

SECTION 1
Mites and Sap-Sucking Insects

SPATIAL DISTRIBUTION OF *Typhlodromus occidentalis* Nesbitt ON
HOPS, *Humulus lupulus* L. IN THE FIELD

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Spatial distribution of *Typhlodromus occidentalis* Nesbitt was studied on hops in the field at IAREC/W.S.U. in 1993. The variety of hops Galena was used. Twenty plants were chosen in check plot randomly and, plant height intervals 0-1, 1-2, 2-3, 3-4 and 4-5 m were sampled weekly.

Phytoseiid mites were mounted to determine the predator species on hop and, of 180 microscope slides mounted, 12 samples belonged to *Amblyseius fallacis* Garman. *T. occidentalis* was identified to be a dominant phytoseiid species in the experiment plot. Two spotted spider mites (TSSM) and phytoseiid populations were at the bottom of the hop plants (height up to 2 m) in the early sampling season. TSSM and phytoseiid populations began to migration from bottom to top of the plants after 2 weeks of the first sampling date.

Phytoseiid mites were not uniformly distributed on upper parts of the plant (between 3.5-4-5 meters).

The average aphid population was higher than mites population during the whole growing season. TSSM population was suppressed if leaves were infected by hop aphid (*Phorodon humuli* Schrank) in the early season. Aphid density and honeydew on leaves interfered with prey and predator movement.