

Abstract Submitted  
for the DFD15 Meeting of  
The American Physical Society

**Fluid Mechanics of Taste** ALEXIS NOEL, NITESH BHATIA, TAREN CARTER, DAVID HU, Georgia Institute of Technology — Saliva plays a key role in digestion, speech and tactile sensation. Lack of saliva, also known as dry mouth syndrome, increases risk of tooth decay and alters sense of taste; nearly 10% of the general population suffer from this syndrome. In this experimental study, we investigate the spreading of water drops on wet and dry tongues of pigs and cows. We find that drops spread faster on a wet tongue than a dry tongue. We rationalize the spreading rate by consideration of the tongue microstructure, such as papillae, in promoting wicking. By investigating how tongue microstructure affects spreading of fluids, we may begin to how understand taste receptors are activated by eating and drinking.

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Date submitted: 29 Jul 2015

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