

# Innovative Percussion® Inc.

## Insights for Front Ensemble Mallet Selections

Jim Casella



Choosing the right mallets to achieve a successful sound outdoors can be a challenge. Now more than ever, sound quality of the pit ensemble is something that doesn't go unnoticed. Sound quality is a result of technique, equipment, scoring and of course – mallet selection.

The fact of the matter is this: There is no “one” mallet that will work for every musical application. I'll recommend several mallets for the tight budget a little later, but if you plan on getting the best sound possible (or combination of sound), you must understand that this will entail some mallet-changing. This (you knew this was coming) requires an investment in a good variety of mallets. If you take proper care of your mallets (which is not difficult to do with a little discipline), they will most likely last you a very long time. Today's top mallet manufacturers have created some very durable mallets specifically geared toward holding up in the rigorous environment of marching ensembles.

### Secrets to Better Sound Projection

The secrets to better sound and projection are WEIGHT and MASS. Pick up a “field series” mallet and you'll be able to tell immediately that it is much heavier than your standard “indoor” concert mallet. There is a good reason for this...and it's not to build chops. The reason is that by adding more weight and mass to the head of the mallet, the fundamental tone is unleashed from the bars to its fullest potential. When I refer to the “fundamental” I am speaking of the purest, most resonant pitch that the bar can acoustically produce. This comes from increased clarity in the lowest series of overtones produced by the bar, and results in a warmer, more “full” sound. I first started realizing this when Innovative Percussion began creating some of the industry's best outdoor keyboard mallets in the early 1990's. They were heavy, but they sounded great and were very durable. At that time, Scotty Sells was arranging for the Santa Clara Vanguard pit, and I spent a good deal of time listening to his arrangements while I was arranging for the Vanguard Cadets (SCV's feeder corps). Scotty's

pits were getting some incredible sounds, unlike anything I had ever heard. It was around this time that I noticed that more people were paying attention to achieving a good sound quality in the pit, and this idea began to evolve more rapidly. While mallet selection is merely one piece of this evolution, it makes a beneficial difference to use mallets that are built to achieve more projection, and better fundamental when used outdoors. Today, more than ever, we have the tools available to achieve this. I acknowledge the fact that by using heavier mallets in a marching environment, you could inflict some damage on your bars. More on that later. Some harder mallets generally have a “bite” to them (i.e. they sound a bit too “bright”), so I frequently like to use mallets that take that “edge” off by having latex wrapped cores, or perhaps a wrap that is slightly more dense. These are some of the things that have gone into my own line of mallets. As I said earlier, there is no “one” mallet that will work for every musical situation. But since much of our playing outdoors requires us to play with more stroke height, taking away that “bite” usually gives us a better sound. As a result (for example), I'm more prone to choose a “hard” yarn mallet outdoors that is just a little softer than a “hard” mallet that I'd use in the concert hall – because there is generally more height and velocity used when playing outside. Which brings us to the next topic...

### Projection vs. Sound Quality

“Harder” doesn't necessarily mean “louder.” We've all heard the common complaint that, “The mallet instruments just aren't projecting to the box. They need to be louder!” Fortunately (or unfortunately!), this is a very common problem with a pit that is not amplified. It is often the misguided solution to switch to a harder mallet in order to get more volume. This doesn't necessarily make the keyboards louder. It just makes them more articulate (and oftentimes more “tinny” and “brittle” sounding). When this practice is employed frequently, it may also result in bars that are beaten out-of-tune or cracked due to frequent playing with a mallet that is too hard for the given surface.

### A General Mallet Rule:

If the mallet head is harder than the surface it is striking, you probably have a mallet selection problem. Does this mean that your pit must always play with heavy mallets, or mallets that have latex wrapped cores? Of course not. As with any musical situation, your needs must be determined by what the music best calls for. One important concept to remember is that the sound quality can be altered simply by changing one's “touch” on the instrument. With any mallet, you can achieve a wide variety of acoustic staccato. With a more fluid stroke, and a looser grip, you can get a warmer, more legato

sound. Varying the velocity of your stroke can do amazing things to alter the sound as well. Even though your choice of mallet will greatly affect how well you achieve your desired musical goals, playing technique plays just as important a role in determining the sound quality. Think of it this way: Choosing the right tool for a home improvement project will make your job easier, but if you don't use that tool the proper way, you could just as easily make a mistake.

#### **A Mallet Myth:**

"Marimba mallets have birch shafts with yarn. Vibraphone mallets have rattan shafts with cord." Somewhere along the way, people have been conditioned to think that the above statement is some sort of mallet law. It's simply not the case. It's OK to use a cord mallet on a marimba. It's also OK to play vibraphone with mallets made with birch shafts. While many marimba specialists may prefer birch, and/or vibists may prefer rattan, it's merely a matter of what you are comfortable with, and what sounds best to you. Cord, birch, rattan, and yarn are just materials that make up a mallet; that's all.

#### **Blending Mallet Sounds**

One of the most important things to consider when choosing mallets is how they interact and blend with each other. Frequently, I'll love the sound of a mallet when played by itself, but when the rest of the ensemble is added in, it may not sound as I had hoped. This is an important factor in selecting mallets. With this said, mallet assignments for an entire show can be an ever-changing, and experimental process. Have patience, and make sure your students understand the value in doing this as well. Here are a few examples:

Example A: When you are looking for a well-blended sound, take care to listen if any instruments are standing out in the "mix" more than others. This is frequently a problem between xylophone and marimba. It can also be very common for bells to pierce through the mix of the pit ensemble. If this is not your wish, make adjustments to technique and quite possibly mallet selection.

Example B: Sometimes you may want a different "mix" of sounds. Perhaps you'd like a fairly articulate vibe sound, supported by a warm sustain in the marimbas. The mallet used on vibes will need to produce a brighter sound than the marimbas, so it's OK if those players are using different mallets to achieve this effect. Music frequently calls for different elements to stand out above others, so this is not an uncommon scenario at all.

*This article has been extracted from Jim's recently released book, [UP FRONT – a Complete Resource for Today's Pit Ensemble](#), co-written with fellow Innovative Percussion Signature Artist, James Ancona.*

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*Casella received his education from San Jose State University and the San Francisco Conservatory of Music where he studied with Anthony J. Cirone and Jack Van Geem. In addition to writing music for percussion, he works as a composer for film and broadcast projects and is the cofounder of [Tapspace Publications](#) for which he produced and programmed the popular software instrument, [Virtual Drumline](#).*

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