

# STANDARD GROSS MARGIN FOR POULTRY

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## Abstract

The standard gross margin (SGM) is the difference between the gross product (GP) of a product and the direct proportional expenditures (DPE). The standard gross margin shall be calculated on one activity unit: surface (1 ha) or per head:

$$SGM = GP - DPE$$

The standard gross product at poultry is calculated per kg of meat and per 1000 eggs and includes the total output value plus the supplied subsidy. Direct proportional expenditures (DPE) are expenditures that vary directly with the changes in the size of agricultural production (biological material expenditures, feeding stuffs, energy, medicine, insurance and other material expenditures). Are called variable expenditures. Fixed production expenditures such as machinery, buildings (their amortization), permanent labor expenditures, rents or variable costs such as fuel and lubricants, equipment and machinery maintenance and works contracted with third parties are not included in costs for calculation of standard gross margin SGM. The standard gross margin for poultry was calculated for an average daily gain of 45 g at broiler chickens and for an average annual output of 260 eggs / head, to laying hens. The study results show that, in relation with the variable expenditures level, is realized an economic efficiency of the activity performed, which leads to a positive and bigger standard gross margins.

**Keywords:** standard gross margin, poultry, gross product, direct expenditures

## INTRODUCTION

Among the economic indicators used in the management of production activities of agricultural holdings, the gross margin has a central place, due to the fact that it provides opportune and relevant information that substantiate decisions in the specific farm conditions, relating to: planning the structure of production, reducing variable costs based on the analysis of different combinations of resources allocated, establishing deviations causes between partial planned results and the achieved ones.

Standard Gross Margin is an economic indicator, expressed in monetary terms, per hectare, for crop production, or per head, for animal production.

Standard Gross Margin (SGM) of agricultural activities is the gross product of the activity (GP) minus corresponding specific costs directly proportional (variable) (SVC). SGM is unitary (per hectare, per animal) and expressed in RON or Euro, as follows:

$$SGM = GP - SVC$$

Gross product (GP) of an activity includes: primary and secondary production value priced delivery, plus subsidies to business. The data used to calculate the total production value and specific variable costs, meet a production period of 12 months (either calendar year or agricultural production year). If the period of crop and animal production is more or less than 12 months, it must be transformed to represent a period of 12 months.

Specific costs directly proportional (variable) are directly linked to the specific activity and according to Commission Decision 85/377/EEC represent some of variable production costs that can be allocated directly to certain categories of crops or animal species eg seed, fertilizers, pesticides, feed, drugs, etc.[2] Other variable costs such as fuel and lubricants, equipment and machinery maintenance and works with third parties are not included in variable expenses to calculate specific SGM.

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## MATERIAL AND METHODS

In animal breeding, standard gross margin is calculated per head, for adult animals and per built place for animal fattened, for each species and each category of animals of interest to obtain the efficiency of their production.

The standard gross margin calculation for poultry (poultry meat and eggs) is based on the following technical and economic indicators:

- *The average main production:*
  - average daily gain - g/head/day;
  - average eggs production - eggs/head/year;
- *Secondary production:*
  - manure;
- *Gross product:*
  - the result of adding primary and secondary production value to subsidies allocated, taken from the product budget;
- *Variable specific costs:*
  - taken from the product budget, deducted from gross product value:
    - ❖ feed costs;
    - ❖ costs with biological material;
    - ❖ energy and fuel costs;
    - ❖ drugs and veterinary material costs;
    - ❖ other material costs;
    - ❖ insurance costs.[3]

## RESULTS AND DISCUSSION

The level of standard gross margin depends on the productive potential of breeds, on the level of production achieved per head, and on the breeding systems and technologies and prices level.

The main characteristics of the standard gross margin are:

- differ from one product to another, from one period to another, from one farm to another, due to the technological conditions, level of production and prices, which affect the gross product value / head and variable costs;
- standard gross margin share of a category of animals or poultry of 2/3 of total farm gross margin, it shows the farm direction of specialization;
- standard gross margin is a tool for analyzing the activity efficiency and for planning technologies that allow, through the variable costs level, in relation to the products obtained, achieving a positive gross margin and bigger;
- the product negative gross margin indicates that the activity causes losses and must be improved;
- at farm level, some activities may have negative gross margins, and some positive, but overall the total gross margin must be positive. [1]

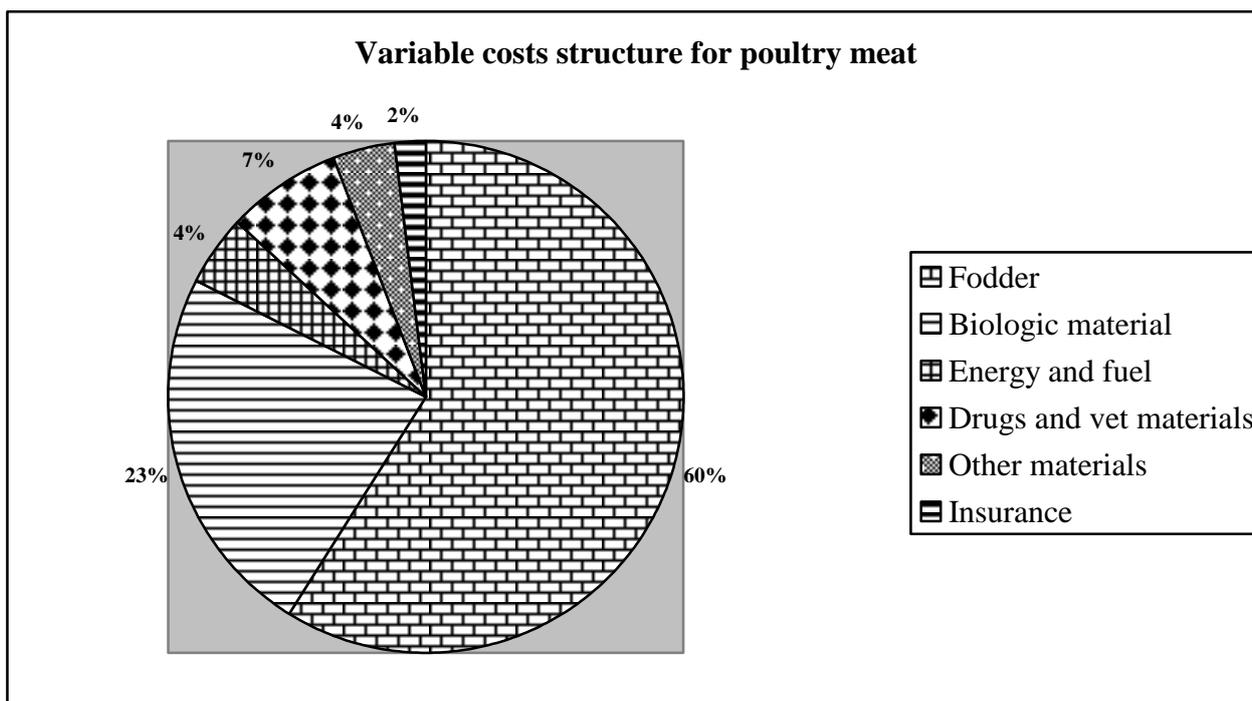
Based on the above indicators, was obtained the gross margin as the difference between the gross product value and specific variable costs and standard gross margin share in the gross product

Standard gross margin value for poultry was calculated for an average daily gain of 50g/head/day at broilers (Table 1) and for an average eggs production of 260 eggs/head/year (Table 2).

**Table 1 - Standard gross margin - unitary at poultry meat**

<b>POULTRY MEAT</b>	<b>Delivery price</b>		<b>EUR (1EUR = 4.55 RON)</b>	
	<b>RON /kg</b>			
Average production - 50 g/head/day	6.70		1.47	
Secondary production	0.00		0.00	
<b>Gross product RON</b>	<b>Per kg</b>		<b>EUR/kg</b>	
	7.78		1.71	
Subsidies RON	1.08		0.24	
Variable costs RON	5.23		1.15	
<b>Gross margin RON</b>	2.55		0.56	
<b>Gross margin share in raw product%</b>	<b>32,75</b>			
<b>Variable costs</b>	Quantity kg fodder/kg weight gain	Price RON/kg fodder	Total RON/kg weight gain	EUR
Fodder	1.87	1.61	3.02	0.66
Biologic material			1.20	0.26
Energy and fuel			0.23	0.05
Drugs and vet material			0.37	0.08
Other materials			0.20	0.04
Insurance			0.10	0.02
<b>Total variable costs</b>	x		5.12	1.12

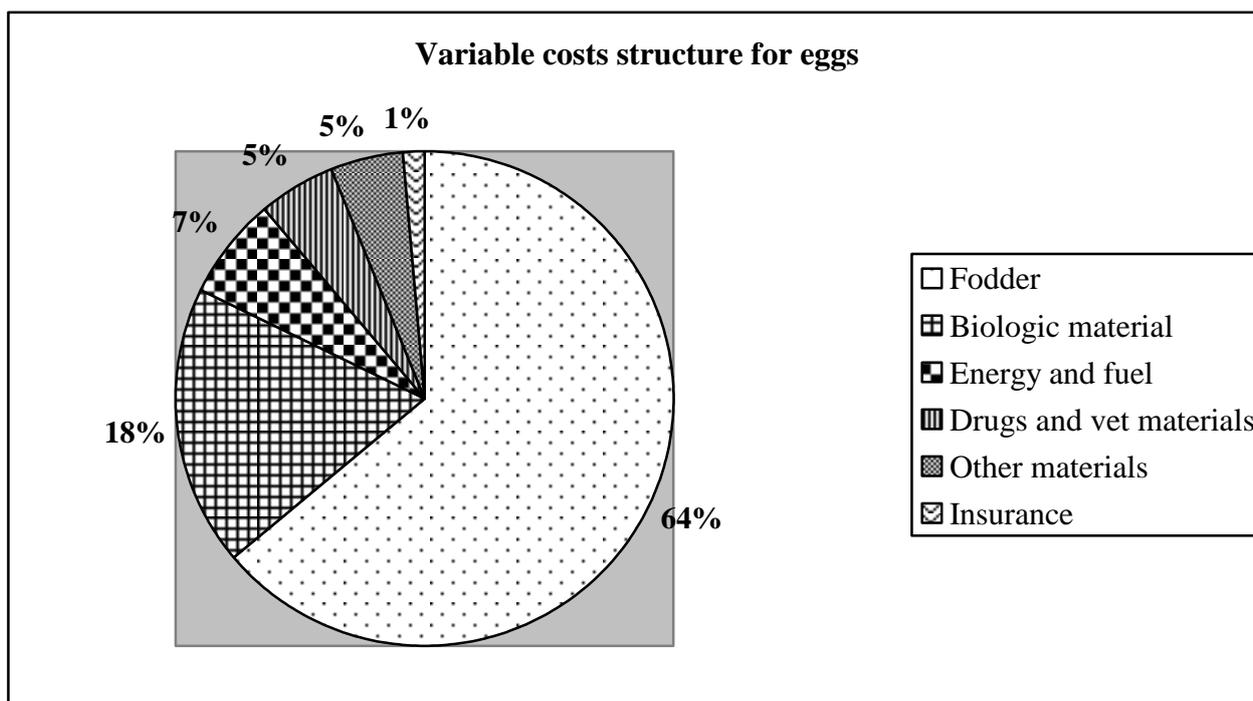
**Chart1**



**Table 2 - Standard gross margin - unitary at eggs**

<b>EGGS FOR CONSUMPTION</b>	<b>Delivery price RON /1000 eggs</b>		<b>EUR (1EUR = 4.55 RON)</b>	
Average production - 260 eggs	400.00		87.91	
Secondary production	30.00		6.59	
<b>Gross product RON</b>	<b>Per 1000 eggs</b>		<b>EUR/1000 eggs</b>	
	486.30		106.88	
Subsidies RON	56.30		12.37	
Variable costs RON	306.26		67.31	
<b>Gross margin RON</b>	180.04		39.57	
<b>Gross margin share in raw product%</b>	<b>37.02</b>			
<b>Variable costs</b>	Quantity kg fodder /1000 eggs	Price RON/kg fodder	Total RON/1000 eggs	EUR
Fodder	140	1.37	191.52	42.09
Biologic material			55.0	12.09
Energy and fuel			19.8	4.35
Drugs and vet material			15.00	3.30
Other materials			14.00	3.08
Insurance			4.40	0.97
<b>Total variable costs</b>	x		299.72	65.87

**Chart 2**



## CONCLUSIONS

Analyzing the standard gross margin for poultry it can conclude the following:

For poultry meat:

- for an average daily gain of 50 g/head/day, with a raw product of 7.78 RON/kg and for level of specific variable costs of 5.23 RON/kg, the standard gross margin is 2.55 RON/kg, respectively 0.56 € / kg (1 € = 4.55 RON);
- gross margin share in raw product for poultry meat is 32.75%;
- In the variable costs structure for poultry meat (Chart 1), 60% is fodder, followed by biologic material costs – 23%, drugs and vet materials 7%, energy and other material costs – 4% each, and insurances 2%.

For eggs:

- for an average eggs production of 260 eggs, outcomes a raw product of 486.3 RON/1000 eggs, with a level of specific variable costs of 306.26 RON/1000 eggs, and the standard gross margin is 180.04 RON/1000 eggs, respectively 39.57 €/1000 eggs;
- gross margin share in raw product for eggs is 37.02%;
- In the variable costs structure for eggs (Chart 2), 64% is fodder, followed by biologic material costs – 18%, energy 7%, drugs and other materials – 5% each, and insurances 1%.

Thus, both for poultry meat and for eggs for consumption, the largest share in variable costs structure are the expenditures with fodder, over 60%, followed by those for ensuring the biological material. To achieve higher gross margins is, therefore, need to apply an appropriate management to feeding stuffs, regarding providing technical and economical balanced fodder rations, which determine to express the productive potential of poultry breeds and hybrids, with maximum economic efficiency.

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