

ANALYSIS OF CONSUMPTION PROSPECTS IN THE PIGMEAT SECTOR

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Abstract: In order to stimulate pork consumption, in the future, as consumption need increases, intensive and alternative meat production systems must be able to constantly supply the market according to the preferences and needs of increasingly sophisticated consumers who want their meat produced, from indoor-housed pigs, outdoor pigs and welfare facilities. The purpose of facilities is to provide maximum physical, social and climatic comfort for swine to maximize individual production, not livestock growth. The protection of animals in a particular type of shelter has been practiced for centuries regardless of climate, as it has allowed farmers to take care of their livestock.

Key words: pigmeat, consumers, analysis

INTRODUCTION

Intensive pig meat production refers to both indoor and outdoor pig production systems, although it is usually associated with indoor production systems. In this context, 'intensive' implies organizing the system in such a way as to maximize production efficiency - i.e. to emphasize healthy productive animals with efficient use of inputs [3, 6, 8, 11]. In order to express production at the biological value of pigs and supply the processing industry with raw materials to meet growing consumer needs, integrated management measures are needed throughout the meat supply chain [4, 7, 10, 14]:

- not affect the welfare and productivity of pigs due to climate change: pigs don't sweat, so they need controlled environments;
- increasing farmers' ability to provide safe, good quality pork with the taste consumers demand;
- improved care and improved management of production, processing, distribution;
- changing feed supply: shift towards feeding better quality cereals;
- changing economic situation: falling consumer margins and rising conversion rates [5];
- improving marketing management;
- protecting the health of consumers of pigmeat.

MATERIALS AND METHODS

The hypothesis, from which the perspective of pork consumption in the framework of this research, was the need to satisfy the demand to meet the consumption needs existing on the market, in order to be able to develop a model for farms that can ensure a constant production without jeopardizing the natural environmental factors in conditions of animal welfare, because consumers are increasingly concerned about their safety, welfare and health of the animals from which they consume meat. The measures proposed will help to improve integrated management throughout the supply chain in order to achieve safe, high-quality pork products.

The aim of the research was to find the most effective integrated production management solutions for:

- providing ethical arguments for quality meat production;

- providing comfort to pigs to avoid respiratory and enteric diseases, with effects on human health through the consumption of meat in the production of which antibiotics have been used;
- adequate space to reduce stress and the occurrence of harmful behaviors;
- reduction of aggressive behaviors such as the occurrence of altercations during boarding/disembarkation at the processing plant leading to carcass spoilage;
- adoption of common meat production, welfare, environmental and meat production techniques in order to stay in business and make the production activity profitable and sustainable;
- respecting the strict market meanings conveyed by marketing, for the type of product, to stimulate consumption according to consumer needs.

The objectives of the research are to:

1. finding efficient solutions to meet consumer needs;
2. stimulation through integrated production management to obtain meat according to consumer demand;
3. estimating the cumulative effect of consumption on human health;
4. consumer choice based on perceptions, price and quality.

RESEARCH RESULTS

The change in consumer preferences observed on the pork market, leads producers and processors to new orientations in the breeding and exploitation of pigs, processing, distribution from the perspective of meat consumption.

In order to maintain or even increase consumption in the short, medium and long term, it is necessary to control and stimulate the maintenance of individual productions, which are influenced by intensive production and processing technologies that produce in fattening pigs the stereotypes given by the new repetitive behavioral patterns induced by trials repeated coping with artificial conditions, frustration and/or brain dysfunction such as bar biting and false chewing with effects on meat composition and quality

These problems related to meat production, from the perspective of consumption, imply, in order to increase meat consumption, the adequacy of the methods of fattening, stunning, cutting to market requirements, obtaining quality meat from stress-free pigs, which are provided with the best conditions of well-being and environmental risk reduction.

To analyze the outlook on pork consumption, the most effective method, the econometric model and ANOVA analysis, was used to analyze the key factors that affect demand on the entire meat production flow and find solutions to stabilize production through managerial control measures throughout the supply chain, so that the farms integrated in the supply chain are able to respond to the requests coming from the market.

Technological conditions for obtaining meat, poor air quality has serious consequences on the health of fattening pigs, restriction of movement and imbalance of feed rations, can lead to a reduction in muscle weight and strength, but the methods of obtaining carcasses, inadequacy stunning causes profound changes in the composition of the meat and the non-castration of males causes an unpleasant smell and taste to be imprinted which can be evident during the cooking or consumption of pork products.

In reality, any system of raising and operating pigs for meat production is good if the manager and the people working in the system are good. Pigs can get sick in all systems but their welfare depends on the people and management of the system.

The system of intensive breeding of pigs also implies the clarification of specific problems of efficiency and well-being from the perspective of meat consumption because:

- intensive indoor farms are often called "factory farms" because the emphasis is on the productivity of the system with efficient use of resources: this means pigs operated in a

hygienic and safe environment, managed by specialists, with good growth rates, feed high quality diets;

- farmers / managers who rely on agriculture as their main source of income try to maximize productivity to maintain profitability because if a farm is not profitable, there are no facilities for investment and equipment, regardless of the management system;

- not all farmers adopt the same techniques to produce meat but, to stay in business, the farm must be profitable and sustainable;

- today's markets from a pork consumption perspective, have strict product specifications for the type of product they require, and farmers/managers work to meet these specifications require (figure 1.):

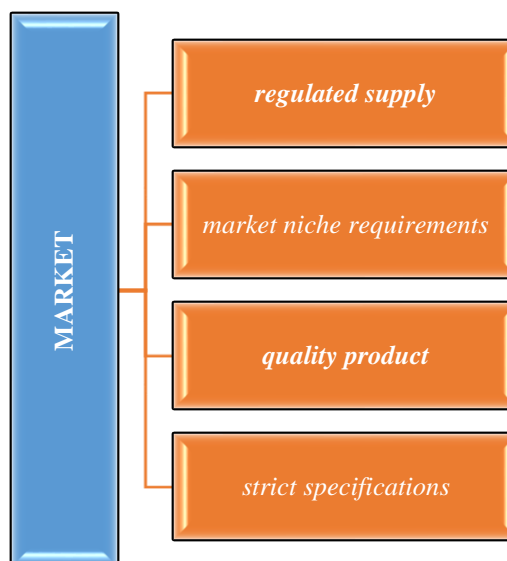


Figure 1. Market analysis from the perspective of pork consumption

- regular supply, which means that farmers must plan the production pattern of their enterprise to meet market demands for a whole year cycle;
- niche market requirements, such as free-range pigs or organic pigs, which require special input from the farmers serving them
- quality product confirmed by a quality assurance program: processors and consumers demand safe food, free of contaminants and diseases, from pigs where health and welfare conditions are respected
- strict carcass weight and fat specifications with heavy penalties for carcasses outside the sweet spot on the price grid (to be met with every pig delivery over an extended period, in all seasonal conditions)

According to some researchers [1,9], most pigs in high-income countries are raised in intensive production systems, being one of the most important sources of food. Worldwide, from a consumption perspective, they represent approximately 35 .0% of all meat production, intensive production is characterized by high biological and economic productivity with low input of labor, resources and space per animal. This results in larger herds, specialization and standardized management procedures within a farm.

Synthesizing the scientific evidence regarding the perspective of meat consumption [2] in relation to body weight and body composition among adults highlights the magnitude of the cumulative effect of pork consumption on body weight and body composition and the findings regarding the consumption of of pork in relation to weight/body composition differed by study design:

- in experimental studies:

- without daily restrictions on total energy intake, pork consumption was associated with a reduction in body weight of 0.86 kg (95% CI = 0.17-1.55) and percent body fat of 0.77% (95% CI = 0.11%-1.43%); pork intake was not associated with change in lean mass
 - with daily restrictions on total energy intake, pork consumption was associated with a reduction in body weight by 5.56 kg (95% CI = 0.55-10.59), lean mass by 1.50 kg (95% CI = 1.39-1.62) and fat mass by 6.60 kg (95% CI = 6.42-6.79)
- in observational studies, pork consumption was not associated with overweight/obesity [12,13]
- Approaching the perspective of pork consumption from the perspective of religion [15] and the growth of the world's population, it is found that:
- the growing population generates an increasingly higher consumption from year to year;
 - the manufacturing industry cannot satisfy the needs of consumption in the future;
- Examining pork consumption shows that there are differences in cultural customs, as pork is most affected by religious restrictions. Religious affiliation/identity is also determined by food and consumption habits. Due to differences in dietary habits and religious culture, pork consumption is highly variable around the world and from country to country. In this context, aspects such as:
- a. state of world pork production;
 - b. meat consumed in the countries where it is produced (export-import issues);
 - c. factors influencing pork consumption (culture and religion influence pork consumption, animal health issues);
 - d. the availability of pork for the growing world population.
- We conclude that these other factors used from a consumption perspective have no effect on the demand for pork because, in order to stabilize the pork market from a consumption perspective, it is necessary:
- a. managerial measures regarding production;
 - b. pork supply control;
 - c. development of the retail system;
 - d. planning pork production in association with poultry and fish production.

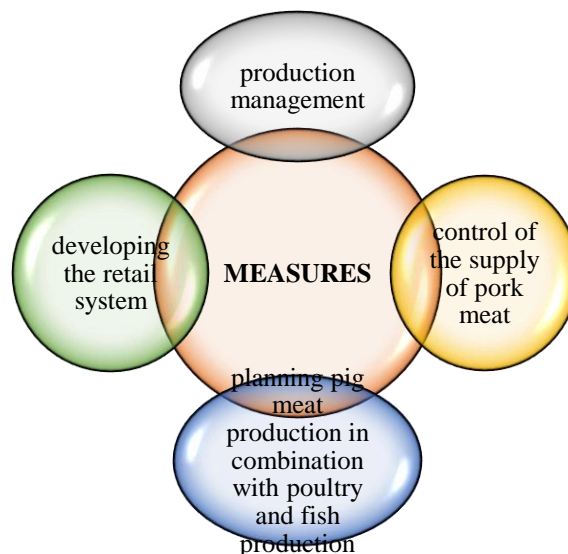


Figure 2. Management measures in view of pigmeat consumption

CONCLUSIONS

The change in consumers' consumption preferences, observed on the pork market, causes actors in the meat chain to turn to new production systems from the perspective of meat consumption. Intensive pig production offers many advantages in terms of animal health, food safety, hygiene and biosecurity and some welfare outcomes. Expression of natural animal behavior is possible in extensive systems, but specific diseases and injuries, biosecurity, pork safety and poor efficiency counteracts this benefit. To increase consumer confidence from a consumption perspective, more transparency should be ensured regarding the process of production, processing and distribution in the market. In addition to health and welfare issues, other factors related to environmental impact and food security to feed a growing population are also of public interest and must be considered in production system and management choices.

From the analysis of the consumption perspective of pork meat, it results that there are differences in cultural habits, as pork is most affected by religious restrictions and religious identity is also determined by eating and consumption habits which becomes variable depending on the state of world production, the amount consumed in the countries where it is produced and cultural factors, pig health issues and the availability of meat for the growing world population. In order to stabilize the pig meat market from a consumption perspective, managerial measures need to be implemented to stimulate individual meat production, the development of sales systems and improved consumer-focused marketing management.

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