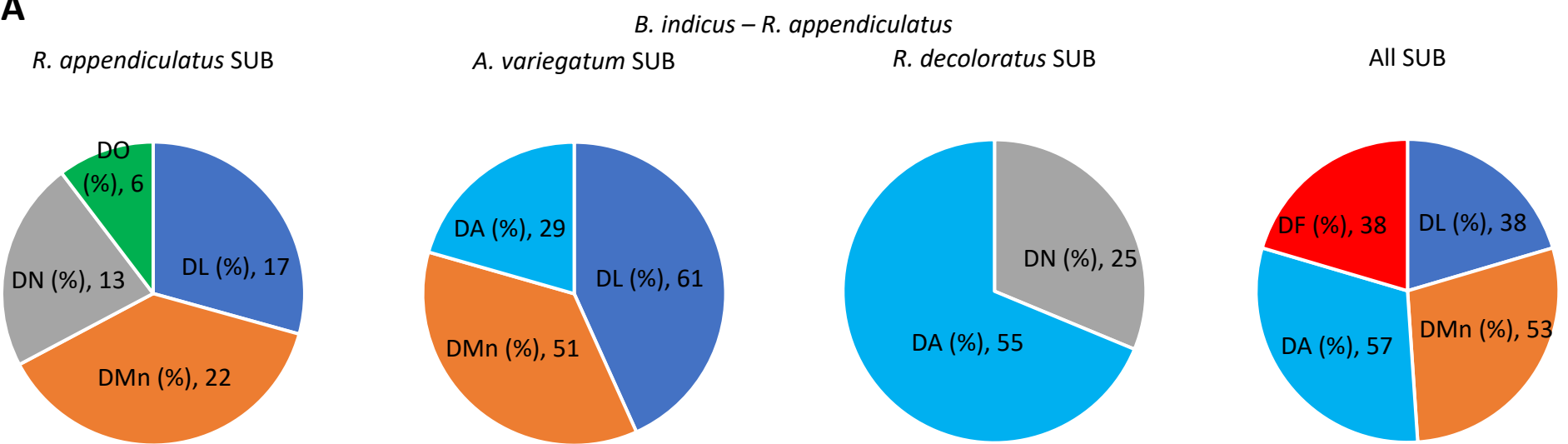
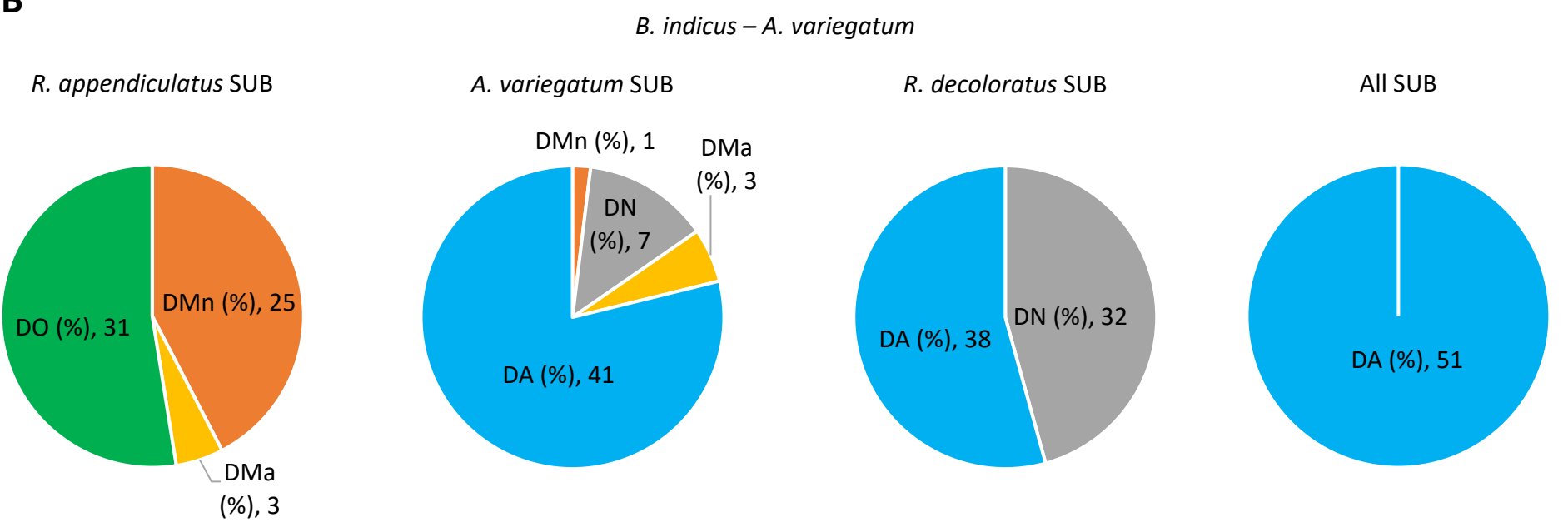


A



B



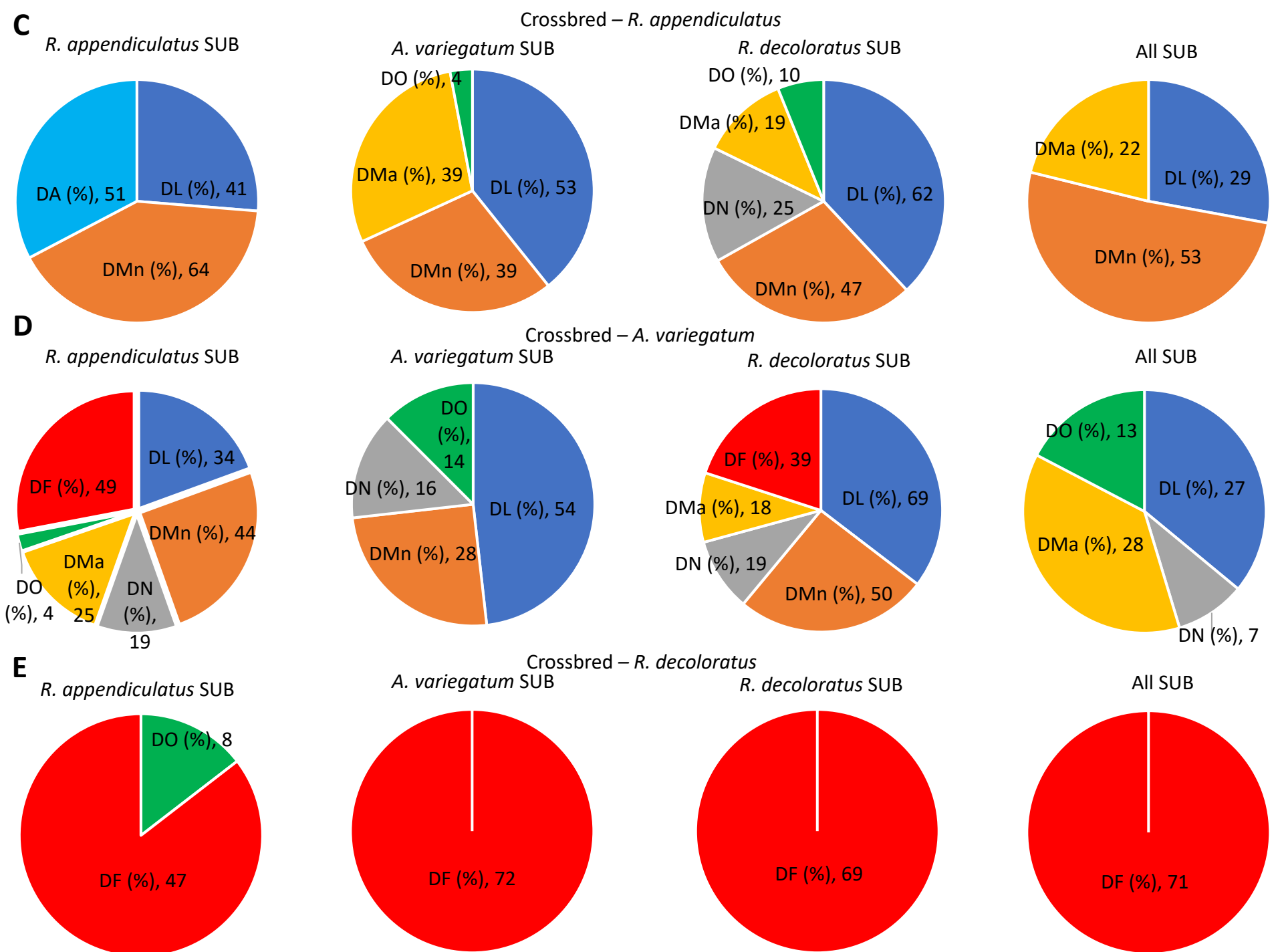


Figure S1. Effect of vaccination with SUB on different tick developmental stages.

(A) *B. indicus* – *R. appendiculatus*. (B) *B. indicus* – *A. variegatum*. (C) Crossbred – *R. appendiculatus*. (D) Crossbred-*A. variegatum*. (E) Crossbred – *R. decoloratus*. The effect of vaccination on different tick developmental stages was used to evaluate vaccine E. The tick developmental stages included the number of engorged larvae (DL), nymphs (DN) and adult female ticks (DA), molting of tick larvae (DMn) and nymphs (DMa), oviposition (DO) and fertility (DF). The percent reduction for each developmental stage is shown on the graphs. Only parameters with statistically significant differences (Chi-square test; $p < 0.05$, $n = 4$ biological replicates; Data S1) are shown and were included in the vaccine E calculation.