



**Supplementary Figure 4. Relative expression levels of *SISWEET10a* in VIGS leaves and phenotypic characteristics in *SISWEET10a* overexpression lines and silencing lines**

**(A)** The relative expression levels of *SISWEET10a* in control (CK, only injected with infiltration buffers), non-silenced (TRV), and silenced *SISWEET10a* (1-15) lines.

Each young leaf of fifteen plants in VIGS (virus-induced gene silencing) lines were sampled and pooled to be used for relative expression level analysis of *SISWEET10a*. The expression data of CK was set to 1. The *ACTIN* gene was used as internal control. Data are mean values  $\pm$  SD of at least three biological replicates. **(B)** Single fruit weight ( $n \geq 30$ ) at the red ripe stage. **(C and D)** Transverse diameter and vertical diameter of fruits ( $n \geq 30$ ) at the red ripe stage. Data represent mean values  $\pm$  SD. Asterisks indicate P-values (\*P < 0.05, \*\*P < 0.01) according to Student's t test.