

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

## EFFECT OF ESSENTIAL OILS IN THE DEVELOPMENT OF ORGANS AND VISCERA OF BROILERS

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The restriction of the use of antibiotics with the function to promote growing on broilers' feeds is increasing due to their contribution in the development of bacterial resistance. Therefore, it is necessary to search for alternative sources to substitute growth promoters without compromising the zootechnical indexes, meat quality parameters and development of organs and viscera. Alternative sources to substitute the promoters are organic acids, leaven, probiotics, prebiotics, and essential oils. The essential oils are molecules that have an antioxidant, bacteriostatic and bactericidal action, in addition to developing improvements in the digestive, respiratory and circulatory tract of the animal organism. The objective of this study was to evaluate the influence of a blend of microencapsulated essential oils on the development of organs and viscera (small intestine, liver, heart, proventriculus, ventricle) in broilers supplemented from 1 to 41 days of age. The blend was composed of 60% cinnamaldehyde from cinnamon and 30% carvacrol from oregano. The experiment was conducted at the aviculture laboratory of the University of Western Santa Catarina - UNOESC. Were used 600 male chicks of as specific line to cut, housed in the first day of age in a completely randomized experimental design, composed by 5 treatments and 8 repetitions with 15 chicks each replicate. The treatments used were: T1 - negative control diet, T2 - negative control diet + 15 parts per million (ppm) of virginiamycin, T3 - negative control diet + 100 ppm of essential oils, T4 - negative control diet + 200 ppm of essential oils, T5 - Negative control diet + 400 ppm of essential oils. After the sacrificed of the chickens, were performed the evisceration and the individual weighing of the organs and viscera. In the evaluations, were not observed differences ( $P>0.05$ ) in the organs and viscera (small intestine, liver, heart, proventriculus and ventricle). Therefore, it is possible to infer that the substitution of traditional growth promoters by the blend composed of cinnamaldehyde and carvacrol can be used safely, without compromising the development of the organs and viscera of the broilers.

**Keywords:** antioxidant, bactericide, bacteriostatic, microencapsulated, nutrition

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