

RANKING OF ECUADORIAN SIRES BY  
BEST LINEAR UNBIASED PREDICTION

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# ABSTRACT

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First and second lactation records from 785 Ecuadorian Holsteins distributed in four altitude areas, three "year" groups and six "season" groups were analyzed with the objective of ranking sires.

BLUP approach was used to rank sires from three models and computer programs from Genstat were used to assist the analysis.

Results show that sires did not rank the same in first and second lactation records.  $R^2$  statistics were obtained for each model; the highest value, 0.50, was obtained with a model (iii) which includes herd, year group, season group, and sire as sources of variation in first lactation milk yield.

To compare ranking of sires from different models and lactations, Spearman's correlation was made. The highest correlation value, 0.98, was yielded between model (ii) which includes area, and model (iii) which includes herd; and between milk and fat yield.

Although smallest  $\sigma_e^2$  was obtained in second lactation records, because a sire must be progeny tested early in life to obtain faster genetic improvement, ranking of sires using first lactation records in a model which includes herd, year, season, and sire is recommended in Ecuador.