

EFFECT OF ANTIOXIDANT PREPARATION “OXYNIL” ON HEALTH STATUS AND PRODUCTIVITY OF LAYING HENS FED NATURALLY MOULDED FEED

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Summary. Mycotoxins are unavoidable contaminants in foods and feeds and are a major problem all over the world. Low levels of mycotoxin contamination are responsible for reduced efficiency of poultry production and increased susceptibility to infectious diseases. Inclusion of synthetic antioxidants into poultry feeds might protect birds from some adverse effects of mycotoxins. In this study, added to the diet of laying hens even a relatively small amount of fusariotoxins and ochratoxin A contaminated mixed feed resulted in reduced birds' performance, egg production and egg quality. Moulded feed supplements did not cause noticeable adverse effects on laying hens health status when fed for 50 days. Inclusion of the synthetic antioxidant preparation “Oxynil” into mycotoxin-contaminated diet resulted in improved feed intake, egg production and higher levels of carotenoids in egg yolk. “Oxynil” was also able to reduce elevated plasma uric acid and glucose concentrations in birds fed mycotoxin-contaminated diet. However, “Oxynil” did not demonstrate an expected protective effect on hens, expressed in plasma levels of natural antioxidants such as vitamins A and E, and a lipid peroxidation marker MDA. The use of synthetic antioxidant “Oxynil” as a prophylactic measure against mycotoxicosis is debatable. Further investigations is required.

Keywords: fusariotoxins, ochratoxin A, lipid peroxidation, laying hens, health, “Oxynil”.