



## QWEL EXAM FORMULA SHEET

<p>Conversion</p> <p>1 foot = 12 inches</p> <p>1 cubic foot (CF) = 7.48 gallons</p> <p>100 CF = 1 CCF = 748 gallons</p>	<p>Geometry - Area</p> <p>Square or rectangle = width x length</p> <p>Triangle = <math>\frac{1}{2}</math> x base x height</p> <p>Circle = <math>3.14 \times \text{radius}^2</math></p>
<p>Water Budget Formulas</p> <p>Water Budget = <math>ET_o \times PF \times LA \times 0.62</math></p> <p>Irrigation Water = <math>[(ET_o \times PF) - EP] \times LA \div IE \times 0.62</math></p>	
<p>Precipitation Rate &amp; Distribution Uniformity Formulas</p> <p><math>PR_{GROSS}</math> for spray and drip = <math>(96.3 \times GPM) \div HA</math></p> <p><math>PR_{GROSS}</math> for dripline laid out in a grid = <math>(231.1 \times GPH) \div (\text{Emitter spacing} \times \text{Row spacing})</math></p> <p><math>DU_{LQ}</math> = Average catch volume or depth of low quarter <math>\div</math> Average catch volume or depth of all cans</p> <p><math>PR_{NET}</math> using volume in ml = <math>(\text{Average catch volume or depth of all cans} \times 3.66) \div (\text{Test run time} \times \text{Catch can throat area})</math></p> <p><math>PR_{NET}</math> using depth in inches = <math>(\text{Average depth of all cans} \times 60) \div \text{Test run time}</math></p>	
<p>Scheduling Formulas</p> <p><math>PWR = ET_o \times PF</math></p> <p><math>RTM = 1 \div [0.4 + (0.6 \times DU_{LQ})]</math></p> <p><math>IWR = PWR \times RTM</math></p> <p><math>IRT_{MIN} = (PWR \div PR_{NET}) \times 60</math></p> <p><math>IRT_{MAX} = (IWR \div PR_{NET}) \times 60</math></p>	