

## Effect of *Silybum marianum* in protecting the layer hens from free radicals induced by hydrogen peroxide

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**ABSTRACT:**

*Silybum marianum* (L.) Gaertn. belongs to the Family Asteraceae is wide spread throughout the world. The main medicinal applications of *Silybum marianum* were due to the active constituents such as silymarin and flavonolignan complex. The purpose of the current study was to analyse the effect of *Silybum marianum* and vitamin E on the Layer hens in protecting them from free radical induced by hydrogen peroxide. One hundred twenty Loman brown Layer hens at the age of forty weeks were randomly divided into five treatments with four replicates, (six hens in each replicate). For the first treatment (T<sub>1</sub>) hens were fed with experimental diet and normal water (positive control), second treatment (T<sub>2</sub>) hens were fed with experimental diet plus 0.5% hydrogen peroxide in drinking water (negative control), T<sub>3</sub>, T<sub>4</sub> and T<sub>5</sub> group hens were fed with experimental diet plus 0.5% hydrogen peroxide in drinking water and 10 mg and 15 mg, of *Silybum marianum* per kg diet and 450 mg vit. E/ kg diet respectively. Adding *S. marianum* and Vitamin E resulted in a significant change in peroxide, free fatty acid, ALT, AST, glucose, cholesterol, triglyceride, LDL and had a significant increase in ALP, total protein, albumin, globulin, HDL, glutathione peroxidase, heme iron, catalase.

**Keywords:**

*Silybum marianum*, Vitamin E, Layer hen, Antioxidant, Free radical, Hydrogen peroxide.