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INTRODUCTION

The Mexican tropic is one of the regions with the greatest potential to maintain the cattle herds of the country and to contribute to the nutrition of the poorest and most isolated communities through the local production of milk and meat. Dual-purpose production systems are very heterogeneous in management, which makes them vulnerable to factors such as changes in production, quality and availability of forage.

OBJECTIVE

To evaluate the productive behavior of agribusinesses with dual-purpose cattle, located in the tropical region of Tierra Blanca, Veracruz, Mexico.

MATERIALS AND METHODS

- 20 agribusinesses with dual-purpose cattle from Cosamaloapan, Ixmattlahuacan, Tierra Blanca, Tlalixcoyan and Tres Valles municipalities of Veracruz.
- Cattle crossed with Holstein and Brown Swiss with Brahman and Sardinian Black.
- Feeding based on grazing forages, and differentiated supplementation with concentrates.
- Period from November 2014 to July 2015.
- Information obtained from the global report generated by DOBLE of AGROPEC Star® software.
- 2607 data of average daily milk production per cow were analysed using SAS.

RESULTS

Differences ($p < 0.01$) were obtained in the average milk production (kg cow⁻¹ day⁻¹) of the agribusinesses evaluated, observing the highest values in agribusinesses 2 and 15, and the lowest ones in agribusinesses 9 and 10. There are differences in productivity per animal among the ranches evaluated. Five groups were specified to show these differences, which explains about 80 % of the variation observed (Figures 1 and 2). Once again, agribusinesses 2 and 15 stand out, with the maximum value (10.25 in ranch 15) and, 9 and 10 with the lowest value (2.57 in ranch 10); the average milk production (kg cow⁻¹ day⁻¹) obtained for the 20 agribusinesses evaluated was 5.83. In the analysis of the average behaviour and trend of the evaluated variable, an irregular curve was obtained from the third order regression which explains the 86.27 % variation observed in the agribusinesses under study, with a maximum value of 7.7 and a minimum value 4.25 (Figure 3).

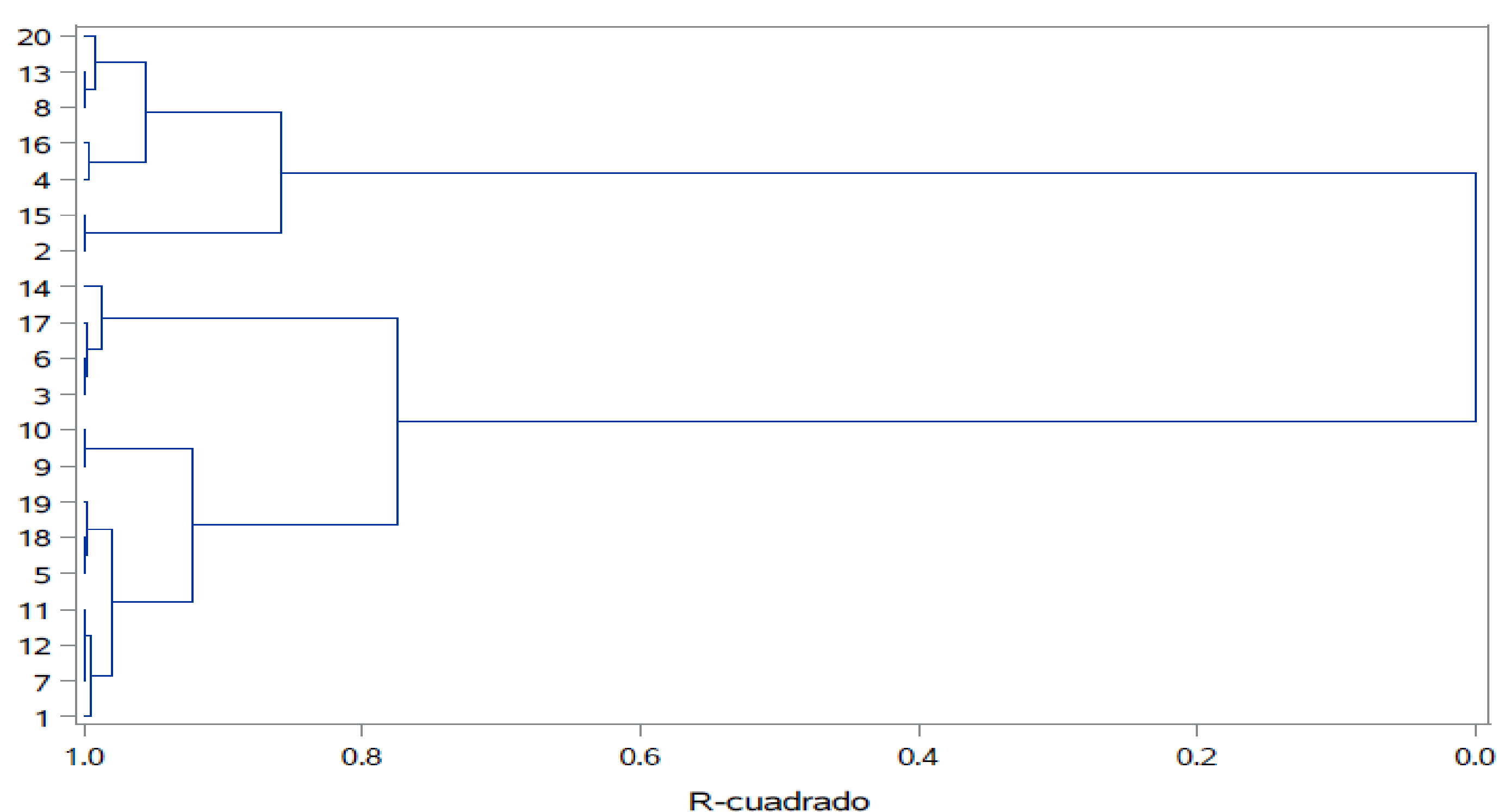


Figure 1. Dendrogram obtained from the analysis of minimum variance per agribusinesses groups according to CLUSTER procedure (SAS, 2018).

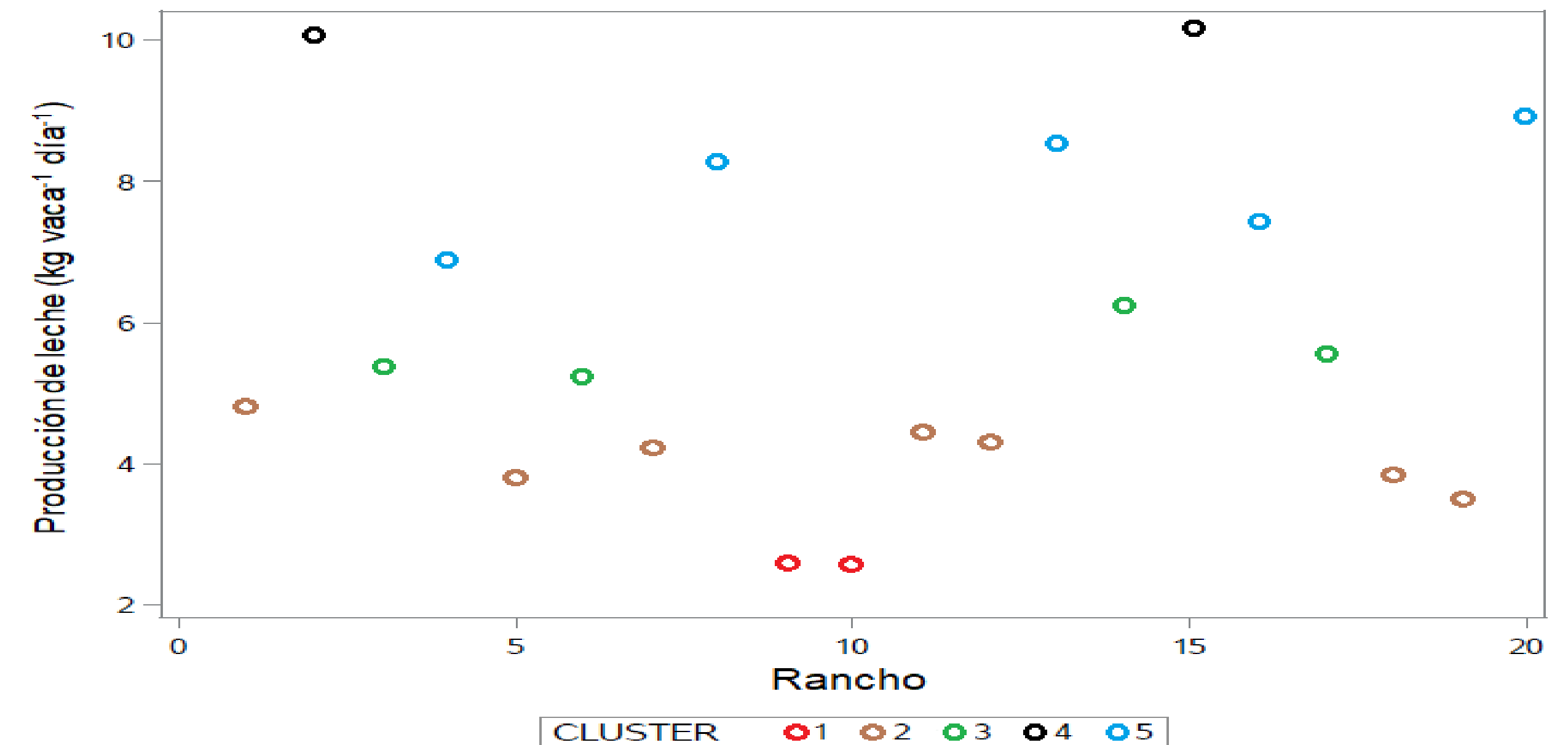


Figure 2. Defined dispersion diagram for five groups obtained from the analysis of minimum variance by agribusiness groups according to CLUSTER procedure (SAS, 2018).

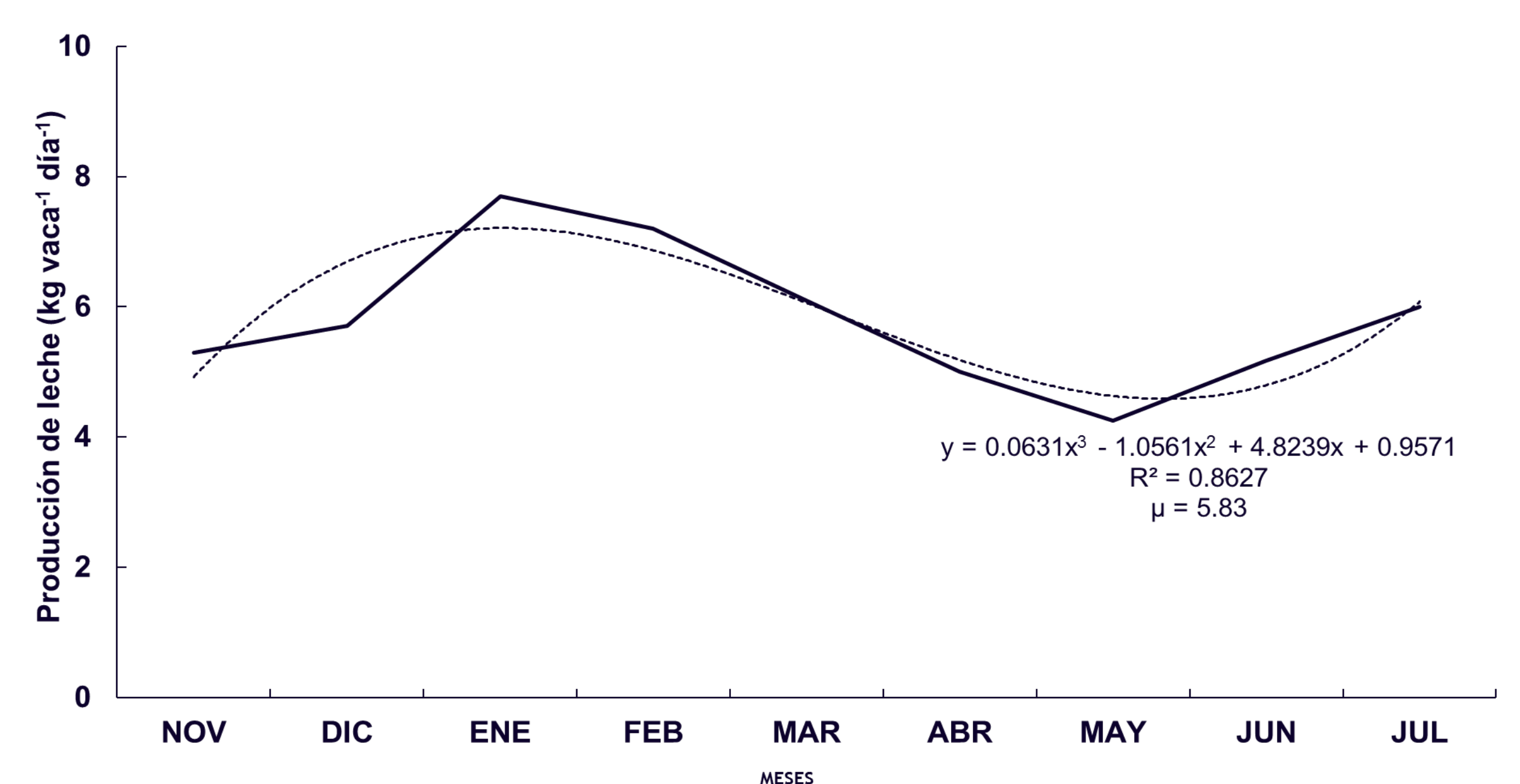


Figure 3. Average behavior of milk production during the evaluation period and its tendency, obtained through multiple regression analysis (SAS, 2018).



CONCLUSION

The productive performance obtained is typical of the Mexican tropical cattle managed under an extensive system where the main source of food is the forage, which depends on the time of year and the management of the pasture, and which finally determines the production of milk.