



Applied Irrigation Science

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Certified Agricultural Irrigation Specialist



Weather



Vine

Duration Frequency

Water



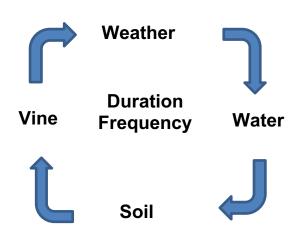
Soil



Understand your
Irrigation System







Define:

ET = Evapotranspiration

- Weekly ET value
- % ET

Soil Texture/Type
Soil Moisture Level

- Saturation
- Field Capacity
- -Plant Available Water
- Permanent Wilting Point

Managed Allowed Depletion RDI Regulated Deficit Irrigation

Infiltration Rate

Acre-inch and Acre-foot

- -1 acre-inch of water = 27,154 gal H20
- -12-inches of water over 1 acre of land = 325,848

GPH / Emitters per Vine Vines Per Acre (VPA)





Weather



Vine

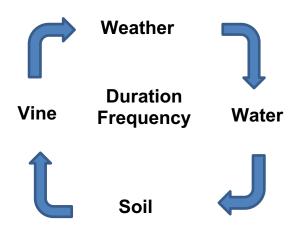
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The first rule of any technology used in a business is that automation applied to an efficient operation will magnify the efficiency. The second is that automation applied to an inefficient operation will magnify the inefficiency."

-Bill Gates

Irrigation Technology is relative to scientifically sound traditional methods.

- ETc CIMIS, lysimeter
- Touch Feel Method of Soil Moisture
- Pressure Chamber Vine Stress





On-Farm Weather Station Measured ET



Multispectral Imaging Vine Stress Modeling Sap Flow

Duration Frequency

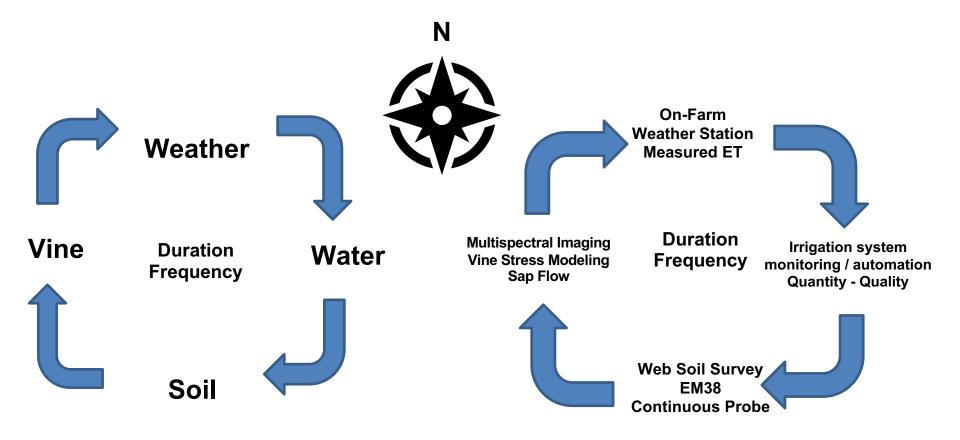
Irrigation system monitoring / automation Quantity - Quality



Web Soil Survey EM38 Continuous Probe









Understand the Science

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