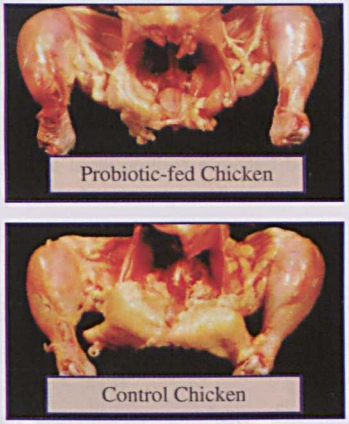
Probiotic for Poultry disease

AwardWinner

In recent years, there is a growing concern that the continuous feeding of sub-therapeutic levels of antibiotics to livestock as growth promoters may result in the presence of antibiotic residues in animal products and the development of antibiotic-resistant bacteria. Probiotics, which are viable friendly bacterial cultures that have a beneficial effect on the health of a host when taken as a feed supplement, have been considered as a substitute for the antibiotic growth promoters.

UPM has developed a novel multi-strain probiotic that can be used as a natural substitute for the antibiotic growth promoters to increase performance in chickens (broilers and layers) and as a hypolipidaemic agent to reduce fat and cholesterol in broilers, and cholesterol in egg yolk. The probiotic consists of a mixture of 12 *Lactobacillus* strains isolated from the intestines of local chickens, and scientifically selected for their exceptional performance in poultry. It is in a powder form and the viability of the *Lactobacillus* strains is maintained at a high level of about 10^9 viable cells per gram. Only a low dosage of 0.1% of the probiotic is required to be incorporated into the feed daily.



Large fat deposition in the control chicken compared to the reduced fat deposition in the probiotic-fed chicken

Probiotic-fed broiler chickens have better growth performance, feed efficiency and immune response, less mortality rate, less pathogenic bacteria and noxious bacterial enzymes in their intestinal tract, and less body fat and cholesterol than the control broilers fed without probiotic. When compared to antibiotic-fed broiler chickens, probiotic-fed chickens also have better growth performance, feed efficiency and immune response, less cholesterol and less mortality rate. Similarly, supplementation of the probiotic to laying hens improves their growth performance, feed efficiency, egg production, egg weight and egg size, reduces mortality rate, and lowers the cholesterol level in egg yolk at the initial laying period. The egg weight is increased by about 1 gram per egg, and there is a shift from small and medium to large and extra large eggs in the probiotic-fed hens.

Recently, an Industrial Research and Development Grant Scheme (IGS) has been approved and granted by the Ministry of Science, Technology and Innovation to a commercial company, Stella Gen Sdn. Bhd., to develop technology for scaling up production of the probiotic for commercial purposes.

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