

THE HYGROMETER

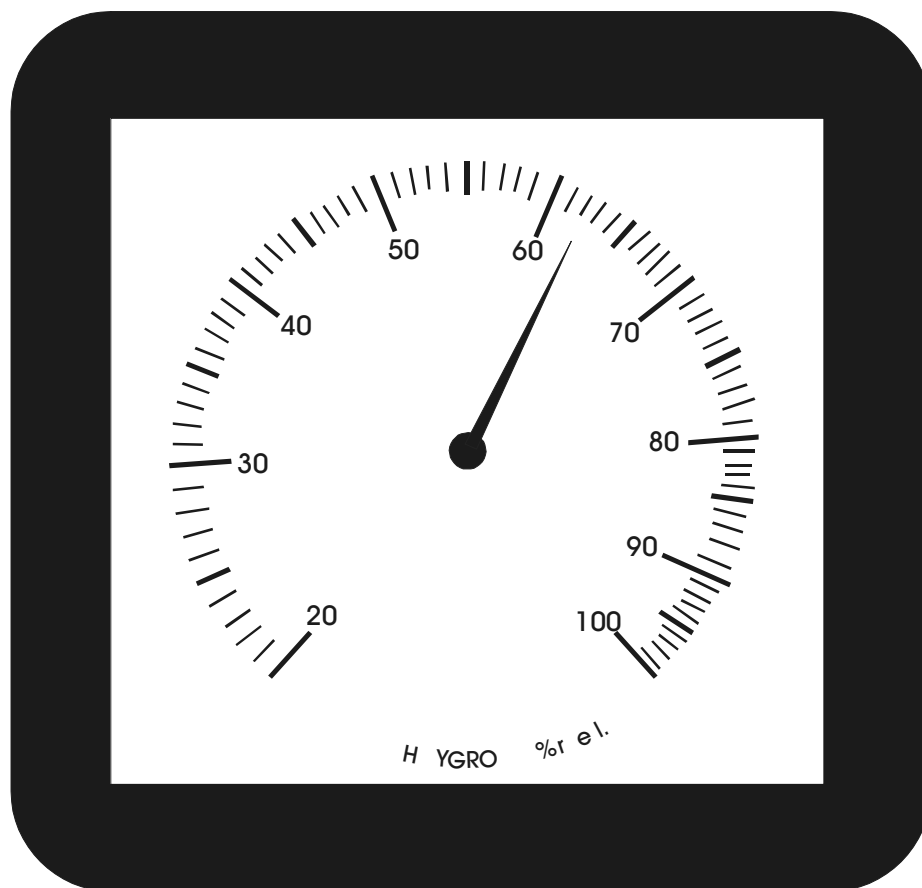
When the air contains a lot of water vapor, the weather is described as humid. If the air cannot carry any more water vapor, the humidity is 100 percent. At this point, the water vapor condenses into liquid water.

Where humidity is high, the rainfall is heavy. Plants grow well in high humidity. Deserts occur in places where the humidity is low—less than ten percent.

High humidity is uncomfortable for many people. It is difficult for the body to cool down in high humidity because sweat cannot evaporate into the air.

Scientists measure the amount of water vapor in the air in terms of relative humidity—the amount of water vapor in the air relative to (compared to) the maximum amount it can hold at that temperature. Relative humidity changes as air temperature changes. The warmer the air is, the more water vapor it can hold.

A hygrometer measures relative humidity in terms of percentage. The hygrometer below is pointing to 62. This means that the air contains 62 percent of the water vapor it can hold at the given air temperature.



Before using the hygrometer, test its accuracy by wrapping it in a very moist cloth for one-half hour. When you unwrap it, the indicator should read between 95–100 percent. If it does not, use a screwdriver to adjust the indicator in the back. This should be done at least once a year.