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Use of probiotics in nutrition guinea pigs (*Cavia porcelllus*)

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The objective is to isolate and identify the bacterial isolates by molecular techniques belonging to genera with potential for probiotics in the intestine of guinea pig (*Cavia porcellus*) and evaluate this productive parameters supplemented with this probiotics, the intestine was extracted from each sample were taken by scraping the intestinal mucosa, they were planted in different culture media in order to achieve isolated colonies with phenotypic characteristics of bacterial species of known potential probiotic (*Lactobacillus, Enterococcus, Streptococcus, Bacillus, Bifidobacterium*). We identified 27 representative isolates by amplification, sequencing and bioinformatic analysis of 16S rRNA gene. DNA sequences were compared with three different databases. It turned out that 85.18% obtain *Lactobacillus, Enterococcus, Streptococcus* and *Bacillus,* the 14.81% remaining bacterial species gram positive identified that are not objective of this study, but that however, contribute to the identification of guinea pig intestinal microbiota, was found *Staphylococcus*. Then it was to evaluate the productive parameters of guinea pigs supplemented with this probiotics. Five treatments with eight replicates per treatment were used: T1, T2 and T3 received 100, 150 and 200 ml of probiotic, respectively, and T4 and T5 were positive and negative controls, respectively. The dry matter intake, weight gain, feed conversion and carcass yield were evaluated. T2 had the lowest dry matter intake (2564 g) and the lowest feed conversion (3.90) and T5 increased consumption (3293 g) and increased feed conversion (5.04). Weight gain and carcass yield were not affected by the probiotic. The dietary inclusion of probiotic strains from guinea pig intestinal microbiota affected ($p<0.05$) feed conversion in growing and fattening guinea pigs.

Biography

Jorge Guevara Vásquez completed his PhD at the National University Agraria La Molina, Lima – Perú. Currently, he is working as a teacher and a member of the Research Group on Animal Nutrition (GINA) of the National University Mayor de San Marcos. He has published articles in various journals on research in the area of nutrition and animal production. Sponsor of his thesis are students of undergraduate and graduate degrees to obtain corresponding academic degree.

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