

SIGHT READING HUMIDITY

It is gratifying that many Taylor owners have shown an interest in the subject of humidity, have come to understand its potential effects on their solid-wood acoustic guitars, and have taken precautions to prevent those effects. A number of our dealers, too, have grown in wisdom and knowledge, and, as a result, have increased their sales and decreased the damage to their solid-wood guitar stocks. In fact, many dealers have **totally eliminated any damage** to their guitars during the winter months. All of us at Taylor Guitars thank them for their efforts!

Some people, however, still are experiencing dryness problems, and are sending their guitars back for repair. The main culprit is exposure of the guitar to low levels of relative humidity, usually by leaving the guitar out of its case when it's not being played, in an indoor environment where relative humidity has been driven down by heating systems.

During extreme cold spells, dealers encounter the same problems when their in-store humidifiers lack sufficient output capacity to keep up with the amount of forced-air heat required to warm their buildings. Although we recommend commercial humidification units that connect to a store's main water supply, any humidification system (either portable or permanent) must have the capacity to supply enough water in the driest times of the year. For most stores, the driest times are the coldest days of winter.

Frequently, we'll have two dealers in one town who manage their humidity very differently. One will have horrendous problems with his guitars,



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while the other has no problems at all. Here in El Cajon, an inland community in the East County area of San Diego, the humidity outdoors frequently is lower than 15 percent. Our guitars remain unaffected, however, because our humidification capacity is sufficient, and the equipment is monitored and well-maintained.

No matter *how* a dealer humidifies a store, the bottom line is getting enough moisture into the air. We have found ourselves arguing that point with people who have returned guitars with sharp frets, sunken tops, and the like, and who feel that because they have *some* sort of humidification in place, they've done all they can possibly do. They expect us to step in and make up the difference. We remind them that it takes low humidity to dry out a guitar, and a *suitable* humidification system will prevent that from happening.

As a consumer, your chances of

buying a guitar in good condition are greater at a store with sufficient humidification. But the responsibility for keeping humidity well-regulated does not stop at the cash register. Many conscientious Taylor owners have made the modest investment in devices designed both to measure the humidity in the vicinity of their guitars (thermal hygrometers), and to restore moisture when their guitars have perceptibly dried out (Dampits, Humitrons, and similar products).

Those who have taken advantage of the opportunity to purchase thermal hygrometers (available at Radio Shack), are finding it a great way to monitor changes in temperature and humidity in the area around a guitar, especially when it has been sitting idle for a while. But consumers must contend with many of the same variables in humidification that challenge dealers. Radical swings in temperature and humidity can wreak havoc on a store's inventory, often without warning, and without the dealer noticing (although, if a store's system has proper output capacity, managing all these variables becomes almost unnecessary). Those same, changing conditions can impact that beloved guitar you have at home.

Here are a few things to keep in mind, as well as some helpful hints for maintaining your guitar(s) in peak condition (these tips are especially pertinent for store proprietors whose humidification capacity is too low, but they also are useful for individual owners):

Is the hygrometer being used properly? If you're using a hygrometer inside your guitar case, remember to leave the case open when



you remove your instrument, so both can acclimate equally to external conditions. Leaving your case closed when empty will give you a false reading of the amount of humidity to which the guitar itself is being subjected. Also, needle readout types tend to go out of calibration every six to 12 months. A sling psychrometer is then used to recalibrate it.

Guitars can become dry due to air moving across them. The proximity of heating ducts can cause drying in acoustic guitars. If it's necessary to place acoustic guitars near a heating duct, close the duct, or turn it away from your guitars. [Even a dealer's humidified "acoustic room" can be adversely effected by heating ducts and open doors.]

Areas close to exterior doors frequently are drier than those farther away, or near humidifiers. If at all possible, do not leave your guitars near exterior doors.

Heat rises. Acoustic guitars should *not* be stored high on a shelf or

wall, or hung from a ceiling. In a room artificially heated in the winter or subjected to hot sun in the summer, guitars should be stored well out of direct sunlight and no higher than eye level.

"Read" your guitars. One reliable indication that a fairly new Taylor guitar is drying out is the pitch of the neck angle to the body. To check the neck angle on a Taylor: 1) set the guitar on a counter or bench; 2) lift the headstock and look down the plane of the neck (make sure the neck is adjusted straight from the first to the 14th fret with the truss rod); 3) using the plane of the frets as your straight line, aim the neck at the thickness of the black ebony bridge on the body, just like aiming the barrel of a gun at a target (ignore the saddle).

Is the guitar dry? If the plane of the frets is pointed over the thickness of the bridge, the guitar's top has sunk from drying out, and the strings will be lower. Our neck angles are set to line up no higher than the thickness of the bridge. I might add that it is

impossible for the string height to *lower* for any reason other than low humidity. Sharp fret ends are another indication.

What to do? We realize that, for various reasons, not all guitar owners (and dealers) will maintain their humidity to the extent that others will. We also realize that extreme humidity situations are not the norm for everyone, and that one year's winter season can be very different from the next. For example, the winter of 1994-95 was very mild, and therefore we had few problems, while the 1995-96 winter was extremely cold. The neck angle method described above is the one true way to *know* if your relative humidity level is sufficiently high.

If, after using this method, you find that your guitars are dry, I can easily instruct you over the phone on how to re-humidify these instruments and return them to good playing condition, without having to send them back to us.

