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“Global food security and food safety:
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Sustainability of Three Intensive Broiler Houses Operated in Bursa Region of Northwest Turkey in Terms of Food Safety

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Abstract

The global population of two billion in the 1930s is still growing at an extraordinary rate, and it is estimated that by the year 2050 it will reach 9.8 billion. The rapidly developing population in the world increased the demand for food while it increased the supply amount. Foods of animal origin constitute a significant part of the food need to be taken daily for adequate and balanced nutrition. In developed and developing countries in particular, global meat consumption has increased in recent years, and broiler chickens are the largest share of global meat consumption. To meet this requirement, intensive broiler operations have become prevalent. Intensive broiler production is aimed to achieve high yield in a short time. While entrepreneurial enterprises respond to global food demand, they can cause some health and environmental problems.

Hormones used to speed up the growth of animals are banned in many countries. Alternatively, stimulant stimulants and feed additives are used to achieve high efficiency with the input rate. This leads to serious hazards as a result of accumulation of drug residues in the carcasses of chickens and contamination of people through consumption.

As the use of antibiotics for the feeding of animals has been prohibited, alternative feed additives have begun to be used. The environmental impact of this situation increases the proportion of zinc and copper in the soil, causing toxicity.

In intensive broiler operation, restraint of animal movements caused by excessive production in the unit area causes increase of stress hormones and thus a negative effect on immune systems.

In this study, we will present sustainability evaluation of three intensive broiler houses operated in Bursa region of northwest Turkey with the efficient use of limited resources and the risks posed by animals and humans in supplemental reinforcements used to support efficient production.

Keywords: Broiler, Broiler Houses, Sustainability.