



Hungarian University of Agriculture and Life Science

Szent István Campus

M.Sc. in Rural Development Engineering

**ASSESSING THE SECTORAL AND CROSS-SECTORAL IMPACTS
OF NEW EU ANIMAL WELFARE MEASURES IN HUNGARY**

**An economic analysis on the recent proposal by the European Food
Safety Agency and the European Commission on broiler chicken growth
rate and stocking density reduction**

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Appendix 2 – Sample Abstract

ABSTRACT OF THESIS

Thesis title: Assessing the sectoral and cross-sectoral impacts of new EU animal welfare measures in Hungary

An economic analysis on the recent proposal by the European Food Safety Agency and the European Commission on broiler chicken growth rate and stocking density reduction

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The present thesis shows a sectoral and cross-sectoral economic analysis on the recent animal welfare proposal by the European Food Safety Authority and the European Commission offering a maximum stock density of 11kg/m² and a 50 grams/day growth rate for conventional broilers.

The main objective of the present thesis is to identify the combined sectoral and cross-sectoral economic impact of reducing the broiler chicken growth rate by 50 grams per day and the stock density by 11 kilograms per meter square in Hungary. However, an independent analysis is also presented, which means the sectoral and cross-sectoral impact

if only the stock density reduction measure is applied and the economic impact if only the growth rate reduction measure is applied.

In order to achieve the thesis objectives, two research methods will be used. Firstly a multivariable analysis of agricultural products through a software called AGMEMOD to analyze the impacts of the animal welfare measures to build scenarios projected until 2032. Besides this method, the leading Hungarian poultry producers' enterprises were analyzed. Based on anonymised and non-public AKI farm-level data, a sample of 24 enterprises for 2019 and 23 for 2021 were analyzed to calculate the impact of the growth rate reduction and stock density in their production.

The main conclusion shows that there will be a substantial sectoral economic impact by reducing the broiler chicken growth rate by 50 grams per day and the stock density by 11 kilograms per meter square in Hungary, identifying a decrease in 84% of the production and an increasing of 141% of the imports by 2032. However, there will be a moderate cross-sectoral impact of the abovementioned animal welfare measures, identifying a decrease in 10% of the soft wheat prices, 26% of soft wheat domestic use, 3% of corn prices, and 26% of corn domestic use by 2032.

The economic effect will be different if the measures are applied independently, for instance, if only a growth rate reduction measure is applied, the effect on the market will be smaller than the scenario in which a stocking density reduction is applied. At the same time, the biggest effect occurs when a combined measure is applied. The details of the independent analysis are explained in detail in the thesis body.

It is recommended to extend this research, exploring other variables that could influence the model, for instance, other including other crops in the equations, elasticities in demand according to the import chicken prices, to establish a transition period and to compare the results of the AGMEMOD with other agri-economic models, such as CAPRI, in order to enrich the scientific and methodological support.