

Ref: C0512

Financial analysis and cost of production in beef cattle farms in Mariña Lucense (NW Spain). A case study.

Carlos Escudero Roldós, Sonia Irimia Fernández and Carlos J. Álvarez López, Universidad de Santiago de Compostela, E.P.S. Lugo, 27001 Lugo.

Abstract

Galicia has its main economic activity in the primary sector, with the rancher subsector in first position, characterized by small farms with small area.

The primary sector in Galicia has great influence in the economy of the community, being the meat production is one of the most important.

The beef cattle production has a strategic role in Galicia for their economic, social and geographical weight. Since the entry into Europe suffered a severe adjustment process that has reduced the number of farms and the number of cattle, while maintaining the meat production.

In recent years, the income of these beef cattle farms has negative numbers due to increased feed costs, which can account 65% of the direct costs.

As we indicated, the lacks of production costs for farmers limit their survival, and place them at a disadvantage compared to the industry and their capacity limits towards the establishment to negotiate prices in agricultural contracts.

In our study, we analyze the behavior of 50 beef farms in Lugo Coast located in Galicia (NW Spain), to identify which are the most influential factors in their economy.

Keywords: Production costs; efficiency; financial analysis; beef cattle farms; current situation.

1 Introduction

Spanish beef sector is the third in economic importance in our country, behind pig meat and poultry sector. Spanish meat sector accounted for 5.82% of final agricultural production and 15.35% of the final cattle production in our country.

Table 1. Bovine in the agriculture final production in Spain (in million €).

	PFB	PFG	PFA	PFB (PFG=100) %	PFB (PFA=100) %
2012	2.510,90	16.362,20	43.151,10	15,35	5,82

In recent years many farms have been abandoned production of beef cattle. The total number of farms has fallen by more than half analyzing data from agricultural censuses conducted in Spain.

Despite the disappearance of many farms, as not appreciate sharp decrease in the number of cattle, existing species such as pigs, horses and chickens, which have increased in number. Comparing the drop in the number of farms, the cattle population has remained relatively

stable, which meant an increase in the number of animals per farm and therefore specialization and increased production thereof.

Table 2. Evolution farms in Spain. 2009-2012.

	Nº farms		Nº animals	
	1999	2009	1999	2009
Cows	196.640	111.837	6.360.827	5.840.801
Sheep's	122.196	68.975	20.989.148	16.574.220
Goats	59.529	29.862	2.743.149	2.363.522
Pigs	218.110	69.772	22.079.591	24.712.057
Horses	121.361	51.033	312.334	317.874
Poultry	329.020	96.958	182.446	200.904
Total	1.046.856	428.437	52.667.495	50.009.378

Bovine livestock farms extending along the Spanish territory, few regions that do not have farms. Most of the farms can be found in the regions of Galicia with 37.26%, 17.97% with Asturias, Castilla y León with 17.91% and following these with a smaller number of holdings Extremadura represents 15.08%.

In the Cantabrian fringe (N of Spain) are concentrated the largest number of farms dedicated to beef cattle. The farms of Galicia, Asturias and Cantabria representing 59.71% of the farms in Spain.

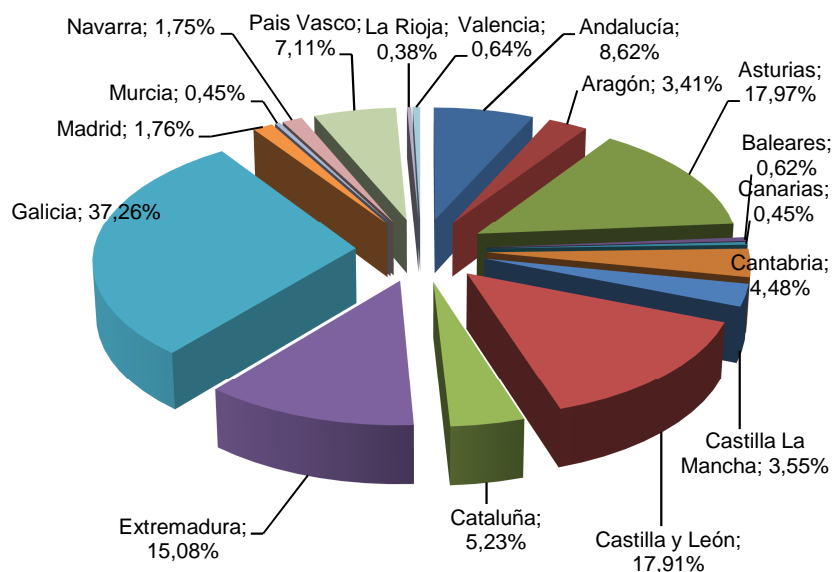


Figure 1. Percentage bovine holdings Spain (by region)

When we analyzed the number of animals involved in the production of beef cattle, the weight of the Cantabrian fringe lightly vanishes representing only 27% of all animals statewide. The greatest weight concentrated west fringe (Castilla León, Extremadura and Andalucía) representing 43% of the animals in Spain.

Galicia has its major economic activity in the primary sector, highlighting the livestock sub-sector.

Livestock in Galicia is one of the most important activities from the commercial point of view, but not to mention its importance in social, cultural and environmental terms.

It has traditionally been characterized by having farms with small size and low farm size, many of them as part of a subsistence economy or last resort.

Lugo is the one that has the largest number of animals for meat production. Similarly it is observed that 78% of the animals in the province are destined for meat production.

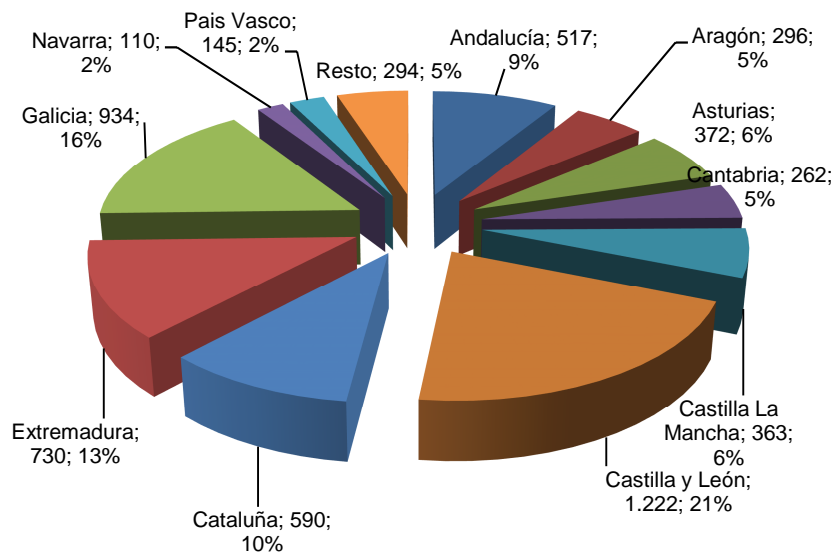


Figure 2. Percentage animals on cattle farms in Spain (by region)

Similarly, we can say that the beef cattle industry is widely represented throughout the territory of the province of Lugo. Within this area, the Mariña Lucense where the study focuses is the third region in cattle importance with a total of 14,897 animals. The counties of Sarria and Lugo are those with greater weight in the province.

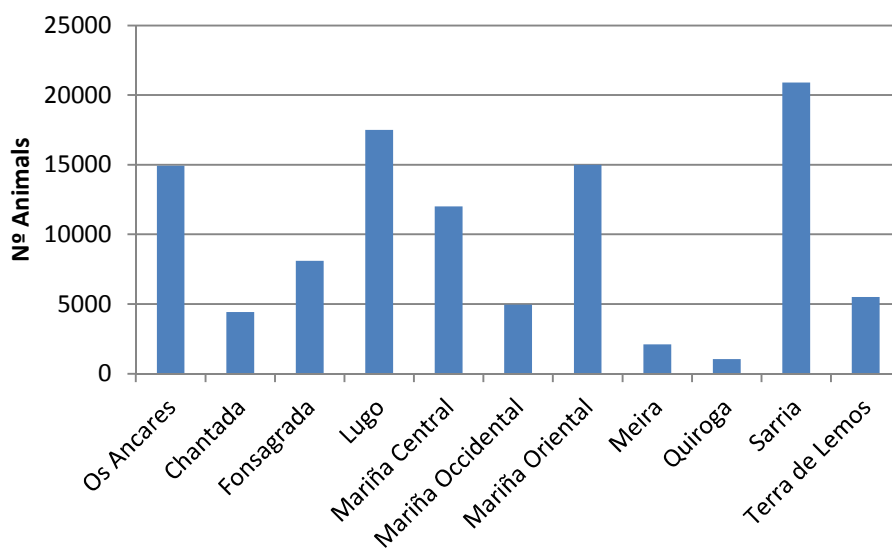


Figure 3: Number of cattle by counties in the province of Lugo (2013).

The cattle farms in recent years have been affected by a series of changes in its economic environment due to continued price fluctuations of both the raw materials needed for daily maintenance of the farm, as their finished product (Irimia, Álvarez & Escudero, 2012). This new environment has caused beef farms increasingly need to have a better understanding of its income statement (Escudero, Irimia & Alvarez, 2012). This research focuses on knowing both the short, medium and long term, the financial position of the farm for it analyzing the income statement, quantifying the benefit of farms. Understanding as a benefit, the difference between income and expenses. The recommendations go on the way to optimize their balance sheets and income statements.

To do this we will study a sample of farms from which we have actual data, trying to study the technical and economic viability of them with the intention of making general proposals for the whole sector of beef cattle in Galicia, and specific for each farm.

2 Materials and methods

For this study, we surveys were conducted on farms in Eastern Mariña meat. To determine the sample size needed to obtain a representative sample of the reality of the sector, we used the methodology proposed by Escudero, Irimia and Álvarez in 2013 and Irimia, Escudero and Álvarez in 2013.

After determining the minimum number of operations required a survey of 50 randomly selected farms being included all existing typologies in Galicia was made.

To this sample was performed a survey of 159 items between 2009 and 2012. Obtaining 31,800 total data in 21 clusters.

3 Results & Discussions

The main income of farms corresponds to your main activity is the sale of cows and calves. For these livestock production, there are 4 ways of marketing. The first one is selling at fairs (none of the producers we study performs this type of marketing), 17 farms surveyed, sell part or all of their production to cooperatives, 18 farms sell part of their production to intermediaries being direct sales to butchers who use the 35 farms surveyed.

The amount of income depending on the chosen type of marketing, you get that, the 18 farms that sell to middlemen, obtained a total revenue of 93,923.66€ per year, while farms that chose the option of selling to cooperatives achieved revenues of 218,563.15€ per year, the predominant choice as to marketing your final production they are selling to butchers who earned a revenue volume of 293,916.83€

Mainly the grants received by the producers of beef meat production are grouped into two groups of aid. The first is decoupled CAP subsidies in full charge farmers based on historical rights owned by each operation and Sustainable Exploitation Agreement (CES) producers may request since 2008 and opened a uptake pathway tremendously important revenue.

Revenues generated by the CAP subsidies on farms analyzed totaled 407,907.06€/year and 636,962.06€/year for CES subsidies.

The costs attributable to the current annual reference period expenditure consists of nine inputs, spending the majority of farms are payments for livestock feed amounting to 215,625.22€/year. In 28 farms, feed costs account for over 50% of total expenditures. Within these, there are 19 in which costs represent more than 70% of total expenditures and of these 6 which account for 90%.

The oil used in the operation, which represents a 10.1% within average total expenses, a total of 46,714€/year. Only half of the holdings in oil declares expenditure, with extremely variable amounts, ranging from 247.46 €/year to 9,161.83€/year.

The gross income statement generated by all the farms studied stands at 810,478.51€/year, only four farms have an income before tax and income statement tax negative.

After deducting expenses, total income statement for all holdings is reduced by over 200,000 € per year reaching 601,902.93€/year.

Knowing that the minimum wage for Spain in 2012 was 645.30 € per month, was set at 7,743.60€/year has the benefit of obtaining a holding for fiscal and operational professionally. Under this criterion there are 28 farms are income statementable the total analyzed, a common feature of this group of farms, is the low weight that food component in its cost structure. Analyzing the economic situation without European subsidies, the results we obtain can be classified as catastrophic. The income statement before tax of holdings drop to the 173,516.45 €/year which would average income per farm of 3,370.33 €/year in 2012. More worrying are the data obtained after meeting the fiscal and administrative burden for farm as a whole, a loss of 18,553.24€ be obtained.

Analyzing the income statement after paying the taxes the situation is even more worrying. With general number only 48% of farms have benefits, while the remaining 52% would incur losses for the year. Appearing of that total, only four farms that we could characterize as in-

come statementable with a final income statement of between 9,209.12€ and € 26,062.17€ per year.

4 Conclusions

51% of the revenue generated by the farms in the sample is from the livestock which highlights the importance of community support received by the owners to supplement the income thereof.

The majority form of marketing is selling nearby, mainly made to butchers and restaurants in the area, improving the price per kg received by producers benefit by avoiding middlemen and minimizing logistics costs.

Within the current heading of eligible expenditure, feeding the main weight is carried. Improve management of land used for farming purposes for fodder production and livestock grazing is essential for reducing this expense.

9 out of 10 studied farms are profitable analyzing your trading account from a strictly economic point of view. This situation is more unfavorable to set a minimum annual benefit set from minimum wage, reducing to 50 % profitable farms.

Without the protection of European aid for 48% of the farms in the area have a positive annual balance. This data would decrease to 4%, which are 8 out of 100 farms if we set the minimum annual benefit set from minimum wage.

Analysis of revenue, for the reference period 2009-2012, shows the increase of the benefit to producers, thanks to the incorporation of CES subsidies, the income statement of operations. While the trend of expenses has been fairly stable.

5 References

Escudero, C., Álvarez, C. J., & Irimia, S. (2012). La necesidad del análisis de costes para mejorar la eficiencia en las explotaciones de vacuno lechero. *Spanish Journal of Rural Development*, 3 (3), 17-26.

Escudero, C., Irimia, S., & Álvarez, C. J. (2013). Análisis de costes. Gestión técnico económica de las explotaciones lecheras como herramienta de asesoramiento. *Spanish Journal of Rural Development*, 4 (2), 29-42.

Irimia, S., Álvarez, C. J., & Escudero, C. (2012). La variabilidad de la eficiencia organizativa en las explotaciones de vacuno lechero de Galicia. *Spanish Journal of Rural Development*, 3 (3), 35-46.

Irimia, S., Escudero, C., & Álvarez, C. J. (2013). PCA Technical to diagnose the technical efficiency of dairy farms in Galicia (NW Spain). *Spanish Journal of Rural Development*, 4 (1), 49-56.

Irimia, S., Escudero, C., & Álvarez, C. J. (2013). Condicionantes del diseño de las explotaciones de vacuno lechero y su eficiencia organizativa. *Spanish Journal of Rural Development*, 4 (2), 9-16.