

Formula for Measuring Irrigation Water

1. Water measurement unit—cubic feet per second or second-feet

$$\frac{\text{Number of second-feet} \times \text{hours run}}{\text{Number of acres}} = \text{Acre-inches or inches depth on whole area}$$

2. Water measurement unit (Southern California)—miner's inch, 1/50 second-foot or 9 gallons per minute

$$\frac{\text{Number of miner's inches} \times \text{hours run}}{50 \times \text{number of acres}} = \text{Acre-inches}$$

3. Water measurement unit—statutory inches (1/40 second-foot or 11¼ gallons per minute)

$$\frac{\text{Number of miner's inches} \times \text{hours run}}{40 \times \text{number of acres}} = \text{Acre-inches}$$

4. Pump—gallons per minute

$$\frac{\text{Gallons per minute} \times \text{hours run}}{450 \times \text{number of acres}} = \text{Acre-inches}$$

Water Measure

1 cubic foot = 7.4805 gallons = 62.42 pounds

1 gallon = 8.355 pounds

1 cubic foot per second = 50 miner's inches in Idaho, Kansas, Nebraska, New Mexico, and Southern California

1 cubic foot per second = 40 miner's inches in Arizona, Montana, Oregon, and Northern California
