

## IMPROVING THE MANAGEMENT OF NON-PROFESSIONAL SWINE FARMS

FIRU - NEGOESCU GHEORGHE ADRIAN<sup>1</sup>, NEAMȚU ALIN<sup>1</sup>, MUNTEAN MARIUS<sup>1</sup>,  
VĂDUVA LOREDANA<sup>1\*</sup>, PETROMAN IOAN<sup>1</sup>

<sup>1</sup>*University of Life Sciences "King Mihai I" from Timisoara,  
Faculty of Management and Rural Tourism, Timisoara, Romania*

\*Corresponding author's e-mail: loredana\_heber@yahoo.com

**Abstract:** *Ensuring the swine meat necessary required on the market and giving up imports requires finding solutions to increase individual productions per sow and stimulating the obtaining of meat in non-professional farms not only for self-consumption but also for distribution on the local market. The SWOT analysis of the strengths and opportunities, in the researched area, allowed the development of an integrative management model through the solutions found, which would ensure the genetic material for fattening, ensuring a balanced nutrition, traditional processing and control of distribution and utilization. Through the productions achieved, non-professional farms can be integrated into the chain of alternative swine meat production, because they use the existing resources from the area, they can complete the meat requirement from the market, in economic conditions for farmers, because on the market the consumer's preference for products obtained traditionally is increasing.*

**Key words:** *swine, non-professional farms, SWOT analysis, management*

### INTRODUCTION

The system of raising and exploiting swine is defined, both through the technicality degree used, the concentration degree of the herd and production, as well as through technical and material endowment degree. [1,2,11]

In swine species, the technicality degree is given by the scientific level of the feeding, care and maintenance process, reflected in the achievement of the planned weight (body mass) at slaughter at a certain age, the yield at slaughter, the quality of the carcass, the size and specialization degree of farms, of the extent to which the technological flow ensures the rhythmicity of production. [3,7,10,12]

The swine meat market has suffered a continuous degradation in the last decade in Romania, due primarily to the lack of coherence in planning the activity of this market. Regarding the technology applied in most production farms, it can be considered that it is outdated, energy-consuming and with low productivity. In order to make a profit from raising swine, it must achieve maximum productions, of the best quality and with minimum costs, the only elements that can offer and guarantee the participation in the great competition of zootechnicians from the country and everywhere. [5,6,13,14]

In industrial complexes with continuous flow, the maintenance and feeding of weaned piglets is different, the goal is to reduce the weaning stress as much as possible and to maintain the high growth rate, so that at the age of 90 - 100 days the young reach 25 - 30 kg. [15,18,20]

The space intended for swine, specially arranged, is called "nursery" and is sized in such a way that a compartment can take over, in production series, the piglets weaned from a maternity compartment and in terms of the youth maintenance systems used in our country they can be the maintenance of the youth in farrowing stalls from which the sows were removed, a system used in large capacity farms or the maintenance of the youth in stalls and compartments specially designed for this age category. [4,17,19] The maintenance system in a specially arranged space (nursery) is the most widespread, both in our country and in other countries, having a great diversity of constructive and technological solutions. [8,9,16,21]

## MATERIALS AND METHODS

The economic production of meat in non-professional farms can only be carried out if measures are implemented to contribute to their technological modernization for alternative meat production, the best technological flow of fattening and meat processing is established. For this purpose, as part of this scientific approach, we performed a SWOT analysis in the researched area, Mehedinti County, with the aim of analyzing the current situation in farms and proposing managerial measures that contribute to the diversification of production through the seasonal production of traditional products. The SWOT analysis allows a selection of farms according to strengths, weaknesses, opportunities and risks and can be a model for stimulating the additional production of meat for the market, with little financial effort, as an alternative activity producing additional income.

## RESEARCH RESULTS

Some non-professional farms from the analyzed area, Mehedinti County, have the following 6 strong points highlighted below, which can make them viable and ensure surplus meat obtained in traditional systems:

- a. have resources for this activity, in the area producing enough cereals necessary for the production of fodder;
- b. have a tradition in meat production, so out of 96 non-professional farms that exploit between 2-15 pigs for meat, the situation is as follows:
  - 76.10% of them have a tradition of producing meat for self-consumption also for the market, annually fattening between 4-10 heads of fat pigs;
  - 21.80% of farms produce pork only for self-consumption;
  - 2.10% only sporadically produce meat for self-consumption.
- c. have a minimum technology necessary for the economic production of meat:
  - 36.60% good growing and exploitation conditions
  - 51.60% average conditions;
  - 11.80% do not meet the technological conditions, water supply, feed, maintenance.
- d. growth and exploitation for meat is a basic or alternative activity:
  - at 87.80, raising and exploiting swine is an alternative activity;
  - at 8.50 fattening for meat production for the market is a basic activity;
  - for 3.70% of breeders, this fattening activity is a hobby or for self-consumption;
- e. have possibilities of using feed from local resources and combined feed for fattening:
  - 79.40% use combined feed for fattening, because most farms produce meat for self-consumption and sale;
  - 18.80% of breeders use local household resources to produce meat for self-consumption and only grain for finishing;
  - 1.80% of breeders use only green fodder and food waste from the household to produce meat for self-consumption.
- f. have possibilities to process meat into traditional products:
  - 37.90% sell the surplus of live fat pigs;
  - 60.20% process and sell the surplus on the market as traditional products during the winter holidays;
  - 1.90% processes swine into long-life traditional products for buyers.

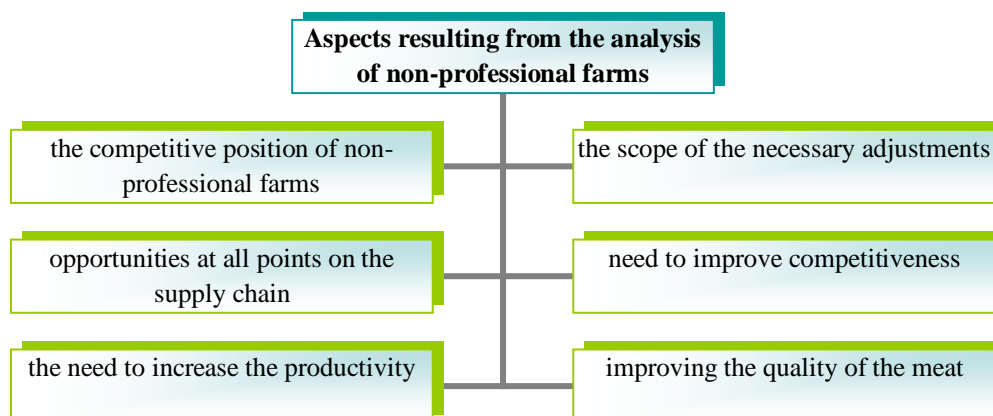
The weak points of the analysed non-professional farms are the following:

- a. are not associated in traditional product organizations, except to a small extent:
  - 21.30% are associated only for the procurement of genetic material, but do not process in an authorized unit;

- 76.70% of the farms are not associated in product organizations and sell the surplus live;
- 2.00% are not associated and sell their surplus of traditionally processed meat.
- b. the human resource has little knowledge about the growth and exploitation of swine for meat:
  - 18.70% have related jobs or are qualified in this regard;
  - 75.20% are not qualified in the exploitation of swine for meat;
  - 6.10% are qualified in raising and exploiting swine.
- c. little concern for the technical environment for exploitation improvement:
  - 25.60% invested to ensure better animal welfare conditions;
  - 61.20% are not concerned with ensuring the technical environment;
  - 13.20% have in their farms high-performance exploitation technologies, watering systems and fodder.
- d. minimal concern for quantitative and qualitative meat production;
  - 17.20% use specialized breeds and hybrids for meat production for fattening;
  - 64.60% uses mestizos procured from the local market;
  - 18.20% fattening for self-consumption and sale of traditional breeds, Mangalita and Negru de Strei.
- e. low profitability of exploitation due to the lack of an organized peasant market:
  - 71.50% of producers sell live fat pigs from farms;
  - 22.30% directly distribute live fat pigs on the local market;
  - 6.20% processes and distributes the goods from the farm to loyal consumers.
- f. many farms produce only for self-consumption although they have possibilities to produce for the market as well.

The analysis carried out for the analysis of strengths and weaknesses highlights the following aspects:

- the scope of the necessary adjustments so that competitive non-professional farms can ensure part of the existing swine deficit on the meat market from Caras-Severin County;
- the competitive position of non-professional farms that traditionally process swine meat;
- opportunities at all points on the supply chain, producer, processing, distribution, trade with meat;
- need to improve competitiveness;
- the need to increase the productivity of non-professional farms;
- improving the quality of the meat, reducing the amount of fat in the meat quality.



**Figure 1. Aspects resulting from the analysis of the strengths and weaknesses of non-professional farms**

Small investments from the own resources of non-professional farms, offer opportunities for animal maintenance, feed production, association for processing with high recovery indices, will positively affect commodity production and exploitation productivity:

**Table 1.**

**Opportunities and non-professional risks of swine farms in Mehedinti County**

<b>The opportunities</b>	<b>Risks</b>
<p><b>Small-scale meat production</b></p> <ol style="list-style-type: none"> <li>1. development of the commercial sector of small producers (4-15 pigs);</li> <li>2. efficient and economically motivated technical levels;</li> <li>3. efficient use of feed by preparing balanced rations;</li> <li>4. possibilities to control growth and feed conversion;</li> <li>5. the use of breeds that ensure quality meat;</li> <li>6. possibilities for improving exploitation technologies.</li> </ol>	<p><b>Small-scale meat production</b></p> <ol style="list-style-type: none"> <li>1. the lack of alternative opportunities due to the non-existence of a peasant market</li> <li>2. purchase of live swine from the farm door;</li> <li>3. not granting subsidies for meat quality;</li> <li>5. slaughtering in the non-professional farm without observing sanitary and veterinary conditions;</li> <li>6. minimum facilities to ensure microclimate conditions and well-being.</li> </ol>
<p><b>Processing</b></p> <ol style="list-style-type: none"> <li>1. investment possibilities in technology;</li> <li>2. increasing the quality level;</li> <li>3. obtaining traditional products;</li> <li>4. the development of farms according to the demand of the processing industry;</li> <li>5. specialization of production depending on the season;</li> <li>6. expansion of distribution;</li> </ol>	<p><b>Processing</b></p> <ol style="list-style-type: none"> <li>1. lack of processing in approved units;</li> <li>2. penetration of traditional imported products;</li> <li>3. increased consumption trends of products with less fat;</li> <li>4. high consumption of meat from slaughtering at non-professional farms.</li> </ol>
<p><b>Markets</b></p> <ol style="list-style-type: none"> <li>1. demand for meat obtained in alternative systems;</li> <li>2. geographically extensive market;</li> <li>3. local market development possibilities.</li> </ol>	<p><b>Markets</b></p> <ol style="list-style-type: none"> <li>1. lack of meat obtained from fattening on pasture;</li> <li>2. questionable hygienic quality of traditional products;</li> <li>3. lack of traceability system.</li> </ol>

Some non-professional farms that have working capital can provide an important part of the need for meat obtained in other systems than the classic ones, the opportunities for the profitability of growth and exploitation in conditions of economic efficiency and meat quality should be sought in:

- management of the alternative exploitation system;
- the use of a local biological material;
- the adaptability of the breeds to outdoor exploitation;
- good practices regarding well-being;
- biosecurity of farms;
- nutrition systems;
- care conditions;
- investments in the quality of shelters.

## CONCLUSIONS

The increase in the living standard in researched area produced major changes regarding the consumption needs of swine meat, so it was switched for satisfying the market demand to massive imports of swine meat and swine meat products. Ensuring the necessary cannot be done only by producing meat in classic exploitation systems, a major niche being small non-professional farms, which fall within the standards of good quality practices, regarding exploitation, processing, distribution and have the capacity to produce in addition to self-consumption needs also for the market.

The strengths of these small non-professional farms lie in their ability to quickly adapt to competitive operating conditions according to the growing needs of the regional and local market for meat and the opportunities for their economic profitability and meat quality should be sought in the improvement with small investments of farm management, the use of biological material adapted to the alternative system and with good meat characteristics, good practices regarding biosecurity, welfare and maintenance systems and rational use of feed.

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