Utilization of the blend of 9-natural essential oils mixed with iodized salt as feed additive

in the ration of laying hen on egg production

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**ABSTRACT**

Formulation of the feed additive with objective to substitute the Antibiotic as Growth Promoter (AGP) in the ration of poultry has been developing. The potential role of essential oils (EO) as the immune-stimulator have gained much of interest recently. Some reports indicated that the EO have an antibacterial properties against pathogen bacteria. This study was aimed to evaluate the blend of 9-natural EO mixed with iodized salt as feed additive (vimmune salt) in the ration of laying hens. Total of 8.336 hens aged of 48 weeks, kept in two different farm houses of 3.907 birds as a treatment group and 4.429 birds as a control group, were used in this trial for 5 weeks. The treatment group received ration containing 1 kg/ton of vimmune salt without AGP, while the control group received ration containing 6.6 kg/ton of AGP (avimec®). Daily feed intake and egg production were controlled and data collected was statistically analyzed by T-test. There is no different on feed intake (115.5 g vs 115.7 g/day/bird) and on feed conversion ratio (1.96 vs 1.94) between the groups. During 5 weeks of observation, mortality in the treatment group was 23 birds (0.59%) compared to 24 birds (0.54%) in the control group. No difference on the hen day average (HDA) (90.4% vs 91.1%) nor egg weight (65.2 g vs 65.5 g). It seem vimmune salt has the potential role to replace AGP in the ration of laying hen. However, conclusion must be taken prudently and longer period of trial is required.

**Keywords**: essential oil, antibiotic, egg production, laying hen.