

Estimating GPM from Pond Drop: midpoint of drop method

Measure the dimensions of the pond surface area at the halfway point of the drop

1. Turn off all other inflows and outflows to the pond.
2. Place a measuring pole as far out into the pond as possible, or use existing staff gauge.
3. Record the starting level of the pond or place a marker at the initial water level in the pond.
4. Turn on pump, recording the exact starting time
5. Midway during the irrigation, place another marker at the water line and/or record the water level on the measuring pole. Measure the length and width of the pond water surface at this half way point.
6. Continue to run the pump until the pond has dropped an equal vertical distance from the midway point. Record the exact ending time and the exact total vertical drop.

_____ pond surface length at midpoint

_____ pond surface width at midpoint

_____ inches vertical drop

_____ minutes or hours run time

_____ ft. pond length x _____ ft. pond width = _____ sq ft pond surface area

_____ sq ft pond surface area ÷ 43560 sq ft/acre = _____ acres pond surface

_____ acres pond surface x _____ inches drop = _____ acre inches

_____ acre inches ÷ _____ mins. or hrs run time = _____ acre inches/min. or hr.

_____ acre inches/minute x 27154.29 = _____ gpm

or

_____ acre inches/hour x 452.57 = _____ gpm