

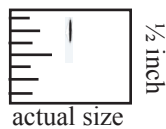
# Western Grape Leafhopper

(*Erythroneura elegantula*)



## Adult

- 1/8 inch long
- Pale yellow with reddish and brown markings
- Overwinter as adults



## Cast-off skin

- Fifth nymphal stage molts leaving cast-off skin on leaf
- Indicates adults are emerging



## Normal and Parasitized Egg

- Right: Round exit-hole from emerged parasite
- Left: unparasitized egg



## Nymphs

- Five immature nymphal stages
- Small: 3/64 to 5/64 inch long
- Crab-like sideways movement



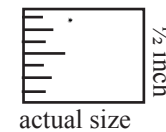
## Damage

- Stippling on leaves
- As damage increases, leaf turns pale yellow
- Leaves may dry up and fall



## *Anystis agilis*

- The predatory mite *Anystis* attacks grape leafhopper nymphs



# Western Grape Leafhopper

*(Erythroneura elegantula)*

Date	Insect Stage	What to look for
Early to mid-May	First nymphal stage of first brood	<ul style="list-style-type: none"><li>• Divide vineyard block into more than one sampling area</li><li>• Note stippling damage on basal leaves</li><li>• Select 10 vines to sample</li><li>• Sample for nymphs on the lower surface of a basal leaf (nodes #1-5)</li><li>• Count and record nymphs per leaf on total of 10 leaves per sampling area once a week</li><li>• Record average nymphs per leaf</li></ul>
Early to mid-June	Peak number of nymphs at first brood	<ul style="list-style-type: none"><li>• Sample and record nymphs as described above</li><li>• Estimate vine canopy damage as percent of leaves with stippling damage</li><li>• Look for parasite exit-holes in grape leafhopper eggs</li></ul>
Mid to late-June	Cast-off skins	
July	Second brood nymphs	<ul style="list-style-type: none"><li>• Sample for nymphs on lower surface of a mid-shoot leaf in each of 10 vines per sampling area</li><li>• Count and record number of nymphs per leaf once per week</li><li>• Estimate vine canopy damage</li></ul>
Pre-harvest	Adults of second generation	<ul style="list-style-type: none"><li>• Assess adult population</li></ul>