

Ecology of western flower thrips in intra- and near-orchard habitats

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Abstract: Apple shoots harbored adult and immature thrips throughout the season until frost. Adult thrips appeared on dandelion flowers before apple flowers developed and first appeared on apple buds at delayed dormant. On the orchard floor, dandelion flowers, as well as other flowers sampled, harbored thrips until frost, sustaining a resident population in the orchard. Thrips fed and reproduced throughout the year in near-orchard habitats by switching hosts that produce new leaves and flowers in different seasons. Some plants, such as arrowleaf balsamroot, *Balsamorhiza sagittata*, bloomed in spring and then were dormant until the next year. Others, such as gray rabbitbrush, *Chrysothamnus nauseosus*, provided growing shoots throughout the spring and summer and flowers in the fall. The dominant climax woody species of the steppe, big sagebrush, *Artemisia tridentata*, attracted great numbers of thrips when in bloom in the fall. Native grass species attracted some thrips when in flower, but in general samples contained very few thrips. All native grass species sampled were dormant in the summer and fall and could not serve as a continuous food source for immature thrips. The great majority of thrips on apple and other host plants in Washington appeared to be western flower thrips.