## Balcerak Marek, Śmigielska Dorota <sup>©</sup>

Warsaw University of Life Sciences, Faculty of Animal Sciences

## TENDENCIES IN CHANGES OF CERTAIN BRANDS OF ANIMAL PRODUCTION IN POLAND IN THE YEARS 2003 – 2009

## Abstract.

Popularity of given brands of animal production is influenced by profitability. Low income forces farmers to reduce or even liquidate the breeding. Animal production constitutes over half of the whole rural production of goods. Changes in the agricultural sector in the years 2003 - 2009 influenced the stabilization of dairy production. With the growth of the population by 231 395 pieces compared to year 2003, unit performance is also systematically growing. Such growth can also be observed in case of poultry meat. The period between 2003 and 2009 turned out to be unfavorable for pig- and sheep-breeders.

Keywords: animal production, population, stock, competitiveness, changes

#### Introduction.

Statistics show that the market share of hunting and forestry departments in the whole agricultural sector was only 3,8 %. The percentage decreased by 3,2 % since 1995. From the macroeconomic point of view such decreasing tendency turns out to be positive and proves the development of other branches of national industry. (Beeg, 2007)

However, every country, even the most developed one, has to ensure food safety. After Poland's accession to the European Union , the development of agriculture sector has been supported with the structural founds, and modernization of farming became a strategic aim . European Union norms and standards force changes that make the concentration of animal production even faster. (PROW 2007 – 2013)

Market changes on large extent make the development of the sector dependant on factors independent from farmers. These are macroeconomic factors, economic trends, and demand for produced goods and services (Czyżewski A, Grzelak A 2004). Packages of restructuring activities require involvement of own funds. Not all farmers can afford to use them to intensify the production. Profitability of the production depends on the ratio of prices to costs. When the free market economy is setting the price, only the growth of the production scale allows the breeders to make profits. Research run on the data of IERiGŻ showed that specialization in production allows to reduce unit costs and progressively influences on the level of income. (Czachowska H, 2010) Research was made on the farms specializing in dairy production with the alternative of meat-cattle production. Worth mentioning is the fact that the European Union dairy market includes intervention and can be characterized by price stability. Animal production is a wide issue. Different branches can be characterized by given specification and differentiation of factors influencing profitability (Reisch E, Zeddis J 1995). The question is which

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animal production branches will remain growing, and at the same time, which branches will have to be limited because of little profitability and no chances for development.

### Task, the aim of the article

The aim of his analysis is to show the trends in changes of beef, pork, mutton, poultry and dairy production. The research covers the period between 2003 and 2009. Basing on the numerical data, an attempt to evaluate the changes in the range of production and population that led to competitiveness of specific branches of animal production.

#### Material and methods

Numerical data of Central Statistical Office (GUS) was used in the research. Analysis covers the years 2003 – 2009, that is the last year before Poland's accession to the European Union and 5 years under the common agricultural policy. Basing on collected numerical data, dynamics of change in the production of meat and dairy was evaluated. The following branches of production were analyzed: dairy products – milk, beef, pork, mutton and poultry meat. The evaluation was conducted intentionally on the most popular fields of animal production.

#### **Results and researches**

Competitiveness means the ability to systematic growth within the limited period of time. Dynamic growth of population and the amount of final product sent to the market may illustrate growing popularity of a given activity and in consequence growing profitability. In the reality of market economy subjects producing expensive goods or not being if favor of demand, are forced off the market. Over half of the production of Polish agriculture is animal production. Its share depends on cyclical factors and during the investigated period varied from 57 % to 65 %. The most important branch, according to Central Statistical Office (2008), was cattle breeding - over 43% in the whole goods production. Dairy production is around 30 % of animal production value at the monthly consumption rate of 190 liters per 1 citizen. Milk-cattle breeding became the most widespread among farmers. Approximately 98% of cattle is held in private farms. The sale of milk provides systematic income and fixed demand for the labor force. The stock of cattle as well as the number of cows is held at a stable level. The population of milk-cattle aged over 2 years old is approximately 2,6 million. The number of animals remains fit to milk demand set by the European amount system. Growing production concentration, due to increasing sanitary-veterinary requirements, can be observed from the moment of Poland's accession to the European Union. The process has not been finished yet. An assumption can be made, that in the near future, mil-cattle will be kept in specialized production units mostly. Up to 44% of farms produced milk for the own needs and kept only one cow. In such conditions only 9,7% of the population was kept (Urbaniak 2009). Dairy production is kept on a stable level due to the amount system. Unit performance has been increasing. In 2009, it was 4455 liters per cow (486 liters more than in 2003) regardless the fact that the number of kept animals decreased by 231395 since 2003. See table 1

314

4 974 946

722 015

2 482 907

1 664 126

12 063 381

5 4 9 1

4 3 5 1

4 775 906

591 067

2 832 521

1 227 786

11 545 945

5 762

3 969

4 565 015

611 055

2 537 919

1 308 667

11 477 652

5 764

4 082

4 698 806

598 576

2 540 036

1 452 028

11 575 513

4 147

5 0 6 3

#### Table 1

4 834 164

739 699

2 201 761

1 782 570

12 084 634

5 0 1 0

4 4 5 5

years 2003-2009						
year						
2003	2004	2005	2006	2007	2008	2009
The share of animal production in agricultural goods production in total (%)						
62,4	57,0	63,4	64,7	63,1	58,5	57,9
Stocks of cattle (units)						
5 276 810	5 200 173	5 384 981	5 280 967	5 405 545	5 563 564	5 590 219
Stocks of cows (units)						
2 816 144	2 730 448	2 754 810	2 636 956	2 677 275	2 696 920	2 584 749
Poultry in total (units)						
	130 288	125 073	122 895			
146 321 062	998	082	449	134 256 331	124 328 432	126 743 508
Population of pigs (units)						
18 439 236	17 395 568	18 711 294	18 812 975	17 621 213	14 242 273	14 252 509
Population of sheep (units)						
331 283	310 762	317 669	301 397	315 560	269 626	224 034
Production of meat from slaughter (tons)						

5 053 900

690 373

Production of beef (tons)

Production of pork (tons)
036 2 776 078 2 7

Production of mutton (tons)

Production of poultry meat (tons)

Production of milk(liters in thousand)

11 633 391

Average performance (liters)

4 2 0 0

1 481 997

5 1 3 1

5 178 490

704 020

2 775 657

1 593 518

11 743 694

5 084

4 2 9 2

# Changes in population and production of given animal production branches in the vears 2003-2009

Source: Central Statistical Office (GUS)

Production of milk can be regarded as developing and providing safe business in present market reality. Units unable to adjust or modernize will be forced to leave the market or retrain for beef production. The amount of beef produced in Polish farms increased since 2003 by 148632 tons. According to statistical data, meat- and mixed type- cattle is still in minority, up to 3% of cows in total. It is worth to mention that the production of beef is connected with the production of milk, and large percentage of meat is veal. Growing number of cattle stock was also caused by the decrease of the need for exported calves. Growing trends in production of milk. The interest in poultry meat has been increasing. Its production in 2009 was 554784 tons more than one year before Poland's accession. In total, almost 127 million units of poultry, mostly hens,

315

were kept in Poland in 2009. Poultry production is not covered by the amount system and has undergone the rules of free economy since the beginning of system changes. That is why only the strongest producers remained on the market. Together with the decreasing number of poultry population by almost 19,5 million, production of poultry meat increased by almost 1,8 million tons. Pork remains the most popular in Polish cuisine. Production of pork remains vulnerable to bad economic trends. A phenomenon of so called "pork cycle" can be observed for years. A phenomenon which could not be dealt with even in the years of centrally planned economy. Poor economic situation and low prices offered to farmers led to reduction of the population of pigs to 14252509 units (4186727 units less than in 2003). Production of pork was also limited by 630760 tons. A conclusion can be made : we have been facing the biggest breakdown in pork production since the World War II. Accessing to the European Union has not affected the interest in mutton. From the beginning of system transformations, a tendency in decreasing of the sheep population can be observed. Statistical data at the end of the year show the number of kept sheep at the rate of 224 000 units (which means that in the investigated period population was limited by 107249 units).

#### Conclusions

1. Animal production in the years 2003 - 2009 was 57% of total agricultural goods production in Poland. Macroeconomic situation as well as changes introduced after Poland's accession to the European Union influenced the number of animals kept and the production itself.

2. The most crucial, from the point of view of the share in the structure of animal production remains cattle breeding. With the decrease in the number of stock by 231395 with the respective year 2003, a unit performance has grown up to 4455 liters per cow.

3. Dairy and poultry meat production can be regarded as the most competitive branches in animal production in Poland in the years 2003 - 2009. With the limitation of the poultry population by 19,5 million the production of meat systematically grew by 554784 tons with the respective year 2003. It may be the proof of increasing performance of kept flocks.

4. Low prices and little profitability led to limitation of swine keeping. The population of pigs went down to the level of 14 million units in 2009. Mutton can also be regarded as of little competitive.

# References

1. Beeg D. 2007 Mikroekonomia PWE Warszawa

2. Czakowska H 2010 Sytuacja finansowa gospodarstw mleczarskich Wydawnictwo Kujawsko-Pomorskiej Szkoły Wyższej w Bydgoszczy

3. GUS 2008, 2009, 2010 Rocznik statystyczny rolnictwa 2008, 2007, 2009 GUS Warszawa

4. GUS 2006, 2007, 2008, 2009 Rolnictwo w 2005, 2006, 2007, 2008 GUS Warszawa

5. PROW 2007-2013. 2007 Program rozwoju obszarów wiejskich na lata 2007-2013, Ministerstwo Rolnictwa i Rozwoju Wsi Warszawa

316

6. Czyżewski A, Grzelak A 2004 Makroekonomiczne wyznaczniki dostosowań rynkowych w sektorze rolnym w Polsce po 1990r. Problemy Światowego Rolnictwa Tom XI SGGW Warszawa

7. Jabłońska Urbaniak T 2009 Rolnictwo i gospodarka żywnościowa w Polsce MRiRW Warszawa

8. Reisch E, Zeddis J 1995 Wprowadzenie do ekonomiki i organizacji gospodarstw rolnych AR Poznań

## Summary

The article aimed in evaluating the changes in population and production of the most popular species of animals in Poland in the years 2003-2009. The changes in the number of animals bred in Poland as well as the changes in productivity showed that the most competitive branches are still milk-cattle breeding and poultry production. With the increase of cattle population by 231395 with the respective year 2003 a systematic unit performance growth can also be noticed. Bad economic trends caused the limitation of the interest in sheep and pig breeding.