BACK SCATTER

Spore vortex

The spreading of plant and fungal spores is of great importance to plant and animal health. Once lofted by the wind, the particles can travel anywhere from a few kilometers to thousands and can even cross continents. Rainfall can drive the dispersal. When raindrops land on a sporeladen leaf, they spawn droplets that envelop some of the particles and carry them short distances. Cornell University's Sunghwan Jung and colleagues have now shown that raindrop-triggered transport is dominated by a second mechanism: dry-spore dispersal.

This image, created from several superposed high-speed video frames, captures raindrop-induced trajectories of glass beads, which the researchers used as surrogates for actual spores. After a raindrop hits the leaf surface, it starts to spread, and spores that get trapped at the advancing meniscus will collide with and eject other dry spores. The raindrop impact also generates an air vortex, which can lift the ejected spores several millimeters, enough for them to be picked up by the wind and carried away over long distances. (S. Kim et al., *Proc. Natl. Acad. Sci. USA* **116**, 4917, 2019. Image by Seungho Kim, Hyunggon Park, and Sunny Jung, submitted by Sunny Jung.)

