《橙皮里的科学，你一定不知道》

美国佛罗里达的专家发现，挤压橙子皮可能启发新的药物雾化方法，或者有助于在桥梁发生事故之前找到隐患所在。

In the search for a new way to deliver airborne medication, researchers have turned to orange peels.

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Engineering Assistant Professor Andrew K. Dickerson and graduate student Nicholas M. Smith from the University of Central Florida have figured out the mechanics of how oranges release that thin stream of fragrant oil when squeezed.

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They characterized the orange peels' structure and figured out the role the layers have to create the microjet dynamic. By mimicking nature's mechanism of an orange layer, pharmaceutical companies may be able to develop a less expensive and less complex way to deliver airborne medication.

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Florida’s fruit is complex. Its hard outer layer protects the fruit, and a white spongy layer just below the skin has microscopic reservoirs of oil in hidden pockets. The spongy material absorbs impact, but when squeezed to a critical pressure it pushes up and tears open a minute section of the hard outer-layer to spray its fragrant stream. These microjets are small but fast, exiting their cavities at 22 mph on average by accelerating 5,000 Gs, which is equivalent to about 1,000 times the force astronauts feels at launch.

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