

Effect of estimated breeding value from foreign sires on milk traits in Colombia

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Milk production systems in Colombia, have lacked of genetic evaluation programs to predict the genetic breeding value (Estimated breeding value (EBV) in cattle. The objective of this research was to determine the effectiveness of selecting Holstein and Jersey foreign dairy bulls used in breeding programs in the department of Antioquia. Was analyzed the association of EBV with some production and health parameters analyzed directly in their progeny (daughters). Software MTDFREML was used for all analysis. Heritabilities for milk yield, protein percentage, fat and somatic cell score in Holsteins were 0.19 ± 0.0 , 0.37 ± 0.04 , 0.37 ± 0.04 and 0.34 ± 0.05 and for the Jersey breed were 0.20 ± 0.0 , 0.64 ± 0.0 , 0.55 ± 0.0 and 0.14 ± 0.26 respectively. The EBV of Holstein bulls were highly significant ($P < 0.01$) on milk production, the percentage of milk protein and fat percentage of the same. The EBV of Holstein bulls were highly significant ($P < 0.01$) on milk production, the percentage of milk protein and fat percentage. The genetic value was also found associated with somatic cell count, mainly in early lactation cows, after the third lactation no significant effect ($P > 0.05$). In the Jersey breed found similar results, except for the percentage of fat, characteristic for which there was no effect of EBV's father. The results showed that despite the low reliabilities estimated assessments in Colombia, the results have been favorable and allow genetic make progress similar to that obtained with the use of foreign genetic.

Biography

Julian Echeverri has a Ph.D in Animal Science, obtained in 2011 at Antioquia University in Colombia. He currently serves as an Assistant Professor in the Department of Animal Production National University of Colombia. He is author of several academic publications and more than 30 scientific papers in Colombia, derived from their research and their work group (BIOGEM, Biodiversity and Molecular Genetics).

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