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THE PRODUCTION COST OF BIOLOGICAL MATERIAL FOR INTRODUCING TO FATTENING IN THE SWINE FARMS

CHETROIU RODICA[1]

Abstract: *The paper meets the pork producers, in terms of identifying the cost elements for biological material introduced at fattening, which is one of the most important categories of variable expenditures. In the specialized swine breeding systems (breeding farms), the first product value quantifiable is the piglet weaned. The cost elements that can be showed refers to the cost of maintenance and feeding of the sow during pregnancy and lactation, plus the cost of the same sows from weaning until the next fecund insemination. To these are added the investment for the feed consumed by piglet and its maintenance cost until the weight at that it can be introduced for fattening (25 kg). The paper presents an analysis of the main indicators reflecting the production cost of the piglet; thus, the highest share in the total expenditures are the fodder costs (66.7%), followed by biological material costs (share of insemination and maintenance costs for the gilt until weaning) representing 10.5%.*

Keywords: *meat, pork, expenditures, cost*

JEL Classification: Q12; Q16

INTRODUCTION

The evolution of pig farming in our country takes place in accordance with the feed-back resulted from the dynamics closely related to the European present realities. It is therefore self-evident the need of continuous adapting of the Romanian pig sector to the Community realities. Pig sector has gone through a crisis due to imbalances that manifest on the pork market, both under the influence of internal factors, but especially because of conjunctures in the European market.

The average price for pork is now at its lowest level in a decade, and European exporters have oriented large amounts of pork to the Romanian market. This has led to an increase in supply, which has resulted in falling prices. The situation of the domestic pork production sector is seriously affected, with the risk that some farms may not be able to continue the process of production.

MATERIAL AND METHOD

In this context in which it making efforts to redress the market, one of the important elements is to identify all the factors that can influence lower production costs for pork. Thus, given the fact that the biological material (piglet of 25 kg introduced for fattening) occupies the second place, after fodder, as a share of the cost of pork (in the case of farms with closed circuit) and even the first place where the piglet is bought, it was necessary to quantify the cost elements for this category of inputs, for which were also calculated the main technical and economic indicators.

RESULTS AND DISCUSSIONS

Table 1 presents the main indicators reflecting the cost of production of biological material (piglet up to 25 kg / head) which is introduced for fattening. Thus, the largest share in the production cost of a piglet is represented by feed costs (66.65%), followed by biological material costs (share of mating and maintenance costs for gilt until weaned) which represent 10.5%.

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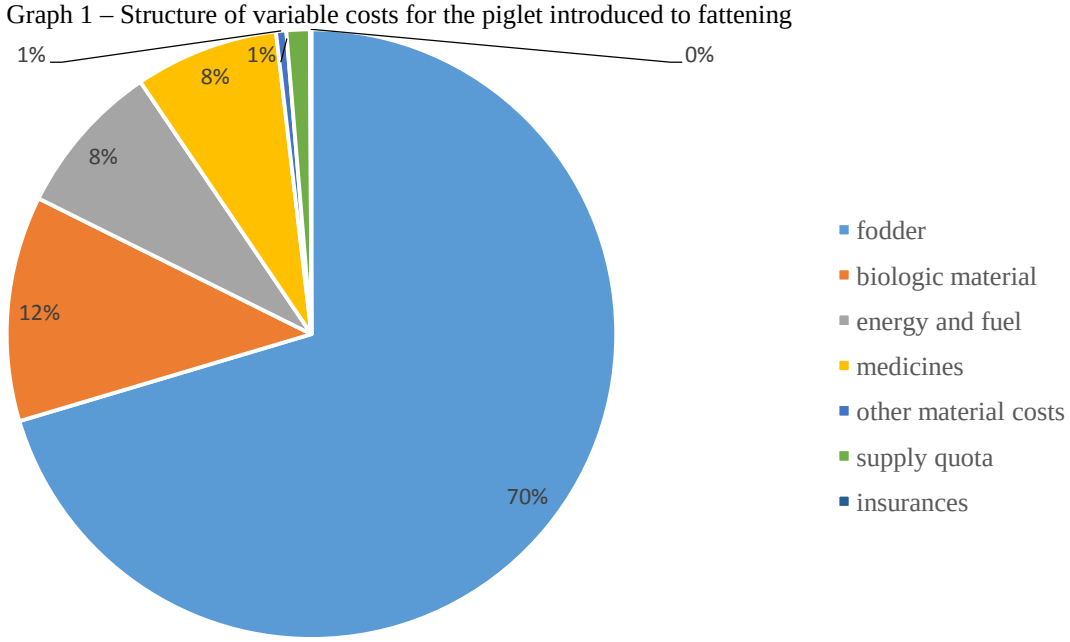
Table 1 – Budget of biologic material – piglet of 25 kg

INDICATORS	Lei/head
A. VALUE OF PRODUCTION	276,89
$A_{1.}$ Of which, main production	270,00
B. SUBSIDIES	0,00
C. RAW PRODUCT	276,89
D. TOTAL EXPENDITURES	216,69
$D_{1.}$ Of which, for main production	209,66
I. VARIABLE EXPENDITURES	**183,64**
1. Fodder costs	129,27
2. Biologic material	21,95
3. Energy and fuel	15,00
4. Medicine and vet materials	14,00
5. Other materials + water	1,00
6. Supply quota	2,28
7. Insurance	0,14
II. FIXED EXPENDITURES	**33,05**
- Labour costs	20,00
- General costs	2,72
- Interest for credits	4,00
- Depreciation costs	6,33
E. TAXABLE INCOME	60,20
Txes and fees	9,6
F. NET INCOME	50,6
G. TAXABLE INCOME RATE (%)	28,71
H. NET INCOME RATE (%)	24,12
COST OF PRODUCTION	209,66
INTERNAL MARKET PRICE	270,00

Source: Own calculations

Graph 1 – Structure of variable costs for the piglet introduced to fattening



According to data from Table 1 and Graph 1, mostly of variable costs is represented by fodder costs (approximately 70%), followed by biological material costs (12%). Energy and medicines occupy about the same share of 8% in these expenditure categories.

The production cost of piglet of 25 kg reaches thus to 209.66 lei / head, and in terms of rate of return, this amounts to over 24%, given the average price of piglets sold in 2015 for introduction for fattening.

Compared to Romanian prices for the piglets of 25 kg, in European Union countries, they were in 2014 from 34.71 to 53.09 Euro / head (154-236 lei / head) and in 2015 from 36.2 to 44.12 Euro / head (161-196 lei / head). From this, has resulted the preference of autochthonous pork producers to import piglets for fattening farms.

In order to see what was the influence of biologic material (piglet of 25 kg) in the cost of live pigs in the crisis year 2015, there have been calculated two versions, the first with biologic material produced in the farm and the second with biologic material purchased. Technological parameters were an average daily gain of 600 g / day, the weight of 25 kg at introduction for fattening, 105 kg weight at delivery / head and specific fodder consumption of 3 kg / kg weight gain. Mentioning that it was considered the average sales price of live pigs at farm gate in 2015, as a price not covering the expenditures incurred.

The calculations have confirmed that, at both farms with closed circuit, as well as those that purchased piglets of 25 kg, the results were finalized with losses for producers, they requiring, in fact, financial support from the state. The losses were, however, diminished in the case of those that have produced biologic material in the own farm.

Thus, at the farm that produces the piglet of 25 kg, its share in the cost of a kilo of pork is 39.1%, meaning 22% less than in the case of farm which buys the biological material (Table 2).

Table 2 – Comparative situation of expenditures at live pigs in 2015, lei/kg live weight

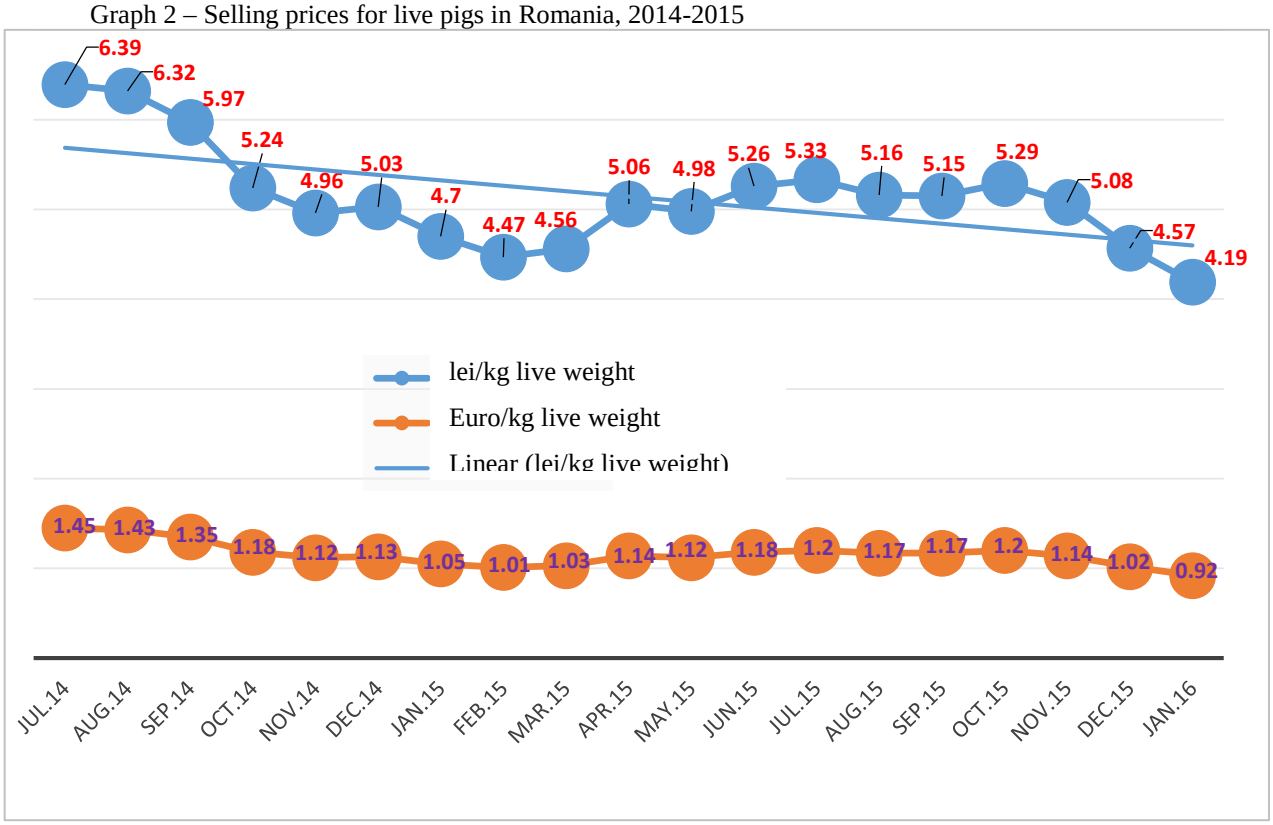
SPECIFICATION	CLOSED CIRCUIT FARM	FARM WITH BIOLOGIC MATERIAL BOUGHT
VARIABLE EXPENDITURES, of which:	4,63	5,24
Fodder	2,38	2,38
Biologic material	2,0	2,57
FIXED EXPENDITURES	0,48	0,49
COST OF PRODUCTION	5,11	5,73
PRICE*	4,97	4,97
NET INCOME RATE %	-2,70	-13,25

Source: Own calculations
*according to Committee of Classifying Carcasses

Graph 2 shows the monthly price evolution of live pigs during 2014-2015, highlighting their downward trend, which affected the financial results of producers. Noting that, during the period represented graphically, only in September 2014 sales of pork live were above cost of production achieved by farms that purchased the biological material for the introduction of fattening the rest of the period, sales prices very low have attracted negative economic results for farmers.

Noting that, during the period represented graphically, only in September 2014 the sales at live pigs were above the cost of production achieved by the farms that purchased biological material for introduction to fattening and the rest of the period, the very low sales prices have attracted negative economic results for farmers.

Graph 2 – Selling prices for live pigs in Romania, 2014-2015



Source: Committee of Classifying Carcasses

CONCLUSIONS

The calculation results indicate that the performance of the pig meat sector should be improved, both in terms of weight gain and of price of biological material (which in the cost of pork has the largest share, after feeding costs, in the case of farm with closed circuit). Also, the increase in the number of births / year, in the number of piglets / farrowing are indicators that need to be improved.

The share of biological material in the pork prices (for 2015) is significant and is due to lack of real offer of piglets from domestic production. This shows an imbalance in the system development, which particularly affects the small producer, who is unable to support its own breeding farm sector. Given the importance of this category of producers, it results a great part of the negative effects on the domestic pork market.

It is obvious that the support in the production stage on the pork chain has effects on output volume, its quality and obviously on the profits of farmers and their elasticity to react to market fluctuations, by adapting the selling price.

Producers association for mutual support is necessary but, unfortunately, is still hampered by a callous attitude. Producing of biological material in specialized farms established by associations, cooperatives could be initiatives supported by a development program adapted to the needs of the sector.

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