

Growth Performance and Immune Response Against Newcastle and Avian Influenza Vaccines in Egyptian Chicken Strains

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Abstract

280 one day-old chicks of four Egyptian chicken strains (Mandarah, Inshas, El-Salam and Dokki-4) were used (70 chicks per strain) for successive 12 weeks in order to assess the differences of some growth parameters (body weight, body weight gain (BG), relative growth rate (RGR) and livability percentage) as well as immune response against Newcastle (ND) and avian influenza (AI) vaccine. Results revealed that Mandarah chickens showed the highest body weight among the studied strains at hatch, 2, 4, 6, 8 and 10 weeks of age, while El-Salam strain showed an increase in body weight at 12 week of age. Also, El-Salam chickens recorded higher overall weight gain while the lowest was recorded for Dokki-4 chickens, no differences between four strains for overall RGR, moreover better livability percentage recorded by El-Salam strain. Higher immune response for ND and AI viral vaccines were recorded for Dokki-4 strain that expressed the higher antibody

titers for ND vaccine at 14th, 25th, 35th, 45th and 60th days of age and for AI vaccine at 25th, 35th, 45th and 60th days of age.

It was concluded that El-Salam strain is the best strain for growth performance parameters, while Dokki-4 strain is the best strain for immune response against ND and AI viral vaccines.

Key words: Egypt % Chicken Strains % Body weight % Livability % Newcastle virus % Avian influenza

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