6. What Can I Do with Weather Station Data?

Irrigation Scheduling – Measurements can be used for water balance or other calculated methods of irrigation scheduling including crop water use models. For more information on crop water use models see the learning module on 'Advanced Irrigation Model Control'.

Reference evapotranspiration - can show how water use changes from day to day based on environmental conditions.

Degree Day Models – Temperature measurements can be used to monitor chilling hours and growing degree hours. As a process of going through winter dormancy and resuming growth in the spring, deciduous woody crops have a chilling requirement ((accumulated time below 45 °F (7 °C)) as well as a growing degree day requirement ((warm temperature exposure after chilling, above 40°F (4°C)). These requirements are most important for fruit crops because they determine when plants will bloom in the spring. This can also impact when flowering ornamentals, such as *Prunus* species bloom.

Freeze protection – Topography, latitude, and elevation can all play a role in the occurrence of freeze events in an area, thus, site specific temperature measurements are valuable for freeze/frost protection.