ABSTRACT

Megalurothrips sjostedti (Trybom) and Frankliniella occidentalis (Pergande) (Thysanciptera: Thripidae) are among the most serious pests of French beans, Phaseolus vulgaris var. Monel in Kenya and occur in all major growing areas. The former seems to be prevalent during cold and rainy periods while the latter is mainly a problem during hot and dry conditions. The development of the two species was studied at temperatures ranging from 15 degreesC to 30 degreesC. The average developmental times of each stage are given. For both species, the developmental times decreased with an increase in temperature. The degree-days required to complete development from egg to adult were 212 and 256 above the estimated threshold temperatures of 9.6 degreesC and 9.0 degreesC for M. sjostedti and F.occidoitalis, respectively. Between 19 and 23 generations of M. sjostedti and between 17 and 20 generations of F. occidentalis; could possibly develop under Kenyan field conditions in one year. Overall mortality was lowest at 25 degreesC. Mortality rates for both species decreased from larval instars to adult and were higher for M. sjostedti than for F. occidentalis. Since the developmental times were not different, the differential pest status of M. sjostedti and F. occidentalis must be a result of other factors.