Tuta absoluta (Meyrick) (Lepidoptera: Gelechiidae) is regarded as a serious pest of tomato in the Mediterranean Region of Turkey. The life table parameters, the developmental durations and mortality rates of tomato moth on different tomato varieties, namely Newton, Caracas, Torry and Şimşek were studied. Total developmental duration of tomato moth was the longest in Caracas variety and determined as 24.50 days. It was 23.95, 23.00, and 22.88 days on Torry, Newton, and Şimşek varieties, respectively. Total mortality of immature stages was determined as 73.13%, 53.79%, 41.10% and 40.46% on Şimşek, Caracas, Torry and Newton varieties, respectively. The net reproductive rate (Ro) was 64.6, 55.8, 47.5, and 35.8 females females-1 day-1 generation on Torry, Newton, Caracas and Şimşek varieties, respectively. The intrinsic rate of increase (rm) was found as 0.173, 0.169, 0.159, and 0.150 females females-1 day-1 on Torry, Newton, Caracas and Şimşek varieties, respectively. Mean generation time (To) was obtained as 24.3, 24.1, 23.9 and 23.7 days on Caracas, Torry, Şimşek and Newton varieties, respectively. Our results showed that Tomato moth preferred less Şimşek variety than other tomato varieties tested in the present study.