



**COLOMBIA SENSORY TRIAL**  
A Coffeelands Conversation with WCR's Tim Schilling

**COFFEELANDS: Tim, during one of our earliest discussions of this initiative you summarized it in a way I haven't forgotten. You said we needed to do this research because "farmers need to know what variety will give them the best bang for their buck." That was one reason you were interested in partnering on the Colombia Sensory Trial, but not the only one.**

**TIM:** The Colombia Sensory Trial represents the first and best attempt at understanding the complex interaction between a coffee variety's sensory qualities and the environment in which it was grown. Because this trial used side-by-side pairings of two different varieties over 25 different environments, we hope to get a handle, for the first time, on how much of a variety's quality rating and attributes are due to the genetics and how much are due to the environment it was grown in. This is huge for the industry! It's a new frontier for us. Being able to predict a taste profile based on variety and environment. This is the beginning. In a way, it's too bad that the varieties in this test didn't differ more so that we could get better information! But as I have said before, the test was designed not for scientific exploration of quality attributes but to help farmers make the best business decision for their farms and families. In doing so, it is also guiding us in future research endeavors on quality, genetics and environment. Bravo!

**COFFEELANDS: This represented the first time the new sensory lexicon has been applied in a research setting. What did we learn from that aspect of the research and what potential do you see for the lexicon moving forward?**

**TIM:** We would like use the newly developed sensory lexicon to conduct more in-depth analyses on why we get the results we do. For example, if you look at the clustering analysis of taste attributes, varieties and environments done by Kansas State, you see that bad Caturra produces a moldy and mouth-drying characteristic that Castillo just did not produce at all. So, now we will go back to those environments where the bad Caturra produced moldy mouth drying to see if we can identify common factors over those environments that can be considered the 'cause' of the moldy mouth dry. That's how it works. We can also look at see why good Castillo is more non-citrus fruity with some grain notes. All this implies that we would also be able to recommend certain environments or practices to farmers to PREVENT moldy mouth dry and to PROMOTE fruity blueberry or whatever.

Being able to recommend farm practices to producers that increase quality attributes and thus greater income potential. We couldn't do this kind of work using the highly variable cupping methods for scoring coffees. The beauty of the new Lexicon is that it is precise and highly discriminatory allowing us to determine the effect of varieties on quality attributes and; the effects of soil, altitude, slope, temperature, humidity, etc. on quality attributes. Finally, we can understand the variety x environment interaction and be able to make strong income-affecting recommendations for producers. This kind of research needs funding. That funding will not come from producing countries or the US government. It looks like it will have to come from the industry and hopefully interested public sectors in partnership programs.