

**Supplementary information, Figure S3** Increasing posterior silk gland size by *Ras1*<sup>CA</sup> overexpression greatly improves silk yield.

Three biological replicates are conducted and results from one replicate are presented. Mean  $\pm$  STEDV, n  $\geq$  25. The bars labeled with different lowercase letters are significantly different (P<0.05, ANOVA). Data from males are shown.

- (A) In comparison with the control animals: wild type [D(-)E(-)], Fil-GAL4 [D(+)E(-)], and UAS-Ras1<sup>CA</sup> [D(-)E(+)], posterior silk gland size in the transgenic silkworm Fil-GAL4/UAS-Ras1<sup>CA</sup> [D(+)E(+)] is significantly increased.
- (B) The cocoon weight of male [D(+)E(+)] is significantly increased.
- (C) The larval body weight of male [D(+)E(+)] is not altered.
- (D) The pupal body weight of male [D(+)E(+)] is not altered.