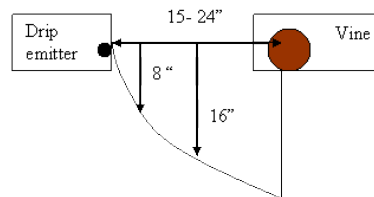


RESEARCH FOCUS:

SOIL MOISTURE MONITORING IN DRIP IRRIGATED VINEYARDS

If you are using soil moisture monitors to help with irrigation scheduling, where should you place them? It is important to understand how water is distributed, particularly when Regulated Deficit Irrigation (RDI) is practiced.

Place your device between 8 – 16” from the drip line, in a triangular pattern between the vine and an emitter.



Monitor across the 0 – 18” depth. This best reflects the soil water that the vine has access to.

Do not place your soil moisture monitoring device directly under the drip line. Why? The soil surface seals and is dry directly under the drip emitter but there can be wet pools where this sagging, and these do not reflect what the vine roots find.

Monitor on both sides of the vine. Often, water preferentially runs in one direction. Monitoring one side may give readings that are wetter or drier than the conditions that vine roots encounter.

Davenport, J. R., R. G. Stevens and K. M. Whitley. 2008. Spatial and temporal distribution of soil moisture in drip irrigated vineyards. [HortScience 43:229-235.](#)