Abstract

Many of the tropical lowland areas of warm climate in México have a livestock tradition, small dairies and cheese industries, but any breed of European origin has been able to produce and reproduce successfully in these environments. The tropical milking criollo (TMC) cattle is a Bos taurus adapted that can produce high quality milk feeding exclusively on pasture. In this study, the lactation of TMC was studied and a genetic evaluation was carried out using a random regression model for 119 sires and 602 cows, with 15 377 test-day yield records from herds of México, (10 475) and Nicaragua (4902), from 1974 to 2006. Heritability and repeatability indexes for milk yield accumulated for 305 d were 0.24 (0.036) and 0.43 (0.068). In the June-August season daily milk yield was higher by 0.60 kg over the December-February season, which had the lowest production of the four quarterly periods. The average daily yield at parities 2, 3, and 4 or more, was higher at first parity by 0.39, 0.61 and 0.70 kg. Lactation did not show the characteristic initial rise in production in temperate climates with European breeds. The annual genetic progress detected in bulls (7.7 kg per lactation) and cows (11.04 kg per lactation) shows an advance of the breeding program used with the TMC cattle of México and Nicaragua since 1974.

Keywords

Tropical Milk Criollo, lactation, genetic evaluation, random regression.