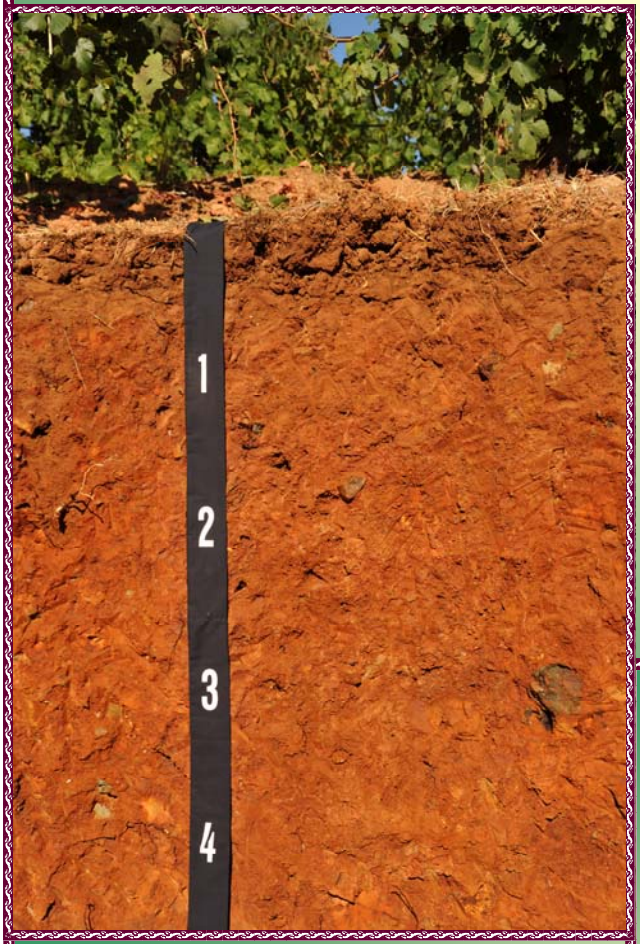
UC CE University of California Agriculture and Natural Resources Cooperative Extension

NRCS

Mendocino County Vineyard Soils

Redvine

Redvine soils are very deep soils formed from old weathered alluvium derived from sedimentary rock under brush and annual grasses. They are slowly permeable soils of fair native fertility found on flat to moderately sloping dissected terraces.



Typical Profile:

0-.5 ft.: reddish brown sandy clay loam

.5-1.5 ft.: dark reddish brown clay loam

1.5-5+ ft.: dark red and red clay

Soil Properties of Interest:

Available water-holding capacity (0 - 5 feet)	**9 inches**
Drainage class:	**Well Drained**
Permeability class:	**Moderately Slow**
Clay range in profile:	**25 to 50% Increasing with depth**
Sand range in profile:	**50 to 20% Decreasing with depth**
Coarse fragments in profile:	**Less than 15% gravels in profile**
Soil pH range:	**6.1 to 5.1 Decreasing with depth**

Geography and Soil Climate:

Acres of Redvine in Mendocino County: 3,474 acres

Acres of Redvine soil under vines: over 1,260 acres

Annual precipitation: 32-44 inches
Frost-free days: 200 to 250 days
Elevation Range: 500' to 1,400'

Slope Range: 2 to 30%

Fitness for Use in Vineyards:

- Nutrient Cycling: Practices should aim to retain the limited topsoil layer. Organic amendments and cover crops build fertility and feed soil biology. Avoid using acid fertilizers on this mature soil. Monitoring acid-sensitive nutrients such as calcium may be helpful.
- Water Relations: Soil cover enhances water penetration into the soil, particularly on steeper slopes. Root penetration by vines may be limited at depth by the high clay content in the subsoil.
- Management Considerations: Redvine soils are susceptible to compaction, rutting, and erosion when left uncovered. Soil cover can improve accessibility during wet periods. Clay subsoils are subject to shrink and swell.
- Winegrape varieties suited to the Redvine soil:

  Inland: *Cabernet Sauvignon, Zinfandel, Merlot, Syrah*