IMPORTANT:

Excess Humidity & Hammered Dulcimers

As the owner of a solid-wood instrument, it is important to pay attention to the relative humidity of the instrument's environment. Most of the time, dryness is the greatest risk (see the sheet called "Quick Facts About Dryness & Solid-wood Musical Instruments"), but in certain climates, a too-humid environment can also be a problem for your dulcimer. Here are some tips about safeguarding your instrument.

- 40-50% relative humidity is a widely accepted safe range for solid-wood in struments. Wood loses and gains moisture to match the air around it, so if the air is wetter than 50% relative humidity (RH), the wood will gain moisture and swell. If it absorbs too much moisture, the soundboard will expand in width, and this can cause warping or distortion.
- Symptoms that a dulcimer is too wet: Since the sound-board is the thinnest wood component on a hammered dulcimer, this is typically where the effects of high humidity will show up. If a dulcimer is too wet, you may see a hump or a depression in the soundboard. Sometimes, depending on the internal bracing, both humps and depressions may be visible. It may only be a cosmetic issue, but if it warps enough, it can impair your ability to tune or play the instrument.
- The risk of warping increases the longer an instrument is exposed to high humidity. In a moderately humid environment (60-70%), a dulcimer can get wet enough to warp in a matter of a few months. In a very humid environment (80-90%), it can happen in just a few weeks. It is also possible to be overly enthusiastic about protecting your dulcimer from dryness, and actually over-humidify it by mistake, using room or case humidifiers. There is no guarantee that excess humidity will cause a dulcimer to warp, but the higher the humidity and the longer the exposure, the greater the risk.
- In the musical instrument industry, it is the standard that consequences of excess humidity are not covered by the manufacturer's warranty. Over the years, we've established strict protocols for conditioning our hammered dulcimer soundboards and backs before the

- instruments are assembled. Once the instrument leaves our workshop, it is the responsibility of the dealer and ultimately the owner to maintain the proper environment. Between 40 and 50% relative humidity, there should be no risk of warping or cracking. The further outside that range and the longer the exposure, the greater the risk. We can help you with repair questions if needed.
- The only sure way to know that your dulcimer is safe is to regularly measure the humidity with a good quality hygrometer. You can see one possibility in the accessories section of our website, or ask at your local music store. Even if you are using a de-humidifier, you still need to check that it's achieving the correct results.
- There are a few different ways to control high humidity. One is to use a de-humidifier in the room where you keep your dulcimer (make sure to keep the doors closed!) and set it to 45% relative humidity. If that's not an option, you can keep your instrument in its case when you're not playing and use a case de-humidifier, such as the Humidipak by Planet Waves. It releases and absorbs moisture to keep the relative humidity in the case around 45%. Be sure to monitor it, as it needs replacement packets every few months. Another alternative is to put silica gel packets inside the closed case with the dulcimer. You'll need large enough packets to cover at least a cubic foot of volume, and keep checking the hygrometer in your case to make sure you're in the target range.
- Don't worry about taking your instrument out to play in a humid environment! A few hours is not enough to do any damage just put it back in its safe environment when you're not playing.

