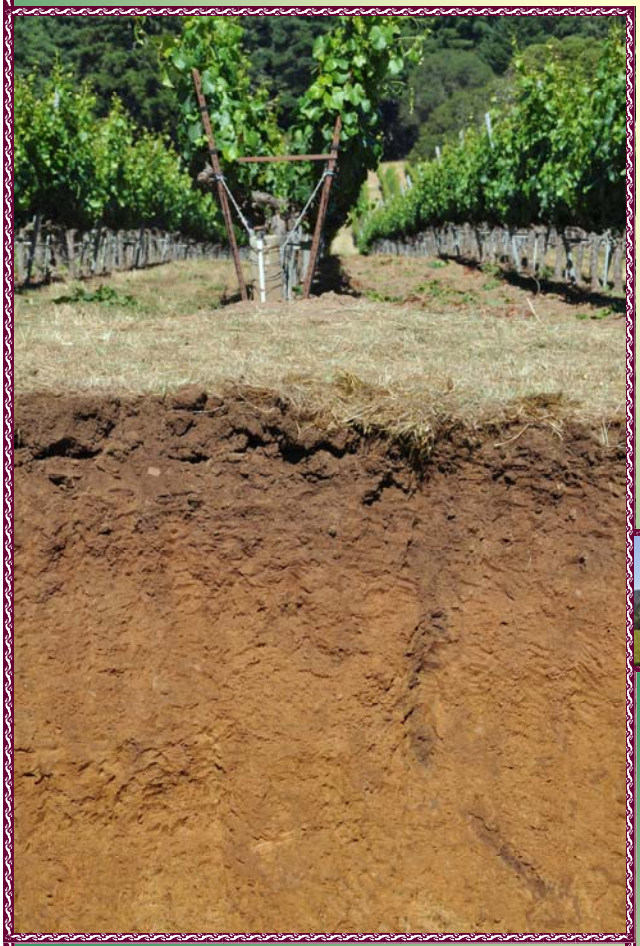
UC CE University of California Agriculture and Natural Resources Cooperative Extension

NRCS

Mendocino County Vineyard Soils

Pinole

Pinole soils are very deep soils formed in alluvium under annual grasses and forbs. They are moderately permeable soils of fair to good native fertility, depending on slope and gravel content, found on inland and coastal river terraces.



Typical Profile:

0-1 ft.: dark brown Loam

1-3.5 ft.: brown Clay Loam

3.5-5 ft.: multi-colored brown and yellowish brown Sandy Clay Loam

Soil Properties of Interest:

Available water-holding capacity (0 - 5 feet)	**10.3 inches**
Drainage class:	**Well Drained**
Permeability class:	**Moderately Slow**
Clay range in profile:	**15 to 35% Maximum clay at 3'**
Sand range in profile:	**35 to 60% Increasing with depth**
Coarse fragments in profile:	**Inland locations have up to 35% gravel**
Soil pH range:	**5.5 to 6.8 Trends vary by AVA**

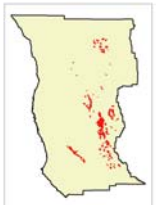
Geography and Soil Climate:

Acres of Pinole in Mendocino Co.: 11,850 acres

Acres of Pinole soil under vines: over 2,988 acres

Annual precipitation: 32-50 inches
Frost-free days: 175 to 250 days
Elevation Range: 200' to 1200'

Slope Range: 0 to 30%



Fitness for Use in Vineyards:

- Nutrient Cycling: Vineyard establishment practices should aim to retain the nutrient-rich topsoil layer. Organic amendments and cover crops build fertility, improve tilth, and feed soil biology.
- Water Relations: Soil cover promotes water movement into the subsoil reservoir, maximizing soil water storage and vine performance. Gravel volumes of 20-25% strike an attractive balance between aeration and water-holding capacity on inland Pinole soils.
- Management Considerations: Pinole soils are quite susceptible to soil compaction, soil erosion on sloped ground, and soil rutting on Pinole soils found in coastal valleys.
- Winegrape varieties suited to Pinole:

  Inland: *Cabernet Sauvignon, Zinfandel, Merlot*

  Coastal: *Pinot noir; Cabernet Sauvignon on ridges*