



University of Zabol  
Faculty of Agriculture  
Department of Animal Science

**Title:**

**Effects of different levels of aloe vera gel on performance carcass characteristics and immune response of broiler chicks**

**Supervisors:**

F. B. Kasmani

**Advisors:**

M. Mehri

M. Ghazagh

**By:**

M. Moghadam

September, 2014

## Abstract

The current study was conducted to investigate the effect of different levels of aqueous extract of *Aloe vera* on performance, carcass traits, humoral immune response and lymphoid organs weight of broiler chicks from 7 to 28 day of age. A total of 160 one-day-old broiler chicks were obtained from a local hatchery and kept until 7 day of age, then randomly allocated to four treatments with four replicates (10 birds per replicate) in a completely randomized design. The experimental treatments were consisted of 3 levels of aqueous extract of *Aloe vera* gel (0.15,0.30, and 0.45) and one group without *Aloe vera* gel as control. Body weight gain, feed intake and feed conversion ratio were measured At the end of 28 days, two birds per replicate were randomly selected, weighed and sacrificed, then the relative of spleen and bursa weights were determined. Blood sampling performed on d 28 and were used for antibody titer analyses against Newcastle and Bronchitis vaccines. Treatments containing 0.30 and 0.45 percent *Aloe vera* had the maximum relative carcass weight and FI, respectively. Results of this experiment showed that aqueous extract of *Aloe vera* in 0.45 level could improve FCR. The results showed significant differences between the treatments for relative weights of bursa ( $P<0.05$ ). SRBC, IB and ND antibody titer improved by increasing the levels of aqueous extract of *Aloe vera* gel application ( $P<0.05$ ). The results indicate that aqueous extract of *Aloe vera* gel could improve broilers' immunity. Results showed that FI did not significantly affected by different treatments ( $P> 0.05$ ). However, different levels of aqueous extract of *Aloe vera* had significant effect on FCR and weight gain ( $P<0.05$ ). Result of this experiment showed that aqueous extract of *Aloe vera* at level of 0.45 percent could improve FCR, BWG and humoralimmunity.

Key words: Aloe vera- Broiler chicken- Humoral immunity- Lymphoid organs