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Effect of Spirulina on Toxic Signs, Body Weight and Hematological Parameters in Arsenic Induced Toxicities in Ducks

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Abstarc :

The present study, was undertaken for the effect of spirulina on toxic signs, body weight and hematological parameters in arsenic induced toxicities in ducks. One hundred and 75 ducklings were divided into 5 equal groups separately. One group (T) of ducklings was kept as control. One group (T) of 0 1 ducklings were given arsenic trioxide @ 100 mg/L drinking water and rest three groups of ducklings (T , T 2 3 and T) were given arsenic trioxide @ 100 mg/L plus spirulina in three different doses i.e. 30, 60 and 120 4 mg/L in drinking water daily for 90 days starting from day 15. Five birds were sacrificed from each group in every 15 day intervals and toxic signs, body weight and hematological parameters were recorded. Ducks of T group (only arsenic trioxide) showed depression, reduced feed intake, dullness and ruffled feathers which 1 were in mild in nature in other groups i.e. arsenic plus spirulina. In arsenic treated groups (T) the not gained 1 body weight was maximum (14.93%), whereas in arsenic plus spirulina treated groups (T T and T) the not 2, 3 4 gained body weight in ducks (4.08-11.26%) were better than only arsenic treated groups. Reduction of TEC, Hb and PCV values and rise of ESR values were significant (P<0.01) in T (arsenic treated) groups. However, 1 in arsenic plus spirulina treated rest groups reduction of TEC, Hb and PCV were less than arsenic treated groups. The present study reveals that spirulina may be helpful for reducing the body burden of arsenic in ducks.

Key Word :
Spirulina, toxic signs, body weight, hematological parameters, arsenic toxicities, ducks

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