Using a Moisture Meter

Prepared by: Martha Keel, Ph.D. and Bonnie Hinds, M.S.

Whether embarking on new construction or renovation, it is critical that building materials are dry. Using lumber that retains inherent moisture or that has sustained water damage can jeopardize the integrity of the structure and promote the growth of mold. Relying on sensory clues (sight, touch, smell) to detect moisture is inadequate. Moisture meters were designed for just such a purpose and are invaluable in examining certain building components. Most materials should exhibit a moisture level of less than 20 percent.

Be aware that moisture meters were designed specifically for use with lumber. That said, they can often prove helpful in detecting moisture behind walls, under floors, and in other areas not easily accessible. This is not the moisture meter’s intended purpose due to the fact it only measures moisture to a depth of ½ to ¾ inch. The meter should serve as only one step in assessing suspected moisture in non-wooden materials. Moreover, the scale used to interpret results may differ based upon the material under examination. The meter should include instructions as to which scale to use.

Directions for Use

- Moisture meters are available in two basic models:
  - With pins
  - Without pins

  Meters without pins are often more desirable, as they will not puncture the material being tested. If the material will at some point be covered or otherwise concealed, a lower priced model with pins will work just as well.

- **With pins:** Press the pins into the building material and read the gauge.

- **Without pins:** Place the meter directly onto the material and read the gauge.

- Carefully follow all instructions provided with the model.

It is important to remember that moisture meters neither measure—nor indicate the presence of—mold. While mold growth is likely within a moist environment, the moisture meter cannot confirm or deny the existence of mold.

Moisture meters can be purchased from most hardware and home improvement retailers and may be available as a loan from county Extension offices.