

pH – Does It Really Matter?

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Considering temperatures, humidity, fertilizers and pests, do you really have to worry about the pH of the soil?

For a long time we used Volkmann soil, and from time to time we tested the pH of the soil which always came out at 6.9 to 7.0 according to the Hellige -Truog Soil Reaction (pH) Tester. Adding Sponge Rock to this soil mix did not change the pH. We watered our plants with rain water, and when that ran out, used purified water from a vending machine.

Many years ago (about 1975 -77) Pauline Bartholomew recommended the use of the Hellige -Truog Soil Reaction (pH) Tester. It consists of a bottle Triplex Indicator Solution, a small plastic sleeve with four round cavities, and a bottle of reagent powder, a spatula, and a color chart.

It is sold by Nasco West, P.O. Box 3837, 1524 Princeton Ave., Modesta, CA 95352. Call toll -free 1-800-558-9595 to order. The price at this time is \$17.50 plus 10% for shipping plus sales tax. The catalog number is C8995N. (**Note: This information is no longer valid, but this kit is still available and can be found for under \$30.00 at Forestry Suppliers, Inc., 1-800-647-5368, and at other places**)

To test the soil, put two drops of the indicator solution in one of the cavities, then add enough soil so that when you press down on it, the soil is shiny wet. Sprinkle the reagent powder on the soil, and with the help of the chart, match the color of the soil with the chart. It has been my experience that you get the most color when the soil is dry to begin the test.

To test the pH of water, use one sold for testing water in aquariums. Tap water usually tests alkaline. Rain water and purified water usually show an acid reaction, since the tester reacts alkaline to the minerals in the water. Usually in testing rain water or purified water, the reaction shows very acid. This may be a false reading, since rain water is reported in the literature as being slightly acidic. However, it may also indicate "acid rain" which we have been hearing about.

Fertilizer and peat moss breaking down in time will show an acid reaction. By the time the soil tested acidic, it was time to repot the plants anyway.

The pH tester for aquarium water is available at most pet stores. The one I use is made by Hartz Mountain Corp. To make the test, fill the test tube half full with the water you are testing. Then add three drops of Bromthymol Blue to the tube. Swirl until thoroughly mixed and match the color of the water against the chart. Incidentally, the color of the drops is yellow. In contact with alkaline minerals it turns blue.

Our first experience with pH trouble was when we purchased some other soil that was more alkaline. When we set out some plantlets, they just did not grow. We usually did not fertilize our plantlets in the first three or four weeks, except for a one-time very light application. In this case, it was only after we started fertilizer (a source of acid) that they finally started growing.

For many years we did grow nice miniatures.

Then we installed a reverse osmosis system in our kitchen. Somehow we felt that it was quite a chore to catch rain water, store it, and boil it before using it on all the plants. At long last, this was supposed to make life easier!

Our standard plants did not react so much to the change, but on our miniatures we did notice changes.

The centers would develop a small leaf pattern with suckers and blossoms we certainly did not like. On testing the soil in the pots, it turned out to be alkaline. The plants that were seriously affected never recovered. We changed back to rain water, and our troubles have since disappeared. We are still using the purified water for the majority of our other house plants, and maybe the problem was just in the beginning when the reverse osmosis system was new. In time, we will know the answer.