

EFFECT OF ADDED ALGAE POWDER (ASCOMAX) TO THE DIET ON SOME PRODUCTION TRAITS OF BROILERS

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ABSTRACT : The study was conducted in the poultry field, College of Agriculture, Al-Muthanna University from 1/3/2018 to 6/4/2018 to determine the effect of commercial Ascomax powder produced from seaweed (*Ascophyllum nodocum*) on some productive performance of broilers. A total of 400, one day, Ross 308 broiler chicks were used for 35 days. The chicks were randomly distributed to 4 treatments, four replicates per treatment (25 chick / replicate). The treatments were as follows: T₁: (control treatment), while T₂, T₃ and T₄ added diet by Ascomax powder by 1, 1.5 and 2 g per 1 kg of the basal diet, respectively. The results of the study showed a significant superiority (P<0.05) for the added Ascomax powder treatments compared to the treatment of control in the weekly body weight and weight gain, while the treatment T₄ exceeded the rest of treatments in the cumulative of weight gain, there was also a significant increased (P<0.05). For T₂, T₃ and T₄ treatments compare with the control treatment of feed consumption, cumulative feed consumption and feed conversion factor, while the control treatment was significantly higher (P<0.05) in the mortality, as for the production index in the addition treatments were significantly superior to (P<0.05) compare with the control treatment. It is concluded that the addition of Ascomax commercial powder has improved the productivity of broilers.

Key words : Algae powder, Ascomax, production traits, broilers.

INTRODUCTION

The marine environment has identified diverse and unlimited sources of nutrients, where it has been used as a major or complementary component of human and farm food (Evans and Critchley, 2014). At the present time, scientific research has focused on increasing the research for the production of bio-active activities with high biological value and as antioxidants and infections (EL-Deek and Brikaa, 2009), the marine algae (*Ascophyllum nodocum*) and (*Undaria pinnatifida*), which were due to Phaeophyta, as well as Fusiforme marine algae that belong to green marine algae, the marine algae (*Ascophyllum nodocum*) contain a high percentage of polysaccharides (70-42%) of dry weight, the seaweed contains polyunsaturated fatty acids, tinctures, vitamins and minerals, contains proteins containing the essential amino acids (Holdt and Kraan, 2011). A number of studies have been conducted on the use of marine algae, in a study conducted by Choietal (2014) on the use of brown seaweeds (*Undaria pinnatifida*) and Fusiforme (*Hizilara fusiformis*), the fermented and non-fermented seaweeds were 0.5% *Bacillus subtilis* and *Aspergillus*

oryzae, the results showed that fermentation treatments significantly exceeded non-fermented and control treatments in body weight and weight gain of broilers. In a study of Bonosetal (2016) on the addition of algae (*Ascophyllum nodocum*) to study their effect on the production traits of broilers were added 5, 10 and 15 g / kg feed, not observed a significant differences in body weight, feed consumption and feed conversion coefficient between treatments.

The algae were not formed in Iraq, so this study was conducted to investigate the effect of the addition of Ascomax commercial powder and the plant from the brown seaweed (*Ascophyllum nodocum*) in the production performance of broilers.

MATERIALS AND METHODS

The study was conducted in poultry field, Animal Production Department, Faculty of Agriculture, Al-Muthanna University, from 1/3/2018 to 6/4/2018, to demonstrate the effect of adding different levels of commercial Ascomax to diet on some production performance of broiler. A total of 400, one day, Ross 308 broiler chicks were used for 35 days. The chicks were