

Use Salt to Measure the Size of Your Pond

Want to be able to calculate the size of your koi pond? This is very important for being able to apply certain chemical treatments to your pond as a whole. The only drawback is: You have to be able and willing to use salt in your pond. This won't work for water gardens with salt sensitive plants. This calculation is based on the known concentration of three pounds of salt per hundred gallons of water being equal to .35% (point three five percent)

You will need the following items to accomplish this calculation:

1 bag of coarse rock salt. Solar salt from OSH or Home Depot will work. Size will depend on the approximate size of your pond, as you should not exceed three pounds per hundred gallons.



Scale to weigh out the salt used.

Digital salt meter to measure concentration of the salt.

First, measure the pond water with the salt meter before adding any salt. If you have previously added salt, this is no problem. Just measure the current concentration. Then add a given quantity of salt. This should be relative to the approximate size of your pond. For example, if you know your pond is several thousand gallons, adding twenty or thirty pounds of salt would be appropriate, depending on the starting value. Salt should be added to an area not accessible by the fish, or can be put into an old pillowcase to dissolve slowly

Next, wait for a day or two to allow the salt to dissolve and mix completely. Measure the salt again. Now you can use the following formula to calculate the size of your pond. Multiply the number of pounds of salt(W) you added by 12 and divide that number by the change in salinity concentration from the first reading to the second (P2-P1).

$$W \times 12 / (P2-P1) = G$$

For example if you added 20 pounds of salt, the original reading was .05 and the second reading was .10, the size of your pond is:

$$(20 \times 12) / (.10 - .05) = 4800 \text{ gallons}$$

Pretty simple, and quite accurate.