

Beneficial Microbes: Food, Pharma, Aqua & Beverages Industry

August 25-27, 2015 Valencia, Spain

Influence of feeding probiotic yogurt on immunity and health conditions of rats

Abdelrahman Ali
Cairo University, Egypt

Pregnancy is associated with down regulating cell-mediated immunity (T-Lymphocyte) which would lead for increasing susceptibility to viral and bacterial infection, therefore it was expected that feeding probiotic bacteria would help in strengthening pregnant immunity. To test the effect of probiotics feeding on the immunity during pregnancy, rats were fed on four different diets, a basal diet (the control) or basal diet fortified with different probiotics which were yogurt (*Streptococcus thermophilus* EMCC 1043 and *Lactobacillus delbrueckii subsp. bulgaricus* EMCC 1102) (group1), yogurt fortified with *Bifidobacterium breve*, (group 2) and yogurt fortified with *Bifidobacterium breve* plus *Lactobacillus paracasei* (group 3). Feeding started before mating during gestation and after parturition. Probiotics particularly (group 2) and (group 3) improved significantly rats' body weight gain over the control during gestation and after parturition and their off-spring. Group 2 and Group 3 significantly lowered total serum cholesterol than the control. Low Density Lipoprotein (LDL)-fraction decreased insignificantly during gestation but the difference was significant after parturition. Probiotic groups increased significantly leukocytes, lymphocytes and phagocytes counts than the control particularly after parturition. Compared to the control, probiotics feeding helped CD⁴⁺ counts which showed a decrease on pregnancy to regain their original level before pregnancy. On the third week of gestation, the counts were higher than before pregnancy. CD⁸⁺ counts were also increased with probiotics feeding. Therefore, probiotics feeding improved the health of pregnant rats, lipid profile and both sides of immunity.

Biography

Abdelrahman Ali is currently working as Professor in Faculty of Agriculture, Dairy Science Department, Cairo University, Egypt.

Abdelrahman1544@yahoo.com

Notes: