Estimating GPM from Pond Drop: begin and end surface area method

Measure the pond surface area at beginning and end of the drop

1. Turn off all other inflows and outflows to the pond.

2. Place a measuring pole as far out as possible into the pond. Record the starting level on the pole.

3. Measure the length and width of the pond surface at start of the irrigation.

4. Turn on pump, recording the exact starting time

5. At the end of the irrigation, turn off the pump, and record the exact ending time and the exact total vertical drop. Measure the final length and final width of the pond water surface.

_____pond surface length at start

_____pond surface width at start

_____pond surface length at end

_____pond surface width at end

_____inches vertical drop

_____minutes or hours run time

(_____ft. initial pond length + _____ft. final pond length) ÷ 2 = average length

(_____ft. initial pond width + _____ft. final pond width) ÷ 2 = average width

_____average length x _____average 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