



Cropland Soil Moisture: Field Data

By:

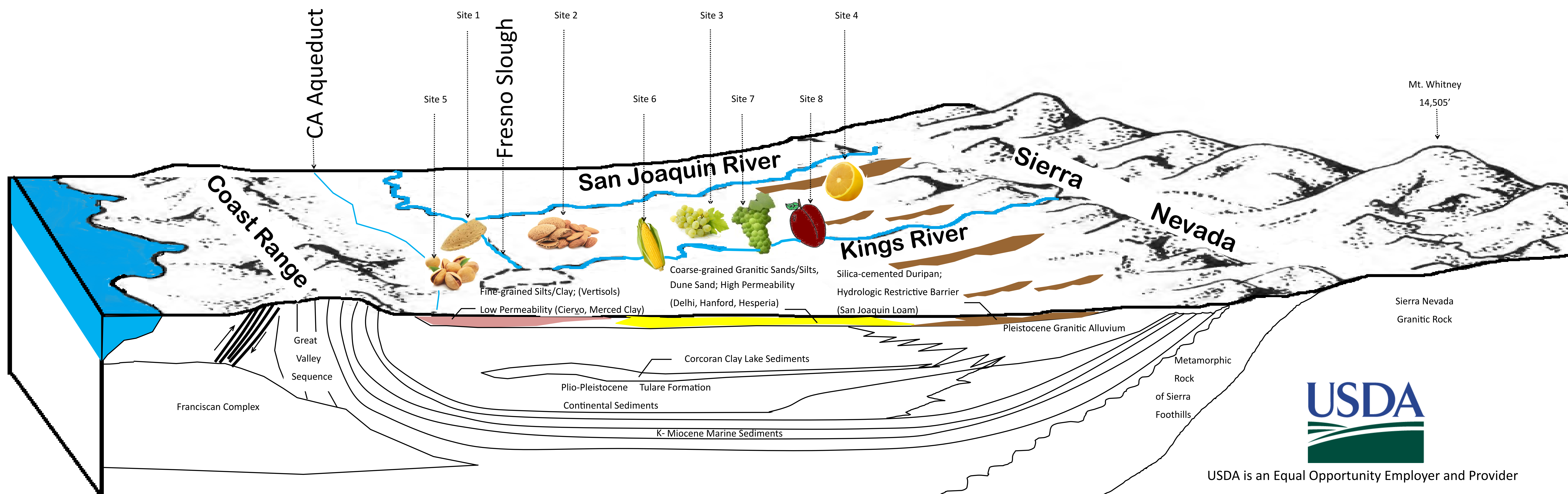
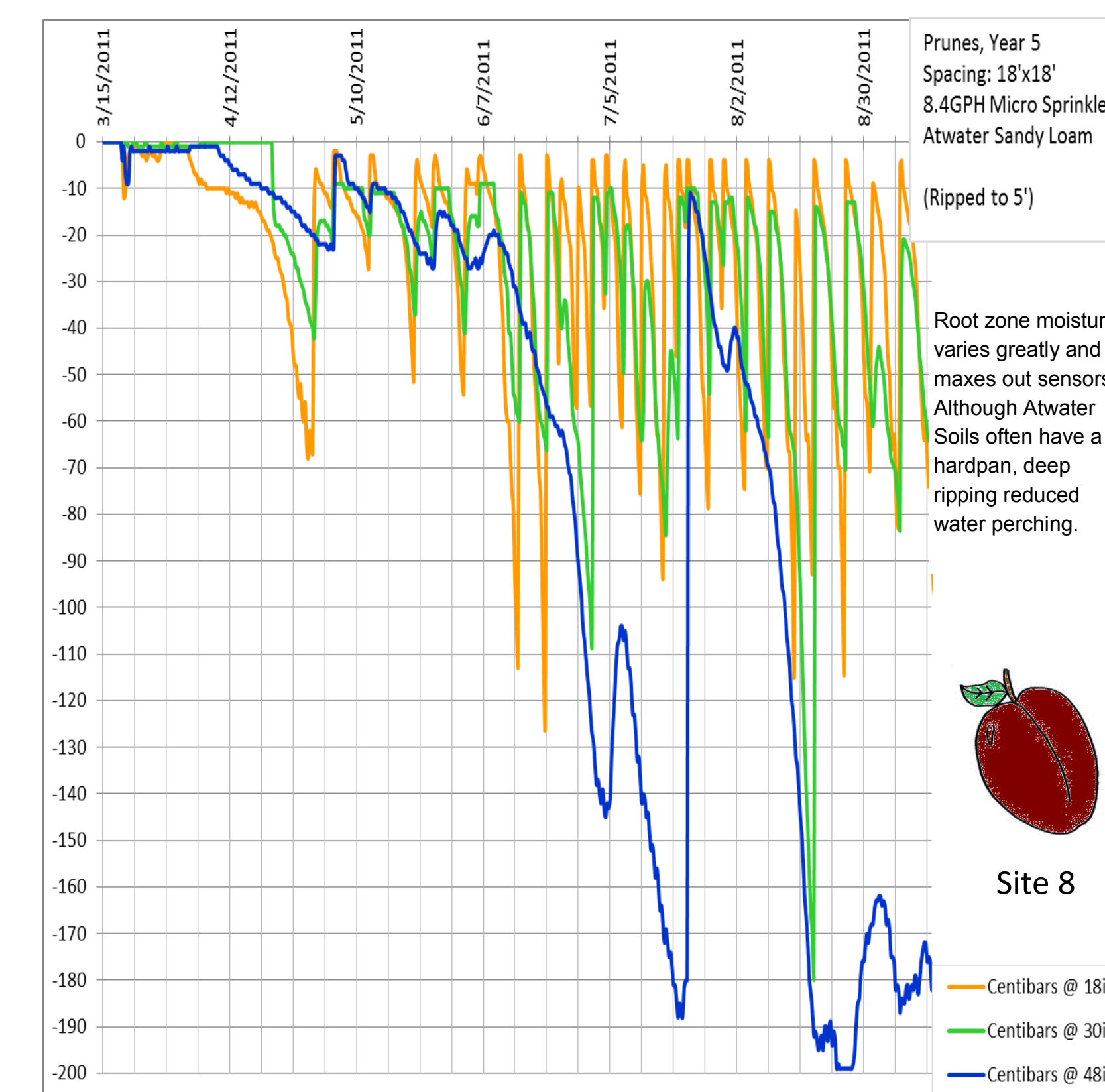
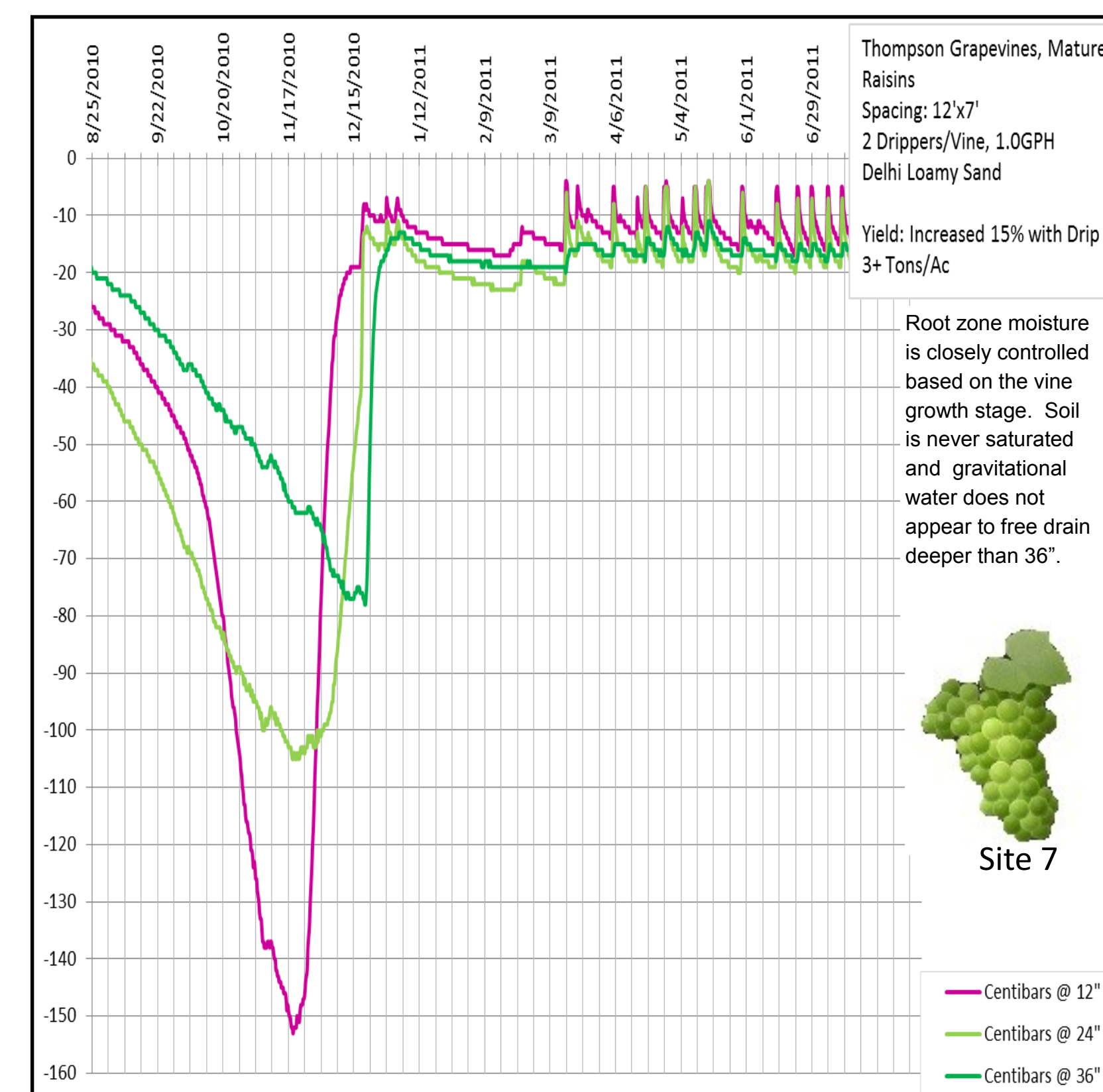
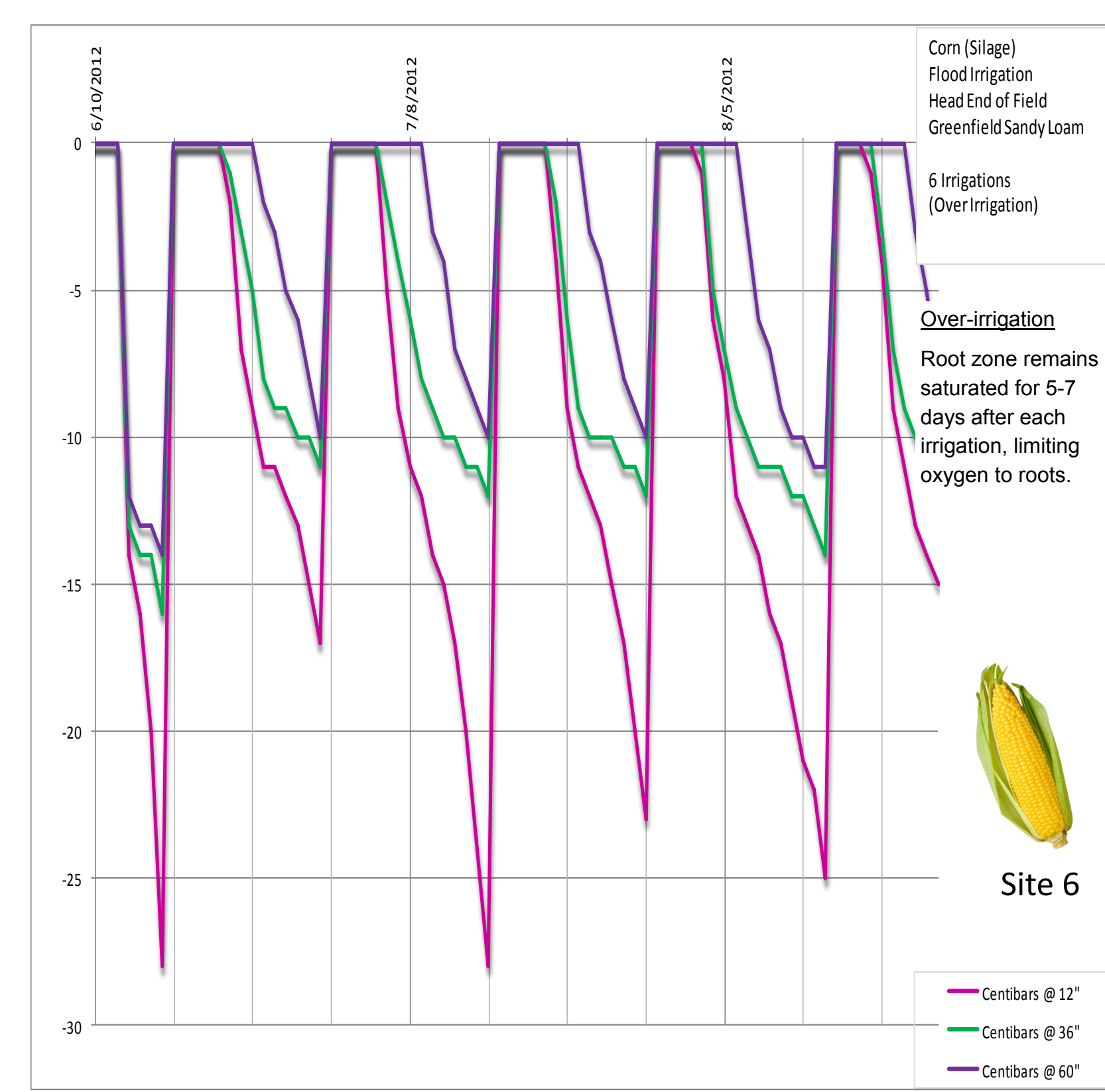
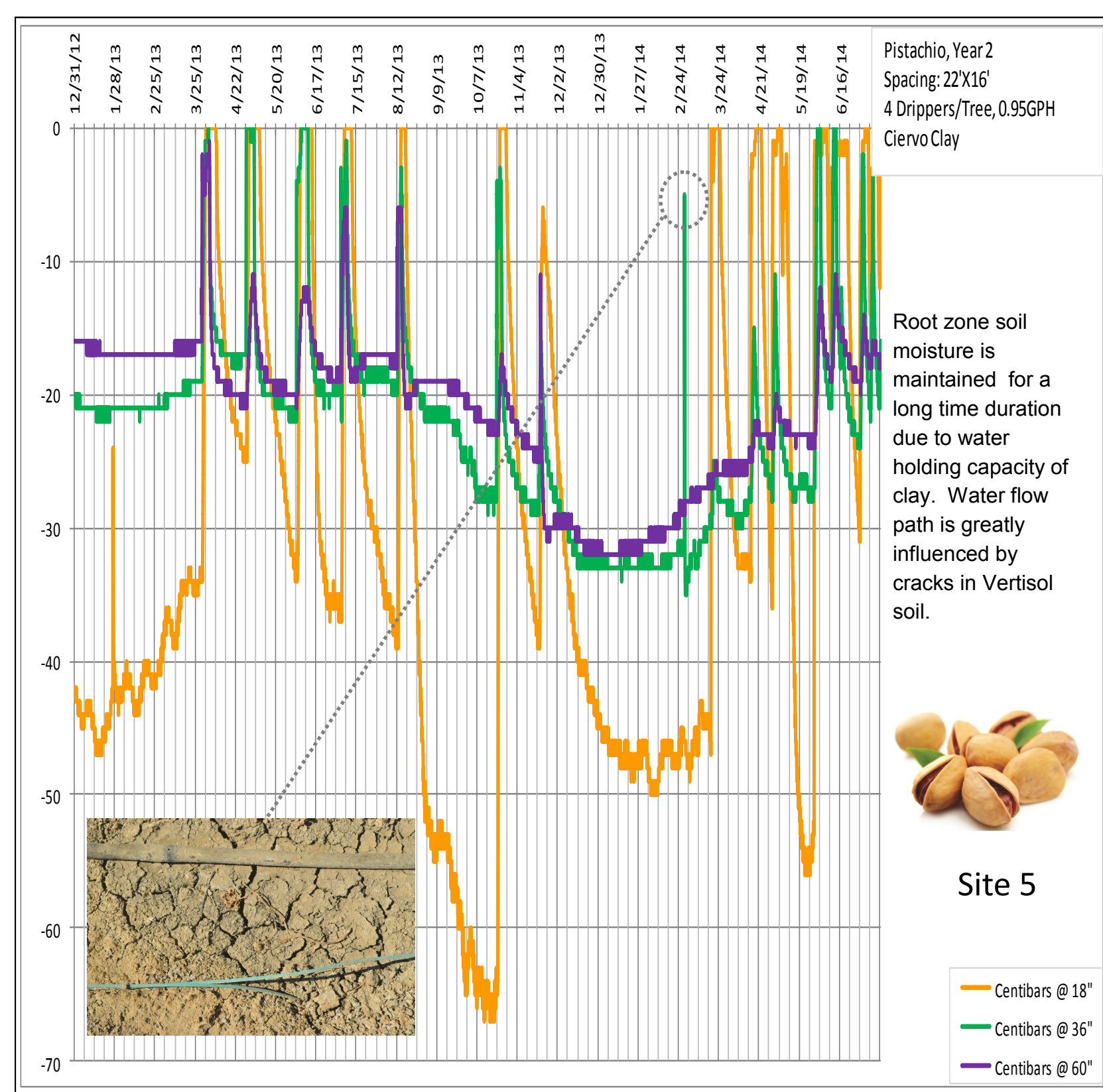
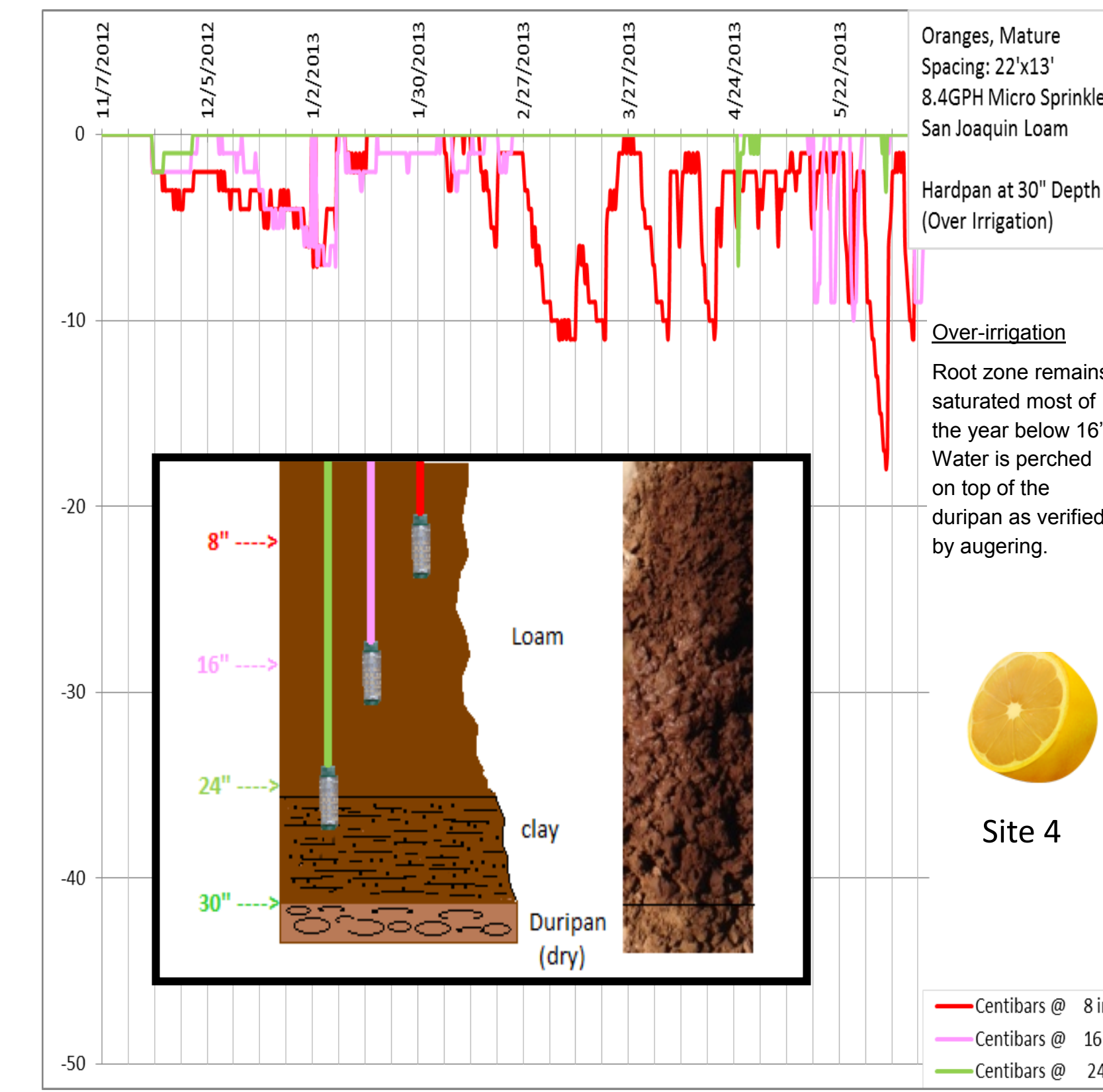
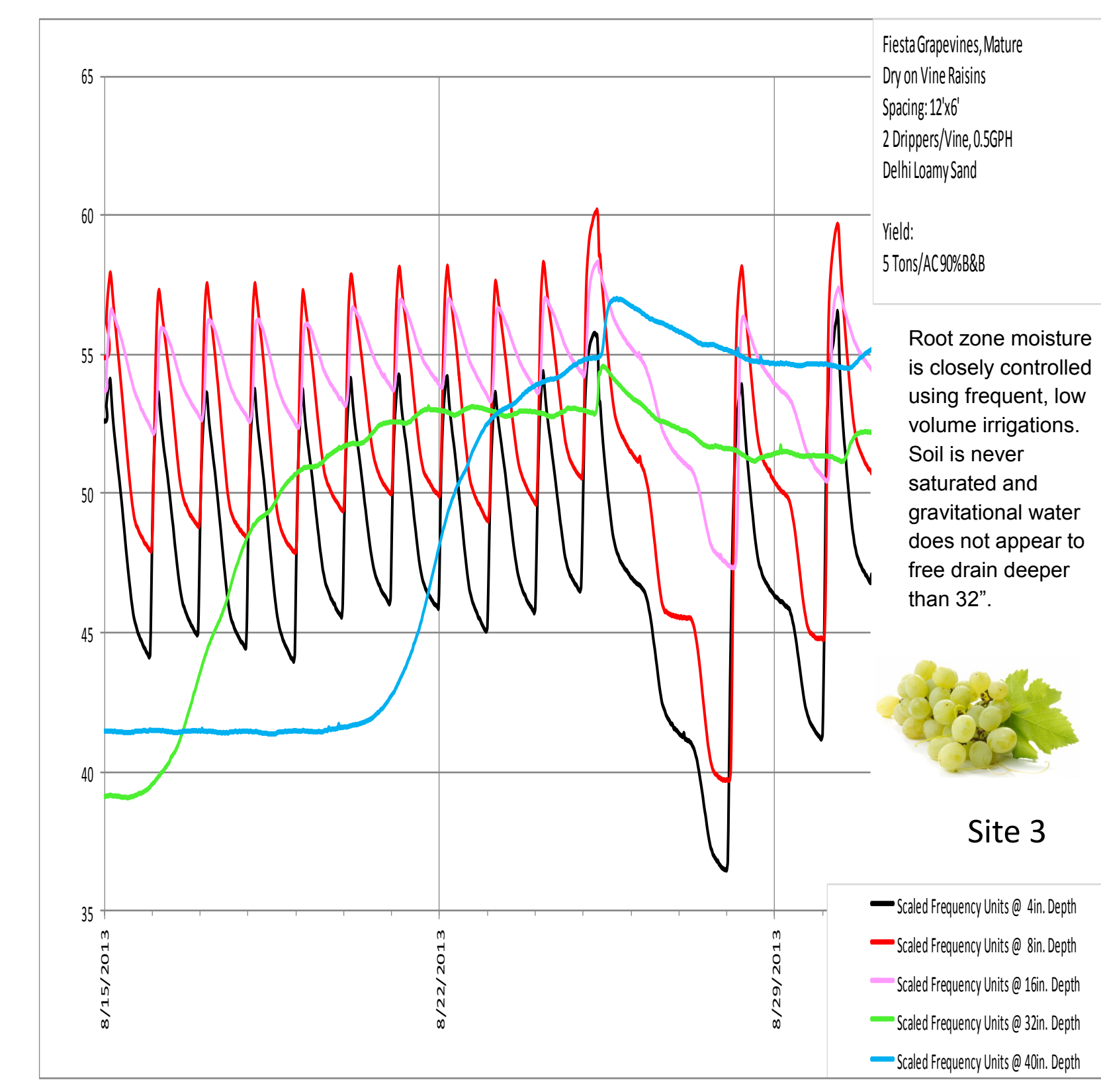
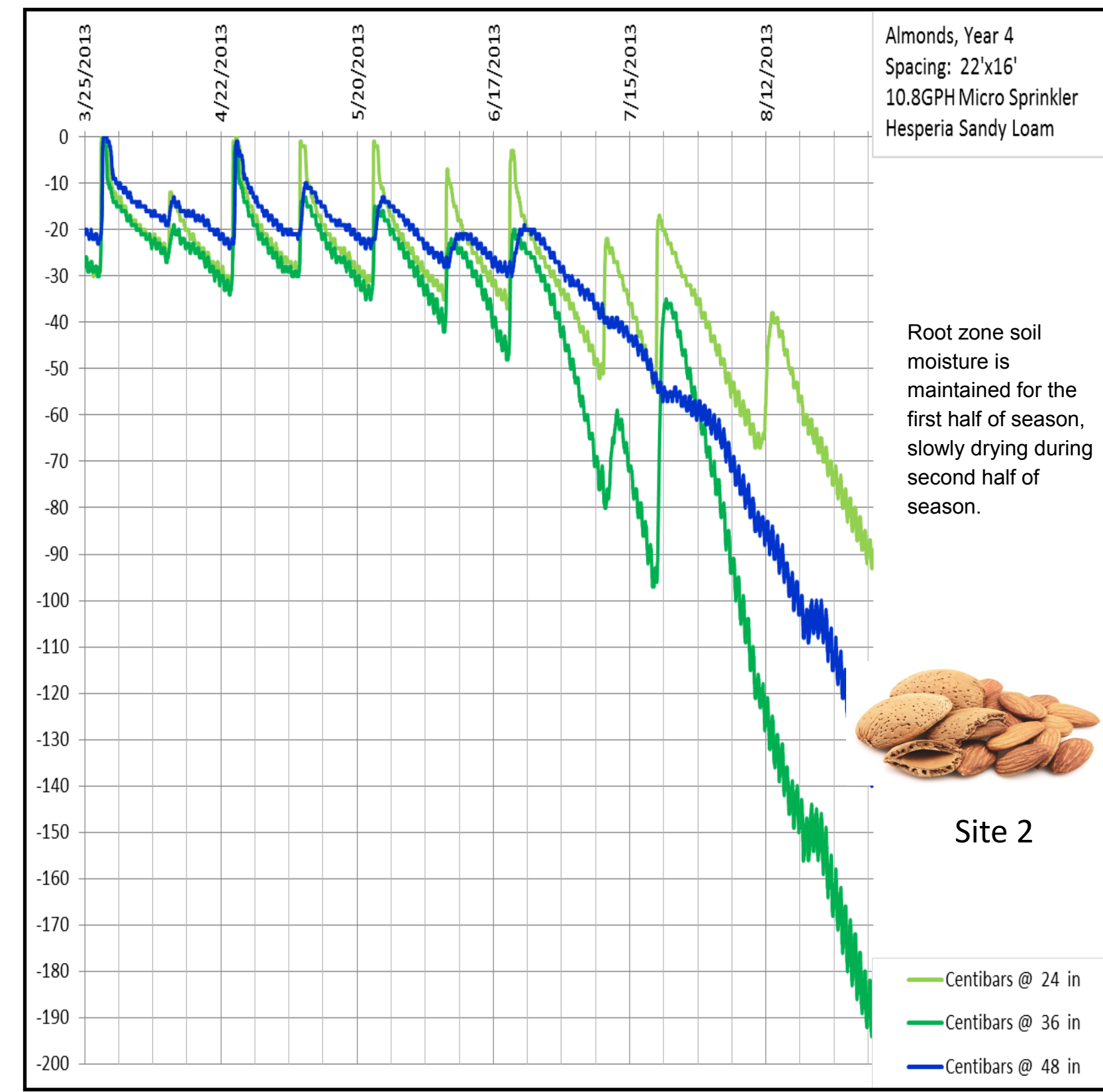
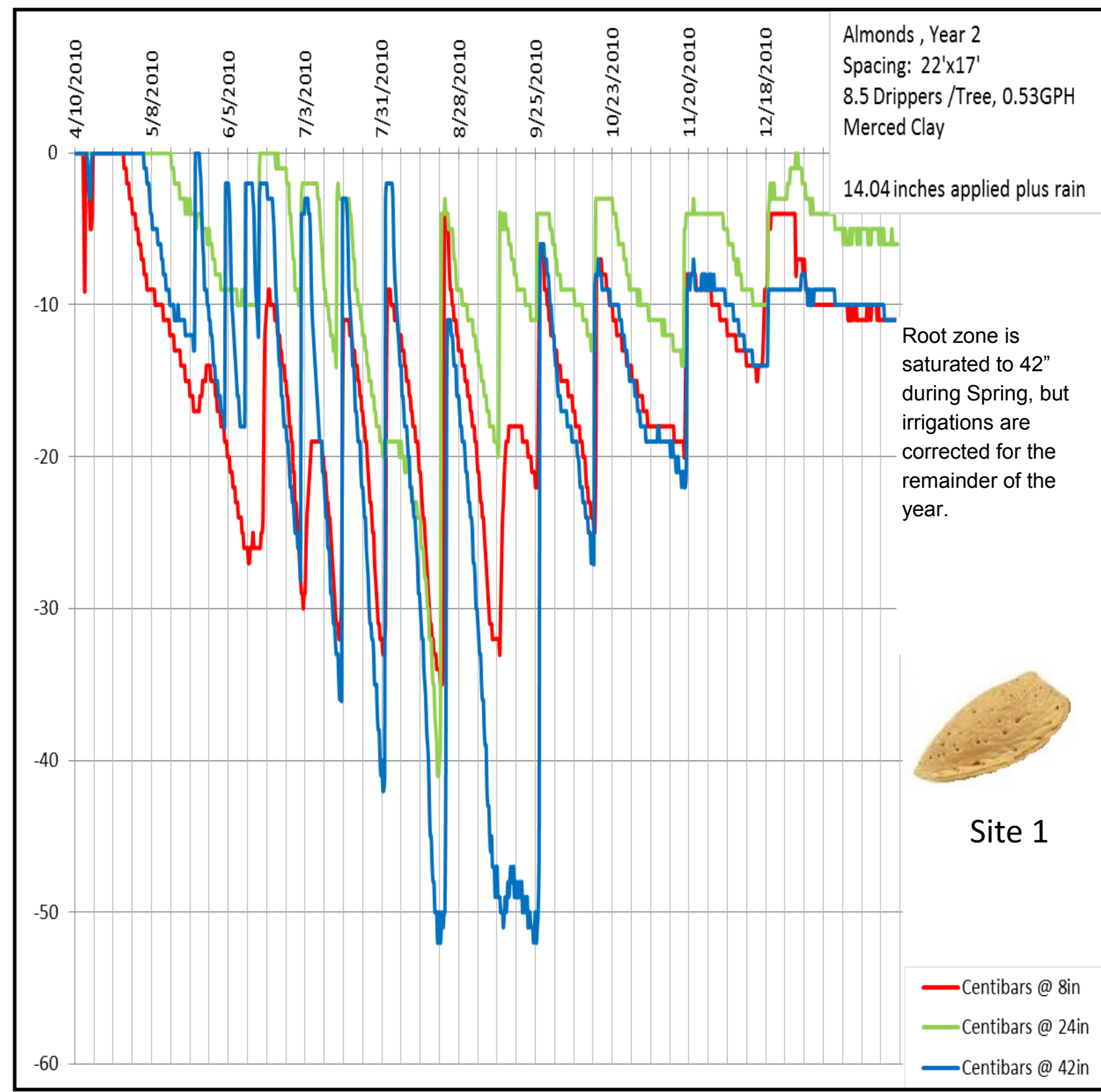
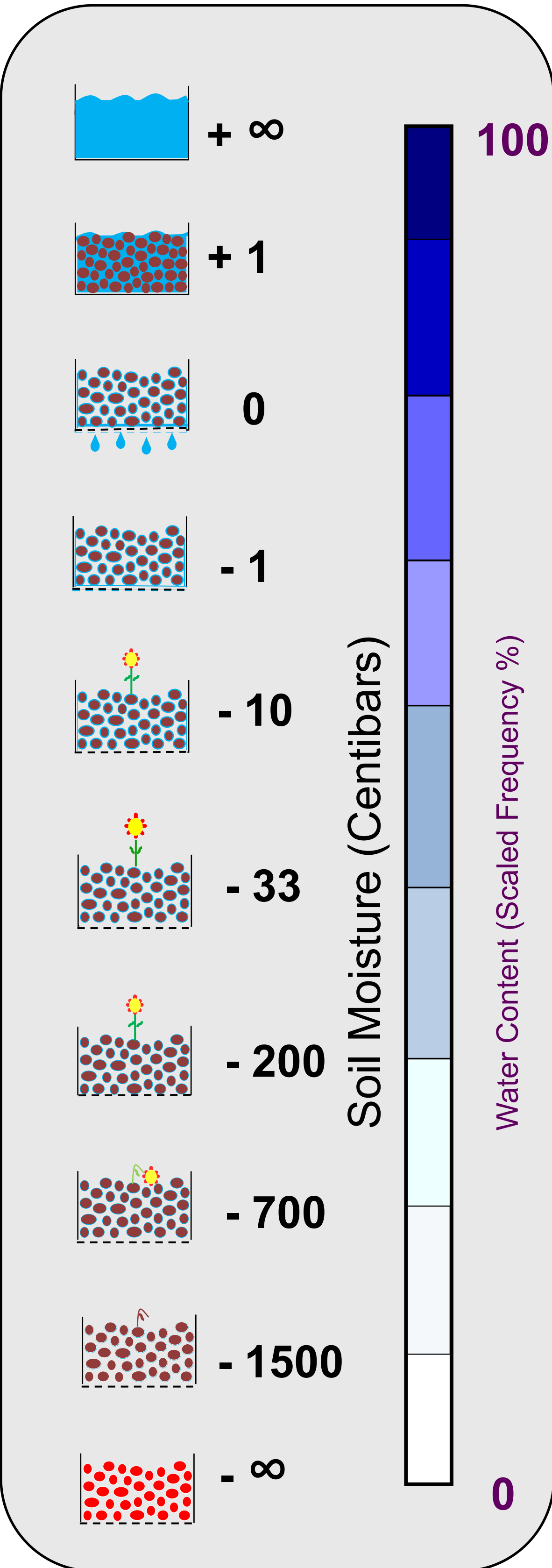
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Site 5 Pistachio Trees Sept. 2014

Soil type, wetting pattern, and water application rate are critical to water retention and movement. The USDA Natural Resources Conservation Service (NRCS) provides technical and financial assistance for conservation practices, including irrigation water management. Below are graphs obtained through NRCS's partnership with valley crop producers and displayed with their permission. The data is real, but not collected under research conditions. Graphs were chosen to represent the contrasting soil textures across the valley. Although there are many soil moisture sensor types, the data below was captured using electrical resistance blocks for all the sites, except Site 3. Site 3 data was captured using a capacitance probe. Data collected by the 2 sensor types were measured and reported in different units. The electrical resistance blocks report measurements in Centibars, or the amount of pressure it takes to extract water from the soil, and range between 0 and ~200 Centibars. Centibars are useful because they reflect the energy used by the plant to extract water. The capacitance probes report water content in units of Scaled Frequency Percentage. Capcitance probes can distinguish water content between 100% water immersion and oven dried sand.



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