

Changes in the Livestock of Hungarian Pig Farming and its Position in International Trade (Part II)

Mrs Vinklerne Klara Rajcsanyi, PhD student

Budapest Metropolitan University, Heller Farkas Faculty of Tourism and Economy, Institute for Economics. Hungary

doi: 10.19044/esj.2017.v13n7p29 [URL:http://dx.doi.org/10.19044/esj.2017.v13n7p29](http://dx.doi.org/10.19044/esj.2017.v13n7p29)

Abstract

The present paper aims to describe the dire conditions of the Hungarian pig farming sector struggling on the one hand with fluctuating fodder prices and the unpredictable conditions of production resulting in high overheads on the other. A direct consequence of the above is a perpetually nagging liquidity problem which slows down planned developments. Some pig farming ventures believe that strict hygiene regulations and high fodder prices render animal farming unprofitable and decide to stop pig farming altogether. According to some of the actors in the sector “**the pig industry is in a fatal state**”. It causes a problem for the domestic meat processes plants that are forced to import a significant proportion of their raw material. Another acute and constant problem for the industry is the access to loan capital, especially because they are unable to provide the collateral normally required by credit institutions from companies applying for credit. A new categorisation might help to solve this problem making capitalisation of agrarian producers easier by granting preferential treatment to investorslike regional , venture capital group sand the so-called “business angels”, without the businesses losing their entrepreneur status(Vinkler, 2006).

In the first part it was presented the 2004-2013 period, the details of the pig industry and the situation of the pig population changes. In the second part the structure and evolution of the foreign trade situation of the Hungarian pork pig industry is presented.

Keywords: EU, pig farming sector, agrarian producers, structure, liquidity

Changes in the volume and structure of pig livestock between 2003 and 2013

On the production level, an important structural feature of the Hungarian pig farming market is the high number of small farms. Many of them are not even involved in trade producing only for the farmers’ needs.

The greater part, however, sell their production and consequently a dual-type pork production system has evolved in Hungary comprising large agricultural businesses and small individual producers alike. A common feature of the two production structures is that price is the main indicator they follow and defines their production decisions. Price is also the mechanism that establishes the connection between the different markets and retail trade. This fragmented production structure also hinders the observation of quality standards and of quality control (Nyárs & Papp, 2002).

When examining the period between 2003 and 2013 (11 years), the statistical figures clearly show that the number of pig farming ventures in Hungary in 2003 stood at 4,913 of which, 54 % was made up by business organisations and 46 % by individual farms. In 2013, the ratio of individual farms was only 27% reflecting the folding of 1,443 farms, while the ratio of business organisations grew steadily in the period and by 2013 reached 73%. The reason for the dramatic decrease in the number of small individual farms was their inability to respond in time to market changes and meeting requirements and consequently and went into bankruptcy. Due to their lost production, pig livestock dropped by 1 million by 2005 compared to the figures of the year 2000. In contrast, the decrease of stock with business organisations was smaller, only 200 thousand heads. However, the number of organisations involved in pig farming, which stood at 2,604 in 2007, also decreased by 403 ventures by 2013. In the same period, comparing the number of small individual farms to the base year, we find a 44% drop by 2007, but the biggest fall came after that with 812 individual farmers going out of pork production constituting a 72% decrease. The pig livestock raised by business organisations and individual farmers are reflected by the figures of *Chart 1*.

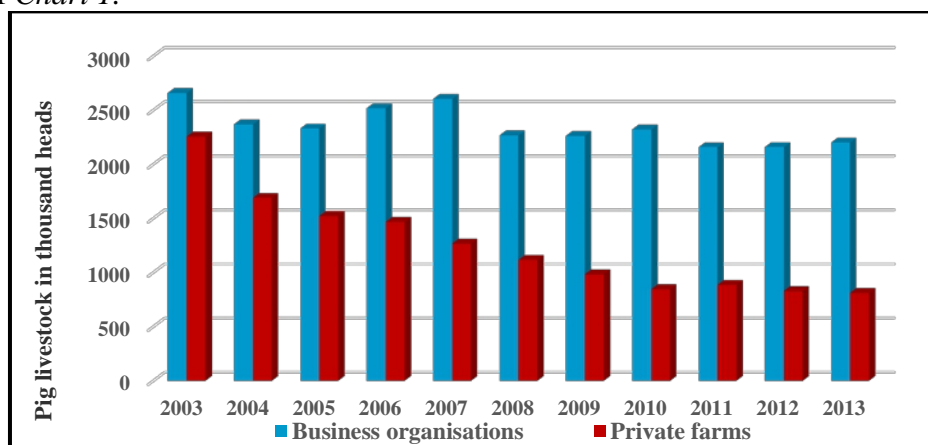


Chart 1 Changes in the pig livestock raised by business organisations and individual farms 2003-2013 (thousand heads)

Source: own design based on http://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_oma005.html

The end-of-year figure in 2013, shows a 2% decrease in livestock raised by individual farmers, while, in contrast, the livestock of business organisations grew by 2% compared to the previous year (Nagy & Aliczki, 2014). The continuous decline in pig livestock made an impact on food processing plants and trade as well. Rapid and effective measure would be needed, but co-operation between pig farmers and the launch of a unified organisation may also be a solution to the problems.

Pig livestock on the national scale and by regions between 2007 and 2013

The **division** of Hungary into 7 planning and statistical regions was completed in 1999, according to Act XCII of 1999, which in fact was a modification of Act XXI of 1996. The numbering and description of regions in Hungary are shown in *Table 1*.

Table 1 Numbering and area of Hungarian regions

Numbering and area of Hungarian regions
60 Central Hungary
61 Central Transdanubia
62 West Transdanubia
63 South Transdanubia
64 North Hungary
65 North Plain
66 South Plain

Source: own design based on Act XXI of 1996 on regional development and country planning

The regional division was designed primarily to harmonise with the **European Union’s** subsidisation system (**NUTS**) based on statistical evidence. Although the government worked out a draft plan for the replacement of the county system for regions in 2006, it lacked the necessary parliamentary support. The regional division of Hungary is shown in *Chart 2* below.



Chart 2 Map of Hungarian regions (NUTS 2)

Source: Act XXI of 1996 on regional development and country planning

Taking the production data of pig farms by the regions in the period between 2007 and 2013, it clearly shows that nearly 60% of all production value of animal farming businesses was generated by the North and South Alföld regions compared to the national figures in 2007. In other words, more than half of the production value of animal farming businesses came from two Alföld regions. The North and South Alföld regions remained outstanding performers as their joint production value exceeded 55% of the total national pig livestock in 2013. Central Hungary could achieve a meagre 5% in 2007, with a stock of 190 thousand heads, while among the rest of the regions South Trans-danubia raised an outstanding stock of 2,468 thousand pigs. In 2012, a significant decline was recorded in Békés County where the number of livestock was 13% lower than a year earlier as attested by the figures of the Central Statistical Office (<http://www.agroland.hu/?m=hir&a=tema&id=KSH2013.>). The changes in pig livestock at national level and by regions are clearly shown in *Chart 3* below.

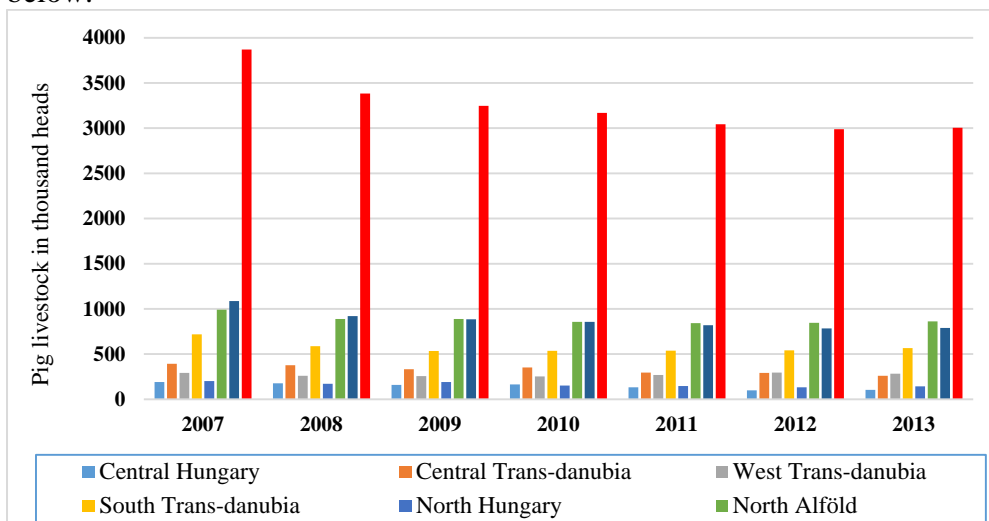


Chart 3 Changes in pig livestock nationally and by regions between 2007 and 2013

Source: own design based on http://www.ksh.hu/stadat_evkozi_4_1 ,and
http://www.ksh.hu/stadat_evkozi_6_4

The statistical data of the period 2007-2013, clearly show that the changes in pig livestock in these seven years made an impact on the stock of farrowing sows, which also suffered a notable decline

The adverse conditions related to land leasing prices also force pig farmers to sell off their stock which causes a further decrease in the volume of Hungarian pig and sow livestock. Entrepreneurs, as in any other field of business, embark on pig farming only if it can be practised profitably (The

pig lobby, 2011). The data in *Chart 4* below show the distribution of farrowing sows at national level and by the regions.

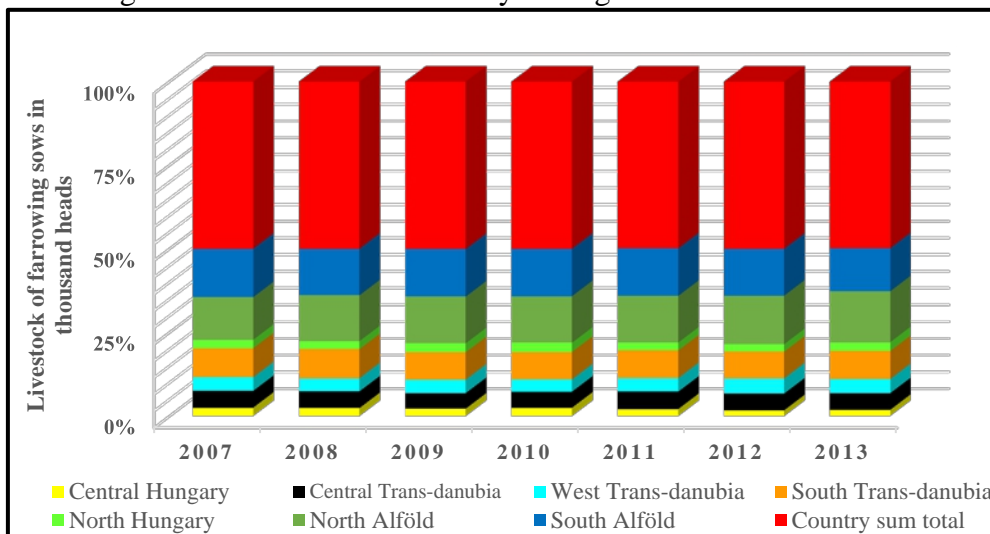


Chart 4 Changes in farrowing sow livestock at the national level and by the regions between 2007 and 2013

Source: own design based on

http://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_oma005.html

The position of international pork trade in Hungary between 2007 and 2013

Pig farming have the opportunity to modernize their facilities with the support of the Agricultural Research Centre (ATK) to comply with European Union regulations, but at the same time, they are obliged to engage in a five-year pig farming project as an environment protection investment, the costs of which they are unable to incorporate in the price of pork they produce. The five-year pig farming contracts with the obligations are to expire in one or two years. In the following years, EU subsidies for development will be suspended which is likely to trigger a very **intensive decline** in the pig farming sector, even stronger than the one we have experience so far as the **driving force** will be missing. (Journal of Hungarian Agriculture, Year 68, Vol.: 21, 22 May 2013).

The deterioration of the pig farming industry also **brought down crop production and the processing industry**. Feed production and pig slaughter fell drastically. The volume of imports to Hungary corresponds to 2.7 million pigs per year. The main export target of Hungarian pork export is still Romania (ÁMKL, June 2013).

International trade in pork and live pig has regressed and a setback in the competitiveness of Hungarian exports has gradually impacted international trade turnover and affected the consumption habits of local

consumers as well. Hungary has **turned into a net importer of pork!** The import has increased the co-operation deficit in the industry; meat processors were no longer able to produce competitive products out of the relatively expensive and non-homogeneous quality Hungarian pigs. Cheaper products could be acquired from compulsive import and - disregarding the wisdom of the old proverb that **'cheap meat produces thin broth'** – it slowly but surely affected the back development of domestic livestock reflected by the import figures of live pigs. In 2008, it amounted to 62 thousand tonnes, a slight 6% decrease to the 2007 figure of 66 thousand tonnes per year. The ratio of imported live pigs reached 18% of total purchases. The most outstanding year in terms of **live pig import** was 2010, its volume reaching 110,477 tonnes, which shows a nearly 50% increase compared to the previous year.

The data in *Chart 5* show the volume of international trade in live pigs.

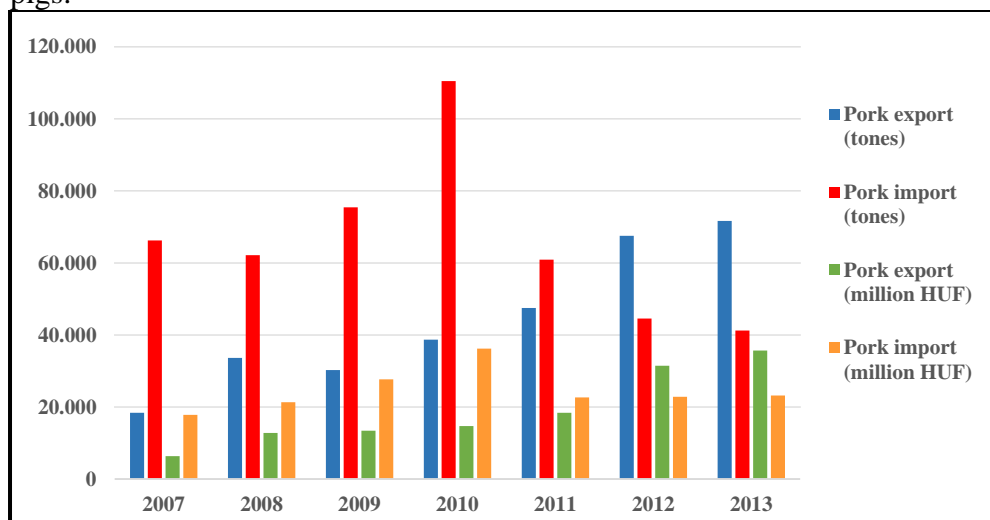


Chart 5 Volume of international trade in live pigs between 2007 and 2013

Source: own design based on

http://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_oma001a.html

Analysing the period in question, a constant decline in the volume of imported live pigs can be detected in 2011, 2012 and 2013. The export of live pigs rose to nearly 15,222 thousand tonnes in 2008, generating a surplus income of 6,450 million forints compared to the previous year (Popp & Potori, 2009). Comparing the year 2013 to 2010, the change is clearly visible: the volume of imports has decreased significantly, by nearly 63%. A trend of slow but steady growth can be detected on the **export markets**, which proves that certain pork products from Hungary are still in demand in the traditional export-target markets, thanks to a special customer and

consumer taste. Focusing on the trend in the volume of exported pork starting from 2007, the significant change occurred in 2010, with an increase of 20,275 tonnes. However, pork production in 2011 decreased by 4% and import of pork rose only by 2% compared to the 20-30% growth registered in the previous two years. At the same time, exports decreased by the same percentage. Compared to the 2010 figures, exports grew by nearly 33,000 thousand tonnes in 2013.

Trends in annual pork consumption per capita in Hungary

The great majority of Hungarian consumers are not interested in the origin of the particular goods considering the price more important, so they can be described as very price sensitive. In the consumption of processed foodstuff seasonality also plays an important role. Frozen pork is still not accepted and in spite of the higher costs it can be sold only at a lower price. The propagation of conscious buying habits could help in strengthening the position of Hungarian pig farming sector. The idea of Hungarian pork fitting into a healthy diet and adopted by public thinking is of vital importance (AKII, 21 February 2016).

In 2000, per capita consumption of pork was 28 kg, but by 2011, it dropped to 24.8 kg, which is a 3.2 kg decrease compared to the base year. Analysing the consumption of poultry meat in the same period, it stood steady with 24 kg per capita with no change from 2010. Families consume domestically raised pork several times per week and dishes made of pork are very popular. The increase in consumption grew especially with people doing hard physical work, while for large families living in villages and raising pigs it has remained a staple based on age-old traditions.

Annual pork consumption of families between June of 2012 and 2013 on average totalled 30 kilos (CSO, 2014). *Table 2* below shows the trends in meat consumption per capita in Hungary.

Table 2 Trends in meat consumption per capita in Hungary

Denomination	2000		2005		2009		2010		2011	
	kg	%	kg	%	kg	%	kg	%	kg	%
Pork	28.0	39.9	26.7	42.0	27.0	43.8	25.3	44.6	24.8	44.4

Source: author's own design based on Statistical Mirror, Year VI, Vol. 42 (13 June 2013)

The achievement of the following goals should be necessary to improve efficiency and profitability:

- development of technology (air-conditioning, automated feeding systems)
- improvement of professional standards (adjustment to genetics)
- improvement of the indicators of specific fodder utilisation
- development of pig farms (currently only 20% represent EU standards)

- reconstruction of existing buildings
- fulfilment of environmental requirements

Competitive disadvantages of the Hungarian pig sector:

- disorganised product chain
- low efficiency of labour
- environmental regulations
- difficulties in obtaining credit, high interest burden and authority charges
- lack of specialisation

(<http://www.georgikon.hu/tanszekek/agrargaz/Tananyagok/Weisz%20M/alla tok.pdf>)

Trends in pig livestock in some EU member states

Pork consumption is still the most popular of all meats all over the world. However, we should not forget that the increase in consumption is affected by the cultural, religious differences and differing consumer needs between the particular countries.

In many countries around the world pork is very popular and readily consumed. This applies to quality pork types, fresh slaughtered meat and also processed products ready for consumption. In 2008, **global pork production** exceeded 102 million tonnes (the forecast for 2018 is 120 million tonnes), 75% of which is produced in China, the EU and the USA. China's share of the global market is 45%, while the EU corners 21%. Although China aims to be self-sufficient, currently she still imports 300 thousand tonnes per year. The biggest exporters are still Canada, the USA, the EU and Brazil. The volume of pork in international trade exceeds 5.3 million tonnes per year.

The Hungarian trend of decreasing pig livestock is in contrast with the prevailing trends found in the developed member states of the European Union. Compared to other EU countries Hungary lags behind in the most modern production practices. Of the definitive endowments primarily affecting competitiveness like the availability of cheap feeding fodder Hungary is way behind the competitors referred to above. In proportion to their own fodder base France, Poland, Denmark and Holland produced a much greater volume of pork than our homeland.

Examining the 14-year interval between 2000 and 2013, a fluctuation in livestock can be observed with the **four leading pig farming countries**. In case of Germany, comparing 2013 to the base year of the period, we see a 6.5 increase with the outstanding year of 2012, hitting a record of 28.132 thousand heads growing by 5% compared to the previous year and adding 1.374 heads to the figure of the previous year.

In the period under observation, compared to the base year, the 2013 figures show different trends with the leading pig farming countries. Denmark shows a slight increase of 1.3%, but in Holland a 6.8 % drop occurred with 888 thousand heads fewer. France recorded a decrease of 2% in stock, while in Poland the decrease is already 3.6%. However, the biggest fall of 14.3%, came a year earlier in Poland, which is the biggest setback of the whole period in question. The average trend of the EU28 countries shows a 4.4% decrease in the period with a volume loss of 6.753 thousand heads.

Examining the period between 2010 and 2013 in Hungary, the data clearly show a fluctuation in the number of pig livestock with the most important change occurring in 2012, when pig livestock fell below 3 million heads giving rise to serious concern about the whole sector (Vinkler et al., 2014). The steady decline in domestic figures was accompanied by the growing volume of imports, which in the first four months of 2012 exceed the volume of exports (based on CSO report in 2000-2013). The domestic indicators also attest to poorer levels in production efficiency than we find in the developed pig farming EU countries. These countries have left us behind (Nyárs, 2009).

Of the total meat consumption in the European Union, pork accounts for 50%, poultry meat for 28%, while the rest is divided among beef and mutton. In contrast, total meat consumption in Hungary in 2007 was 63 kg per capita, of which pork constituted 43% (27.6 per head), while poultry meat accounted for 45% (with 28.7 kg/head). Consequently, our specific pork consumption is close to the average EU level. Chart 6 offers a good insight into the changing trends of pig livestock in a number of leading pig farming countries in the EU.

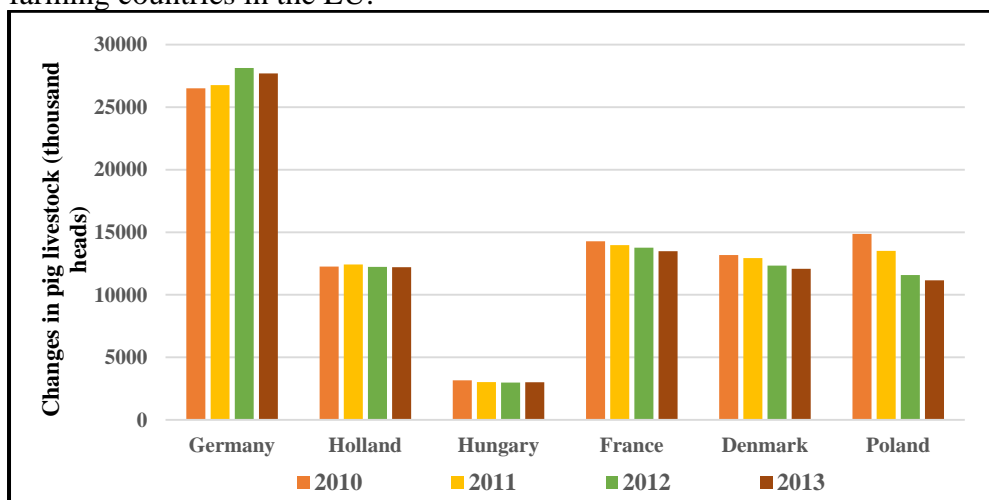


Chart 6 Pig livestock in Hungary and some leading pig farming countries

Source: author's own design based on

http://www.ksh.hu/docs/hun/eurostat_tablak/index.html

Denmark stands out high in both pig farming and meat production. The approximately 20 million slaughter pigs raised annually account for 79.5 % of total meat production in the country, three-quarters of which are exported. The Danish population consumes the highest quantity of pork in the world, 65 kg annually, which is 60% of our total meat consumption. (<http://www.agr.unideb.hu/animaldb/sertes/teny.htm>)

Consumption of pork, compared even with the volumes of the middle years of the last century, declined only by 2 kilos, while consumption of poultry meat fell by 5 kg. In spite of the decline experienced in Hungary in recent years, pork and poultry consumption volume are still represent the EU average levels. Danish pork consumption is double of the Hungarian figure. In contrast, Greek consumption amounts to only two-thirds of ours.

(<https://www.ksh.hu/docs/hun/xftp/stattukor/elelmfogy/elelmfogy11.pdf>)

Apart from the strict EU regulations on farming technology, Hungarian producers face other difficulties of geographical nature. Besides high service costs the volatile purchasing prices of imported protein materials make a serious impact on domestic production. At the same time, the transport costs of exporting their products to third countries also add to their expenses. The continuous increase in expenses could justify a 15-20% raise in the purchase price of pork (Nagy & Aliczki, 2014).

Conclusion

Development sources for the pig farming sector are scarce, therefore setting up priorities is very important. As it is well known among the actors, the general shortage of capital in the food production chain is most critical in agriculture and it is also the least profitable sphere. Understandably, small businesses themselves are unable to implement these developments in the short term, the access to tender applications and favourable credit terms are needed. As Hungary acceded to the EU later than the earlier 15 member states, it is entitled to lower levels of subsidisation in agriculture. Therefore, a joining of all home forces is necessary to assist the pig industry in developing its infrastructure as it is in the interest of the whole national economy. It must be noted though that such infrastructural investments are very costly and the returns come very slowly. However, the developments affect not only the agricultural activities proper, but make a favourable impact on the whole agricultural sector assisting rural development and can become a driving force for general economic advancement (Abonyi & Vinkler, 2011).

References:

1. Abonyiné Palotás Jolán, Vinkler Béláné (2011): A logisztikában rejlő tartalékok mobilizálásának és az infrastruktúra fejlesztésének szerepe az élelmiszertermelés versenyképességének növelésében. Erdei Ferenc VI. Tudományos Konferencia Kecskemét 2011. augusztus 25-26. III. kötet. pp. 195-198.
2. AKI. Sertésinformáció Rendszer (2016):
<https://sertesinfo.aki.gov.hu/publikaciok/publikacio/a:856/Magyarorsz%C3%A1gi+h%C3%BAsfogyaszt%C3%A1si+szok%C3%A1sok>
(2016.02.21.)
3. Agroland: <http://www.agroland.hu/?m=hir&a=tema&id=KSH>, 2013. 03. 20.
4. Agromonitor: <http://www.agromonitor.hu/finanszirozasi/15-huspiac/1298-no-a-serteshus-fogyasztas-es-az-import-is.html>,
2016.02.09.
5. Agrárhírek: <http://www.agr.unideb.hu/animadb/sertes/teny.htm>,
2017.02.27.
6. A Sertés lobbi (2011): A sertéságazat helyzete és a kibontakozás lehetséges irányai Magyarországon.
www.Sertes_Lobbi_szakmai_anyag, 12-13 pp.
7. Állattenyésztők Magazinja. Kistermelők Lapja (ÁMKL) 2013.06 hó. 14 p.
8. Georgikon:
<http://www.georgikon.hu/tanszekek/agrargaz/Tananyagok/Weisz%20M/allatok.pdf>, downloaded: 2016.02.21.
9. Központi Statisztikai Hivatal, 2014. Nyilvántartási szám: Y/139.
10. KSH. adatai alapján 2000-2013.
11. http://www.ksh.hu/docs/hun/eurostat_tablak/index.html
12. http://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_oma001a.html
13. http://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_oma005.html
14. https://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_int056.html
15. Magyar Mezőgazdaság folyóirat 2013.05.22.68 évf.21 sz.). 10-11 p.
16. Nagy L., Aliczki K., (2014.10.02-03): A sertéshústermelés versenyképessége Magyarországon. LVI. Georgikon Napok, 56 Georgikon Scientific Conference, Budapest pp 2668.
17. http://napok.georgikon.hu/cikkadatbazis/cikkek-2012/doc_view/194-nagy-laszlo
18. aliczki-katalin-kornelia-a-serteshustermeles-versenykepessege-magyarorszagon.
19. Nyárs L. (2009): A sertéságazat versenyképessége Magyarországon
20. Animal welfare, ethology and housing systems. Gödöllő. p 454.

21. http://epa.oszk.hu/02000/02067/00016/pdf/EPA02067_AWETH2009547557.pdf
22. Nyárs L., Papp G. (2002): Az állati eredetű termékek feldolgozásának versenyhelyzete. AKII Agrárgazdasági tanulmányok, 2002, 7. szám.
23. Popp J., Potori N.. (2009): A főbb állattenyésztési ágazatok helyzete. Agrárgazdasági
24. Tanulmányok. Agrárgazdasági Kutató Intézet, 2009.3. szám, Budapest, 49-73,111pp
25. Statisztikai Tükör VI. évfolyam 42.szám. 2013. június 13.
26. Élelmiszer - fogyasztás alakulása, 2011
27. <https://www.ksh.hu/docs/hun/xftp/stattukor/elelmfogy/elelmfogy11.pdf>
28. Vinkler Béláné (2013): Gondolatok a hazai mezőgazdasági vállalkozások helyzetéről. Regionális Földrajzi Tanulmányok. Abonyiné Dr. Palotás Jolán 70. születésnapja tiszteletére. Egyesület Közép-Európai Kutatására. Szeged 2013.05.24. ISSN 2062-3712 ISBN: 978-963-89724-2-2. pp. 91-98.
29. Vinkler Béláné, Tatár Emese, Daróczy Miklós, Gábríelné Tózsér Györgyi (2013): A hazai sertéstartás jövedelmezőségét és versenyképességét befolyásoló tényezők. IV. Gödöllői Állattenyésztési Tudományos Napok 2013.október 24-26. Animal Welfare Ethology and Housing Systems.10. évf. 1. sz. pp. 39-45.
30. Vinkler Béláné (2006): A kis-és középvállalkozói szféra új meghatározása. A Magyar Tudomány Hete Tudásközpont Konferencia Dunaújváros. Dunaújvárosi Főiskola 2006.november 13-18. Dunaújvárosi Főiskola Közleményei XXVIII.(2006) pp.335-338