

## Monitoring Vineyards for Girdle Damage

Girdle assessments can be used to record spatial and temporal trends in treehopper feeding activity. Two treehoppers, *Spissistilus festinus* and *Tortistilus wickhami*, girdle vines in Napa.

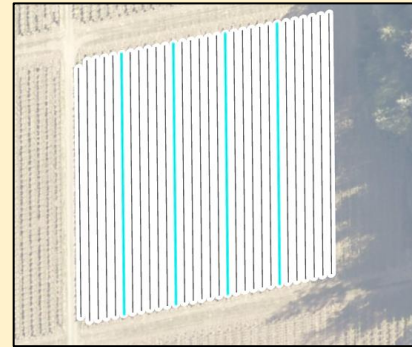
### Step 1

Choose your monitoring block.  
Girdles are only visible in red cultivars.



### Step 2

Choose 4 to 8 rows that are **evenly distributed** through the block. Mark rows with **flagging tape** as you will repeatedly monitor these rows.



### Step 3

Walk the length of the row, searching one side of the row for red leaves and girdles. Inspect girdles for presence of treehoppers, and collect any specimens found.



### Step 4

**Record** information about each girdle, such as date, row, or geolocation. Once recorded, **remove** the girdle so as not to re-count it in subsequent weeks.



### Step 5

**Continue** to the next monitoring row. Monitor the opposite side of the row from the previous row (different canopy exposure).

### Step 6

Visit the same rows every **1-2 weeks** and repeat the monitoring activities. Monitor from **Jul to Sep**, when most *S. festinus* girdles are found in Napa vineyards.

## Additional Notes for Girdle Monitoring

### Data Monitoring Intervals

If monitoring at 1 to 2 week intervals from Jul to Sep is not feasible, consider more sporadic monitoring.

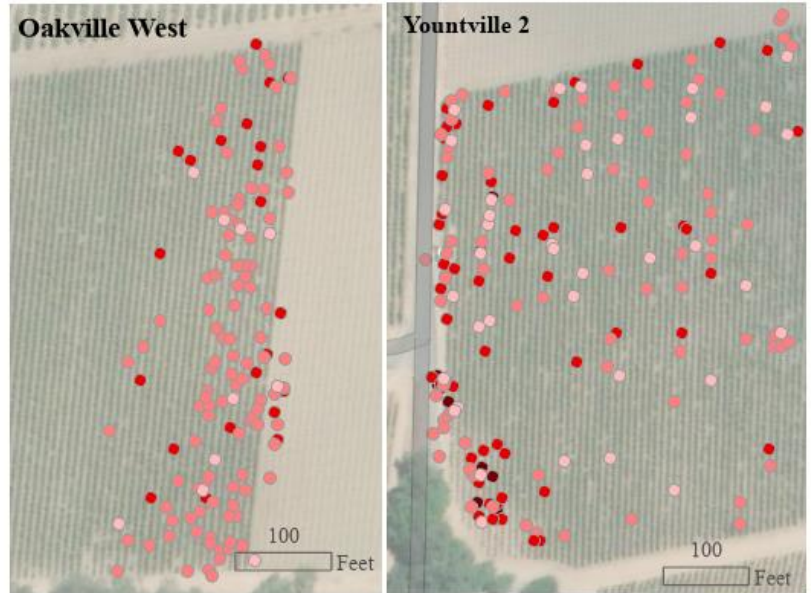
**Monitor twice**, once in mid-July and once in mid-August.

Girdle observations in 2023 and 2024. Most girdles were found in July through September.



2023 and 2024 Girdles  
UCCE Napa County GRBV Study

Month  
● August  
● June  
● July  
● September  
● October



### Options for Recording Data

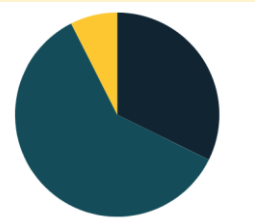
- **Girdle Incidence**- girdle count per vine
- **Girdle Location**- basal, middle, or upper canopy
- **Girdle Tissue**- lateral, petiole or shoot
- **Geolocation**- to visualize patterns by month or year
- **Archive** your data to refer to in future growing seasons.

### Treehopper species

Both treehopper species girdle grapevines. It is not possible to distinguish the species from the girdle, an insect specimen is required.

*S. festinus* is a vector of grapevine red blotch virus. *T. wickhami* is under investigation as a vector.

Visit the UCCE Napa Viticulture Team website for resources on treehopper identification.



UCCE girdle data can be viewed here:



### UCCE Red Blotch Disease Resources:

- Treehopper Identification
- LAMP for GRBV
- Visual symptoms of grapevine red blotch disease

