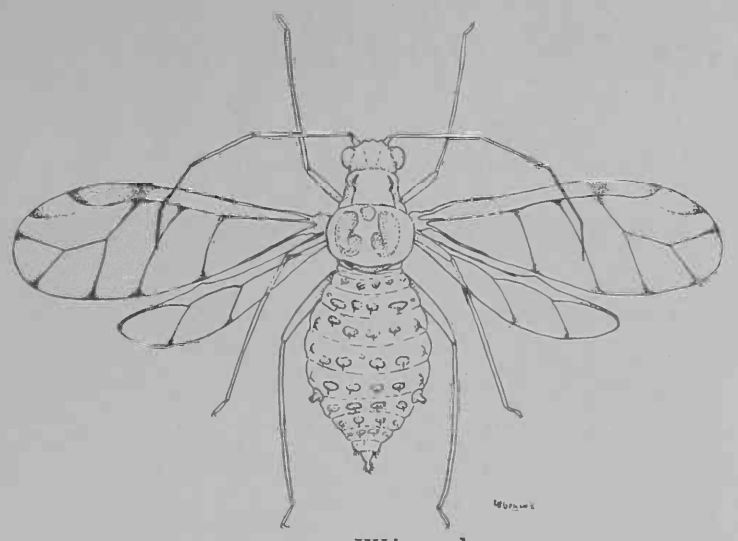


Wingless



Winged

(About 12 times natural size—actual length from 1/16 to 1/8 inches.)

The Latest on the SPOTTED ALFALFA APHID IN ARIZONA

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"Spotted Alfalfa Aphid" is now the accepted name for the very serious alfalfa pest which was first reported from Arizona, New Mexico, and California in 1954. This insect, which bears the technical name *Therioaphis maculata* (Buckton), had previously been known from an area extending from India to the Mediterranean region. It is now considered to be a different species from the yellow clover aphid, *Therioaphis trifolii* (Monell), which has been a minor clover pest in northeastern United States for many years.

The spotted alfalfa aphid may be distinguished from other aphids common on Arizona crops by its relatively small size (1/16 to 1/8 inch in length), yellowish-green color, 6 rows of black spots on its upper surface, dusky wing veins on winged individuals, the habit of feeding on lower leaf surfaces and of jumping when disturbed, and by its copious secretions of honeydew.

The spotted alfalfa aphid is capable of destroying entire stands of seedling alfalfa within a few days. It is, therefore, necessary that seedlings be closely examined, preferably "on hands and knees," at intervals of two to three days, particularly when plants are less than five inches high. Older seedlings should be examined at least twice weekly and mature stands at least weekly if serious losses are to be prevented.

For the present, at least, it is necessary to use insecticides to adequately control the spotted alfalfa aphid in Arizona. The following suggestions are based on results of recent field experiments in the Yuma area where infestations have been particularly heavy.

SUGGESTIONS FOR THE INSECTICIDINAL CONTROL OF THE SPOTTED ALFALFA APHID IN ARIZONA

1. Alfalfa Seedlings:
When 2 to 3 aphids are found per 10 seedlings.

Dusts: 5% malathion (preferred) *or* 2% parathion at 12-15 lbs. per acre (by ground duster), *or* at 17-20 lbs. per acre (by aircraft). Dusts are more effective when sulfur is added to formulations.

Sprays: Use one pint of one of the following emulsion concentrates in 6 gallons of water per acre: 50% malathion (preferred), *or* 25% parathion, *or* 25% demeton (Systox). (The latter is less effective on seedlings than on larger plants.)

2. Alfalfa Grown for Hay:
When 30 to 40 aphids are found per plant, or when honeydew becomes noticeable. (Do not wait until plants become sticky.)

Same as above. Very thorough application is essential; missed areas are sources of rapid re-infestations. WARNING: Alfalfa grown for hay should not be cut or pastured for at least 14 days after treatment with the above materials. Insecticides with more persistent residues should not be used on hay crops.

3. Alfalfa Grown for Seed:
Same as above.

Up to the blooming period, any of the materials listed above may be used. During and after blooming, use a dust containing 15% toxaphene, 5% DDT, and 40% sulfur, at 15 lbs. per acre (preferred), *or* 25% demeton (Systox) concentrate in a spray containing 6 gallons of water per acre. Ordinarily the insecticides used to control other pests of alfalfa seed crops will also control the spotted alfalfa aphid.

New Bulletins

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Bulletin 268. Dearfism in Beef Cattle. The Description, Cause and Control
Bulletin 269. Growing Potatoes in Arizona (Available about Jan. 20)
Report 121. Small Grain Variety Tests
Report 122. Statistical Tables, Consumer Preference for Beef, Phoenix, Arizona, 1955 (Tables only)
Report 123. Seasonal and Inter-Area Shifts in the Western Lettuce Industry
Report 124. The Value of Pyrite and Pyrrhotite as Soil Conditioners (Technical)

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