Table S1. Calculated shape features of pili kernels

|  |  |  |  |
| --- | --- | --- | --- |
| Features | Equations\* | Interpretation | References |
| Roundness (R) |  | 1 = round  >1= not round | Parikh, 2016 |
| Elongation (El) |  | 1= circle  >1= non-circular | Firatligil-Durmus et al., 2010 |
| Eccentricity (Ec) |  | 0= circle  1= straight line | Abbott, 2008 |
| Pointness (Po) |  | >Po = pointed | VideometerLab3 |
| Compactness of Ellipse (C) |  | 1=circle  <1= non-circular | Ferri et al., 2017 |

\*A projected area (mm2), P perimeter (mm), L length (mm), and W width (mm)