

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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