



## MICRO-REGIONAL CHANGES IN ANIMAL HUSBANDRY IN THE FIRST DECADE OF THE NEW MILLENNIUM

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**Abstract:** *Our study presents the spatial change in the number of pigs, cattle, horses, sheep, poultry of economically important animal species using mathematical-statistical methods. Primarily, we performed cluster analysis, correlation analysis and analysis of variance at the level of districts.*

### • Introduction

In historical retrospect, it can be said that at the time of the change of regime (end of the 1980s) the decline of agriculture, and within that of both crop production and animal husbandry, was already visible and felt. Our export markets declined rapidly, which resulted in a decline in production volume, and this was felt by animal husbandry in Hungary as one of the best sectors. My research was limited to the following questions. Can territoriality be observed in our domestic animal husbandry? Can we identify areas of similar composition in the country? If so, where are these areas located at the district level? What changes characterize the territorial development of animal husbandry?

### • Material and method

We used the database of full-scale agricultural census (General Agricultural Census, GAC) for the years 2000 and 2010. We used mathematical-statistical methods to answer the research questions.

The correlation coefficient emphatically measures the strength of the linear relationship between the studied characteristics. Cluster analysis is actually a dimension reduction process, it is for make homogenous groups of different animal species.

### • Results and discussions

Correlation analysis did not show particularly strong relationships for the 5 animal species. The calculation revealed weak and weak-medium strength relationships between positive pigs and poultry in 2000 (0.345), positive in horses and sheep (0.461), pigs and cattle (0.216), but sheep and between cattle a weak (-0.194) but opposite significant relationship. In contrast, in 2010, a smaller number of significant associations could be detected for these animals.

### • Conclusions

Comparing the years 2000 and 2010, it can be said that the territorial peculiarities of domestic animal husbandry remained basically at the level of districts as well. In 2000, the decline in the number of pigs was most visible in practically a significant part of the country, mostly in the Great Plain and Southern Transdanubia districts, where, in principle, all conditions were in place before for animal husbandry and crop production produced good results. By 2010, there was a slight increase in the areas of Kiskunság and the Northern Great Plain, where pasture-based farming has a long tradition. The increase in poultry farming compared to 2000 is due to the re-emergence of backyard farming and the jump in the number of ducks, where a high-quality slaughterhouse started operating.

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