**Table S1. Explanation and formulas for the morphological parameters of the starch granules micro images (https://imagej.nih.gov/ij/).**

|  |  |  |
| --- | --- | --- |
| Name of the morphological parameter  | Formula | Explanation |
| Area | ---- | An area of the projection of the starch granule in the bright spot of the microscope. |
| Circularity | $$4π×\frac{\left[Area\right]}{\left[Perimeter\right]^{2}}$$ | 1 – For ideal circle, 0 – for polygon. |
| Feret’s diameter | ---- | Correlates with Area |
| Min Feret’s diameter | ---- | ---- |
| Aspect ratio | $$\frac{[Major Axis]}{[Minor Axis]}$$ | 1 - For ideal curcle, ∞ - for linear shape |
| Roundness | $$4×\frac{[Area]}{π×[Major axis]^{2}}$$ | 4 - For ideal curcle, 0 - for linear shape. Correlates with Aspect ratio. |
| Solidity | $$\frac{[Area]}{[Convex area]}$$ | 1 – for ideal smooth surface, the closer to 0 the more uneven the surface is. |