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COMPETENCIES REQUIRED FOR THE ZOOTECHNICAL ENGINEER IN THE CONTEXT OF CURRENT LABOR MARKET DEMANDS

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Abstract: *The paper entitled "Adapting the skills of the zootechnical engineer to the current demands of the labor market" analyzes the recent transformations in the zootechnical field and their impact on the professional profile of specialists in this sector. In the context of globalization, digitalization and increasing concerns regarding sustainability and animal welfare, the labor market requires increasingly diversified and interdisciplinary skills. Adapting professional skills and promoting continuous learning are essential for successful integration into the labor market and for an adequate response to the current and future challenges of the zootechnical sector.*

• Introduction

The livestock sector is currently going through a period of major transformations, generated by the evolution of agricultural technologies, the digitalization of farms, increasingly strict requirements regarding food safety and the need to apply the principles of sustainable development. In this context, the role of the livestock engineer is becoming complex, going beyond traditional activities related to animal breeding and exploitation and including interdisciplinary skills regarding production management, the use of modern technologies, environmental protection and human resource coordination.

The livestock sector represents one of the fundamental areas of agriculture, having an essential role in ensuring food security, developing the rural economy and capitalizing on natural resources. In recent decades, activities in the field of livestock breeding have experienced significant transformations, determined by technological progress, the intensification of digitalization processes, climate change and new requirements regarding the quality and safety of food products of animal origin. In this context, the profession of livestock engineer is gaining strategic importance, as it is necessary to train specialists capable of responding to the increasingly complex demands of the labor market.

Technological and economic transformations have increased the importance of transversal skills in professional activity.

Communication skills, teamwork, critical thinking, problem solving and decision-making in complex situations are considered essential elements for the integration and professional development of graduates. In modern farms, the zootechnical engineer interacts with specialists from different fields, coordinates activities and participates in decision-making processes that influence the economic and technological performance of the farm.

• Material and method

The research method used included documentary and comparative analysis of the skills requested by employers in recruitment advertisements in the zootechnical field, processing information from employment studies and assessing the current requirements for the professional training of agricultural specialists. The analysis took into account both the skills specific to traditional zootechnical farms and those associated with modern automated and digitalized farms.

• Results and discussions

The results of the analysis highlight that the labor market requires a complex professional profile of the animal engineering engineer, based on the integration of technical, managerial and digital skills. Specialized skills remain fundamental and include knowledge of animal nutrition, reproduction, genetic improvement, animal welfare, farm management and quality control of animal products. These skills represent the basis of the activities carried out on animal farms and directly contribute to increasing productive and economic performance.

An important aspect identified in the research is the increasing importance of digital skills. In this context, the animal engineering engineer must have skills in data analysis, the use of digital platforms and the interpretation of information generated by modern technologies.

The ability to organize farm activities, manage material and human resources, plan production and make efficient economic decisions are essential elements for professional performance.

European requirements for reducing the impact of agricultural activities on the environment require the application of responsible practices regarding waste management, the reduction of polluting emissions and the efficient use of natural resources. In this regard, the livestock engineer must know the principles of sustainable agriculture and implement ecological solutions in livestock farms.

• Conclusions

The modern animal husbandry engineer must possess a complex set of technical, digital, managerial and social skills to meet the current demands of the labor market and the challenges generated by the transformations of the agro-zootechnical sector. Technological evolution and the orientation towards sustainable development determine the need for interdisciplinary professional training and continuous adaptation to new agricultural technologies and practices.

The animal husbandry engineer of contemporary society must be a multidisciplinary specialist, capable of combining technical knowledge with digital technologies, resource management and sustainability principles. The training of such specialists is an essential condition for the modernization of the animal husbandry sector, increasing economic competitiveness and ensuring sustainable and efficient agriculture in the context of new labor market requirements.