Abstract

Data from 289 milk yield records of purebred Holstein (H), ¾ Holstein ¼ Gyr (¾H ¼G) and ½ Holstein ½ Gyr (½H ½G) were used to compare milk production traits of these genotypes in an intensive operation in a subtropical region of northwestern Mexico. The performance traits studied were: 305-d milk yield days (P305), total milk yield per lactation (TMY), average daily milk production (DMP); lactation length (LL), peak milk yield (PM) and day of peak milk. Higher (P<0.05) P305 averages were observed for purebred Holsteins (5417 ± 96 kg) than ¾H ¼G (4807 ± 131 kg) and ½H ½G (4541 ± 92 kg). The shortest lactations were observed for ½H ½G animals (288 ± 2.0 d) whereas the longest lactations were observed for purebred Holstein (303 ± 2.1d). The highest 305-d milk yield was observed in cows calving in January (5283 ± 1090 kg), whereas the lowest milk yield occurred with calvings in June (3989 ± 896 kg). These results indicate that, under intensive management in a subtropical setting, purebred Holstein performed better than crossbred animals, in terms of milk yield. However, in this subtropical environment reproductive performance of purebred Holstein cows is very poor; thus, this study emphasizes the importance of crossbreeding Holstein x Gyr cattle to produce cows that are more adapted to the hot-humid environmental conditions of the region. These results also showed the drastic impact of heat stress during the summer months on the milk yield of these cows.

Keywords

Lactation performance, subtropical environment, Holstein x Gyr.