

Economics of agriculture

SI – 2

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## MANAGERIAL ASPECTS OF OBTAINING PORK IN ROMANIA

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### Abstract

*In the fight against poverty and world hunger, the most important issue for maintaining health, vitality and well-being of the human species is to provide animal protein. Thus, livestock - especially pigs - has gained a high share in ensuring the production of consumed meat, with variations from country to country. In Romania, pork is a product of basic food and in the consumer's preferences, it occupies over 50% of the total consumption of meat. To ensure the necessary of pig meat, however, Romania has to import big quantities, situation detected in the European and national statistics.*

*In order to achieve the production level requirements, it opted for: the promotion of improvement in the direction of the pig carcass, stimulation of pig farms to associate in order to represent their interests in the relationship with suppliers of inputs and finished products beneficiaries and to ensure their income by making goods for the export production.*

**Keywords:** *pork, management, strategy, farm*

### Introduction

In addition with the meat production provided, the pig (Table 1), is a laboratory animal being recognized as experimental model and being used for various scientific research in nutrition, genetics, breeding, behavior, surgery, and cosmic flight industry drugs and for the transfer of organs.

The advantages for the pig's breeding are generated by their biological and economic characteristics like:

- it is an animal with less demanding conditions for feed and climate;
- omnivorous feeding→ can exploit a wide range of feed, food scraps, scraps of food, pumpkin, root vegetables, cereals;
- develops quickly, a week after doubling their weight at birth;
- a healthy sow, with properly feed, can produce piglets until the age of 6-7 years,

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while the girl 8 to 10 times (often 4-8 births);

- short gestation (114 days);
- prolificacy is high, from a single sow achieving approx. 20 fattened pigs per year;
- average daily weight gain per head is 500-700 g, so at 6-8 months, the pig may be sacrificed;
- slaughter yield is high (over 75).

Production processes, are constantly staggered throughout the year, can bring permanent income, which is important for business operators to ensure profits.

*Table 1 - the products resulted after slaughtered pigs and 100 kg*

|  |   |                      |                 |              |
|--|---|----------------------|-----------------|--------------|
| The body<br>(without gut<br>content), 95<br>kg | Carcass, 75 kg                            | Meat 57 kg           | Fat meat, 15 kg | Muscle, 3 kg |
|  |   |                      |                 | Fat, 12 kg   |
|  |   | Lean meat, 42<br>kg  | Muscle, 40 kg   |              |
|  |   |                      | Fat, 2 kg       |              |
|  |   | Boans, 7 kg          |                 |              |
|  | Skin, 3 kg                                |                      |                 |              |
|  | Head, hooves, 8 kg                        |                      |                 |              |
|  | Hair, blood, intestines,<br>organs, 20 kg | Comestible, 3 kg     |                 |              |
|  |   | Noncomestible, 17 kg |                 |              |
|  | Intestinal content, 5 kg                  |                      |                 |              |

The quantity of meat that is obtained from a pig depends on factors like race, sex, birth weight of piglets, slaughter weight, quantity and quality of the given feed, accommodation, animal density in the box, etc.. Thus, in Romania, pork production achieved in the last eight years, different variations ( $\pm$ ) as seen in Table 2. It is found that the highest production was recorded during the period analyzed in 2003, but in 2009 decreased compared to 2003 meat production was 125,000 tons.

*Table 2 - The pig meat production in Romania*

| Specification                                  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010<br>9<br>months |
|--|-------|-------|-------|-------|-------|-------|-------|---------------------|
| Total number<br>of pigs,<br>thousands<br>heads | 5.145 | 6.495 | 6.622 | 6.815 | 6.565 | 6.174 | 5.793 | 5.423               |
| Total<br>production<br>of meat,<br>thousands t | 710   | 626   | 605   | 618   | 642   | 605   | 585   | 303                 |
| Medium<br>weight, kg/<br>head                  | 111   | 105   | 103   | 113   | 113   | 114   | 113   | 105                 |

*Source: Ministry o Agriculture and Rural Development from Romania*

In order to achieve the production level requirements, it opted for: the promotion of improvement in the direction of the pig carcass, promotion of pig farms association in order to represent their interests in the relationship with suppliers of inputs and finished products beneficiaries and ensure their income by making goods for export production, the size of commercial pig farms (according to the ordinance below) must be at least 100 animals per farm.

### Material and methods

In 2009, compared with 2008, the slaughtering of pigs in specialized industrial units (slaughterhouses) in Romania increased by 16.5%, while pork production increased by 20.6% (INS, Press Release no. 129/2010). Western development regions (more than 25.0%), South Muntenia Region (19.7%) and Southeast (15.8%) have recorded the highest percentage of slaughtering pigs. Romania needs to increase holdings of specialized pig, so that, based on domestic production, to reach the average European consumption, decreasing the meat imports, which affects the balance of trade of food products. Farms represent complex organizational forms of ownership, which use the land, animals and other means of production, interconnected in a unitary system, the execution of works, provision of services and achieving efficient products (EMERGENCY ORDINANCE no. 108 of 27 June 2001 on agricultural holdings). Regarding the breeding pig farms, they can be organized as a cooperative or type of associations or companies functioning as an open system and / or closed. For example, the flow of production farming systems is as follows:

| Closed circuit   | Specilized farms  | Holding   |
|--|---|---|
| Breeding maternity;<br>increasing youth<br>fattening pigs  | pig farm production (breeding, maternity, nursery, weaning);<br>fattening farms | associations or cooperatives of arable land, producing the necessary sources of feed; FNC's;<br>weaned piglet production farms;<br>Youth farms;<br>fattening farms;<br>slaughterhouse;<br>supermarket network |
| <i>Exploitation system:</i> Extensive or household, semi-intensive and intensive industrial ( $\approx 100$ days fattening period of acquisition of $\approx 25$ kg piglets, with an average daily gain of 0.7 to 1.2 kg).<br><i>Pigs breeding in intensive and semi-intensive system</i> knows a continuous improvement in the desire to obtain an increase in the percentage of meat, an improvement in terms of quality meat (tenderness, water retention capacity), a shortening of the period from birth to delivery. |   |   |

The welfare for the animals in farms became compulsory by the Sanitary Veterinary Norm on 25 August 2006 regarding the minimum standards for protection of pigs.

The swine holding has many links with the market of raw materials, products

and natural environment, with the state and society. A functioning market economy, where production is for the market, its main objective is to obtain higher profit for the farmer which facilitates the development of other activities, improvement of family living standards, as important economic agent in society.

Still, obtaining production involves a series of interdependent activities that take place, and that can be grouped in operations, depending on their nature and objective. They are supported by specialists under the following names: R & D, manufacturing, financial accounting, commercial, personnel and environmental protection.

The general objectives for research development operation are introduction of specialized species and modern technology for breeding and exploitation, choosing the most effective forms of cooperation and integration, development of mechanization, etc..

The activities included in the production operation are: to ensure the planned quantities of product, reaching the quality parameters established by the appropriate internal or external standards, to respect the deadlines for obtaining the products specified in the contracts signed with external and internal customers or favorable terms, lower products costs by rationing the consumption factors.

The objectives included in the commercial operation must focus on choosing the most advantageous suppliers, channels and markets, ensuring a superior quality for raw materials (feed, medicines) and maintaining product quality during transportation and products storage, etc..

Financial and accounting operation to ensure a smooth and continuous information on consumption, inward and outward factors and produced products, insurance funds and use them with maximum efficiency, proper execution of investments, etc.. Stimulation, monitoring personnel accountability and fairness, ensuring its motivation and proper working conditions, increase labor productivity and are considered the main objectives of personnel operation.

Reduction of environmental pollution and of negative influence for some toxic substances in the products that are consumed by humans are the major objectives and determine the choice of clean technologies, consumer compliance with certain raw materials, medicines, proper storage and use of manure, monitoring the quality of finished products during storage, etc..

## **Results and discussion**

Pig farm, as any trader, is based on the principles of market economy: the principle of autonomy of functioning and financial autonomy, autonomy of functioning, based on the property holdings of land, buildings, livestock and other assets (expressing their right to decide how to use them and their human resources, to specify the production systems, the manner of sale of manufactured products, etc..).

Financial independence includes the right entrepreneur to decide on the constitution and use of funds, the investment policy and calling the loans, their use. Decisions will be materialized in the development of its budget revenues and

expenditures and development programs.

Functioning and financial autonomy, involves full responsibility of consequences in terms of risk and uncertainty, and on the other hand, general regulatory compliance framework, specifically agriculture and livestock (the labor code, taxation, environmental protection etc..)

The principle of economic management requires that the action of attracting, allocating and combining factors of production, limit and combine them with the productions, to ensure maximum economic efficiency. This principle is reflected in increasing animal's prolificacy and annual index, of the average daily gain, labor productivity, profit and unit costs.

The principle of gravitation in the market activity is based around strong dependence between producers and consumers and as producer and pig farms is consumed, the market regulator that mediates these connections is because it provides information to answer questions like: What to produce?, How?, "When," Who? "What," When, "From whom? to buy or to eat, so the market is one that validates their economic decisions.

The principle of competitive advantage refers that any decision of the entrepreneur, faced with alternatives, is governed by the existence of an advantage compared with others, expressed by a lower opportunity cost for the product - pork.

The profitability principle expresses the obligation to obtain the maximum profit or a certain profit over a long period of time, the profit being the one that guarantees the existence of the holding capacity, development and its integration in the national economy.

### **Farm management and farmer's attributions**

Farmer's decisions are reflected both on daily activities (maintenance and feeding of animals with concentrates supplies) and of the seasonal nature (making processes, development of natural mating or artificial insemination, delivery of product), and adopt long-term decisions (which is more efficient production system, what type of construction to achieve and what type of machinery and equipment to buy, where to procure the necessary funds, and how to sell products to market, buy land, etc. ).

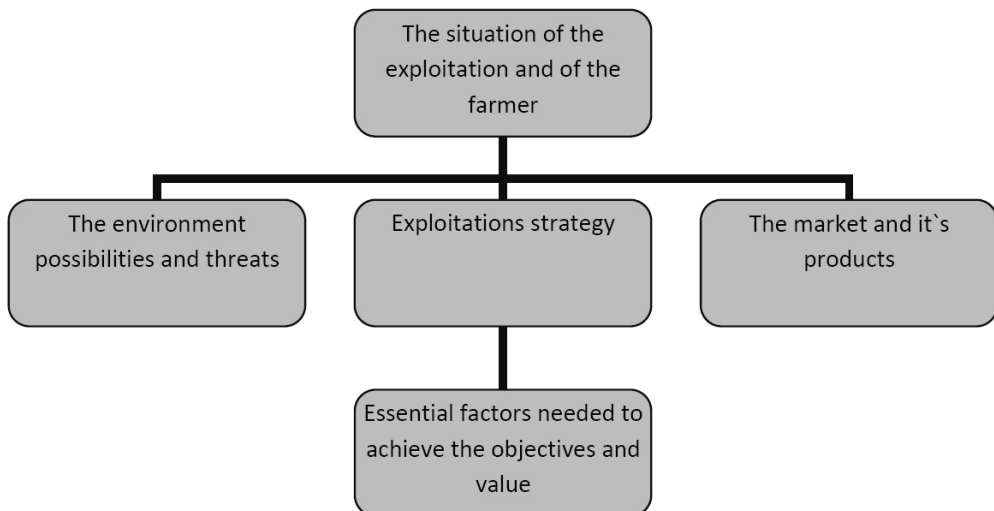
The main purpose in making these decisions is, of course, getting the maximum profit, and choosing the most effective combination of resources among products, between resources and products. Specifically, it is necessary, for example, to indicate the lowest cost combination between feed rations that make the combination the most profitable - or fat pig and piglets at 30 kg - for products intended for sale. Also, the farmer must know and to acquire administrative formalities regarding tax returns, tax or credit requirements, contracts with suppliers or customers, etc..

Specifically, the management of a farm is a complex which includes the planning, organization, command, coordination, monitoring and evaluation of economic activities within it, all of which are in fact management responsibilities.

Planning activities concerns the execution periods, and its purpose is to set

objectives, modalities of implementation (production systems, technology growth, planning forms and channels of products) and the distribution of funding, staff and equipment. At farm level, planning the activities at the beginning of each year are materializing in a production program and a budget of revenues and expenses. On the basis of production and consumption of resources planned to determine the level of income, expenditure and economic - financial results expected to be achieved. Developing production plan and budget revenues and expenditures is an activity that is intertwined technological knowledge, economic and legislative provisions. Long term planning is materialized in a strategy (Fig. 1), which includes strategic objectives, directions for achieving the necessary resources and time.

*Figure 1 – The strategy of swine exploitation*



According to these aspects, the strategy of a firm as a whole can be: recovery, strengthening and development, but may also target only certain areas - technology growth, upstream or downstream integration, diversification of production, improve product quality, reducing costs, marketing, etc. penetrate the foreign market.

The steps needed to develop the strategy are: detailing the mission and goals of the farm, analysis and diagnosis of internal and external environment, developing strategic alternatives, choosing to follow the implementation of tactical plans. The strategic objectives are materialized in the farms purposes, and are expressed by means of economic production and financial indicators: the herd and production, the level or growth rate of profits or turnover, etc.. Developing strategic alternatives include the establishment of alternative work to achieve the expected goals and objectives and specifying the criteria for evaluation of these alternatives: time to achieve the objectives, expenses or financial resources, human and materials, risks etc..

The alternatives to achieve strategic objectives may consider variations of production systems, of the breeding of animals technology, of species, upstream or downstream integration, improve product quality, mechanization etc.

## Conclusions

It is needed to increase the number of pigs in the specialized so that, based on domestic production, to reach the average European consumption. Swine breeders and meat processors and distribution networks of pork products from Romania, in order to achieve a higher level of efficiency and to be able to satisfy the requirements of the European Union for the meat industry, need an intelligent planning, monitoring and control, management and marketing. Strategic option is to choose from many alternatives developed to that which, by the evaluation criteria, leads to best results in relation to the purpose and strategic objectives formulated by the farm.

Alternatives to achieve strategic objectives may consider variations of production systems, the technology animal breeding, upstream or downstream integration, improve product quality, increasing mechanization of work, etc.

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