Water Needed to Grow a Pecan

Pecan Trees

- Tree spacing: 30 ft * 30 ft = 900 ft^2 / tree
- 1 acre = 43,560 ft^2
- # trees/ac = 43,560 ft^2 / 900 ft^2 = 48.4 ~ **50 trees/acre**
- Yield: Mature trees avg about 50 lbs of nuts / yr
- Annual orchard yield = 2,500 lbs / acre
- A pound contains about 75 nuts
- Production: 2,500 lbs * 75 nuts/lb = **187,500 nuts/acre**

Water

- 7.480519 gallons/ft^3 ; 1 acre-foot = 1 ac* 1 ft = 43,560 ft^3
- Gallons per acre-foot = 7.48 g/ft3 * 43,560 ft^3
- = 325,851 g/ac-ft
- Pecan water-Use: about 60 inches/year
- 5.0 ac-ft/yr * 325,851 ac-ft = **1,629,257 g/yr**

- Water per nut = 1,629,257 g / 187,500 nuts

- **= 8.7 gallons / nut**