UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources

# Barrier Plantings in Vineyard Agroecosystems

## What are barrier plantings?

Barrier plantings are intentionally established and managed strips of vegetation along vineyard edges, roads, or field margins. Plantings may provide multiple functions to the agroecosystem and local ecology:

- Habitat for beneficial arthropods
- Pollinator resources
- Increased biodiversity, habitat and refuge
- Increased resiliency in agroecosystem

## Plant Selection & Management

A barrier planting study for blue-green sharpshooter found that it is not the height of the barrier planting, rather selection for “shrubby” plants with a higher density of lower story growth that reduces incursion of sharpshooter from riparian habitat into vineyards (Daugherty 2012).

Multi-layer planting where species are selected for differing heights, root depths, and size will maximize the density of the barrier.

Given what is known about the ecology of the threecornered alfalfa hopper, ensure that the ground under the barrier plantings is not harboring favored weedy sunflower, clover, or vetch hosts.

- To explore native plant options, visit https://calscape.org/
- To cross reference if a plant of interest is invasive, visit https://www.cal-ipc.org/
- To cross reference plant species for their capacity to host other vineyard diseases (ex. Pierce’s Disease)
    - EPPO (2025) EPPO Global Database. https://gd.eppo.int

### Barrier Planting Examples in Napa County





# Non-exhaustive List of Potential Plants



**Arroyo Willow**

*Salix lasiolepis*



**Lemonade berry**

*Rhus integrifolia*



**Barberry**

*Berberis sp.*



**Manzanita**

*Arctostaphylos sp.*



**California Bay Laurel**

*Umbellularia californica*



**Olive**

*Olea europea*



**California lilac**

*Ceanothus sp.*



**Sugarbush**

*Rhus ovata*



**Coast Live Oak**

*Quercus agrifolia*



**Toyon**

*Heteromeles arbutifolia*



**Coffeeberry**

*Frangula californica*



**Wax Myrtle**

*Morella californica*

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