The aim of this study was to find out the effects of chronic heat stress on total count leukocyte and differential leukocyte of broiler. A total of 20 broilers with three weeks ages divide into two different groups. Group one is for control (P0) was caged at normal temperature, and group two (P1) was caged at manipulated fix temperature on 34.5-35°C. After 45 days of treatment, all broilers were sacrificed for leukocyte blood smear. Collected data for total count leukocyte and differential leukocyte were analyzed with independent t test. The results indicated that chronic heat stress significantly decreasing total count leukocyte, eosinophil and lymphocyte proportions in broiler, whereas the proportion of heterophil was increased (p<0.05). The conclusion for this research was that a high temperature could cause the increase of body temperature and also change leucocyte components in broilers.